

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,  
EASTERN ZONE BENCH, KOLKATA  
ORIGINAL APPLICATION NO. 154 OF 2023 (EZ)**

Threat to life arising out of coal mining  
in South Garo Hills District

...Applicant

Versus

State of Meghalaya & Ors.

...Respondents

**REPLY / OBJECTIONS TO 5<sup>TH</sup> INTERIM REPORT DATED 02.12.2019  
OF THE COMMITTEE ON BEHALF OF RESPONDENT NO. 17,  
GREEN VALLIEY INDUSTRIES LIMITED**

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**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,  
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Threat to life arising out of coal mining  
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**REPLY /OBJECTIONS TO 5<sup>TH</sup> INTERIM REPORT DATED 02.12.2019  
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GREEN VALLIEY INDUSTRIES LIMITED**

**TO,  
THE HON'BLE CHAIRPERSON AND HIS COMPANION  
MEMBERS OF THE HON'BLE NATIONAL GREEN TRIBUNAL**

**MOST RESPECTFULLY SHOWETH:**

1. That the present reply/ objection is filed on behalf of Respondent No. 17, Green Valliey Industries Limited (“Company”/ “Answering Respondent”) responding to the 5<sup>th</sup> Interim Report dated 02.12.2019 filed before this Hon’ble Tribunal in the present case.
2. The present response is filed in compliance with the final order dated 02.05.2023 passed by the Hon’ble Supreme Court in Civil Appeal No. 2302 of 2021 titled “*Green Valliey Industries Limited vs. The State of Meghalaya & Ors.*” filed by the Company challenging the order dated 17.01.2020 passed by this Hon’ble Tribunal in the present matter. The Hon’ble Supreme Court *vide* the final order dated 02.05.2023 set aside the order

dated 17.01.2020 passed by this Hon'ble Tribunal and restored the proceedings before this Hon'ble Tribunal to the stage prior to passing of the Order dated 17.01.2020. The Answering Respondent was directed to place its response to the 5<sup>th</sup> Interim Report before this Hon'ble Tribunal. The Answering Respondent filed I.A. No. 2/ 2024/ EZ in the present proceedings seeking to be added as a respondent. The I.A. was allowed by this Hon'ble Tribunal and the Answering Respondent is impleaded in the array of respondents as Respondent no. 17 in the present matter.

3. The Answering Respondent seeks to briefly state the facts leading up to the present case.

#### **BRIEF FACTS –**

4. The Answering Respondent is a public limited company having registered office at Village Nongsning, P.O. Lumshnong, PS Khliehriat, Dist. East Jaintia Hills, Meghalaya - 793 210 and is engaged in the manufacturing & marketing of various types of cement and clinker. The date of incorporation of the Answering Respondent is 31.07.2007.
5. Based on a news article, the Hon'ble Guwahati High Court registered a suo moto public interest litigation titled "*Threat to life arising out of coal mining in South Garo Hills District*" [Suo Moto No. (SH) 3 of 2012].
6. The Hon'ble Guwahati High Court *vide* order dated 10.12.2012 transferred the case to this Hon'ble Tribunal and this Hon'ble Tribunal issued notice

on 30.01.2013. The transferred matter was registered as Original Application No. 110 (THC) of 2012.

7. This Hon'ble Tribunal issued notice in O.A. No. 13/2014 titled "*Impulse NGO Network vs. State of Meghalaya & Ors.*" on 21.01.2014. The application pertained to illegal, unscientific and unregulated mining activity going on in various parts of the state of Meghalaya. The applicants therein prayed for prohibitory orders and prayed that a committee be constituted to prevent further damage to environment and that the said committee may also be directed to fix responsibility of the persons who are responsible for degradation of environment.
8. This Hon'ble Tribunal also admitted another matter and issued notice on 17.04.2014 in O.A. No. 73/2014 titled "*All Dimasa Students Union Dima Hasao Dist. Committee v. State of Meghalaya & Ors.*" wherein the issue pertaining to rat-hole mining operations being undertaken in the Jaintia Hills of the State of Meghalaya was raised. This Hon'ble Tribunal passed directions to the Chief Secretary, Government of Meghalaya and the Director General of Police, State of Meghalaya to ensure that rat-hole mining / illegal mining is stopped forthwith through-out the State of Meghalaya and no illegal transport of coal takes place.
9. While consideration of the aforementioned cases, this Hon'ble Tribunal passed various directions. It is pertinent to note that *vide* order dated 31.08.2018, this Hon'ble Tribunal directed that the ban on rat-hole mining

shall continue, subject to further orders passed by this Hon'ble Tribunal. It further continued the ban on the transportation of already mined material. A committee was also formed by this Hon'ble Tribunal to look into the issue of restoration of the environment and rehabilitation of the victims by utilising the available funds. The committee comprised of representatives from Central Pollution Control Board ("CPCB") and the Indian School of Mines, Dhanbad and headed by Justice B.P. Kataki, Former Judge of the Guwahati High Court ("Committee"). True copy of order dated 31.08.2018 passed by this Hon'ble Tribunal in OA No. 110 (THC) / 2012 is appended herewith and marked as **ANNEXURE R17/ 1 on pages 44-53.**

10. The order dated 31.08.2018 passed by this Hon'ble Tribunal was challenged before the Hon'ble Supreme Court in Civil Appeal No. 10720/2018, Civil Appeal No. 10611/2018, Civil Appeal No. 10907/2018, Civil Appeal No. 5272 / 2016, Civil Appeal No. 5295/2019, and Civil Appeal No. 2968/2019 with the lead matter titled "*State of Meghalaya v. All Dimasa Students Union, Dima-Hasao District Committee & Ors.*"
11. During the pendency of the above proceeding before the Hon'ble Supreme Court, the Committee submitted its report dated 02.01.2019 to this Hon'ble Tribunal alleging that the power plants and cement plants were encouraging coal mining activities. Further during its 8<sup>th</sup> sitting on 11.02.2019, the Committee directed the North-Eastern Regional

Directorate of the CPCB to submit a report as to whether the procurement of coal from Meghalaya by the power plants and cement industries has violated any conditions imposed in the licences/ permissions granted for setting up such power plants or cement industries.

12. Subsequently, during the 11<sup>th</sup> sitting of the Committee on 25.03.2019 the CPCB submitted its report on coal consumption by cement industries. While considering the report, the Committee observed that only the year wise details of the coal reported to be consumed by cement industries has been provided by the CPCB. It further noted that in absence of year wise details of cement produced and the quantity of coal required to produce such quantity of cement, it is not possible to ascertain that the quantity of coal reported to be procured by these plants was sufficient to produce reported quantity of cement. The Committee was of the view that the difference between the quantity of coal reportedly consumed by each cement industry and quantity of coal required to produce such reported quantity of cement by each such plant, if any, could have been met by illegally mined coal. The CPCB was again directed to provide an updated report providing the abovementioned information. The Committee submitted its report dated 31.03.2019 to this Hon'ble Tribunal.

13. This Hon'ble Tribunal upon consideration of report dated 31.03.2019 submitted by the Committee passed the order dated 11.04.2019 directing the Committee to consider requiring a fool proof mechanism such as

electronic manifest system for regulating movement of vehicles and issuance of challans for effective action against transportation of illegally mined coal. This Hon'ble Tribunal also considered the allegation that power plants and cement plants are encouraging coal mining activities and directed the Committee to consider requiring an audit of the sources of coal acquired by the power generation and cement plants in the state of Meghalaya. True copy of the order dated 11.04.2019 passed by the Hon'ble Tribunal in OA No. 110 (THC)/ 2012 is appended herewith and marked as **ANNEXURE R17/ 2 on pages 54-58.**

14. In compliance with the directions of this Hon'ble Tribunal on 11.04.2019, the Committee in its 12<sup>th</sup> sitting formulated a format to be followed by CPCB while undertaking resource (coal) audit of each cement industry.
15. The Hon'ble Supreme Court on 03.07.2019 while deciding the batch of Civil Appeals arising from the Order dated 31.08.2018 of this Hon'ble Tribunal in O.A. No. 73/2014 held that the ownership of the coal extracted even after 15.05.2016 does not vest with State of Meghalaya but with the owner of the coal or the person who has mined the coal and such person shall have proprietary rights on the mineral. The owners are entitled to the balance proceeds of sale of mined coal by Coal India Ltd. after deducting the applicable royalty, payment to Meghalaya Environment Protection and Restoration Fund ("MEPRF"), taxes and expenses of transportation. The only exception to this scheme was the illegally transported coal seized by

the State which was to be dealt with in accordance with the provisions of the Mines and Minerals (Development and Regulation) Act, 1957 (“**MMDR**”).

16. In the meanwhile, the Answering Respondent on 01.07.2019 and 05.07.2019 paid royalty on muslate/ slate consumed during the period from Financial Year (“**FY**”) 2014-15 to FY 2018-19 *vide* challan nos. 6269, 6270, 6271, 6781, 6782 and 6783. True copies of the challan nos. 6269, 6270, 6271, 6781, 6782 and 6783 submitted by the Answering Respondent are appended herewith and marked as **ANNEXURE R17/ 3 (Colly) on pages 59-64.**

17. The Addl. Principal Chief Conservator of Forest sent a letter to the Answering Respondent and other cement kilns and power plant on 02.08.2019 enclosing the minutes of meeting of the Committee held on 23.07.2019. The meeting was not attended by the representatives of the Company as they had no information about the meeting being scheduled. Another letter dated 05.08.2019 was issued by Addl. Principal Chief Conservator of Forest to the Answering Respondent and other units directing them to attend the meeting of the Committee on 14.08.2019. True copy of the letters dated 02.08.2019 and 05.08.2019 from Addl. Principal Chief Conservator of Forest to the Answering Respondent are appended herewith and marked as **ANNEXURE R17/4 (Colly) on pages 65-90.**

18. The Answering Respondent replied to Addl. Principal Chief Conservator of Forest *vide* letter dated 14.08.2019 requesting for details of the documents required by the Committee and informed that it received the information regarding the sitting of the Committee on 14.08.2019 on a very short notice on 12.08.2019. It was further informed that no information was received about the meeting held on 23.07.2019 and it was not even informed about the nature of the documents required by the Committee. True copy of the letter dated 14.08.2019 sent by Answering Respondent to Addl. Principal Chief Conservator of Forest is appended herewith and marked as **ANNEXURE R17/ 5 on pages 91-92.**

19. Be that as it may, the Committee in its 17<sup>th</sup> sitting on 14.08.2019 despite noting that the Answering Respondent has not been provided with an opportunity to produce the information required by it, made its assessments on use of illegally mined coal on the basis of the data compiled by the CPCB. The Addl. Principal Chief Conservator of Forest sent a letter dated 20.08.2019 to the Answering Respondent enclosing minutes of meeting held on 14.08.2019. True copy of the letter dated 20.08.2019 from Addl. Principal Chief Conservator of Forest to the Answering Respondent is appended herewith and marked as **ANNEXURE R17/6 on pages 93-145.**

20. This Hon'ble Tribunal on 22.08.2019 considered the report dated 02.08.2019 submitted by the Committee and directed the Answering Respondent as well as the other cement industries to furnish the requisite

information to the Committee failing which coercive measure may be taken against them. True copy of the order dated 22.08.2019 passed by this Hon'ble Tribunal in OA No. 110 (THC) / 2012 is appended herewith and marked as **ANNEXURE R17/ 7 on pages 146-158.**

21. The Answering Respondent through letter dated 26.08.2019 to the Addl. Principal Chief Conservator of Forest provided the year-wise details of clinker produced in FY 2014-15 to 2018-19, year-wise details of coal and / or any other alternate fuel consumption for clinker and copy of annual report for the FY 2014-15 to 2017-18. True copy of the Answering Respondent's letter dated 26.08.2019 to the Addl. Principal Chief Conservator of Forest is appended herewith and marked as **ANNEXURE R17/ 8 on pages 159-162.**

22. The Addl. Principal Chief Conservator of Forest sent another letter dated 05.09.2019 to the Answering Respondent requiring year-wise data on quantity of cement / clinker on which transport subsidy has been claimed, yearly annual report since the imposition of ban on coal mining, an average estimated quantity of coal or alternate fuel required to produce one tonne of clinker / or one unit of power and a copy of Detailed Project Report ("DPR") submitted to the bank / financial institution to obtain loan.

The Answering Respondent on 10.09.2019 submitted details required by the Committee. True copy of the letter dated 05.09.2019 from the Addl. Principal Chief Conservator of Forest to the Answering Respondent and

reply letter dated 10.09.2019 submitted by Answering Respondent is appended herewith and marked as **ANNEXURE R17/ 9 (Colly) on pages 163-168.**

23. The Committee submitted its 5<sup>th</sup> Interim Report dated 02.12.2019 to this Hon'ble Tribunal wherein the Committee observed the year – wise quantities of coal required to produce reported quantities of clinker, the coal actually purchased from legal sources and the gap between the two for the Answering Respondent as follows:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
Coal required	58,205	55,262	57,505	64,673	65,398	3,01,043
Coal procured	44,844	50,555	46,762	51,068	30,278	2,23,507
Gap	13,361	4,707	10,743	13,605	35,120	77,536

The contents of the 5<sup>th</sup> Interim Report have been discussed in further detail in the submissions made in the present reply.

True copy of the 5<sup>th</sup> Interim Report dated 02.12.2019 submitted by the Committee is appended herewith and marked as **ANNEXURE R17/ 10 on pages 169-245.**

24. The State of Meghalaya filed its response to the 4<sup>th</sup> Interim Report and the 6<sup>th</sup> Interim Report of the Committee before this Hon'ble Tribunal, however, the State had not filed its response to the 5<sup>th</sup> Interim Report of the

Committee, which actually dealt with the issues concerning the Answering Respondent.

25. This Hon'ble Tribunal considered the 5<sup>th</sup> Interim Report dated 02.12.2019 submitted by the Committee wherein this Hon'ble Tribunal passed the order dated 17.01.2020 accepting the incorrect findings of the Committee. True copy of the order dated 17.01.2020 passed by this Hon'ble Tribunal in OA No. 110 (THC) / 2012 is appended herewith and marked as **ANNEXURE R17/ 11 on pages 246-291.**

26. In view of the directions of this Hon'ble Tribunal in Order dated 17.01.2020, the Directorate of Mineral Resources, Shillong issued demand notice dated 19.02.2020 to the Answering Respondent directing it to pay INR 12.096 crores as royalty, contribution to Meghalaya Environment Protection and Restoration Fund (“**MEPRF**”) and GST/VAT on the allegedly illegally mined coal utilized by the Answering Respondent. True copy of the demand notice dated 19.02.2020 sent by Directorate of Mineral Resources, Shillong alongwith its original is appended herewith and marked as **ANNEXURE R17/12 on pages 292-294.**

27. The Answering Respondent also received notice dated 18.05.2020 from the Office of Commissioner of Central Goods and Service Tax asking for details of royalty paid on coal, service tax paid on royalty, details of GST paid on royalty and details of cess paid on coal. Further, a summon dated 15.06.2020 was also received by the Answering Respondent asking for

details of royalty paid on coal, service tax paid on royalty, details of GST paid on royalty, details of cess paid on coal and amount of clinker produced & coal produced during the Financial Year 2019-20 was also issued to the Answering Respondent. True copy of the notice dated 18.05.2020 and summon dated 15.06.2020 issued by Office of Commissioner of Central Goods and Service Tax are appended herewith and marked as **ANNEXURE R17/ 13 (Colly) on pages 295-296.**

28. The Answering Respondent received another demand notice dated 16.07.2020 from the Directorate of Mineral Resources, Shillong directing the Answering Respondent to pay royalty and amount towards MEPRF for the alleged illegally sourced coal. True copy of the demand notice dated 16.07.2020 issued by Directorate of Mineral Resources, Shillong is appended herewith and marked as **ANNEXURE R17/ 14 on pages 297.**

29. That the matter was again considered by this Hon'ble Tribunal on 27.07.2020 wherein it reiterated the recommendations of the Committee with regard to the action plans for restoration of the environment including Action Plan B which provided recommendations for the Cement Industries. This Hon'ble Tribunal directed as that:

*“(14) As regards restoration plan, the remediation plan may be duly executed which may be supervised by the Committee. The steps suggested by the Committee may be taken.”*

30. The Answering Respondent submitted following details to the Divisional Mining Officer, Jowai Meghalaya through a letter bearing No. GVIL/DMO/2/2020/06 dated 11.09.2020:

- i. Amount of clinker produced in August 2020;
- ii. Amount of coal consumed and coal purchased in August 2020; and
- iii. Amount of cement produced, clinker produced, quantity of coal used in the clinker produced and alternate fuel in August 2020.

True copy of the letter dated 11.09.2020 from the Answering Respondent to the Divisional Mining Officer, Jowai, Meghalaya is appended herewith and marked as **ANNEXURE R17/ 15 on pages 298-302.**

31. The Answering Respondent received a show cause notice bearing no. dated 23.09.2020 wherein it was directed to show cause as to why it should not pay VAT and GST calculated to be INR 3,10,14,400/- as per the recommendations of the Committee submitted to the Hon'ble Tribunal in their 5<sup>th</sup> Interim Report. True copy of the show cause notice dated 23.09.2020 is appended herewith and marked as **ANNEXURE R17/ 16 at page 303.**

32. The committee chaired by the Chief Secretary to the Government of Meghalaya held its meeting on 19.10.2020 to review the quantity of clinker

and / or power produced by the cement manufacturing plants and thermal power plants and to verify the legal source of coal.

33. The Answering Respondent received summon dated 20.10.2020 under Section 70 of the Central Goods and Services Tax Act, 2017 directing it to provide evidence and /or produce following documents:

- i. Details of payments made to Government of Meghalaya for mining lease / license, royalty etc. for FY 2016-17 to 2020-21 (up to August 2020) in the prescribed format as sought in letter dated 16.09.2020.
- ii. Copy of demand notice, if any, issued to M/s Green Valliey Industries Ltd. by Government of Meghalaya in compliance to the 5<sup>th</sup> Interim Report of the independent committee on resource (coal) audit of cement industries etc. dated 02.12.2019 for utilising 77,536 MT of illegally procured coal.
- iii. Copy of stay order, if any, against the order dated 17.01.2020 passed by this Hon'ble Tribunal in O.A. No. 110(THC)/2012.
- iv. Details of GST paid on royalty amounting to Rs. 78.80 Lakh made to Government of Meghalaya on 1.62 Lakh M.T of slate.
- v. Copy of Techno Economic Feasibility Report (“TEFR”) prepared by Holtec Consulting Private Limited and details of payments made to the party for the same.

True copy of the summon dated 20.10.2020 issued under Section 70 of the Central Goods and Services Tax Act, 2017 is appended herewith and marked as **ANNEXURE R17/ 17 at pages 304-305.**

34. The Answering Respondent submitted a letter dated 28.10.2020 to the Director of Mineral Resources, Government of Meghalaya on the subject of payment of royalty and contribution of MEPRF for alleged illegally sourced coal. True typed copy of the letter dated 28.10.2020 submitted by the Answering Respondent to the Director of Mineral Resources, Government of Meghalaya alongwith its original is appended herewith and marked as **ANNEXURE R17/ 18 at pages 306-324.**

35. The Answering Respondent through its communication dated 02.11.2020 informed the Superintendent / Appraiser / Senior Intelligence Officer at DGGI, SRU, Shillong that the Answering Respondent is in receipt of their summon dated 20.10.2020 and requested them to provide 30 days time to compile the data and submit. True copy of the letter dated 02.11.2020 issued by Answering Respondent to the Superintendent / Appraiser / Senior Intelligence Officer at DGGI, SRU, Shillong is appended herewith and marked as **ANNEXURE R17/ 19 at page 325.**

36. The Answering Respondent received letter dated 03.11.2020 on 18.11.2020 from Directorate of Mineral Resources, Shillong directing to provide explanation as to why case should not be registered against it under the sub-section (1) of Section 21 of the Mines and Minerals (Development &

Regulation) Act, 1957. The Directorate of Mineral Resources, Shillong issued direction based on the order dated 17.01.2020 passed by this Hon'ble Tribunal accepting the recommendation of the Committee and holding that the Answering Respondent has utilised 77,536 MT of illegal coal during the period of 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19.

True copy of the letter dated 03.11.2020 issued by Directorate of Mineral Resources, Shillong is appended herewith and marked as **ANNEXURE R17/ 20 at page 326.**

37. The Answering Respondent through communication dated 23.11.2020 replied to the show cause notice dated 03.11.2020 (received on 18.11.2020) issued by the Director of Mineral Resources regarding initiating case under Section 21 (1) of Mines and Minerals (Development & Regulation) Act, 1957 and submitted that the Answering Respondent has never undertaken any illegal mining activity and therefore no action should be taken against them under Section 21(1) of the Mines and Minerals (Development & Regulation) Act, 1957. True copy of the communication dated 23.11.2020 issued by Answering Respondent to the Director of Mineral Resources is appended herewith and marked as **ANNEXURE R17/ 21 at pages 327-329.**

38. The Answering Respondent through its letter dated 02.12.2020 addressed to the Superintendent / Appraiser / Senior Intelligence Officer at DGGI, SRU, Shillong submitted its reply to the summons dated 20.10.2020.

True typed copy of the letter dated 02.12.2020 issued by Answering Respondent to the Superintendent / Appraiser / Senior Intelligence Officer at DGGI, SRU, Shillong is appended herewith and marked as **ANNEXURE R17/ 22 at pages 330-337.**

39. The Answering Respondent through its letters dated 07.12.2020 submitted following details to the Divisional Mining Officer, Jowai, Meghalaya:

- i. Amount of clinker produced in September 2020, October 2020, and November, 2020;
- ii. Amount of coal consumed and coal purchased in September 2020, October 2020, and November, 2020; and
- iii. Amount of cement produced, clinker produced, quantity of coal used in clinker produced and alternate fuel in September 2020, October 2020, and November, 2020.

True copy of the letters dated 07.12.2020 sent by the Answering Respondent are appended herewith and marked as **ANNEXURE R17/ 23 (Colly) at pages 338-349.**

40. The Answering Respondent on 22.12.2020 paid royalty on muslate through challan bearing challan number 8429. True copy of challan bearing challan

no. 8429 is appended herewith and marked as **ANNEXURE R17/24 at page 350.**

41. The Answering Respondent received a show cause notice dated 08.02.2021 issued by Directorate of Mineral Resources, Government of Meghalaya for alleged non supply of an explanation for the alleged gap in quantity of coal required to produce clinker / power and quantity of coal purchased / used by the Company during the period of February 2020 to July 2020 in furtherance to the direction conveyed through memo dated 30.11.2020. The Answering Respondent received three show cause notices dated 08.02.2021 issued by Directorate of Mineral Resources, Government of Meghalaya for alleged non supply of Transport Challans issued by the Mining Department of the origin State or documents of Coal India Ltd. as proof of coal procured during the period of February 2020 to July 2020 and for alleged non supply of details of clinker/power production and coal procured for the months of August and September 2020. True copy of show cause notices each dated 08.02.2021 are appended herewith and marked as **ANNEXURE R17/ 25 (Colly) at pages 351-353.**

42. The Answering Respondent submitted letter dated 01.03.2021 in response to the three show cause notices dated 08.02.2021 issued by the Director of Mineral Resources, Government of Meghalaya and submitted that:

- i. The Committee based on this Hon'ble Tribunal's order dated 17.01.2020 came to a conclusion that there is an alleged gap in coal

purchased / used by the Company. However, no working / calculation / justification has been provided by the committee to the Answering Respondent till date regarding the estimation made to calculate such gap.

- ii. Answering Respondent had filed detailed reply dated 28.10.2020 to the demand notice issued by the Director of Mineral Resources, Government of Meghalaya based on the findings of the 5<sup>th</sup> Interim Report of the Committee pointing out the infirmities in the said 5<sup>th</sup> Interim Report.
- iii. The Answering Respondent further informed that the requisite data asked *vide* letter dated 08.02.2021 i.e., clinker / power production and coal procured for the month of August and September 2020 were already submitted to the office of Divisional Mining Officer, Jowai *vide* its letters dated 11.09.2020 and 07.12.2020 respectively i.e., well before the date of issue of relevant SCN.

The Answering Respondent further requested the Director of Mineral Resources Government of Meghalaya to withdraw the three show cause notices. True typed copy of the letter dated 01.03.2021 submitted by Answering Respondent to Director of Mineral Resources, Government of Meghalaya is annexed and marked as **ANNEXURE R17/ 26 on page 354-374.**

43. The Answering Respondent on 04.03.2021 received the minutes of the meeting of the Committee chaired by the Chief Secretary to the Government of Meghalaya. A copy of the minutes of the meeting of the Committee held on 11.02.2021 is appended herewith and marked as **ANNEXURE R17/ 27 at pages 375-381.**
44. The Answering Respondent on 10.03.2021 received the letter dated 24.02.2021 issued by Directorate of Mineral Resources, Shillong directing it to make payment of INR 400 per Metric Tonne (MT) for quantity of 77,536 MT for consumption or utilization of illegally mined coal by Answering Respondent as reflected in the 5<sup>th</sup> Interim Report of the Tribunal, failing which necessary action will be initiated against it under the relevant Acts and Rules. True typed copy of the letter issued by Directorate of Mineral Resources, Shillong dated 24.02.2021 is appended herewith and marked as **ANNEXURE R17/ 28 on pages 382-385.**
45. This Hon'ble Tribunal on 15.03.2021 disposed of the proceedings in the present case bearing OA No. 110(THC)/2012. This Hon'ble Tribunal directed that ownership of the task of compliance of the judgment of the Hon'ble Supreme Court to preventing unscientific and unregulated mining, restoring the environment, rehabilitating the victims and handling of illegally mined coal should be taken over by the state authorities, to be overseen by an oversight committee of 12 members, headed by Additional Secretary, Ministry of Environment Forest and Climate Change

(“MOEFCC”). True copy of the order dated 15.03.2021 passed by this Hon’ble Tribunal in OA No. 110(THC)/2012 is appended herewith and marked as **ANNEXURE R17/ 29 on pages 386-449.**

46.The Answering Respondent through a communication dated 16.03.2021 replied to the demand notice dated 24.02.2021 (received on 10.03.2021) requesting the Director of Mineral Resources, Government of Meghalaya to withdraw the said demand letter and not to initiate any coercive steps against the Company. True copy of the communication dated 16.03.2021 from the Answering Respondent to the Director of Mineral Resources, Government of Meghalaya is appended herewith and marked as **ANNEXURE R17/ 30 on pages 450-451.**

47.The Answering Respondent through letter dated 09.04.2021 to the Divisional Mining Officer, Jowai submitted details of the clinker produced and coal used by cement plant for the month of March 2021. True copy of the letter dated 09.04.2021 from Answering Respondent to the Divisional Mining Officer, Jowai is appended herewith and marked as **ANNEXURE R17/ 31 on pages 452-453.**

48.In the meeting of the Committee under the Chairmanship of the Chief Secretary to the Government of Meghalaya held on 09.04.2021, it was decided that the remaining cement plants may appeal against the NGT Order dated 17.01.2020 within 15 days, failing which, it will be deemed that the cement plants / companies have accepted the findings of the

Committee as per the Order of this Hon'ble Tribunal and actions under the provisions of the MMDR Act will be initiated and penalty (royalty, MEPRF, cess, GST etc.) for quantity shown as gap will be imposed. The aforesaid minutes of the meeting held on 09.04.2021 was served upon the Answering Respondent through an email dated 20.04.2021 which enclosed a Memo dated 16.04.2021 from the Secretary to Government of Meghalaya, Mining and Geology Department. True copy of the email dated 20.04.2021 from the Secretary to Government of Meghalaya, Mining and Geology Department to the Answering Respondent is appended herewith and marked as **ANNEXURE R17/ 32 at pages 454-469.**

49. The Answering Respondent received five communications from the Directorate of Mineral Resources, Shillong each dated 30.04.2021. The relevant details of these letters are as follows:

- i. Letter bearing No. DMR/MM/845/2020/379 directing the Answering Respondent to provide details from the month of August 2020 to January 2021;
- ii. Letter bearing No. DMR/MM/845/2020/374 directing the Answering Respondent to submit details as per the minutes of the meeting of the Committee under the chairmanship of Chief Secretary to the Government of Meghalaya held on 09.04.2021;
- iii. Letter bearing No. DMR/MM/845/2020/377 directing the Answering Respondent to furnish an explanation for the alleged gap in quantity

of coal required to produce clinker / power and quantity of coal purchased / used by Answering Respondent for the corresponding period given in the minutes of the meeting of the Committee under the chairmanship of Chief Secretary to the Government of Meghalaya held on 09.04.2021 within one week from the issue of the letter. The minutes of the meeting dated 09.04.2021 under the Memo dated 16.04.2021 were also communicated to the Answering Respondent through this letter;

- iv. Letter bearing No. DMR/MM/845/2020/383 directing the Answering Respondent to provide an explanation as to why the case should not be registered against the Answering Respondent under the sub-section (1) of Section 21 of the Mines and Minerals (Development & Regulation) Act, 1957; and
- v. Letter bearing No. DMR/MM/845/2020/367 directing the Answering Respondent to submit a written explanation as to why Answering Respondent failed to submit the monthly clinker / power production and coal consumption by its Plant for the month of March, 2021.

True copies of the letters dated 30.04.2021 issued by Director of Mineral Resources, Shillong is appended herewith and marked as **ANNEXURE R17/ 33 (Colly) at pages 470-475.**

50. The Answering Respondent through its letter dated 07.05.2021 informed the Director of Mineral Resources, Government of Meghalaya that it is in

receipt of the letters dated 30.04.2021 and requested time to file replies by the end of May, 2021 owing to the ongoing COVID-19 pandemic. True copy of the letter dated 07.05.2021 from the Answering Respondent to the Director of Mineral Resources, Government of Meghalaya is appended herewith and marked as **ANNEXURE R17/ 34 at pages 476.**

51. In view of the repeated notices and summons being issued to it by the authorities, the Answering Respondent was left with no other option and approached the Hon'ble Supreme Court challenging the order dated 17.01.2020 passed by this Hon'ble Tribunal.

52. The Hon'ble Supreme Court vide Order dated 02.05.2023 set aside the Order dated 17.01.2020 passed by this Hon'ble Tribunal and restored the proceedings before this Hon'ble Tribunal at the stage prior to the Order dated 17.01.2020 in relation to its applicability on the Answering Respondent. Further, the Answering Respondent was directed to submit its response to the interim reports of the Committee.

53. In compliance of the said directions of the Hon'ble Supreme Court, the Answering Respondent seeks to address the findings of the 5<sup>th</sup> Interim Report of the Committee.

#### **Paragraph-wise response to the 5<sup>th</sup> Interim Report of the Committee**

54. It is submitted that the facts mentioned in paragraph no. 2.6.1 of the 5<sup>th</sup> Interim Report are true and the Answering Respondent operates an integrated clinker cum cement manufacturing plant having an installed

capacity of 1300 TPD Cement (expandable to 2600 TPD cement) at Nongsning village in East Jaintia Hills District. The said plant was commissioned in the year 2010.

55. It is submitted that the year-wise quantities of the clinker produced and the coal procured by the Answering Respondent as stated in paragraph no. 2.6.2 of the 5<sup>th</sup> Interim Report are based on the information/documents provided by the Company. The year-wise quantities of the clinker produced and the coal procured by the Answering Respondent to produce such clinker during the Audit Period are as below:

(Metric tonne)

<i>Items</i>	<i>Year</i>					<i>Total</i>
	<i>2014-15</i>	<i>2015-16</i>	<i>2016-17</i>	<i>2017-18</i>	<i>2018-19</i>	
<i>1.</i>	<i>2.</i>	<i>3.</i>	<i>4.</i>	<i>5.</i>	<i>6.</i>	<i>7.</i>
<i>Clinker produced (MT)</i>	3,88,036	3,68,412	3,83,369	4,31,151	4,35,984	20,06,952
<i>Coal procured (MT)</i>	44,844	50,555	46,762	51,068	30,278	2,23,507

56. It is submitted that the year wise details of the slate purchased by the Answering Respondent as stated in paragraph no. 2.6.3 of the 5<sup>th</sup> Interim Report is as per the documents submitted by the Answering Respondent. The year-wise details of slate consumed by the Answering Respondent during the Audit Period are as below:

(Metric tonne)

<i>Year</i>					<i>Total</i>
<i>2014-15</i>	<i>2015-16</i>	<i>2016-17</i>	<i>2017-18</i>	<i>2018-19</i>	
<i>17,105</i>	<i>18,280</i>	<i>28,221</i>	<i>35,020</i>	<i>49,122</i>	<i>1,12,363</i>

57. The contents of paragraph no. 2.6.4 of the 5<sup>th</sup> Interim Report are denied as incorrect and devoid of any merit save what are matters of record. The extract of paragraph no. 2.6.4 of the 5<sup>th</sup> Interim Report is reproduced herein for the convenience of this Hon'ble Tribunal:

*“2.6.4. The MSPCB has informed the Committee that the no authorization/non-objection certificate has been granted by the Board in favour of the Green Valley Industries Limited for use of slate as an alternate fuel. The Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department informed the Committee that the Green Valley Industries Limited has paid an amount of Rs. 78.80 lakh to the State of Meghalaya as a royalty on 1.62 lakh MT slate claimed to be consumed by them. The Committee noted that the entire amount of royalty was paid in the month of July 2019 much after resource (coal) Audit of Cement Manufacturing Plants and Thermal Power Plants in the State of Meghalaya was initiated by the Committee.*

The Answering Respondent seeks to address the contentions raised in paragraph no. 2.6.4.:

- i. It is submitted that the 5<sup>th</sup> Interim Report does not specify any law under which the Answering Respondent is obligated to obtain a no objection certificate for using slate as an alternate fuel instead of coal in its cement industry. Infact, even the Meghalaya State Pollution Control Board (“**MSPCB**”) vide its letter dated 13.09.2019 informed the Committee that revised Consent to Operate (“**CTO**”) under the Air (Prevention and Control of Pollution) Act, 1981 (“**Air Act**”)/ Water (Prevention and Control of Pollution) Act, 1974 (“**Water Act**”) is not required for use of alternate fuel. Even the letter dated 13.09.2019, does not state any obligation on cement industries to obtain an NOC for use of alternate fuel such as slate instead of coal. In absence of any specific obligation to obtain an NOC for use of alternate fuel, the Committee cannot hold any adverse inference against the Answering Respondent for using slate as an alternate fuel. It is submitted that the contents of the letter dated 13.09.2019 issued by MSPCB are stated in paragraph no. 2.2.17 of the 5<sup>th</sup> Interim Report.
- ii. The Answering Respondent has submitted an amount of Rs. 78.80 lakh to the State of Meghalaya as royalty on 1.62 lakh MT slate. Further, it is an admitted fact that the payment was made in the month of July, 2019.

58. The contents of paragraph no. 2.6.5 of the 5<sup>th</sup> Interim Report are denied as incorrect, misleading and devoid of any merit. The contents of paragraph no. 2.6.5 of the 5<sup>th</sup> Interim Report are reproduced herein:

*“2.6.5. The Committee, based on a detailed analysis (given in para 2.2.26 to 2.2.52) of a similar claim of the Star Cement Limited on use of alternate fuel in lieu of coal, is of the view that it is neither technically feasible nor legally permissible for the Green Valley Industries Limited to replace more than thirty percent of their coal requirement, as is being claimed by them, by a non-fuel mineral such as slate.”*

The Answering Respondent seeks to raise the following objections in respect of the averment made in paragraph no. 2.6.5 –

- i. A bare perusal of paragraph no. 2.6.5. makes it clear that the Committee has not made any independent assessment of the technical aspects of the cement plant of the Answering Respondent to ascertain whether it is technically feasible to use slate as an alternate fuel source. The conclusion drawn by the Committee in paragraph no. 2.6.5. is based on its analysis of the coal consumption by Star Cement Limited which itself is based on inconsistencies, assumptions, surmises and even logical fallacies. The Answering Respondent seeks to highlight some of the issues which the analyses made in paragraph nos. 2.2.26 to 2.2.52.

The Committee while drawing the said conclusion ignored the following facts presented by various authorities –

- a. MSPCB vide letter dated 13.09.2019 had informed that prima facie the use of alternative fuel by the cement plants is technically feasible and is in fact encouraged by the PCB (*please see paragraph no. 2.2.17*)
- b. The CPCB vide its letter dated 13.09.2019 submitted that if the industries use pet coke or slate as Alternate Fuel Resource (“AFR”), it is not required to modify or attach a new fuel/material feeding system. AFRs are generally used together with coal. As the physical characteristics of pet coke and slate are similar to coal, these alternate fuels can be used in the existing coal mills for pulverisation before feeding into kilns after blending with coal. The CPCB has published guidelines for use of AFR/ Hazardous Waste (“HW”) in these cement and power plants. The EC granted to various cement industries in the region stipulates such conditions. It recognises that cement industries and power plants in Meghalaya, are using slate as AFR in the cement kilns and power plants. (*please see paragraph no. 2.2.18*)
- c. The MOEFCC vide letter dated 12.09.2019 stated that a note given in col. 5 of item 3(b) pertaining to cement industries in

Schedule to EIA, 2006 substituted by Notification bearing S.O. No. 3518(E) dated 23.11.2016 of the MOEF provides that fuel for cement industry be coal, pet coke, waste provided it meets the emission norms. (*please see paragraph no. 2.2.19*)

- ii. However, the Committee while considering the issue of alleged use of illegally mined coal by Star Cement Limited, completely ignored the numerous evidences supporting the fact that no modification is required to be made for use of AFR and based its conclusion on mere assumptions and surmises.
- iii. The Committee did not undertake any technical/ scientific study to controvert the claims made regarding use of AFR and has instead stated that even if the physical characteristics of slate is similar to coal, use of slate having very low calorific values in place of high calorie coal requires modifications/ changes in design of plant, especially the components of plants dealing with handling, processing, grinding, and storage of fuel. It held a view that even after modifications it is not feasible to achieve the required kiln temperatures with such low calorie fuel mix. It held that except the small quantity of slate already mixed in the locally mined coal, it is not feasible to run the cement and thermal power plants of Star Cement Limited by replacing about three fourth of their coal requirement by a non-fuel mineral such as slate. (*please see*

*paragraph no. 2.2.36*). It is pertinent to note that the Committee has held this view without undertaking any scientific assessment of the plant of Star Cement Limited.

- iv. The Committee has superimposed the same flawed logic on the Answering Respondent, without any assessment independent of other cement plants. (*please see paragraph no. 2.6.5*).
- v. The Answering Respondent also seeks to place on record the TEFR prepared by Holtec Consulting Private Limited in March, 2024 which verifies that the unit operated by the Answering Respondent can use muslate as an alternative fuel source. True copy of the TEFR prepared by Holtec Consulting Private Limited is appended herewith and marked as **Annexure R17/ 35 on pages 477-506**.
- vi. Further, the Committee while making the assessment has held that except for small quantity of slate found mixed in locally mined coal, the cement manufacturing plants and thermal power plants of Star Cement Limited have not used slate as a fuel in lieu of coal. (*please see paragraph no. 2.2.42*) The conclusion of the Committee is based on the grounds that –
  - a. The use of slate as a fuel has not been reported by Star Cement Ltd. in majority of environmental statements submitted by them to CPCB. The Committee during its visit did not see any slate nor was it reported to the Committee that slate was used to meet

the major part of the energy requirement of their plants. (*please see paragraph no. 2.2.38*)

- b. The annual report of Star Cement Ltd. does not mention the use of slate for meeting three fourth of its energy requirements. (*please see paragraph no. 2.2.39*)
  - c. Winning lakhs of metric tonnes of slate from overburden does not seem feasible and no large overburden dump was detected by North Eastern Space Applications Centre while undertaking land use and land cover analysis of mining affected areas.
- vii. It is submitted that in case of the Answering Respondent, the Committee has failed to undertake even the analysis of environmental statements or the site visit to determine the use of slate and has solely relied upon its analysis of Star Cement Limited.
- viii. Further, there is no material on record which states that the use of slate as an alternate fuel source instead of coal is legally impermissible. On the contrary, the MSPCB in its letter dated 13.09.2019 (*please see paragraph no. 2.2.17 of the 5<sup>th</sup> Interim Report*) has specifically stated that revise CTO is not required for use of alternate fuel by the cement plant.

59. The contents of Paragraph no. 2.6.6 are denied for being factually incorrect.

It is denied that the TEFRR of the Answering Respondent provides that the specific coal requirement for clinker manufacture is 13%. The specific coal

requirement of a cement plant varies on the basis of numerous factors such as quality and moisture content of coal and muslate used at that time, type of cement to be produced etc. A static figure of 13% cannot be assumed for the entire review period and instead a site specific analysis has to be done for the review period to calculate the specific coal requirement at that particular time. The contents of the paragraph are reproduced herein for sake of convenience of this Hon'ble Tribunal:

*“2.6.6 The Committee after examination of a Techno-Economic Feasibility Report (TEFR) for the said 1300 TPD expandable to 2600 TPD Greenfield Cement Project of the Green Valley Industries Limited prepared by Holtec Consulting Private Limited, observed that the said clinker cum cement manufacturing plant of the Green Valley Industries Limited has been designed to use 100 % Meghalaya coal having a net calorific value of 6,000 Kcal/kg being exploited by locals in the areas around Khliehriat and Sutnga, which are located at a distance of about 18 km and 28 km respectively from the plant site as a fuel. The specific heat consumption, as per the said TEFR, for the said clinker production unit is 780 kcal/ kg of clinker produced. The specific coal requirement for the said clinker manufacturing plant, as per the said TEFR is 13.00 %.”*

True copy of the TEFRR prepared at the time of establishment of the cement plant is appended herewith and marked as **Annexure R17/ 36 on pages 507-695.**

60. The contents of paragraph no 2.6.7 are denied as incorrect, misleading and devoid of any merit. The contents of the paragraph are reproduced herein :

*2.6.7 After examination of the Environmental Statements submitted by the Green Valley Industries Limited to the MSPCB, a copy of which has been provided to the Committee by the MSPCB, it has been observed that quantity of coal actually consumed by the said Cement Manufacturing Plant has not been indicated in any of these Statements. For the detailed reasons given in para 2.2.35 above, the Committee is of the view that actual specific coal consumption for clinker manufacturing plant of the Green Valley Industries Limited is atleast 15%.*

The contents of the paragraph are denied for the following reasons:

- i. The Answering Respondent has filled in all the requisite information as required in the environmental statements and the MSPCB has never raised any issue regarding the contents of the statement submitted by the Answering Respondent.
- ii. Bare perusal of the paragraph shows that the Committee has not made any independent assessment of the actual coal consumption for clinker

and has barely relied upon the analysis made by it in respect of Star Cement Ltd.

- iii. The Committee has not made any technical/ scientific assessment of the cement plant of the Answering Respondent before concluding that the actual specific coal consumption for clinker manufacturing plant of the Company is at least 15%.
- iv. Further, even the assessments made in paragraph no. 2.2.35 of the 5<sup>th</sup> Interim Report is plagued with inconsistencies, and assumptions and presumptions.
- v. The Committee while considering the case of Star Cement Ltd. framed the following two questions for consideration of issue of quantity of coal required (*please see paragraph no. 2.2.26*):
  - a. Whether the specific coal requirement of aforementioned cement manufacturing plants and a thermal power plant of the Star Cement Limited and its subsidiaries is substantially lower than specific coal requirement stated in the respective TEFRs?
  - b. What is the actual specific coal requirement for cement manufacturing plants and a thermal power plant of the Star Cement Limited.
- vi. The Committee has taken into consideration the following facts:
  - a. The TEFR and specific coal requirement of Mawmluh Cherra Cement Limited (“**MCCL**”) is 16%, and as per the details given in

paragraph no. 2.1.5 (*incorrectly written 1.2.3 and 1.2.5*), it uses the same relatively high calorific value Meghalaya coal as being used by Star Cement Limited. The coal requirement of MCCL is 28.876%. Based on the assessment of coal requirement of MCCL, the Committee held that the requirement of Star Cement cannot be much lower than the specific coal requirement for MCCL. (*please see paragraph no. 2.2.27*)

- b. It further relies upon the specific coal requirement of Star Cement Limited as per the environmental statements and held that during 2016-17, the specific coal requirement was 21.47%. (*please see paragraph no. 2.2.28*)
- c. It even relied upon an general statement made by a third party on the request of CPCB and noted that as per Mr. P. Chakraborty, Unit head of Clacom Cement India Limited, a subsidiary of Dalmia Cement (Bharat) Limited, located in Assam, also uses comparatively higher calorific value coal available in North Eastern India and held that the actual specific coal requirements for cement plants of Star Cement Limited is 15%. (*please see paragraph no. 2.2.30*)
- d. It further relied upon “Guidelines on Co-processing in Cement/ Power/ Steel Industry” issued by CPCB in February 2010 wherein it has been stated that specific coal consumption for the cement

industry for the country as a whole as per the said guidelines is 20%.

*(please see paragraph no.2.2.31)*

- e. Based on the above stated grounds, it held that the actual specific coal requirement of Star Cement Ltd. is higher than what is stated in it TEFR. *(please see paragraph no.2.2.32)*
- f. It further held that based on the multiple assessments listed above, the Committee is of the view that the actual specific coal consumption for cement plants of Star Cement Limited is atleast 15% of the weight of clinker produced. *(please see paragraph no. 2.2.35)*
- g. The Committee while making such as assumption has ignored a detailed audit by the CPCB wherein it relied upon literature available in published journal of repute *(ref: Mishra, H.K. and Ghosh, R. K., 1996, Geology, Petrology and Utilisation Potential of some Tertiary coals of the North-eastern Region of Inda. International Journal of Coal Geology, 30: 65-100)*. It stated that the calorific value of Eocene and Oligocene coal deposit of Meghalaya is in the range of 6500-8500 and 6255-8650 kcal/kg respectively. It further stated that based on the published literature, it could be assumed that the coal requirement in actual clinker production in these cement plants of Star Cement Limited could be even less than the percentage (12.75%) requirement coal as indicated in TEFR assuming that

calorific value of Meghalaya coal at 5800 kcal/kg. *(please see paragraph no. 2.2.18 (i) & 2.2.22 (ii))*

- h. The Committee ignored the findings of literature published in a reputed journal on science based on its own analysis and rejected them on the ground that the coal sample referred in the journal was collected on dry mineral matter free basis (i.e. for a sample of dry coal free from moisture and any other impurity). It further held that the coal actually available in the market does contain substantial quantity of moisture as well as impurities including the slate. It therefore held that the actual average calorific value of the Meghalaya coal available in the market is much lower than the calorific value reported in the journal. *(please see paragraph no. 2.2.29)*
- i. The Committee based on its own analysis and without relying upon any scientific / empirical research has discredited the findings of scientific journal which is specifically related to the coal found in Meghalaya.
- j. Further, the conclusion of the Committee in 2.2.32 and 2.2.35 in respect of Star Cement Ltd. was with respect to their claim that claim that the coal requirement for the cement plant will be in the range of 9-14% which is lower than their TEFR.

k. The Committee while holding that the coal requirement should be 15% of the clinker produced ignored multiple facts:

- I. TEFRs are prepared with a view to take a considered decision regarding technical and financial viability of undertaking a project and also is a requirement for funding by financial institutions/ banks. The TEFRs are prepared based on available data and certain assumptions. The details given in TEFRs and that actually found on ground at the time of implementation of the plant may vary widely. The energy requirement for production of clinker and power given in these reports cannot be the ground for decision on the actual energy, coal/ alternative fuel.
- II. With regard to the Answering Respondent, it is denied that the TEFR of the Answering Respondent noted the coal requirement to be 13%. Regardless of the same, the Committee has observed that the coal requirement is 13%. Further even after observing an arbitrary figure of 13%, the Committee assumed that the coal requirement shall be 15% without undertaking any assessment of the plant. The assumption of requirement of 13% and 15% without undertaking an assessment of the plant is entirely arbitrary and cannot be countenanced in law.

III. It is further pertinent to mention herein that the Committee has decided to pick and choose the coal requirement for clinker. In case of cement plants which as per their TEFR have coal consumption higher than 15%, the value of coal requirement as per the TEFR is imposed on them, while in cases such as that of the Answering Respondent, where the TEFR mentions coal requirement lower than 15%, coal requirement is assessed to be 15%. The non-uniform application of the coal requirement percentage is itself a testament to the subjectivity of the issue requiring detailed scientific/ empirical assessment which cannot be decided based on assumptions and conjectures.

61. The contents of paragraph no. 2.6.8. are denied as incorrect, misleading and devoid of any merit. It is submitted that the contents in column number 7 are not the total of the values in their adjacent rows. It is submitted that the total values of the coal required for producing the clinker should be calculated as per actuals and certainly not on the basis of an imaginary and baseless figure of 15%. Further, the use of alternate fuel such as slate should also be taken into consideration.

62. In view of the forgoing paragraphs, the analysis made by the Committee in respect of Answering Respondent is completely incorrect and without any legal or factual basis.

63. Based on the incorrect factual findings of the Committee, the assessment of royalty, MEPRF, GST/ VAT calculated in paragraph no. 3.1.4 of the report in respect of the Answering Respondent is not applicable.
64. It is pertinent to note that the Answering Respondent has not been accused of undertaking illegal mining or transportation of coal and as such has no liability under the Mines and Minerals Development and Regulation Act, 1957.
65. In view of the aforesaid submissions, and in the interest of justice, it is most respectfully prayed that the findings of the interim report dated 02.12.2019 as submitted by the Committee be rejected in so far as the present Respondent is concerned and thereafter a comprehensive study of the fuel consumption by this Respondent is conducted by an appropriate authority to consider its case on merits and arrive at a fair decision in so far as the present Respondent is concerned.

Filed by:



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DATE: 15.04.2024  
PLACE: NEW DELHI

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,  
EASTERN ZONE BENCH, KOLKATA  
ORIGINAL APPLICATION NO. 154 OF 2023 (EZ)**

Threat to life arising out of coal mining  
in South Garo Hills District

Versus

...Applicant

State of Meghalaya & Ors.

...Respondents

**AFFIDAVIT**

I, Shri Vineet Agarwal, Son of Late Shri G.N. Agarwal, aged about 45 years, resident of 2/1, A&B Burdwan Road, 9<sup>th</sup> floor Babylon Apartment, Kolkata – 700027 presently at Kolkata do solemnly affirm and state as under:-

1. That I am the Director of the Respondent No. 17, Green Valliey Industries Limited and as such I am fully conversant with the facts and circumstances of the present case and therefore, competent to swear and depose the present affidavit on behalf of Respondent No. 17.
2. That the contents of the accompanying reply are true and correct to the best of my knowledge and have been drafted by the counsel on my instructions and nothing material has been concealed therefrom.
3. That the Annexures annexed with the accompanying reply are either true copies of their original or true printouts.
4. I am advised to state that the conditions of Section 65B of the Indian Evidence Act, 1872 are complied with, in filing in the accompanying reply. I state that I have taken printout of the relevant page and information from

14 MAY 2024



the World Wide Web (Internet) as downloaded by me on my computer system and no manipulations have been done. I state that printout(s) were taken using a computer, which was operating properly and under my lawful control. I state that the said computer is being regularly used to send e-mails and electronic communications in the ordinary course of its use.

*Vineet Kumar*  
**DEPONENT**

**Verification:**

I, the above-named deponent do hereby verify that all the facts mentioned in the affidavit, are true to my knowledge and that no part thereof is false and nothing material has been concealed therefrom.

Verified at Kolkata on this 13th day of May, 2024.

*Vineet Kumar*  
**DEPONENT**

Identified by *[Signature]*  
Narayan Ch. Saha  
Advocate  
Regn. No. 305/89  
CMM's Court, Calcutta

**NOTARY**  
KOLKATA  
REKHA TEWARI  
NOTARIAL n. NOTARIAL  
10288/13  
**GOVT. OF INDIA**

SOLEMNLY AFFIRMED AND DECLARED  
BEFORE ME ON IDENTIFICATION

*[Signature]*  
**REKHA TEWARI**  
NOTARY

14 MAY 2024

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

**Original Application No. 110(T<sub>HC</sub>)/2012**

**And**

**Original Application No. 73/2014**

**(M.A. No. 655/2016, M.A. No. 963/2016, M.A. No. 1051/2016, M.A. No. 285/2017, M.A. No. 961/2017, M.A. No. 1010/2017, M.A. No. 536/2018, M.A. No. 537/2018, M.A. No. 549/2018, M.A. No. 550/2018, M.A. No. 551/2018, M.A. No. 552/2018, M.A. No. 589/2018, M.A. No. 638/2018, M.A. No. 695/2018, M.A. No. 738/2018, M.A. No. 790/2018, M.A. No. 1006/2018, M.A. No. 1007/2018, M.A. No. 1008/2018 & M.A. No. 1214/2018)**

**And**

**Original Application No. 13/2014**

**And**

**Original Application No.186/2014**

**And**

**Original Application No. 287/2017**

**IN THE MATTERS OF:**

**Threat to Life Arising Out of Coal Mining in South Garo Hills District**

**Vs.**

**State of Meghalaya &Ors.**

**And**

**All Dimasa Students Union Dima Hasao Dist. Committee**

**Vs.**

**State of Meghalaya &Ors.**

**And**

**Impulse NGO Network Vs. State of Meghalaya &Ors.**

**And**

**Thomas Nongtdu & Anr.Vs. State of Meghalaya &Ors.**

**And**

**R.K. Momin Vs. State of Meghalaya &Ors.**

**CORAM : HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE DR. JUSTICE JAWAD RAHIM, JUDICIAL MEMBER  
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

**Original Application No. 110(T<sub>HC</sub>)/2012:**

**Present: Amicus Curie: Mr. Raj Panjwani, Sr. Adv, Mr. Aagney Sail, Adv.  
Respondent No. 2: Mr. B. V. Niren and Mr. K. Mudgal, Adv.  
MoEF&CC: Mr. Rahul Pratap, Adv.  
Meghalaya State PCB: Mr. Tayenjam Momo Singh, Adv.  
State of Meghalaya: Mr. Ranjan Mukherjee, Ms. Aprajita Mukherjee  
and Mr. Daniel Stone Lyngdon, Adv.  
CGSC: Mr. Ardhendumauli Kr. Prasad, Adv. and Mr.  
Shashank Saxena, Adv.  
Respondent nos. 4 & 5 Mr. P. Yobin and Mr. Saurabh Sharma, Adv.  
Mr. Shuvodeep Roy and Mr. Vinayak Gupta,  
Adv. for State of Assam**

**Original Application No. 73/2014:**

**Present: Amicus Curie: Mr. Raj Panjwani, Sr. Adv, Mr. Aagney Sail, Adv.  
MoEF&CC: Mr. Rahul Pratap, Adv.  
Meghalaya State PCB: Mr. Tayenjam Momo Singh, Adv.  
State of Meghalaya: Mr. Ranjan Mukherjee, Ms. Aprajita Mukherjee  
and Mr. Daniel Stone Lyngdon, Adv.  
Mr. Raka Bijoy Phookan, Mr. Neha Tandon,  
Adv. in M.A. Nos. 1006/2018 to 1008/2018  
CGSC: Mr. Ardhendumauli Kr. Prasad, Adv. and Mr.  
Shashank Saxena, Adv.  
Mr. Mayank, Adv.  
Mr. H. S. Thangkhiew, Sr. Adv., Mr. Philemn  
Nongbri and Mr. A. Rohen Singh, Adv.  
Mr. Shuvodeep Roy and Mr. Vinayak Gupta,  
Adv. for State of Assam**

**Original Application No. 13/2014:**

**Present:** Amicus Curie: Mr. Raj Panjwani, Sr. Adv, Mr. Aagney Sail, Adv.  
Meghalaya State PCB: Mr. Tayenjam Momo Singh, Adv.  
State of Meghalaya: Mr. Ranjan Mukherjee, Ms. Aprajita Mukherjee  
and Mr. Daniel Stone Lyngdon, Adv.  
CGSC: Mr. Ardhendumauli Kr. Prasad, Adv. and Mr.  
Shashank Saxena, Adv.

**Original Application No.186/2014:**

**Present:** Applicant: Mr. Tayenjam Momo Singh, Adv.  
Meghalaya State PCB: Mr. Ranjan Mukherjee, Ms. Aprajita Mukherjee  
State of Meghalaya: and Mr. Daniel Stone Lyngdon, Adv.  
CGSC: Mr. Ardhendumauli Kr. Prasad, Adv. and Mr.  
Shashank Saxena, Adv.

**Original Application No. 287/2017:**

**Present:** Applicant: Mr. Yashpal Rangi, Adv. along with Mr. Hariom,  
Adv.  
MoEF&CC: Mr. Rahul Pratap, Adv.  
Meghalaya State PCB: Mr. Tayenjam Momo Singh, Adv.  
State of Meghalaya: Mr. Ranjan Mukherjee, Ms. Aprajita Mukherjee  
and Mr. Daniel Stone Lyngdon, Adv.  
CGSC: Mr. Ardhendumauli Kr. Prasad, Adv. and Mr.  
Shashank Saxena, Adv.

	Date and Remarks	Orders of the Tribunal
	<p><b>Item Nos. 06 to 10</b></p> <p><b>August 31, 2018</b></p> <p><b>R</b></p>	<p>1. The proceedings in these matters were initiated initially before the then Bench of Guwahati High Court at Shillong on the basis of news item reports to the effect that on 06.07.2012, 30 coal labourers were trapped inside a coal mine at Nongalbibra in the District of South Garo Hill and 15 of them died inside the coal mine. According to the news item, the incident happened on account of lack of safety norms. Vide order dated 10.12.2012 in <i>PIL (Suo Moto) Number (SH) 3 of 2012</i>, the matter was directed to be transferred to this Tribunal.</p> <p>2. The Tribunal issued notice to the parties on 30.01.2013 and has been, thereafter, dealing with the matter since the last five years.</p> <p>3. It will be appropriate if reference is made to some of the orders passed.</p> <p>4. On 17.04.2014, the Tribunal looked into the validity of the rat-hole mining operation in the light of the scientific studies and by way of interim direction, directed as follows:</p>

	<p><b>Item Nos. 06 to 10</b></p> <p><b>August 31, 2018</b></p> <p><b>R</b></p>	<p><i>“Accordingly, while admitting the application, we direct the Chief Secretary, Government of Meghalaya and the Director General of Police, State of Meghalaya to ensure that rat-hole mining/illegal mining is stopped forthwith throughout the state of Meghalaya and any illegal transport of coal shall not take place until further orders passed by this Tribunal. The Director General of Police, State of Meghalaya is also directed to report to this Tribunal about the compliance of the order by the next date of hearing.”</i></p> <p>5. After the above order was passed, the question was as to what should happen to the already extracted material. The Tribunal, vide order dated 09.06.2014, permitted transportation of already extracted material lying in open near the sites, subject to the supervision and directions of the Committee comprising of Director of Mines, Meghalaya and other officers as per the said order. The Committee was required to quantify the extracted coal and its location and also to assess its value. The Committee was also to prescribe the mode of transportation. The Committee was to fix two checkpoints <i>en route</i> transportation of the extracted coal from the point of loading to the point of destination. The issue of restoration of damage to the area affected by illegal mining was taken up for consideration on 01.08.2014 and the earlier constituted Committee was substituted to ascertain quantum of extracted coal and to carry out other functions.</p> <p>6. On 07.10.2014, the Tribunal considered the reports of the Committee and directed that check-posts be established apart from setting up of royalty collection counters. It was noted that 6.3 million tonnes of coal of the value of Rs. 3078 crores was lying in the State and the royalty assessed was Rs. 400 crores. The Tribunal</p>
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	<p><b>Item Nos. 06 to 10</b></p> <p><b>August 31, 2018</b></p> <p><b>R</b></p>	<p>also directed making of a mining plan for scientific mining. Direction was also issued on 26.11.2014 to videograph the operations of the weigh bridges. Since there were disputes about the quantum of coal which could be permitted to be transported, the said issue was directed to be gone into with the assistance of the Committee on several occasions.</p> <p>7. On 25.03.2015, it was noted that the State has failed to check illegal mining and the violations. There were no proper guidelines to check such illegal mining. Joint reports of the inspection supported the factum of illegal mining. It was also noted that as per Report of Comptroller and Auditor General of India for the period ending 31<sup>st</sup> March, 2013 under 07.5.18 of Chapter 7, the invoice value of the coal was taken at Rs. 4850/- per metric tonne. 'Meghalaya Environment Protection and Restoration Fund' (MEPRF) was directed to be constituted to credit an amount of royalty in excess of Rs. 1260 per metric tonne to which the amount of penalty recovered from illegal miner at three time the current royalty rate that is @ Rs. 2025/- was to be credited. This was applicable to 308 cases, registered by the State Government. We are informed that a sum of about Rs. 410 crores up to 31.05.2018 has been credited to this account and deposited in a separate account. There was also a direction on 30.03.2015 that the State Government will collect 10% of the market value of coal per metric tonne in addition to the royalty and the said amount was also be credited to the Meghalaya Environment Protection and Restoration Fund.</p>
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	<p><b>Item Nos. 6to 10</b></p> <p><b>August 31, 2018</b></p> <p><b>R</b></p>	<p>8. On 31.03.2016, the Tribunal directed that except for the coal already transported prior to 2016, the remaining coal shall vest in the State and disposed of in accordance with law and consistent with the norms of environment. The State was to place a plan as to how the coal vested in the State will be dealt with (Order dated 10.05.2016). On 02.01.2018, Restoration Plan filed before this Tribunal on 03.10.2017 by the Ministry of Environment, Forest and Climate Change was noted for consideration.</p> <p>9. On 18.01.2018, there was again issue on un-assessed coal lying at some places.</p> <p>10. At this stage, we may note that following issues are pending before the Hon'ble Supreme Court arising out of orders passed by this Tribunal:</p> <p>i) <i>Civil Appeal No(s). 5272/2016</i> titled as <i>Ka Hima Nongstoin Land Owners, Coal Traders and Producers Association Vs. All Dimasa Students Union, Dima Hasao District Committee and Ors.</i> wherein following order was passed on 21.09.2016:</p> <p><i>“Having heard counsel for the parties, it is directed that the petitioners, as well as the respondents, who have mined the coal, are permitted to transport the coal on payment of royalty and other fees as fixed by the National Green Tribunal (for short, ‘the Tribunal’) and other relevant status. The extracted coal can be transported from 1<sup>st</sup> October, 2016 till 31<sup>st</sup> May, 2017. It is further directed that no other extraction shall take place in the meantime.</i></p> <p><i>The finding of the Tribunal that the coal is vested in the State on the ground that it is illegally extracted coal, shall be adverted to at the time of final hearing. The miners shall keep the accounts and if, ultimately, it is held that the coal belongs to the State, they will refund the amount with interest. The quantum of interest shall be determined at the time of final hearing. Needless to say, these observations have been made</i></p>
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	<p><b>Item Nos. 06 to 10</b></p> <p><b>August 31, 2018</b></p> <p><b>R</b></p>	<p><i>without prejudice to the contentions to be raised by the learned counsel for the parties. The tribunal can proceed with regard to the other aspects which are pending before it.”</i></p> <p>The above order shows that question whether coal is vested in the State is to be gone into before the Hon’ble Supreme Court.</p> <p>Thereafter, on 28.03.2018, by the said order, time for transporting already extracted coal was extended up to 31.05.2018 but it was clear that no further extraction shall be allowed.</p> <p>ii) <i>Civil Appeal Diary No. 3067/2018</i> titled as <i>Lber Laloo Vs. All Dimasa Students Union, Dima Hasao District Committee and Ors.</i>, raising the question whether ban on mining can be continued. We are informed that in the said matter, the issue of mining plan has also been raised.</p> <p>11. We have heard learned counsels for the parties present before this Tribunal today.</p> <p>12. Mr. Raj Panjwani, Senior Advocate, appearing as Amicus Curiae has suggested that in view of the orders already passed from time to time, the issue of banning rat-hole mining can be taken as final as far as this Tribunal is concerned, subject to any orders which may be passed in pending proceedings before the Hon’ble Supreme Court. The issue of rehabilitation of the affected victims and the affected areas can be finalized by issuing an appropriate direction. Irrespective of ownership of the already mined coal, a direction can be issued for appointment of a receiver/custodian as no further transportation is permissible after 31.05.2018 in view of</p>
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	<p><b>Item Nos. 06 to 10</b></p> <p><b>August 31, 2018</b></p> <p><b>R</b></p>	<p>orders of the Hon'ble Supreme Court. This can be subjected to further orders of the Hon'ble Supreme Court. We do not find any reason why this suggestion be not accepted.</p> <p>13. Accordingly, we direct that orders of ban of rat-hole mining will continue, subject to further orders of the Hon'ble Supreme Court. Ban of transportation of the already mined material will also continue subject to further orders of the Hon'ble Supreme Court. The State of Meghalaya will be the receiver/custodian of the available extracted coal as on date, subject to further orders of the Hon'ble Supreme Court. If any further coal not so far recorded in the inventory is available, a separate inventory may be made and if it is found that the extraction was illegal, royalty in terms of orders already passed may also be collected. This may be determined by the Secretary of Mining of the State of Meghalaya. While one view is that there is extracted coal and not accounted for, the other view put forward that it is result of illegal mining. This aspect may be gone into by the Secretary of Mining, State of Meghalaya in the first instance. The same be cross-checked by a joint team of representatives of Central Pollution Control Board and Indian School of Mines, Dhanbad.</p> <p>14. Only last question which remains is of restoration of the environment and rehabilitation of the victims for which funds are available. We are of the view that for this task, it will appropriate that we constitute an independent Committee. This Committee will be headed by Justice B.P. Katoki, Former Judge of the Guwahati</p>
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	<p><b>Item Nos. 06 to 10</b></p> <p><b>August 31, 2018</b></p> <p><b>R</b></p>	<p>High Court with representatives from Central Pollution Control Board and Indian School of Mines, Dhanbad.</p> <p>15. The Committee will take the following steps:</p> <ul style="list-style-type: none"> <li>• Take stock of all actions taken so far in this regard.</li> <li>• Prepare time bound action plan to deal with the issue and ensure its implementation.</li> </ul> <p>16. The Committee may requisition services of such technical experts as may be necessary and may also carry out visits to sites whenever necessary. They will be entitled to all logistic support for performing these functions which shall be provided under the directions of the Chief Secretary, Meghalaya.</p> <p>17. The Committee may also set up website for receiving and giving information on subject.</p> <p>18. The Committee may also involve educational institutions for awareness and feedback about results.</p> <p>19. All authorities concerned in the State of Meghalaya shall cooperate and coordinate with the Committee. The Committee can seek such technical assistance as may be required from any relevant authority.</p> <p>20. The Chief Secretary, Meghalaya to provide all facilities to said Committee to perform its functions. The Committee may send its periodical reports to the Tribunal by e-mail at <a href="mailto:filing.ngt@gmail.com">filing.ngt@gmail.com</a>.</p> <p>21. The Committee may assume its charge within two weeks from today. The Committee may prepare Action Plan which shall have targets of ensuring compliance. It may meet at such intervals as considered appropriate but twice in every month and fix targets for compliance.</p> <p>22. The Committee will be free to take up all incidental</p>
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	<p><b>Item Nos. 06 to 10</b></p> <p><b>August 31, 2018</b></p> <p><b>R</b></p>	<p>issues. The Committee will be free to seek any further directions from this Tribunal by e-mail.</p> <p>23. The Chief Secretary of State of Meghalaya may determine remuneration of the Chairman in consultation with him and the Chief Secretary of the State of Meghalaya will also provide all logistic support including security if needed for their proper functioning.</p> <p>25. The Committee will be entitled to take the help of the technical experts in execution of this order. The Committee may frame its action plan for implementation within one month from today and implementation may be completed within six months as far as possible. The timelines may be laid down. A copy of the action plan may be sent to this Tribunal by e-mail at <a href="mailto:filing.ngt@gmail.com">filing.ngt@gmail.com</a>. Thereafter, reports may be sent at least once in two months. The Committee may also assess the damage to the environment as well as to the individuals as already suggested in the Report.</p> <p>27. The State of Meghalaya will make available all the relevant records to the Committee for the purpose. The State will also determine the remuneration to be paid to the Chairman of the Committee in consultation with him within one month from today.</p> <p>28. The Committee will be at liberty to take technical assistance from any quarter which may be facilitated by the State of Meghalaya. The Committee may also supervise any issue arising out of receivership/custodianship of the already extracted coal, including any environmental issues which any arise out of storage of the extracted material and the steps required</p>
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	<p><b>Item Nos. 06 to 10</b></p> <p><b>August 31, 2018</b></p> <p><b>R</b></p>	<p>to be taken for the purpose.</p> <p>The Report of the Committee may be furnished to this Tribunal by e-mail at <a href="mailto:filing.ngt@gmail.com">filing.ngt@gmail.com</a>.</p> <p>A copy of this order may be sent to all the concerned authorities by e-mail for compliance.</p> <p>All pending matters will stand disposed of in above terms.</p> <p>List for consideration of the Report on 06<sup>th</sup> March, 2019.</p> <p>.....,CP (Adarsh Kumar Goel)</p> <p>.....,JM (Dr.Jawad Rahim)</p> <p>.....,JM (S.P. Wangdi)</p> <p>.....,EM (Dr.Nagin Nanda)</p> <p style="text-align: right;">31.08.2018</p>
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**S/d**  
**True Copy**

## Annexure R17/2

Item Nos. 03 to 08

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

Original Application No.110(THC)/2012

WITH

Original Application No. 73/2014

WITH

Original Application No. 13/2014

WITH

Original Application No. 186/2014

WITH

Original Application No. 287/2017

WITH

Original Application No. 1054/2018

Threat to life arising out of coal mining in south Garo Hills district

Applicant(s)

Versus

State of Meghalaya&amp; Ors.

Respondent(s)

WITH

All Dimasa Students Union Dima Hasao Dist. Committee

Applicant(s)

Versus

State of Meghalaya&amp; Ors.

Respondent(s)

WITH

Impulse NGO Network

Applicant(s)

Versus

State of Meghalaya&amp; Ors.

Respondent(s)

WITH

Thomas Nongtdu &amp; Anr.

Applicant(s)

Versus

State of Meghalaya&amp; Ors.

Respondent(s)

WITH

R.K. Momin

Applicant(s)

Versus

State of Meghalaya&amp; Ors.

Respondent(s)

WITH

News item published in "Hindustan Times" dated 17.12.2018  
"13 believed dead in Meghalaya illegal mine accident" by David  
Laitphlang and Utpal Parashar, etc."

Date of hearing: 11.04.2019

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

For Applicant(s): Mr. Aagney Sail, Advocate for Amicus Curiae

For Respondent (s): Mr. Ranjan Mukherjee, Ms. Aprajita Mukherjee, Mr. Upendra Mishra, Ms. Sneha Kalifa and Ms. Rekha Bavshi, Advocates for State of Meghalaya  
Mr. Shuvodeep Roy and Mr. Vinayak Gupta, Advocates for State of Assam  
Mr. Tatenjam Momo Singh, Advocates for Meghalaya State Pollution Control Board  
Mr. Saurabh Sharma, Advocate for State C. Committee  
Mr. Shashank Saxena and Mr. Amritesh Raj, Advocates for MOC

### ORDER

1. The matter has been put up in pursuance of order of this Tribunal dated 04.01.2019, to consider the report submitted by the Committee in pursuance of the said order.
2. The proceedings were initiated in this matter to take remedial action against unscientific 'Rat Hole' Mining of coal in the State of Meghalaya. The Tribunal directed stopping of such illegal mining and transportation of illegally mined material by an earlier order. However, the same continued. This led to further direction, including creation of 'Meghalaya Environment Protection and Restoration Fund' (MEPR Fund) to be recovered from law violators for restoration of environment. A sum of Rs. 410 Crores has been credited to the said fund. On the subject of restoration of the damage to the environment and rehabilitation of victims, the Tribunal directed constitution of a Committee headed by a former Judge of Gauhati High Court vide order dated 31.08.2018.

3. The Committee gave its report on 02.01.2019 which was considered on 04.01.2019. The report was furnished after undertaking spot inspections, reviewing and analyzing the ground situation and preparing an action plan. The report of the Committee noted that the problem was continuing since 1991 but no steps were taken to remedy the quality of water in the affected areas or to impound the vehicles and equipment used for illegal mining. Mining was being done with the help of cranes and other equipment. More than 2712 trucks were seized for illegal transportation. Illegal mining was continuing without adopting safety measures. A tragic incident dated 13.12.2018 was widely published wherein 15 workers were trapped and are reported to have died. The power plants and cement plants were encouraging coal mining activities. There was huge damage to the environment as a result of illegal activities. The Committee recommended various steps to prevent and remedy the situation.
4. The Tribunal accepted the report and directed that action be taken for illegal mining on “Polluter Pays” principle, apart from prosecution or other actions. The Tribunal also directed the State of Meghalaya to deposit a sum of Rs. 100 Crores as an interim measure for restoration of the environment, which could be recovered from the violators of law, including the colluding officers of the Government. The Tribunal also suggested for consideration of the Committee measures to deal with the vehicles involved in illegal activities, to identify victims and to take mitigation measures.
5. Further report dated 31.03.2019 received vide e-mail dated 06.04.2019 has been put up for consideration today. The report has chapters on introduction, ‘gist of deliberations of proceedings’ held by

the Committee, 'extent of implementation of action plan' and finally 'request for releasing of a sum of Rs. 96.59 Lakh from the MEPR Fund' for purchase of six vehicles, mounted with water tanks.

6. We approve the proposal of the Committee. The said amount may be released for the purpose mentioned by the Committee.
7. We have noted from the report that four persons died on 11.03.2019 in East Jaintia Hills District and the State was directed to take remedial action. The Committee also noted as follows:

*"From the aforesaid admitted position, it is, therefore, evident that despite the order passed by the Hon'ble Supreme Court prohibiting transportation of coal, such transportation is going on which has not been stopped by the authorities for the reasons best known to them. As reported in various newspapers, illegal coal mining activities are also going on despite the ban by the Hon'ble NGT."*

8. It was also noted that no digital display boards have been installed in the Sub-Divisional, District and State headquarters/capital, displaying the quality of water in the respective areas for information of the general public.
9. We direct Chief Secretary of the State to forthwith take remedial measures in the matter. Learned Counsel for the State submits that the above issues will be duly dealt with and a compliance report filed before the Committee within two weeks which may be considered by the Committee on the next date which we are informed is 25.04.2019. The Committee may consider the matter and pass further orders/recommendations.
10. The Committee may consider requiring a foolproof mechanism to be adopted for effective action against transportation of illegally mined

coal such as electronic manifest system for regulating movement of vehicles and issuance of challans. The Committee may also consider requiring audit of the sources of coal acquired by the power generation and cement plants in the State of Meghalaya.

11. The report dated 31.03.2019 is disposed of.

Put up for further consideration as and when necessary or in August, 2019.

Adarsh Kumar Goel, CP

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

April 11, 2019  
Original Application No.110(THC)/2012  
And other connected matters  
DV

**S/d**  
**True Copy**

DUPLICATE

Meghalaya Schedule III (Sec. I) Form No. 65  
[Revised 1939]

DMR Chalan No.

Treasury/Sub-Treasury MEGHALAYA

Chalan of cash paid into the State Bank of India at U.B.I. Jowai

01/07/19



To be filled in by the remitter			To be filled in by the Departmental Officer for the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order to the Bank
			Rs.	P.		
GREEN VALLEY INDUSTRIES LTD. Nongning Elaka Sutnga, P.O. Chichruphi Khtiehriat, East Jaintia Hills-793200 : Meghalaya.		Payment of Royalty on State on 12333.77 MT  FY-2016-17  Total	RS.	5,55,020/-	0853-Non-Ferrous Mining and Metallurgical Industries 00 - Null 800 - Other Receipts (04) - Royalties / Dead Rent on Minor Minerals	Date Correct, Receive and grant receipt (Signature) Full designation of the Officer ordering the money to be paid)

\*(In words) Rupees **Five Lakh Fifty Five thousand twenty only** To be used only in the case of remittances to Bank through an officer of the Government

Signature: [Signature]

Date: 28-06-2019

Received Payment Date: 01 JUL 2019

Treasurer: Senior Manager United Bank of India Jowai Branch

Accountant: [Signature]

Signature of Departmental Officer: [Signature]  
Divisional Mining Officer  
Secretary of Mineral Resources  
Meghalava Jowai

Treasury Officer: [Signature]  
Asstt

# DUPLICATE

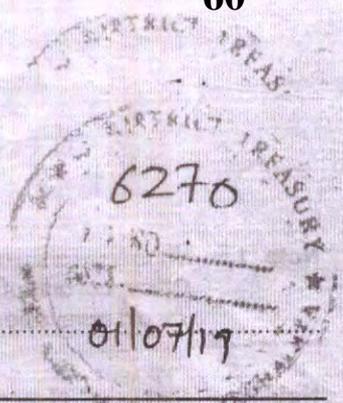
Form No. 65

[Revised 1939]

DMR Chalan No.

MEGHALAYA

Chalan of cash paid into the State Bank of India at UBI, Jowai



To be filled in by the remitter			To be filled in by the Departmental Officer		
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Order to the Bank
			Rs.	P.	
GREEN VALLEY INDUSTRIES LTD. Nongning Elaka Sutnga, P.O. Chichruphi Khliehriat, East Jaintia Hills-793200, Meghalaya.		Payment of Royalty on State on 26141.27 MT FY 2015-16  Total	Rs. 11,76,357/-		0853-Non-Ferrous Mining and Metallurgical Industries 00 - Null 800 - Other Receipts (04) - Royalties / Dead Rent on Minerals  Date Correct, Receive and grant receipt  (Signature) Full designation of the Officer ordering the money to be paid)

(In words) Rupees *Eleven lakh Seventy Six thousand Three hundred fifty Seven only.*

To be used only in the case of remittances to Bank through an officer of the Government

Signature

Date *28-06-2019*

PAY CASH / TRANSFER

01 JUL 2019

Signature of Departmental Officer  
Office of Minerals Resource  
Meghalaya

Received Payment

Date

*28 JUN 2019*

Senior Manager  
United Bank of India  
Jowai Branch

Treasurer.

Accountant

Senior Manager  
United Bank of India  
Jowai Branch

Treasury Officer  
Jaintia Assm District  
Jowai

sd/  
TRUE COPY

**DUPLICATE**



Form Schedule III (Sec. I) Form No. 65  
[Revised 1939]

DMR Chalan No.

Treasury/Sub-Treasury MEGHALAYA

Chalan of cash paid into the \_\_\_\_\_ at Jowai  
State Bank of India

To be filled in by the remitter			To be filled in by the Departmental Officer for the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order to the Bank
			Rs.	P.		
GREEN VALL INDUSTRIES LTD. Nongsning Elaka Sutnga, P.O. Chichruphi Khliehriat, East Jaintia Hills-793200 - Meghalaya.		Payment of Royalty on Slate On 28818.3 MT  FY2014-15 Total	Rs. 12,96,824/-		0853-Non-Ferrous Mining and Metallurgical Receipts 00 - Null 800 - Other Receipts (04) - Royalties / Dead Rent on Minor Minerals	Date _____ Correct, Receive and grant receipt (Signature) Full designation of the Officer ordering the money to be paid)

\*(In words) Rupees Twelve lakh ninety six thousand Eight hundred twenty four only.

To be used only the case of remittances to Bank through an officer of the Government

Signature

*[Signature]*  
PAY CASH / TRANSFER

Date 28-06-2019

Signature of Departmental Officer  
Secretary of Mineral Resources  
Office  
Meghalaya Jowai

Received Payment

Date 9 JUN 2019

Treasurer

*[Signature]*  
Senior Manager  
United Bank of India  
Jowai Branch  
Accountant

*[Signature]*  
Treasurer  
Asstt.  
Jaintia Hills District  
Jowai

# DUPLICATE

**Meghalaya Schedule III (Sec. I) Form No. 65**  
[Revised 1939]

DMR  
MEGHALAYA

**Chalan No.**

6781

Chalan of cash paid into the Treasury/Sub-Treasury  
State Bank of India

at UBI, Jowai

05/07/19

To be filled in by the remitter			To be filled in by the Departmental Officer of the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order to the Bank
			Rs.	P.		
<p style="font-size: 0.8em; margin: 0;">Name <b>GREEN VALLEY INDUSTRIES LTD.</b> Nongsning Elaka Sutnga, P.O. Chichruphi Khliehria, East Jaintia Hills-793200 : Meghalaya.</p>		<p style="font-size: 0.8em; margin: 0;">Payment of Royalty on State on 39833.15 MT  FY 2017-18</p> <p style="text-align: center; font-weight: bold;">Total</p>	<p style="font-size: 1.5em; font-weight: bold;">RS. 17,92,492/-</p>		<p style="font-size: 0.8em; margin: 0;">0853-Non-Ferrous Mining and Metallurgical Industries 00 - Null 800 - Other Receipts (04) - Royalties / Dead Rent on Mineral Rights</p>	<p style="font-size: 0.8em; margin: 0;">Date _____ Correct, Receive and grant receipt  (Signature) Full designation of the Officer ordering the money to be paid)</p>

\*(In words) Rupees Seventeen lakh ninety two thousand four hundred ninety two only.

To be used only the case of remittances to Bank through an officer of the Government

Signature

PAY CASH / TRANSFER

Signature of Departmental Officer  
**Secretary of Mineral Resources**  
Office  
Jowai, Meghalaya

Date 28.06.2019

Received Payment

Date 01.07.2019

Treasurer

Senior Manager  
United Bank of India  
Jowai Branch

Accountant

Treasury Officer

Asstt

Jaintia Hills District  
Jowai

DUPLICATE

Form No. 65  
[Revised 1939]

DMR  
MEGHALAYA Chalan No. 6782

Treasury/Sub-Treasury at Jowai, Jowai  
State Bank of India 05/07/19

To be filled in by the remitter			To be filled in by the Departmental Officer for the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order to the Bank
			Rs.	P.		
GREEN VALLEY INDUSTRIES LTD Nongming Elaka Sutnga, P.O. Chichruphi Khiehrhat, East Jaintia Hills-793200 : Meghalaya.		Payment of Royalty on State on 44780.29 MT FY-2018-19 from - 01-04-2018 to 23-01-2019  Total	Rs. 20,15,113/-		0853-Non-Ferrous Mining and Metallurgical Industries 00 - Null 800 - Other Receipts (04) - Royalties / Dead Rent on Minerals	Date Correct, Receive and grant receipt (Signature) Full designation of the Officer ordering the money to be paid)

(In words) Rupees Twenty lakh fifteen thousand one hundred thirteen only.

Signature

Signature of Departmental Officer  
Divisional Mining Officer  
Geological of Mineral Resources  
Meghalaya, India

Date 28-06-2019

Received Payment Date

PAY CASH TRANSFER  
05 JUL 2019  
Senior Manager  
United Bank of India  
Jowai Branch

Treasurer

Accountant

Treasury Officer  
Asstt.  
Jaintia Hills District  
Jowai

DUPLICATE

6783

Form No. 65  
[Revised 1939]

Chalan No.

DMR

Treasury/Sub-Treasury MEGHALAYA

Chalan of cash paid into the at Jowai

05/07/19

State Bank of India

To be filled in by the remitter			To be filled in by the Departmental Officer of the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order to the Bank
			Rs.	P.		
GREEN VALLEY INDUSTRIES LTD. Nongning Elaka Sutnga, P.O. Chichruphi Khliehriat, East Jaintia Hills-793200 - Meghalaya.		Payment of Royalty on State on 10445.43 MT  FY 2018-19 from 24.01.2019 to 31.03.2019  Total	RS. 10,44,543/-		053-Non-Ferrous Mining and Metallurgical Industries 00 - Null 800 - Other Receipts (04) - Royalties / Dead Rent on Mineral	Date Correct, Receive and grant receipt (Signature) Full designation of the Officer ordering the money to be paid)

\*(In words) Rupees Ten Lakh Fourty Four thousand Five hundred Fourty three only.

To be used only the case of remittances to Bank through an officer of the Government

Signature  
Date 25.06.2019  
Received Payment 5 Date 2019  
Senior Manager  
United Bank of India  
Jowai Branch

Accountant

Signature of Departmental Officer  
Office  
Meghalaya, Jowai

Treasury Officer  
Jaintia Asslt. District  
Jowai

sd/  
TRUE COPY



# Annexure 6165 RF 7/4 (Colly)

GOVERNMENT OF MEGHALAYA  
DEPARTMENT OF FORESTS AND ENVIRONMENT

65

OFFICE OF  
**THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS : MEGHALAYA  
& HEAD OF FOREST FORCE**

No. MFG.39/87/NGT (C)/ Vol.-VIII/ 10,297-347

Dated Shillong, the 2<sup>nd</sup> August, 2019

**From: Shri H. C. Chaudhary, IFS**

Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters), Government of Meghalaya, Shillong

**To: 1. Prof. Ashok K. Singh**

Indian School of Mines, IIT -ISM, Dhanbad

**2. Dr. Shantanu Kumar Dutta**

Addl. Director, Central Pollution Control, Regional Directorate Shillong  
Nongthymmai, Shillong Meghalaya 793014

**3. The Commissioner and Secretary to the Government of Meghalaya**

Mining and Geology Department, Shillong

**4. The Chairman**

Meghalaya State Pollution Control Board  
Arden, Lumpyngad, Shillong Meghalaya 793014

**5. The Addl. Director General of Forests (Central)**

North Eastern Regional Office  
Ministry of Environment, Forest and Climate Change, Government of India  
Law-U-Sib, Lumbatngen, Near M.T.C. Workshop, Shillong 793021

**6. The Regional Director**

Central Pollution Control, Regional Directorate Shillong  
Nongthymmai, Shillong, Meghalaya 793014

**7. Mr. Manjunatha C, IFS**

Secretary to the Government of Meghalaya,  
Mining & Geology Department, Shillong

**8. Smti P. L. Lawai, MCS**

Joint Secretary to the Government of Meghalaya,  
Mining & Geology Department

**9. Shri. N. Bhattacharjee,**

Chairman  
State level Expert Appraisal Committee (SEAC), Meghalaya

**10. The Director**

Directorate of Mineral Resources, Government of Meghalaya  
Risa Colony, Malki, Shillong, Meghalaya 793014

**11. Mr. J.H. Nengnong**

Member Secretary  
Meghalaya State Pollution Control Board, Shillong

12. **Shri P.Ch. Marak,**  
Mining Engineer,  
Directorate of Mineral Resources,  
Government of Meghalaya, Shillong
13. **Dr. H. Tynsong, Scientist D**  
North Eastern Regional Office  
Ministry of Environment, Forest and Climate Change, Government of India  
Law-U-Sib, Lumbatngem, Near M.T.C. Workshop, Shillong 793021
14. **Mr. G. S. Sah,**  
Assistant General Manager  
Meghalaya Mineral Development Corporation Ltd, Shillong
15. **The Managing Director**  
Adhunik Cements Limited  
Thangskai, East Jaintia Hills District, Meghalaya  
(Email: Pradhan.Bhabagrahi@dalmiabharat.com)
16. **The Managing Director**  
Amrit Cements Limited  
Umlaoer Village, Elaka Rymbai, East Jaintia Hills District, Meghalaya  
(Email: sriagarwal@yahoo.co.in)
17. **The Managing Director**  
Cosmos Cement Limited  
Village Salang, Elaka Rymbai, East Jaintia Hills District, Meghalaya
18. **The Managing Director**  
Goldstone Cements Limited  
Village Musiang Lamare (Old) East Jaintia Hills District, Meghalaya
19. **The Managing Director**  
Green Valley Industries Limited  
Village- Nongsning, P.O. Chiehruphi  
East Jaintia Hills District, Meghalaya
20. **The Managing Director**  
Hills Cement Company Limited  
Village Mynkree, East Jaintia Hills District, Meghalaya
21. **The Managing Director**  
Jaintia Cements Limited  
Manbha Passah Building, Jowai, West Jaintia Hills District, Meghalaya  
(Email: aproc@rediffmail.com)



22. **The Managing Director**  
JUD Cements Limited  
Wahiajer (Narpuh), East Jaintia Hills District, Meghalaya
23. **The Managing Director**  
Mawmluh Cherra Cements Limited  
Taxation Building, Near Raj Bhawan,  
Shillong - 793001, Meghalaya
24. **The Managing Director**  
Meghalaya Cements Limited  
Lumshnong, Shillong - Agartala - Sabrum Road, Thangskai,  
East Jaintia Hills District, Meghalaya
25. **The Managing Director**  
RNB Cements (P) Limited  
Umiam, Ri-Bhoi District, Meghalaya
26. **The Managing Director**  
Star Cement Limited  
Lumshnong, East Jaintia Hills District, Meghalaya  
(Email: lumshnong@starcement.co.in)
27. **The Managing Director**  
Star Cement Meghalaya Limited  
Lumshnong, East Jaintia Hills District, Meghalaya  
(Email: lumshnong@starcement.co.in)
28. **The Managing Director**  
Virgo Cements Limited  
Damas, East Garo Hills District, Meghalaya
29. **The Managing Director**  
CMJ Breweries Limited  
Ferndale Complex, CMJ House, Block III,  
Keating Road, Shillong, Meghalaya 793001,
30. **The Managing Director**  
Maithan Alloys Limited  
Export Promotion Industrial Park (EPIP), Byrnihat,  
Ri-Bhoi District, Meghalaya 783 101
31. **The Managing Director**  
Sree Sakambari Ferro Alloys Pvt. Ltd.  
Village Riwiang, Branch Post Office Sienduli  
West Khasi Hills District, Meghalaya 793 119



32. **The Managing Director**  
Shyam Century Ferrous Limited  
Export Promotion Industrial Park (EPIP), Raj Bagan, Byrnihat,  
Ri-Bhoi District, Meghalaya 793 101
33. **The Managing Director**  
Meghalaya Power Limited  
Lumshnong, East Jaintia Hills District, Meghalaya
34. **Mr. R. K. Pareek**  
President  
Meghalaya Cements Ltd  
Email id: rkpareek@topcem.in
35. **Mr. P. Purohit**  
Vice President  
Star Cement Ltd  
Email id: pradeep@starcement.co.in
36. **Mr. W. Hynniewta**  
COSMOS Cements Ltd  
Email id: wanaibor@gmail.com
37. **Mr. I. Reza**  
Mawmluh Cherra Cement Ltd., Cherrapunjee  
Email id: rezaisrafil@gmail.com
38. **Mr. S. A. Langstang**  
Mawmluh Cherra Cement Ltd., Cherrapunjee  
Email id: langstang.arbor@gmail.com
39. **Mr. P. Dohling**  
Mawmluh Cherra Cement Ltd, Cherrapunjee  
Email id: dohlingpransingh@gmail.com
40. **Ms. P. Bora,**  
Legal Head  
Dalmia Bharat Cement Ltd  
Email id: bora.purbali@dalmiacement.com
41. **Mr. M. P. Sharma**  
Manager Commercial & Liaison  
Amrit Cement Ltd  
Email id: mpsharma@amrit.co.in
42. **Mr. R. C. Tripathi**  
Amrit Cement Ltd  
Email id: rctripathi@amritcement.in
43. **Mr. J. Pde,**  
Jaintia Cements Ltd  
Email id: jaintiacements@gmail.com



44. **Mr. S. Gopal Bhattacharjee**  
Chief Financial Officer  
JUD Cements Ltd  
Email id: sundar@bestcement.co.in
45. **Mr. Y Sharma,**  
JUD Cements Ltd  
Email id: yubaraj.sharma1971@gmail.com,  
yubaraj@bestcement.co.in
46. **Mr. Y Sharma,**  
JUD Cements Ltd  
Email id: yubaraj.sharma1971@gmail.com,  
yubaraj@bestcement.co.in
47. **Mr. A. K. Verma**  
Authorized Sp. Person  
M/s Shree Shakambari Ferro Alloys Pvt Ltd  
Email id: montexferro@gmail.com
48. **Mr. S. Choudhury**  
Maithan Alloys Ltd  
Email id: santu\_5c@yahoo.com
49. **Mr. P. Dhand**  
Maithan Alloys Ltd  
Email id: dhand@maithanalloys.com
50. **Mr. V. Agarwal**  
Sr. Manager (Accounts)  
Maithan Alloys Ltd  
Email id: vinod.agarwal@maithanalloys.com

**Sub.:** Record of Minutes of Proceedings of the Second Day of Sixteenth Sitting of the Committee constituted by the Hon'ble National Green Tribunal (NGT) under Chairmanship of Hon'ble Mr. Justice B.P. Katakey, Former Judge, Guwahati High Court held at Shillong on 23<sup>rd</sup> July, 2019.

Sir/Madam,

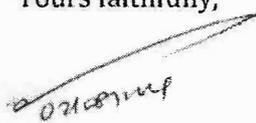
With reference to above-mentioned subject it is stated that a copy of the record of minutes of proceedings of the Second Day of Sixteenth Sitting of the Committee constituted by the Hon'ble National Green Tribunal (NGT) under Chairmanship of Hon'ble Mr. Justice B.P. Katakey, Former Judge, Guwahati High Court held on 23<sup>rd</sup> July, 2019 at 09.00 AM onward in Conference Hall at office of the Principal Chief Conservator of Forests & Head of Forest Force, Sylvan House, Lower Lachumiere, Shillong is enclosed herewith for your information and necessary actions as indicated therein.



This is for favour of your kind information and necessary action.

Yours faithfully,

**Encl.:** As stated above.

  
**(H C Chaudhary, IFS)**

Addl. Principal Chief Conservator of Forests (Planning,  
Development and Legal Matters)  
(e-mail id- harishcc@yahoo.com)

Memo No. MFG.39/87/NGT (C)/ Vol.-VIII/

Dated Shillong, the August, 2019

**Copy to:**

1. The Principal Secretary to the Government of Meghalaya, Forests and Environment Department, Shillong along with a copy of the said minutes of proceeding for favour of his information.

  
**Addl. Principal Chief Conservator of Forests**  
(Planning, Development and Legal Matters)



QUORUM

HON'BLE MR. JUSTICE BROJENDRA PRASAD KATAKEY,  
FORMER JUDGE, GAUHATI HIGH COURT, GUWAHATI

PROF. ASHOK K. SINGH, MEMBER  
REPRESENTATIVE FROM INDIAN SCHOOL OF MINES, DHANBAD  
IIT (ISM), DHANBAD (826004)  
(Email id: singhashok0707@gmail.com)

DR. SHANTANU KUMAR DUTTA, ADDITIONAL DIRECTOR  
REPRESENTATIVE OF CENTRAL POLLUTION CONTROL BOARD  
(Email id: shantanucpcb@gmail.com)

IN THE MATTER OF

Threat to Life Arising Out of Coal Mining in South Garo Hills District

-Vs-

The State of Meghalaya & Ors.  
And other connected matters

PRESENT

- : Mr. C. P. Marak, IFS,  
Principal Secretary, Government of Meghalaya,  
Forest & Environment Department;  
Principal Chief Conservator of Forests & HoFF &  
Chairman, Meghalaya State Pollution Control Board  
Government of Meghalaya  
Email id: cpmarak@gmail.com, pccfmegh@gmail.com,  
megspcb@rediffmail.com
- : Mr. S. K. Agarwal, IFS,  
Addl. Director General of Forests (Central)  
Ministry of Environment, Forests & Climate Change,  
North Eastern Regional Office, Shillong  
Email id: ro.nez.shil@gmail.com
- : Mr. H.C. Chaudhary, IFS,  
Additional Principal Chief Conservator of Forests,  
(Planning, Development and Legal Matters), Government  
of Meghalaya.  
Email id: harishcc@yahoo.com
- : Mr. Manjunatha C, IFS  
Secretary to the Government of Meghalaya, Mining &  
Geology Department  
Email id: manju2020@gmail.com

- : **Shri. N. Bhattacharjee**,  
Chairman  
State level Expert Appraisal Committee, Meghalaya  
Email id: naavstar@gmail.com
- : **Mr. J. H. Nengnong**  
Member Secretary  
Meghalaya State Pollution Control Board, Shillong  
Email id: megspcb@rediffmail.com
- : **Dr. Z. Changsan**  
Regional Director, Central Pollution Control Board,  
Regional Directorate North East, Shillong  
Email id: zchangsan.cpcb@nic.in
- : **Mr. M. S. Lyngdoh**  
Director  
Directorate of Mineral Resources  
Government of Meghalaya  
Email id: msanlyngdoh@gmail.com
- : **Dr. H. Tynsong**  
Scientist 'D'  
Ministry of Environment, Forests & Climate Change,  
Government of India  
North Eastern Regional Office, Shillong  
Email id: h.tynsong@gov.in
- : **Mr. P Ch. Marak**  
Mining Engineer  
Directorate of Mineral Resources  
Government of Meghalaya
- : **Mr. R. K. Pareek**  
President  
Meghalaya Cements Ltd  
Email id: rkpareek@topcem.in
- : **Mr. A. Kejriwal**  
Meghalaya Cements Ltd  
Email id: akejriwal@topcem.in
- : **Mr. P. Purohit**  
Vice President  
Star Cement Ltd  
Email id: pradeep@starcement.co.in
- : **Mr. W. Hynniewta**  
COSMOS Cements Ltd  
Email id: wanaibor@gmail.com
- : **Mr. I. Reza**  
Mawmluh Cherra Cement Ltd., Cherapunjee  
Email id: rezaisrafil@gmail.com

- : **Mr. S. A. Langstang**  
Mawmluh Cherra Cement Ltd., Cherapunjee  
Email id: langstang.arbor@gmail.com
- : **Mr. P. Döhling**  
Mawmluh Cherra Cement Ltd, Cherapunjee  
Email id: dohlingpransingh@gmail.com
- : **Ms. P. Bora,**  
Legal Head  
Dalmia Bharat Cement Ltd  
Email id: bora.purbali@dalmiacement.com
- : **Mr. M. P. Sharma**  
Manager Commercial & Liaison  
Amrit Cement Ltd  
Email id: mpsharma@amrit.co.in
- : **Mr. R. C. Tripathi**  
Amrit Cement Ltd  
Email id: rctripathi@amritcement.in
- : **Mr. J. Pde,**  
Jaintia Cements Ltd  
Email id: jaintiacements@gmail.com
- : **Mr. S. Gopal Bhattacharjee**  
Chief Financial Officer  
JUD Cements Ltd  
Email id: sundar@bestcement.co.in
- : **Mr. Y Sharma,**  
JUD Cements Ltd  
Email id: yubaraj.sharma1971@gmail.com,  
yubaraj@bestcement.co.in
- : **Mr. S. K. Patra**  
Shyam Century Ferrous Ltd  
Email id: sumantarpatra@starcement.co.in
- : **Mr. A. K. Verma**  
Authorized Sp. Person  
M/s Shree Shakambari Ferro Alloys Pvt Ltd  
Email id: montexferro@gmail.com
- : **Mr. S. Choudhury**  
Maithan Alloys Ltd  
Email id: santu\_5c@yahoo.com
- : **Mr. P. Dhand**  
Maithan Alloys Ltd  
Email id: dhand@maithanalloys.com

: **Mr. V. Agarwal**  
 Sr. Manager (Accounts)  
 Maithan Alloys Ltd  
 Email id: vinod.agarwal@maithanalloys.com

**PROCEEDING NO. 16 -B**

**RECORD OF THE MINUTES OF THE SECOND OF SIXTEENTH SITTING OF THE COMMITTEE CONSTITUTED BY THE HON'BLE NATIONAL GREEN TRIBUNAL UNDER THE CHAIRMANSHIP OF HON'BLE MR. JUSTICE B. P. KATAKEY, FORMER JUDGE, GAUHATI HIGH COURT HELD ON 23<sup>rd</sup> July, 2019 AT 9.00 A.M IN THE CONFERENCE HALL, O/O PRINCIPAL CHIEF CONSERVATOR OF FORESTS & HOFF, SYLVAN HOUSE, SHILLONG, MEGHALAYA.**

At the outset, Mr. C. P. Marak, IFS, Principal Chief Conservator of Forests & HoFF, Meghalaya Principal Secretary to the Government of Meghalaya, Forest & Environment Department who is also holding charge of the posts of the Principal Chief Conservator of Forests & HoFF, Meghalaya and the Chairman, Meghalaya State Pollution Control Board welcomed the Hon'ble Chairman & Members of the Committee, Senior Officials of the State Government, Representatives of the Cement and Thermal Power Plants and other officers present in the meeting.

**AGENDA ITEMS FOR DISCUSSION**

1. Interaction with Chairman and other members of the Meghalaya State Coordination Committee of Coal Owners, Miners, Exporters, Transporters and Dealers Forum.
2. Review of actions taken to comply with directions issued by the Committee in its First Special Sitting held on 12.07.2019.
3. Discussions with representatives of the Power Plants and Cement Factories in Meghalaya on the year - wise quantity of clinker and/ or power produced and coal procured/ utilised by such Factories/ Plants since the rat hole coal mining was banned by the Hon'ble National Green Tribunal in April, 2014.
4. Any other matter (s) to be raised with permission of the Chair.

**AGENDA ITEM NO. 1**

1. The Chairman of the Committee welcomes the Chairman and other members of the Meghalaya State Coordination Committee of Coal Owners, Miners, Exporters,



Transporters and Dealers Forum to the meeting and requests them to present in brief the issues which they wish to bring to notice of the Committee.

The Chairman and other members of the said Forum expressed their thanks and gratitude to the Chairman and all other members of the Committee for providing the Forum an opportunity to present their views before the Committee. They requests the Committee to expedite transportation of the coal which has already been assessed by the State Government. They also requests the Committee to facilitate early resumption of coal mining in the State as it involves livelihood of large number of tribal residents in the State.

The Chairman of the Committee states that the Hon'ble Supreme Court in Judgment dated 03.07.2019 in Civil Appeal No. 10720 of 2018 in the matter of State of Meghalaya *versus* All Dimasa Student Union, Dima-Hasao District Committee & Ors and other connected matters has issued detailed directions on transportation and disposal of coal which has already been assessed by the State Government. The Hon'ble Supreme Court in the said Judgment has also permitted resumption of coal mining in the State subject to adherence to all mining and environmental laws. The transportation/disposal of the already assessed coal and fresh mining of the coal in the State can therefore be undertaken only in conformity with Hon'ble Supreme Court's said Judgment and provisions of all mining and environmental laws.

The Committee informs the Chairman and all other members of the Forum that all necessary actions shall be taken to carry out the directions issued by the Hon'ble Supreme Court in the said Judgment.

#### AGENDA ITEM NO. 2

2. The Secretary to the Government of Meghalaya, Forests and Environment Department places before the Committee a letter dated 22.07.2019 received by him from the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department. The following has *inter alia* been stated in the said letter:

*"..... Judgement and Order of the Hon'ble Supreme Court dt. 03.07.2019 passed in Civil Appeal No. 10720 of 2018 in the matter on State of Meghalaya versus Dimasa Student Union has been referred for opinion to learned Advocate General on 17.07.2019 and it has been opined by the learned Advocate General that the mandate of the Committee has been laid down by the Hon'ble Supreme Court in Paragraph 167 of the aforesaid Judgment that the Committee has been*

*constituted to look into the enormous task of restoration of environment which has to be supervised on the spot by the Committee.*

*The Hon'ble Supreme Court in Paragraph 188 has directed the Commissioner and Secretary of the State in the Department of Mining and Geology along with the officers of the Coal India Limited to finalise and prepare comprehensive plan of transportation and handing over of the coal to the Coal India Ltd. for disposal/auction as per rules of Coal India Ltd. and may deliberate with the Committee. The deliberation have been held by the Department with the stakeholders/mine owners, purchasers, companies situated in Meghalaya and proposed to be held with other stake holders also. After receiving the input from the stakeholders, a proper policy of the Government in this regard will be prepared and the same will be submitted to the Committee for deliberations.*

*In view of the above, it may be mentioned that the State Government will require atleast one month's time to come out with a proper policy for transportation and handing over of coal to Coal India Ltd. and deliberation will be held with the Committee accordingly. In this connection you are therefore, requested to inform the Hon'ble Committee to defer its meeting with officials of Mining and Geology Department on the above issue of transportation and handing over of the coal to Coal India Ltd. for at least a period of one month.*

*This has the approval of the "Competent Authority" and vetted by learned Advocate General, Meghalaya."*

The Committee takes a copy of the said letter on record. The Committee, without going into merit of the contentions made in the afore-mentioned letter, decides to postpone its Second Special Sitting scheduled to be held at Guwahati on 26.07.2019 on formulation of a policy for transportation and handing over of the coal to the Coal India Ltd. The fresh, date time and venue for the said Special Sitting will decided in consultation with the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department in the next Sitting of the Committee to be held at Shillong on 14.08.2019.

The status of framing of the said policy shall be intimated to the committee in its sitting to be held on 14/08/2019.



The Committee directs the Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters), Government of Meghalaya to inform the above to all those who have been invited to attend aforesaid Special Sitting.

3. The Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters), Government of Meghalaya places before the Committee a statement containing details of weighbridges in the Meghalaya received by him under a letter dated 22.07.2019 from the Commissioner of Transport, Meghalaya. The Committee takes a copy of the said statement along with a copy of the Commissioner of Transport's said letter dated 22.07.2019 on record.

On perusal of the above, the Committee notes that presently total 88 weighbridges are available in the State. Of these, 18 weighbridges are run by the Transport Department in the Government of Meghalaya and the remaining 66 weighbridges are operating in private companies. The Committee also notes that majority of the weighbridges operating in private companies appears to be installed by these companies for their captive use. These weighbridges may not be available for weighing of the coal to be auctioned by the Coal India Limited. The geo-coordinates (latitude and longitude) of all these weighbridges sought by the Committee to facilitate creation of a GIS layer containing details of these weighbridges are not available in the said Statement.

The Committee therefore directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to provide to the Committee in its next Sitting to be held at Shillong on 14.08.2019, an updated Statement in the format provided by the Committee in its First Special Sitting held at Shillong on 12.07.2019, containing details of all those weighbridges which will be available for weighing of coal to be auctioned by the Coal India Limited in compliance of the Hon'ble Supreme Court's Judgment dated 03.07.2019 in Civil Appeal No. 10720 of 2018. The geo-coordinates (latitude and longitude) of each such weighbridges as requested in the said format shall mandatorily be provided to the Committee.

AGENDA ITEM NO. 3

4. A representation vide a communication dated 22.07.2019, signed by Mr. R. K. Pareek, President, **Meghalaya Cement Ltd**, who is present in today's Proceedings, is placed before the Committee. The Committee takes the said representation on record.



In the said representation, Mr. R. K. Pareek has raised the question on the jurisdiction of this Committee about the information sought for by the Committee. However, Mr. R. K. Pareek has submitted that Meghalaya Cement Ltd shall furnish the required information supported by the relevant documents provided time is granted for gathering all the information as it requires more time to collect the information sought by the Committee. Mr. R. K. Pareek, notwithstanding the aforesaid communication dated 22.07.2019 accepts the jurisdiction of this Committee to ask for information which have already been asked in writing in that regard.

The Committee directs the Meghalaya Cements Limited to depute a representative to attend next Sitting of the Committee to be held at Shillong on 14.08.2019 along with all information and documents sought by the Committee, without fail.

5. A representation vide a communication dated 22.07.2019, signed by a Director of the **Cosmos Cements Limited** is placed before the Committee by Mr. W. Hynniewta, who is present in today's Proceedings. The Committee takes a copy of the said representation on record.

It has been stated in the said representation that M/s. Cosmos Cement Limited has not yet installed the plant and machineries of the Cement Plant and neither commence production of the plant, hence, they have not yet purchased coal and nor have done any production of clinker/cement/power during the period after April 2014. The Committee notes the same.

6. A representation vide a communication dated 21.07.2019, signed by Mr. P. Purohit, Vice-President of **Star Cement Limited**, who operates two Cement Manufacturing Plants (viz. Star Cement Limited and Star Cement Meghalaya Limited) and one Thermal Power Plant (viz. Meghalaya Power Limited) in Meghalaya, who is present in today's Proceedings, is placed before the Committee. The Committee takes a copy of the said representation on record.

In the said representation, Mr. P. Purohit has raised the question on the jurisdiction of this Committee about the information sought for by the Committee. However, Mr. P. Purohit has submitted that Star Cement Limited shall furnish the required information supported by the relevant documents provided time is granted for gathering all the information as it requires more time to collect the information sought by the Committee. Mr. P. Purohit, notwithstanding the aforesaid communication dated 21.07.2019, accepts

the jurisdiction of this Committee to ask for information which have already been asked in writing in that regard.

The Committee directs the Star Cements Limited to depute a representative to attend next Sitting of the Committee to be held at Shillong on 14.08.2019 along with all information and documents sought by the Committee in respect of the afore-mentioned two Cement Manufacturing Plants and one Thermal Power Plant, without fail.

7. A representation vide a communication dated 23.07.2019, signed by Mr. M.P. Sharma, Authorised Signatory, **Amrit Cement**, who is present in today's Proceedings, is placed before the Committee. The Committee takes a copy of the said representation on record.

In the said representation, Mr. M.P. Sharma has raised the question on the jurisdiction of this Committee about the information sought for by the Committee. However, Mr. M.P. Sharma has submitted that Amrit Cement shall furnish the required information supported by the relevant documents provided time is granted for gathering all the information as it requires more time to collect the information sought by the Committee. Mr. M.P. Sharma, notwithstanding the aforesaid communication dated 23.07.2019 accepts the jurisdiction of this Committee to ask for information which have already been asked in writing in that regard.

The Committee directs the Amrit Cement to depute a representative to attend next Sitting of the Committee to be held at Shillong on 14.08.2019 along with all information and documents sought by the Committee, without fail.

8. Ms. P. Bora, Legal Head, **Dalmia Bharat Cement Ltd (formerly known as Adhunik Cement Ltd)**, who is present in today's Proceedings states that the nature of information asked by the Committee is not known to her. She however assures the Committee that Dalmia Bharat Cement Ltd will be pleased to provide all the information and documents sought by the Committee provided some additional time is granted to them.

The Committee notes that the details of information and documents required by the Committee have clearly been stated in the letter sent to Dalmia Bharat Cement Limited to request them to depute a suitable representative to attend this Sitting of the Committee. These details are also available in Record of Minutes of Fifteenth Sitting of the Committee, a copy of which is available at website of the Forests and Environment Department, Government of Meghalaya ([www.megforest.gov.in](http://www.megforest.gov.in)).

The Committee directs the Dalmia Bharat Cement Ltd. to depute a representative to attend next Sitting of the Committee to be held at Shillong on 14.08.2019 along with all information and documents sought by the Committee, without fail.

9. Mr. I Reza, Mr. S. A. Langtang and Mr. P. Dohling attend this Sitting of the Committee on behalf of **Mawmluh Cherra Cement Limited** and place before the Committee all information and documents sought by the Committee except the Annual Report for the year 2018-19 and the Detailed Project Report (DPR) of their Cement Plant. The Committee takes a copy of the documents provided by Mawmluh Cherra Cement Limited on record.

The afore-named representatives of Mawmluh Cherra Cement Limited informs the Committee that Annual Report for the year 2018-19 is presently being prepared. They assured the Committee that a copy of the DPR of the Cement Plant will be provided to the Committee within three days. They also assured that a copy of the Annual Report for the year 2018-19 will also be provided to the Committee as and when the same is prepared and duly approved by the Competent Authority. They also inform the Committee that as their plant was under renovation, no clinker was produced during the years 2014-15 and 2015-16.

The Committee directs the Mawmluh Cherra Cement Limited to provide a copy of the DPR of their cement plant to the Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters) within seven days.

On perusal of the information/documents provided by Mawmluh Cherra Cement Limited the Committee notes that during a period of three years from 2016-17 to 2018-19 the Mawmluh Cherra Cement Limited consumed 32,190 MT coal to produce 1,11,475 MT clinker. The representative of CPCB present in the meeting stated that after due scrutiny of all requisite documents the CPCB has found that the entire 32,190 MT coal has been procured by Mawmluh Cherra Cement Limited from legal sources. The Committee also notes that during these three years average per unit coal consumption by the plant is 28.876 percent (*i.e.* 288.76 Kg of coal per tonne of clinker produced). The Committee after examination of the available records and interaction with experts does not find any anomaly in utilisation of coal by Mawmluh Cherra Cement Limited.

10. Mr. J. Pde attends this Sitting of the Committee on behalf of **Jaintia Cement Limited** and informs that the Jaintia Cement Limited does not use coal as a fuel. He states that the entire fuel requirement for the said plant is met from the Coke Breeze sourced from

Assam. He further states that they do not publish Annual Report. Mr. J. Pde further states that during the period of five years from 2014-15 to 2018-19 Jaintia Cement Limited produced 1,00,153 MT clinker by consuming 26,203.11 MT Coke Breeze. The average per unit requirement of Coke Breeze is 26.163 % (i.e. 261.63 kg Coke Breeze per tonne of Clinker).

The Committee directs the Central Pollution Control Board (CPCB), Regional Directorate, Shillong to undertake audit of each of the Coke Plants from which the coke has reportedly been sourced by the Jaintia Cement Limited in the format stipulated by the Committee for resource (coal) audit of cement factories and Thermal Power Plants in Meghalaya and submit a report to the Committee within one month.

The Committee further directs the CPCB, Regional Directorate, Shillong to undertake audit of each of the Coke Plants located in Meghalaya in the format stipulated by the Committee for resource (coal) audit of cement factories and Thermal Power Plants in Meghalaya and submit a report to the Committee within one month.

11. Mr. S. Gopal Bhattacharjee, Chief Financial Officer and Mr. Y Sharma attend this Sitting of the Committee on behalf of **JUD Cements Ltd.** They inform the Committee that the said Cement Plant was non-operational for some time. Efforts have been made to revive production in the plant. Compilation of information and documents sought by the Committee may take some time. They requested the Committee to grant some additional time to provide information/documents sought by the Committee.

The Committee directs the **JUD Cements Ltd.** to depute a representative to attend next Sitting of the Committee to be held at Shillong on 14.08.2019 along with all information and documents sought by the Committee, without fail.

12. Mr. S. K. Patra attends this Sitting of the Committee on behalf of **Shyam Century Ferrous Ltd.** He seeks two weeks time to provide the information and documents sought by the Committee. The Committee has been informed that the plant is not in operation since 25/11/2018 due to non-availability of coal.

The Committee directs the **Shyam Century Ferrous Limited** to depute a representative to attend next Sitting of the Committee to be held at Shillong on 14.08.2019 along with all information and documents sought by the Committee, without fail.

13. Mr. S. Choudhury, Mr. P. Dhand and Mr. V. Agarwal attends this Sitting of the on behalf of **Maithan Alloys Limited** and place before the Committee all information and documents

sought by the Committee except the Detailed Project Report (DPR) of their 15 MW capacity captive Thermal Power Plant. The Committee takes a copy of these documents on record. The Committee has also been apprised that the plant is not in operation from 13/11/2018 due to non-availability of coal.

The Committee directs the Maithan Alloys Limited to provide a copy of the DPR of their Captive Thermal Power Plant to the Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters) within two weeks.

On perusal of the information/documents provided by Maithan Alloys Limited the Committee notes that during a period of five years from 2014-15 to 2018-19 the Maithan Alloys Limited utilised 2,61,818.86 MT coal, 7,011.805 MT rice husk, 780.26 MT saw dust, 2,343.96 MT Coke Breeze and 60.16 MT wood chips to produce 33,18,25,132 units of power. The average estimated per unit requirement of coal for the said plant is 0.72 Kg per unit.

The Committee further notes that the quantity of coal reported to be procured by Maithan Alloys Limited as per the Statement submitted to the Committee in this Sitting is substantially different than the quantity of coal consumed by the said Plant as per the details given in a report on coal consumption by the Thermal Power Plants and Cement Industries submitted to the Committee by the Central Pollution Control Board, Regional Directorate, Shillong in the month of March 2019.

The Committee directs the Maithan Alloys Limited to depute a representative to attend next Sitting of the Committee to be held at Shillong on 14.08.2019 to explain the afore-mentioned anomaly.

14. Mr. A. K. Verma attends this Sitting of the Committee on behalf of **Shree Sakambari Ferro Alloys Pvt. Ltd.** and place before the Committee information and documents sought by the Committee. The Committee takes a copy of these documents on record.

On perusal of these information the Committee observes that unit of power produced by the said Thermal Power Plant stated in the Statement provided to the Committee does not appear to be in order. It was also observed the quantity of coal reported to be consumed by Shree Sakambari Ferro Alloys Pvt. Ltd. as per the Statement submitted to the Committee in this Sitting is substantially different than the quantity of coal consumed by the said Plant as per the details given in a report on coal consumption by the Thermal Power Plants and Cement Industries submitted to the Committee by the

Central Pollution Control Board, Regional Directorate, Shillong in the month of March 2019.

The Committee directs Shree Sakambari Ferro Alloys Pvt. Ltd. to depute a representative to attend next Sitting of the Committee to be held at Shillong on 14.08.2019 to explain the afore-mentioned anomaly.

15. The Committee notes with great concern that the inspite of prior notice, four Cement Plants (*viz.* Greenvalley Industries Limited, Goldstone Cements Limited, Hills Cements Limited, and Virgo Cements Limited and one Thermal Power Plant (*viz.* CMJ Breweries Limited) did not depute a representative to attend this Sitting. One of these cement plants *viz.* Goldstone Cements Limited has a captive power plant also.

Dr. Shantanu Kumar Dutta, Addl. Director, North East Regional Directorate of the Central Pollution Control Board, who is also a member of this Committee informs that the RNB Cement Limited will not be able to provide any information or document as the plant has been taken over by the National Company Law Tribunal (NCLT) and is managed by an Insolvency Resolution Professional (IRP) *w.e.f.* 13.06.2019. The Committee notes the same.

The Committee directs all the afore-mentioned Cement Plants and Thermal Power Plants, except RNB Cement Limited, to depute a representative to attend next Sitting of the Committee to be held at Shillong on 14.08.2019 along with all information and documents sought by the Committee, without fail.

16. The Committee notes with great concern that inspite of its clear direction on several occasions, majority of the Cement and Power Plants have not provided the year-wise data relating to clinker and/or power produced and the quantity of coal consumed to produce the stated quantity of the clinker and/or power to the North East Regional Directorate of the Central Pollution Control Board to undertake resource (coal) audit of these plants as has been directed by the Hon'ble NGT by their orders dated 04.01.2019 and 11.04.2019.

The Committees therefore decides to compare, as a test case, the quantity of coal required to produce the quantity of clinker and power by two cement plants and one power plant of Star Cements Limited, reported in their Annual Reports for the years 2014-15 to 2017-18, a copy of which is available in the public domain, and the coal actually procured from legal sources during these years as per the details given by them to the North Eastern Regional CPCB.

As stated in paragraph 9 above, the actual coal consumed by one of the cement plants in the State viz. Mawmluh Cherra Cement Limited, is 28.876 percent (i.e. 288.76 Kg of coal per tonne of clinker produced) of the clinker production. The Committee however, is of the view that coal requirement for the cement plants of Star Cement Limited may be between 10 % to 20 % of the clinker produced. The Committee therefore, decides to estimate the quantity of coal required to produce reported quantity of the clinker by these cement plants based on three unit rates viz. 10%, 15% and 20 %.

Similarly, as stated in paragraph 13 above, the average actual requirement of coal to produce one unit (kwh) of power by one of the Thermal Power Plant in the State viz. Maithan Alloys Limited, is 0.72 Kg per unit. The coal required to produce one unit of power by the thermal power plant of Star Cements Limited viz. Meghalaya Power Limited has therefore been assessed on the basis of two per unit rates viz. 0.50 kg per unit and 0.72 kg per unit.

Due to non-availability of Annual Report and data on coal stated to be procured by the Star Cements Limited for the year 2018-19, it is been possible for the Committee to do the above analysis for the first four years (viz, 2014-15 to 2017-18) since the illegal rat hole coal mining was banned by the Hon'ble NGT in April 2014.

A summary of above analysis is as below:

Plant	Items	Year				Total
		2014-15	2015-16	2016-17	2017-18	
1	2	3	4	5	6	7
Star Cement Limited	Clinker produced* (MT)	3,30,010	4,92,055	5,67,241	5,15,350	19,04,656
	Coal required (MT) @ 10%	33,001	49,206	56,724	51,535	1,90,466
	Coal required (MT) @ 15 %	49,502	73,808	85,086	77,303	2,85,698
	Coal Required (MT) @ 20 %	66,002	98,411	1,13,448	1,03,070	3,80,931
	Coal procured** (MT)	30,892	31,208	25,398	16,909	1,04,407

Plant	Items	Year				Total
		2014-15	2015-16	2016-17	2017-18	
1	2	3	4	5	6	7
Star Cement Meghalaya Limited	Clinker produced* (MMT)	15,49,349	16,29,025	15,79,345	15,41,945	62,99,664
	Coal required (MT) @ 10%	1,54,935	1,62,903	1,57,935	1,54,195	6,29,966
	Coal required (MT) @ 15 %	2,32,402	2,44,354	2,36,902	2,31,292	9,44,950
	Coal Required (MT) 20 %	3,09,870	3,25,805	3,15,869	3,08,389	12,59,933
	Coal procured** (MT)	149156	98,038	60,998	40,773	3,48,965
Meghalaya Power Limited	Power Produced (Million kwh)	167,923	183,110	201,624	190,110	742,761
	Coal required in (MT) @ 0.50 kg/unit	83,962	91,557	1,00,812	95,050	3,71,381
	Coal required (MT) @ 0.72 kg/unit	1,20,905	1,31,842	1,45,169	1,36,872	5,34,788
	Coal procured** (MT)	41,484	58,281	52,536	23,749	1,76,050

\*: As per Annual Reports available in the Public Domain

\*\* : As per the information given in CPCB Report.

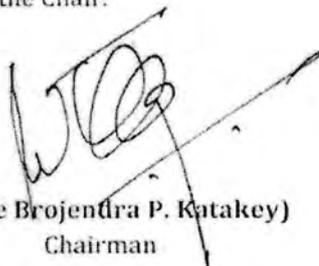
MT: Metric Tonne.

From the above Table it appears that the quantity of coal reported to be procured by these plants during each of the afore-mentioned years (2014-15 to 2017-18) is grossly insufficient to produce the quantity of clinker and thermal power as reported in their Annual Reports. The committee has to ascertain the source of coal to meet the gap which ranges from 5,62,391 MT (at the unit rate of 10 % for clinker production and 0.50 kg/kwh for power production) to 15,46,230 MT (at the unit rate of 20 % for clinker production and 0.72 kg/kwh for power production) for these four years. In fact, the Star Cement Limited at page 12 of its Annual Report for 2017-18 has stated that coal is accessed from 10-12 kilometres. During 2017-18, no legal coal mine was available within 10-12 kilometres from its clinker manufacturing plants located at Lumshnong village in East Jaintia Hill district.

The Committee will make its observation finally on the next sitting as the cement plants and power plants have been given time till 14.08.2019 to furnish the required information and documents.

17. The next Sitting of the committee will be held on 14.08.2019 at 10.00 AM in the Conference Room, O/o Principal Chief Conservator of Forests & HoFF, Meghalaya, Shillong.

The meeting ended with a vote of thanks from the Chair.



(Justice Brojenra P. Katakey)  
Chairman

**S/d**  
**True Copy**

GOVERNMENT OF MEGHALAYA  
DEPARTMENT OF FORESTS AND ENVIRONMENT  
OFFICE OF  
THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS  
MEGHALAYA  
&  
HEAD OF FORESTS FORCE

No. MGF.39/87/NGT(C)/VOL.VIII/10,374-389

Dated : Shillong, the 5<sup>th</sup> August, 2019

From : Shri H.C. Chaudhary, IFS  
Addl. Principal Chief Conservator of Forests  
(Planning, Development & Legal Matters)  
Government of Meghalaya, Shillong.

To :

1. The Managing Director  
Dalmia Bharat Cements Limited  
(formerly known as Adhunik Cements Limited)  
Thangskai, East Jaintia Hills District, Meghalaya  
(Email : Pradhan.Bhabagrahi@dalmiabharat.com)
2. The Managing Director  
Amrit Cements Limited  
Umlaoer Village, Elaka Rymbai, East Jaintia Hills  
District, Meghalaya  
(Email: sriagarwal@yahoo.co.in)
3. The Managing Director  
Goldstone Cements Limited  
Village Musiang Lamare (Old) East Jaintia Hills District,  
Meghalaya.
4. The Managing Director  
Green Valley Industries Limited  
Village- Nongsning, P.O. Chiehruphi  
East Jaintia Hills District, Meghalaya

5. The Managing Director  
Hills Cement Company Limited  
Village Mynkree, East Jaintia Hills District, Meghalaya
6. The Managing Director  
JUD Cements Limited  
Wahiajer (Narpuh), East Jaintia Hills District, Meghalaya
7. The Managing Director  
Meghalaya Cements Limited  
Lumshnong, Shillong - Agartala - Sabrum Road, Thangskai,  
East Jaintia Hills District, Meghalaya
8. The Managing Director  
Star Cement Limited  
Lurnshnong, East jaintia Hills District, Meghalaya  
(Email: lumshnong@starcement.co.in)
9. The Managing Director  
Star Cement Meghalaya Limited  
Lumshnong, East jaintia Hills District, Meghalaya  
(Email: lumshnong@starcement.co.in)
10. The Managing Director  
Virgo Cements Limited  
Damas, East Garo Hills District, Meghalaya
11. The Managing Director  
CMJ Breweries Limited  
Ferndale Complex, CMJ fouse, Block III,  
Keating Road, Shillong, Meghalaya 7 9300L,
12. The Managing Director  
Maithan Alloys Limited  
Export Promotion Industrial Park (EPIP), Byrnihat,  
Ri-Bhoi District, Meghalaya 783 101
13. The Managing Director  
Sree Sakambari Ferro Alloys Pvt.. Ltd.  
Village Riwiang, Branch Post Office Sienduli  
West Khasi Hills District, Meghalaya 793119

14. The Managing Director/ Chief Executive Officer  
Shyam Century Ferrous Limited  
Export Promotion industrial Park [EPIP), Raj Bagan, Byrnihat,  
Ri-Bhoi District, Meghalaya 793101.
15. The Managing Director  
Meghalaya Power Limited  
Lumshnong, East Jaintia Hills District, Meghalaya.

Sub : Request to attend a Sitting of a Committee constituted by the Hon'ble National Green Tribunal (NGT) under Chairmanship of Hon'ble Mr. Justice B.P. Katakey, Former Judge, Guwahati High Court on 14, August 2019.

Sir/Madam,

With reference to above-mentioned subject, it is stated that the Hon'ble National Green Tribunal (NGT), Principal Bench at New Delhi by order dated 31<sup>st</sup> August, 2018 in the O.A. No.110 (THC)/2012 in the matter of Threat to Life Arising Out of Coal Mining in South Garo Hills Distrit vs. State of Meghalaya & Ors. and other connected matters, constituted a Committee headed by Hon'ble Justice B. P. Katakey, Former Judge, Guwahati High Court to take stock of all actions taken so far for restoration of environment and rehabilitation of victims of coal mining in this State and to prepare time bound action plan to deal with the above issue and ensure its implementation.

The said Committee in the second day of its sixteenth sitting held at Shillong on 23.07.2019 desired that you may depute a duly authorized representative(s) to remain present before the Committee in its

seventeenth Sitting to be held on 14.08.2019 at 10.00 AM onward in Conference Hall in office of the Principal Chief Conservator of Forests & Head of Forest Force, Sylvan House, Lower Lachumiedre, Shillong 793001 and produce before the Committee information and documents as indicated in the records of the minutes of the second day of the sixteenth sitting held at Shillong on 23.07.2019. A copy of the said minutes is enclosed herewith.

This is for your information and necessary action.

Yours faithfully,

sd/- 05.08.2019  
(H.C. Chaudhary, IFS)  
Addl. Principal Chief Conservator of Forests  
(Planning, Development and Legal Matters)  
(Email : [harishcc@yahoo.com](mailto:harishcc@yahoo.com))

Encl.: As above

Memo No. MFG.39/87/NGT(C)/Vol.VIII/

Dated : Shillong, the August 2019

Copy to:

1. The Principal Secretary to the Government of Meghalaya, Forests and Environment Department, Shillong for information.

sd/-  
Addl. Principal Chief Conservator of Forests  
(Planning, Development and Legal Matters)

**S/d**  
**True Copy**

Annexure B17/5  
**Green Valliey Industries Limited**

CIN NO.: U26942ML2007PLC008273

91

Additional Principal Chief Conservator of Forests  
Planning Development & Legal Matters  
Meghalaya, Shillong

Date: 14<sup>th</sup> August 2019

To,  
The Additional Principal Chief Conservator of forests  
(Planning, Development and Legal Matters)  
Department of Forests and Environment,  
Shillong



Ref: Your Letter No.: MFG.39/87/NGT (C)/ Vol.-VIII/0, 374-389 dt. 5<sup>th</sup> August' 2019

Sir,

We are in receipt of your abovesaid letter enclosing a copy of minutes of the sitting under the heading 'RECORD OF THE MINUTES OF THE SECOND OF SIXTEEN<sup>TH</sup> SITTING OF THE COMMITTEE UNDER THE CHAIRMANSHIP OF HON'BLE JUSTICE B.P. KATAKEY, FORMER JUDGE, GAUHATI HIGH COURT HELD ON 23<sup>RD</sup> JULY 2019 AT 9.00 AM IN THE CONFERENCE HALL, O/O PRINCIPAL CHIEF CONSERVATOR OF FORESTS 7 HOFF, SYLVAN HOUSE, SHILLONG, MEGHALAYA.' The said letter informs us that the committee desires us to depute duly authorised representative to remain present before the committee headed by Hon'ble Justice B.P. Katakey, Former Judge, Gauhati High Court on 14<sup>th</sup> August' 2019 at 10.00 AM onwards along with certain information and documents.

The above said letter was delivered to us only in the afternoon of 12<sup>th</sup> August 2019, asking us to appear on a short notice of 1 day on 14<sup>th</sup> August' 2019 along with certain information and documents as indicated in the minutes attached to the letter.

We have gone through the attached 'Minutes of Sitting' and noted that as per point no 15, perhaps a sitting of the committee was held earlier on 23<sup>rd</sup> July' 2019 wherein we were expected to represent ourselves in the sitting along with certain information and documents.

In this regard we would like to inform that no such communication was received by us from your good office to appear before the Hon'ble Committee on 23<sup>rd</sup> July' 2019. In absence of any such communication, we are not aware of the nature of information and documents sought from us by the committee.

Even from your recent letter received by us on 12<sup>th</sup> August' 2019 and the Minutes of Sitting attached therein, we are unable to find out details of the information and documents sought from us.



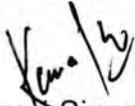
**Guwahati Office:** 4th Floor, LB Plaza, G.S. Road, Bhangagarh, Guwahati-781 005, T +91 361 2465481 / 82 / 83 / 84  
**Regd. Office & Plant:** Vill. Nongsning, P.O. Chiehruphi, PS. Khliehriat, Dist. Jaintia Hills, Meghalaya-793 200  
**Group Corporate Office:** 602 'LORDS' 7/1, Lord Sinha Road, Kolkata-700 071, T +91 33 22827367 / 7368 F +91 33 22828307  
E : info@greenvalliey.com

**A GNG GROUP COMPANY**

We therefore request your good office to please inform us the details of information and documents sought from us so that we can compile the same and submit to your good office.

Thanking you,

Yours truly,  
For **Green Valliey Industries Limited.**



(Authorised Signatory)

**S/d**  
**True Copy**



**Guwahati Office:** 4th Floor, LB Plaza, G.S. Road, Bhangagarh, Guwahati-781 005, T +91 361 2465481 / 82 / 83 / 84  
**Regd. Office & Plant:** Vill. Nongsning, P.O. Chiehruphi, PS. Khliehriat, Dist. Jaintia Hills, Meghalaya-793 200  
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**A GNG GROUP COMPANY**



सत्यमेव जयते

Annexure R17/6  
6193  
GOVERNMENT OF MEGHALAYA  
DEPARTMENT OF FORESTS AND ENVIRONMENT

93

OFFICE OF  
THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS : MEGHALAYA  
& HEAD OF FOREST FORCE

No. MFG.39/87/NGT (C)/ Vol.-VIII/ 11,256-329 Dated Shillong, the 20<sup>th</sup> August, 2019

- From:** **Shri H. C. Chaudhary, IFS**  
Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters), Government of Meghalaya, Shillong
- To:**
- 1. Prof. Ashok K. Singh**  
Indian School of Mines, IIT -ISM, Dhanbad
  - 2. Dr. Shantanu Kumar Dutta**  
Addl. Director, Central Pollution Control, Regional Directorate Shillong  
Nongthymmai, Shillong Meghalaya 793014
  - 3. Professor O.P. Singh**  
Department of Environmental Studies,  
North Eastern Hill University, Shillong 793002
  - 4. The Addl. Chief Secretary to the Government of Meghalaya**  
Home (Police) Department, Shillong
  - 5. The Director General of Police**  
Government of Meghalaya, Shillong
  - 6. The Principal Secretary to the Government of Meghalaya**  
Public Health Engineering Department, Shillong
  - 7. The Chief Executive Officer**  
Meghalaya Basin Development Authority, Shillong
  - 8. The Commissioner and Secretary to the Government of Meghalaya**  
Transport Department, Shillong
  - 9. The Commissioner and Secretary to the Government of Meghalaya**  
Mining and Geology Department, Shillong
  - 10. The Secretary to the Government of Meghalaya**  
Health Department, Shillong
  - 11. The Chairman**  
Meghalaya State Pollution Control Board  
Arden, Lumpyngad, Shillong Meghalaya 793014
  - 12. The Addl. Director General of Forests (Central)**  
North Eastern Regional Office  
Ministry of Environment, Forest and Climate Change, Government of India  
Law-U-Sib, Lumbatngen, Near M.T.C. Workshop, Shillong 793021
  - 13. The Addl. Director General of police ( L&O/TAP/SB/Border)**  
Police Headquarters, Government of Meghalaya, Shillong

14. **The Director**  
North Eastern Space Applications Centre (NESAC)  
Department of Space, Government of India  
Umiam, District- Ri-Bhoi, Meghalaya
15. **The Regional Director**  
Central Pollution Control, Regional Directorate Shillong  
Nongthymmai, Shillong, Meghalaya 793014
16. **The Principal Chief Conservator of Forests (CC, R & T)**  
Government of Meghalaya, Shillong
17. **Addl. Principal Chief Conservator of Forests (SF&E)**  
Meghalaya, Shillong
18. **The Chief Executive Officer**  
Meghalaya State CAMPA, Shillong
19. **Mr. K.A. Khieya, IRS**  
Commissioner of Custom (Preventive)  
North Eastern Region, Shillong
20. **Mr. I.R. Khrakongor, IRS**  
Deputy Commissioner,  
O/o Commissioner of Custom (Preventive)  
North Eastern Region, Shillong
21. **Mr. Manjunatha C, IFS**  
Secretary to the Government of Meghalaya,  
Mining & Geology Department, Shillong
22. **Smti P. L. Lawai, MCS**  
Joint Secretary to the Government of Meghalaya,  
Mining & Geology Department
23. **Shri. N. Bhattacharjee,**  
Chairman  
State level Expert Appraisal Committee (SEAC), Meghalaya
24. **The Director**  
Directorate of Mineral Resources, Government of Meghalaya  
Risa Colony, Malki, Shillong, Meghalaya 793014
25. **The Director**  
Directorate of Health Services (MI), Government of Meghalaya, Shillong
26. **The Director**  
Directorate of Employment and Craftsman Training, Government of Meghalaya
27. **The Chief Engineer**  
Public Health Engineering Department, Government of Meghalaya



- 28. Mr. J.H. Nengnong**  
Member Secretary  
Meghalaya State Pollution Control Board, Shillong
- 29. Shri P.Ch. Marak,**  
Mining Engineer,  
Directorate of Mineral Resources,  
Government of Meghalaya, Shillong
- 30. Shri M. Somorjit Singh, Scientist**  
North Eastern Space Application Centre  
Umiam, District- Ri-Bhoi, Meghalaya.
- 31. Dr. H. Tynsong, Scientist D**  
North Eastern Regional Office  
Ministry of Environment, Forest and Climate Change, Government of India  
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- 32. Smt. I. Mawlong, MCS**  
Joint Secretary to the Government of Meghalaya  
Revenue and Disaster management Department
- 33. Shri D. Sangma**  
Joint Secretary to the Government of Meghalaya  
Transport Department
- 34. Shri P.M. Sangma**  
Deputy Commissioner Transport  
Government of Meghalaya
- 35. Smt. R. Kynjing**  
Executive Engineer, Rural Water Supply Division, Jowai  
Public Health Engineering Department, Jowai
- 36. Shri K.L. Nonglait**  
Deputy Conservator of forests (CC, R &T)  
Government of Meghalaya
- 37. Dr. G. Ch. Mondal**  
Principal Scientist, Council of Scientific and Industrial Research- Central Institute  
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- 38. Dr. C. Sawanliana**  
Sr. Principal Scientist, Council of Scientific and Industrial Research- Central  
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- 39. Dr. A. Kr. Singh**  
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- 39. Dr. M. Prasad Roy**  
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- 40. Mr. G. S. Sah,**  
Assistant General Manager  
Meghalaya Mineral Development Corporation Ltd, Shillong
- 41. Mr. E. Kharmawphlang**  
Directorate of Mineral Resources  
Government of Meghalaya
- 42. Mr. P. Lyngdoh,** Junior Engineer  
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- 43. The Managing Director**  
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- 44. The Managing Director**  
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- 45. The Managing Director**  
Goldstone Cements Limited  
Village Musiang Lamare (Old) East Jaintia Hills District, Meghalaya
- 46. The Managing Director**  
Green Valley Industries Limited  
Village- Nongsning, P.O. Chiehruphi  
East Jaintia Hills District, Meghalaya
- 47. The Managing Director**  
Hills Cement Company Limited  
Village Mynkree, East Jaintia Hills District, Meghalaya
- 48. The Managing Director**  
JUD Cements Limited  
Wahiajer (Narpuh), East Jaintia Hills District, Meghalaya
- 49. The Managing Director**  
Mawmluh Cherra Cements Limited  
Taxation Building, Near Raj Bhawan,  
Shillong - 793001, Meghalaya



- 50. The Managing Director**  
Meghalaya Cements Limited  
Lumshnong, Shillong - Agartala - Sabrum Road, Thangskai,  
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- 51. The Managing Director**  
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- 52. The Managing Director**  
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- 53. The Managing Director**  
Virgo Cements Limited  
Damas, East Garo Hills District, Meghalaya
- 54. The Managing Director**  
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Keating Road, Shillong, Meghalaya 793001,
- 55. The Managing Director**  
Maithan Alloys Limited  
Export Promotion Industrial Park (EPIP), Byrnihat,  
Ri-Bhoi District, Meghalaya 783 101
- 56. The Managing Director**  
Sree Sakambari Ferro Alloys Pvt. Ltd.  
Village Riwiang, Branch Post Office Sienduli  
West Khasi Hills District, Meghalaya 793 119
- 57. The Managing Director**  
Shyam Century Ferrous Limited  
Export Promotion Industrial Park (EPIP), Raj Bagan, Byrnihat,  
Ri-Bhoi District, Meghalaya 793 101
- 58. The Managing Director**  
Meghalaya Power Limited  
Lumshnong, East Jaintia Hills District, Meghalaya
- 59. Mr. R. K. Pareek**  
President  
Meghalaya Cements Ltd  
Email id: rkpareek@topcem.in



- 60. Dr. A. Saraf**  
Sr. Advocate on Behalf of Star Cement  
Email id: drashoksaraf@gmail.com
- 61. Smt. N.N. Data**  
Advocate on Behalf of Star Cement  
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- 62. Mr. P. Purohit**  
Vice President  
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- 63. Mr. A.B. Rajan**  
Hill Cement Co. Ltd/  
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- 66. Mr. G.S. Sodhi**  
Gold Stone Cements Ltd.  
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Manager Commercial & Liaison  
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- 68. Mr. R. C. Tripathi**  
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- 69. Mr. Y Sharma,**  
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- 70. Mr. P. Kr. Jothi**  
Green Valley Industries Ltd.  
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- 71. Mr. A. K. Verma**  
Authorized Sp. Person  
M/s Shree Shakambari Ferro Alloys Pvt Ltd  
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72. **Mr. S. Choudhury**  
Maithan Alloys Ltd  
Email id: santu\_5c@yahoo.com

73. **Mr. V. Agarwal**  
Sr. Manager (Accounts)  
Maithan Alloys Ltd  
Email id: vinod.agarwal@maithanalloys.com

**Sub:** Record of Minutes of Proceedings of Seventeenth Sitting of the Committee constituted by the Hon'ble National Green Tribunal (NGT) under Chairmanship of Hon'ble Mr. Justice B.P. Katakey, Former Judge, Guwahati High Court held at Shillong on 14<sup>th</sup> August, 2019.

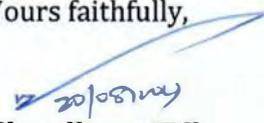
Sir/Madam,

With reference to above-mentioned subject it is stated that a copy of the record of minutes of proceedings of Seventeenth Sitting of the Committee constituted by the Hon'ble National Green Tribunal (NGT) under Chairmanship of Hon'ble Mr. Justice B.P. Katakey, Former Judge, Guwahati High Court held on 14<sup>th</sup> August, 2019 at 10.00 AM onwards in Conference Hall at Office of the Principal Chief Conservator of Forests & Head of Forest Force, Sylvan House, Lower Lachumiere, Shillong is enclosed herewith for your information and necessary actions as indicated therein.

This is for favour of your kind information and necessary action.

Yours faithfully,

**Encl.:** As stated above.

  
(H C Chaudhary, IFS)

Addl. Principal Chief Conservator of Forests (Planning,  
Development and Legal Matters)  
(e-mail id- harishcc@yahoo.com)

Memo No. MFG.39/87/NGT (C)/ Vol.-VIII/

Dated Shillong, the August, 2019

**Copy to:**

1. The Principal Secretary to the Government of Meghalaya, Forests and Environment Department, Shillong along with a copy of the said minutes for favour of his information.

**Addl. Principal Chief Conservator of Forests**  
(Planning, Development and Legal Matters)



QUORUM

**HON'BLE MR. JUSTICE BROJENDRA PRASAD KATAKEY,  
FORMER JUDGE, GAUHATI HIGH COURT, GUWAHATI**

**PROF. ASHOK K. SINGH, MEMBER  
REPRESENTATIVE FROM INDIAN SCHOOL OF MINES, DHANBAD  
IIT (ISM), DHANBAD (826004)  
(Email id: singhashok0707@gmail.com)**

**DR. SHANTANU KUMAR DUTTA, ADDITIONAL DIRECTOR  
REPRESENTATIVE OF CENTRAL POLLUTION CONTROL BOARD  
(Email id: shantanucpcb@gmail.com)**

IN THE MATTER OF

**Threat to Life Arising Out of Coal Mining in South Garo Hills District**

**-Vs-**

**The State of Meghalaya & Ors.  
And other connected matters**

PRESENT

- :** **Prof. O. P. Singh,**  
Department of Environmental Studies,  
North Eastern Hill University  
Email id: opsinghnehu@gmail.com
- :** **Mr. C. P. Marak, IFS,**  
Principal Secretary, Government of Meghalaya,  
Forest & Environment Department,  
& Principal Chief Conservator of Forests & HoFF &  
Chairman, Meghalaya State Pollution Control Board  
Government of Meghalaya  
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megspcb@rediffmail.com
- :** **Mr. T. Dkhar, IAS**  
Commissioner & Secretary, Government of Meghalaya  
Mining & Geology Department  
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- :** **Mr. H. Nongpluh, IPS**  
Additional Director General of Police  
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- :** **Mr. S. K. Agarwal, IFS,**  
Additional Director General of Forests (Central)  
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- : **Mr. P. M. Sangma**  
Deputy Commissioner Transport  
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- : **Smti. R. Kynjing**  
Executive Engineer, Rural Water Supply Division, Jowai  
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- : **Mr. M. Somorjit Singh**  
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- : **Dr. H. Tynsong**, Scientist 'D',  
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- : **Mr. K. L. Nonglait, MFS**  
Representative of PCCF (CC & R & T)  
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Directorate of Mineral Resources  
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Email id: drashoksaraf@gmail.com
- : **Mr. P. Purohit, Vice President**  
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- : **Smti. N. N. Dutta**  
Advocate on behalf of Star Cement  
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- : **Mr. G. S. Sodhi**  
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- : **Mr. P. Kr. Jothi**  
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- : **Mr. U. Das**  
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- : **Mr. G. S. Sah**, Assistant General Manager  
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- : **Mr. S. Chowdhury**  
Assistant Manager (FSA)  
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- : **Mr. A. K. Verma**, Authorized Sp. Person  
M/s Shree Shakambari Ferro Alloys Pvt Ltd  
Email id: montexferro@gmail.com

**PROCEEDING NO. 17**

**RECORD OF THE MINUTES OF SEVENTEENTH SITTING OF THE COMMITTEE  
CONSTITUTED BY THE HON'BLE NATIONAL GREEN TRIBUNAL UNDER THE  
CHAIRMANSHIP OF HON'BLE MR. JUSTICE B. P. KATAKEY, FORMER JUDGE, GAUHATI HIGH  
COURT HELD ON 14<sup>th</sup> AUGUST, 2019 AT 10.00 A.M IN THE CONFERENCE HALL, O/O  
PRINCIPAL CHIEF CONSERVATOR OF FORESTS & HOFF, SYLVAN HOUSE, SHILLONG,  
MEGHALAYA.**

At the outset, Mr. C. P. Marak, IFS, Principal Secretary to the Government of Meghalaya, Forest & Environment Department who is also holding charge of the posts of the Principal Chief Conservator of Forests & HoFF, Meghalaya and the Chairman, Meghalaya State Pollution Control

Board welcomed the Hon'ble Chairman & Members of the Committee, Special Invitees, Senior Officials of the State Government, Representatives of the Cement & Thermal Power Plants and other officers present in the meeting..

**AGENDA ITEMS FOR DISCUSSION**

1. Review of actions taken to comply with directions issued by the Committee in its First Special Sitting held on 12.07.2019.
2. Review of actions taken to comply with directions issued by the Committee in its Sixteenth Sitting held on 22.07.2019 and 23.07.2019.
3. Presentation by scientists from the Council of Scientific and Industrial Research – Central Institute of Mining and Fuel Research (CSIR – CIMFR), Dhanbad on progress made in studies assigned to CSIR-CIMFR on development of protocols for treatment of acid mine drain originating from coal mines and closure of abandoned rat hole coal mines by controlled blasting.
4. Consideration of two similar representations dated 12.07.2019 and dated 11.07.2019 from Mr. Marthon Sangma, Hon'ble Member Legislative Assembly and Mr. Nizamuddin R. Marak respectively regarding use of rack loading infrastructure available at Mendipathar Railway Station for evacuation of coal allowed to be transported by the Hon'ble Supreme Court.
5. Consideration of a representation dated Nil from Mr. Rakbirthson D. Sangma regarding estimate of actual quantity of coal lying in the State of Meghalaya for auctioning in terms of the Hon'ble Supreme Court's final Order and Judgement dated 03.07.2019.
6. Consideration of a proposal to involve Eco - Task Force in bio - restoration of areas affected by coal mining in Meghalaya.
7. Any other matter (s) to be raised with permission of the Chair

**AGENDA ITEM NO. 1**

1. Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department states that information/documents sought by the Committee in its First Special Sitting held at Shillong on 12.07.2019 are still being compiled. The same will be submitted to the Committee within a week.

The Committee directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department that all the information/documents sought by the Committee from the Mining and Geology Department in the First Special Sitting held on 12.07.2017 including the video records of all the coal depots where the coal to be handed over to the Coal India Limited is presently lying shall positively be provided to the Committee within one week. As directed by the Committee in the said Special Sitting the videos of the coal depots shall be recorded by joint teams, consisting of representatives from the Mining and Geology Department, Meghalaya State Pollution Control Board and the Coal India Limited.

2. Mr. D. Sangma, MCS, Joint Secretary to the Government of Meghalaya, Transport Department states that an updated Statement in the format provided by the Committee in its First Special Sitting held at Shillong on 12.07.2019 containing details of all those weighbridges which will be available for weighment of coal to be auctioned by the Coal India Limited in compliance of the Hon'ble Supreme Court's Judgment dated 03.07.2019 in Civil Appeal No. 10720 of 2018 along with the geo-coordinates (latitude and longitude) of each of these weighbridges is being prepared. The same will be provided to the Committee within one week.

The Committee directs the Commissioner and Secretary to the Government of Meghalaya, Transport Department that the afore-mentioned information shall positively be provided to the Committee within one week.

3. Mr. H. Nongpluh, IPS, Addl. Director General of Police (L &O/ TAP/ SB/Borders), Government of Meghalaya states that in compliance of the direction issued by the Committee in the First Special Sitting held on 12.07.2019, the Director General of Police, Meghalaya held a meeting with officials of the Mining and Geology Department and the North Eastern Coalfields, Coal India Limited to prepare an Action Plan to ensure that no freshly mined coal is mixed with the assessed coal available at the existing identified depot(s). The Action Plan will be finalised after the Policy for handing over of the coal available at such depots to the Coal India Limited for disposal through e-auction is finalised. The Committee notes the same.
4. The Committee notes that details of the complaints under relevant Section(s) of the Water (Prevention and Control) Act, 1974 and/or the Air (Prevention and Control of Pollution) Act, 1981 against the persons involved in illegal mining, storage and transportation of coal in Meghalaya already filed or proposed to be filed before the concerned competent Courts of Laws is still awaited from the North Eastern Regional Directorate, Central Pollution

Control Board (CPCB). The Committee therefore, directs the Regional Director, North Eastern Regional Directorate, CPCB to positively provide the said details to the Committee within fifteen days.

5. Mr. Z. Changsan, Regional Director, North Eastern Regional Directorate, CPCB states that decision of the competent authority in the CPCB on advise of this Committee to make available the entire amount of Rs. 100 Crore placed at disposal of the CPCB from amounts available in the Meghalaya Environment Protection and Restoration Fund (MEPRF) in compliance of directions issued by the Hon'ble Supreme Court in para 179 of the Judgment dated 03.07.2019 in the Civil Appeal No. 10720 of 2018 in the matter of State of Meghalaya *versus* All Dimasa Student Union, Dima-Hasao District Committee and Ors. and other connected matters for implementation of the Action Plan prepared by the Committee for restoration of environment in areas affected by illegal rat hole coal mining in the State to ensure that the amounts available for restoration of Environment in Meghalaya is utilised in a holistic and integrated manner, is still awaited.

The Committee directs Mr. Z. Changsan to obtain a decision of the competent Authority in the CPCB on the above and communicate the same to the Committee within fifteen days.

The Committee further reiterates that in case the aforesaid suggestion of the Committee is not acceptable to the CPCB, the CPCB shall prepare a detailed Action Plan for utilisation of the afore-said amount of Rs. 100 crore and submit the same to the Committee within one month. The Action Plan shall among other contain full details of activities proposed to be undertaken, estimated cost and the agencies responsible for execution and monitoring of each of these activities.

6. The Committee notes that the Addl. Director General (Central), North Eastern Regional Office, Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India (GoI) in a letter dated 08.08.2019 addressed to the Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters), Government of Meghalaya has stated that the list of miners, coal dealers/transporters submitted by the Directorate of Mineral Resources, Shillong have been sent to the MoEF&CC, New Delhi to advise the Regional Office, Shillong on the actions to be taken against these persons. He further states that decision of the MoEF&CC, New Delhi is yet to be received by the Regional Office. The Committee takes a copy of the said communication on record.

The Committee directs the Addl. Director General (Central), North Eastern Regional Office, MoEFCC, GoI to pursue and obtain decision of the concerned competent authority in the MoEFCC, GoI on the above and intimate the same to the Committee within fifteen days.

**AGENDA ITEM NO. 2**

7. Mr. Z. Changsan, Regional Director, North Eastern Regional Directorate, CPCB states that in compliance of a direction issued by the Hon'ble Supreme Court in para 179 of the Judgment dated 03.07.2019 in the Civil Appeal No. 10720 of 2018 in the matter of State of Meghalaya *versus* All Dimasa Student Union, Dima-Hasao District Committee and Ors. and other connected matters an amount of Rs. 100 Crores has been transferred to the CPCB from the MEPRF. He further states that the said amount has been deposited in a separate account opened by the headquarters of the CPCB at Delhi. The Committee notes the same.

The Committee also notes that the Hon'ble Supreme Court in the said Judgment dated 03.07.2019 has directed that the said amount of Rs. 100 crore shall be utilised only for restoration of the environment in the State of Meghalaya. The Committee therefore is of the view that it may be desirable to transfer the said amount in a separate bank account to be opened in any Nationalised Bank at Shillong.

The Committee, keeping in view the above, advises the CPCB to transfer the said amount in a separate bank account to be opened in any Nationalised Bank at Shillong. The Committee also advises the CPCB to invest the surplus amount which is not likely to be utilised in near future in fixed deposit(s) in Nationalised Bank(s) who offers highest rates of interest.

8. Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department states that report on a visit undertaken in 2008 by a High Level Delegation headed by the then Deputy Chief Minister to West Virginia, USA for search of appropriate coal mining technology for the State of Meghalaya is presently being examined by the State Government. An appropriate decision on the said Report will be taken by the Government shortly.

The Committee directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to expedite decision on the said Report and communicate the same to the Committee within fifteen days.

The Committee after consultation with the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department directs that to have first-hand

experience of the said technology and to assess feasibility of its adoption in the State, a delegation consisting of the Commissioner and Secretary and/or Secretary to the Government of Meghalaya, Mining and Geology Department; one member of the Committee (*viz.* Dr. Shantanu Kr. Dutta) and Mr. N. Bhattacharjee, Chairman, State Level Expert Appraisal Committee may on 22<sup>nd</sup> and 23<sup>rd</sup> August, 2019 visit any of the mines in India where Highwall Mining Technology is presently being deployed and submit a report to the Committee immediately thereafter.

9. Mr. K. A. Khieya, Commissioner Custom (Preventive), Office of the Commissioner of Customs, Shillong states that month-wise details (*viz.* name & full address) of the exporter for each consignment of the coal originated from the Meghalaya allowed to be exported to the Bangladesh from each of the seven Land Custom Stations in Meghalaya since the ban on rat hole coal mining in Meghalaya was imposed by the Hon'ble NGT in April, 2014, as sought by the Committee in the first day of its Sixteenth Sitting held on 22.07.2019, is still being compiled. He therefore requested the Committee to provide atleast one month additional time to place the said information before the Committee. The Committee accepts the said request and directs Mr. K.A. Khieya to submit the said information to the Committee within one month positively. The Committee further directs that the information in respect of Gasuapara Land Custom Station for the month of May 2019 along with a copy of supporting documents shall positively be provided to the Committee within seven days.
10. Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department states that month-wise details (*viz.* name & full address) of the exporter for each consignment of the coal originated from the Meghalaya allowed to be exported to the Bangladesh from each of the seven Land Custom Stations in Meghalaya since the ban on rat hole coal mining in Meghalaya was imposed by the Hon'ble NGT in April, 2014, as sought by the Committee in the first day of its Sixteenth Sitting held on 22.07.2019, is still being compiled. He therefore requested the Committee to provide atleast one month additional time to place the said information before the Committee. The Committee accepts the said request and directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to submit the said information to the Committee within one month positively. The Committee further directs that the information in respect of Gasuapara Land Custom Station for the month of May 2019 along with a copy of supporting documents shall positively be provided to the Committee within seven days.

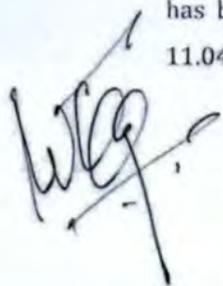
11. Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department states that an amount of Rs. 16,50,000/- has already been sanctioned on 01.08.2019 for payment of *ex-gratia* @ Rs. 1,00,000 to the next of kin of each of 14 (fourteen) coal mine workers who died while working in an illegal coal mine in South Garo Hills District in 2012 and @ Rs. 50,000 to 5 (five) coal mine workers who were injured in the said accident. He further states that said amount will be disbursed to the concerned beneficiary once they approach the Deputy Commissioner, South Garo Hills District along with requisite documents duly verified by the concerned competent authority. The Deputy Commissioner, South Garo Hills District by a WT Message dated 19.07.2019 has already requested the Deputy Commissioners of all concerned districts and Officer in-charge of the concerned Police Stations in Assam having jurisdiction over the last known place of residence of these beneficiaries to inform the beneficiaries to approach him along with duly verified documents to receive the compensation.

The Committee directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to expedite disbursement of the aforesaid compensation to the concerned beneficiaries and submit a report to the Committee within one month.

12. Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department states that in response to a notice inviting applications for payment of *ex-gratia* published in local Dailies in compliance of a direction issued by this Committee, he received 11 (eleven) claims. These claims have been forwarded to Deputy Commissioners of the concerned districts (*viz.* East Jaintia Hills and South Garo Hills Districts) for verification. Report from Deputy Commissioners of both these districts is still awaited.

The Committee directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to expedite verification of these claims and disbursement of *ex-gratia* to the genuine/eligible claimants and submit a report to the Committee within one month.

13. Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department states that an order has already been placed by the Deputy Commissioner, East Jaintia Hills District to purchase six vehicles, each mounted with a water tanker, from an amount of Rs. 96.97 lakh released in his favour from the MEPRF, as has been approved by the Hon'ble National Green Tribunal (NGT) by its order dated 11.04.2019. So far two such vehicles have already been delivered. Smti. R. Kynjing,



Executive Engineer, Rural Water Supply Division, Jowai states that so far these vehicles have not been used for supply of potable water to villages affected by acid mine drain.

The Committee directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to expedite purchase and use of these vehicles, obtain from the Deputy Commissioner, East Jaintia Hills District a Utilisation Certificate (UC) for the said amount along with a report on use of these vehicles and provide a copy thereof to the Committee within fifteen days.

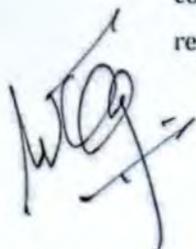
14. Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department states that the Government has taken up steps to introduce new transportation challans with security features like watermark, hologram and QR code to prevent misuse of challans.

The Committee notes that in compliance of directions issued by the Hon'ble NGT by Order dated 11.04.2019, the Committee in its twelfth Sitting held on 25.04.2019 issued several directions to ensure detection and prevention of illegal mining and transportation of the coal in Meghalaya. The Committee further notes that keeping in view that majority of these directions recorded in para (5) of the Record of Minutes of the said Sitting have not been implemented so far, the Committee in its sixteenth sitting held on 22.07.2019 had directed the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to submit a report on status of implementation of each of these directions in this Sitting. The said report is still awaited.

The Committee therefore directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to expedite implementation of each of these directions and submit a report on status of implementation of each of these directions to the Committee within fifteen days positively.

15. Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department states that an order for supply and installation of Digital Display Boards at Headquarters of all the coal mining affected districts and sub-divisions in the State has been issued. Installation of these Boards is likely to be completed on 15.09.2019.

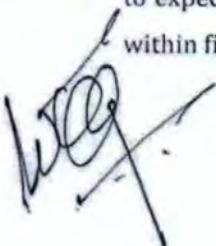
The Committee directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to complete installation and display thereon the quality of ten worst polluted rivers and streams, of these Boards at headquarters of all coal mining affected districts and sub-divisions in State, at the earliest and to submit a report to the Committee within one month.



16. The Director of Mineral Resources, Government of Meghalaya states that contrary to what has been reported in records of minutes of proceedings of first day of Sixteenth Sitting of the Committee held at Shillong on 22.07.2019, out of the total ten (10) bore holes required for preparation of a Geological Report and Feasibility Report for 1 sq. km. area in Khliehriat-Sutnga area in East Jaintia Hills District, so far drilling of four (4) bore holes has only been initiated. Out of these, drilling of three (3) bore holes had to be abandoned mid-way due to jamming of drilling bits. Drilling of one bore hole, which has been completed, did not detect any coal seam. He further states that services of Mineral Exploration Corporation Limited (MeCL) are being availed to undertake drilling of requisite number of bore holes in the said area.

The Committee notes with concern the long delay in drilling of requisite number of bore-holes in the said area and directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to expedite drilling of bore-holes and preparation of Geological Report, Feasibility Report and Environment Report for the said area. A report on updated current status of preparation of these Reports along with a definite timeframe for completion thereof, shall be intimated to the Committee within fifteen days.

17. Prof. O.P. Singh, Department of Environmental Studies, North Eastern Hill University (NEHU) places before the Committee a status report of a project on neutralization of acid mine drain (AMD) contaminated water of some selected streams in coal mining areas of Meghalaya by constructing open limestone channel (OLC) using locally available limestone and intermittent wetlands with local aquatic plants, being undertaken in East Jaintia Hills district under his guidance. The Committee takes the same on record.
18. The Committee in first day of its Sixteenth Sitting held at Shillong on 22.07.2019 requested Prof. O.P. Singh to prepare a detailed protocol and year-wise cost -estimates for neutralization of acid mine drain (AMD) contaminated water of some selected streams in coal mining areas of Meghalaya by constructing open limestone channel (OLC) using locally available limestone and intermittent wetlands with local aquatic plants. It was also requested that the protocol and the cost-estimates may specifically provide for use of limestone with low sulphur content and expenditure to be incurred on periodic rejuvenation of limestone beds. Prof. O.P. Singh states that preparation of the said protocol is presently under progress. The Committee therefore, requests Prof. O.P. Singh to expedite preparation of the said protocol and submit a copy thereof to the Committee within fifteen days.



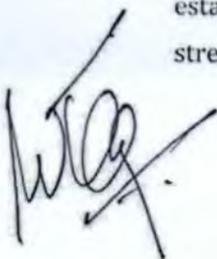
19. Dr. Manjunatha C., IFS, Secretary to the Government of Meghalaya, Forests and Environment Department states that decision on a proposal submitted by the Principal Chief Conservator of Forests & HoFF for payment of sitting fee to official members of the Committee and various experts invited to attend meetings of the Committee is still under consideration of the State Government.

The Committee directs the Principal Secretary to the Government of Meghalaya, Forests and Environment Department to expedite decision on the said proposal and intimate the same to the Committee within one week.

20. Dr. Manjunatha C., IFS, Secretary to the Government of Meghalaya, Forests and Environment Department states that a proposal submitted by the Principal Chief Conservator of Forests & HoFF to enhance the rates of monthly honorarium payable to the Chairman of this Committee has been forwarded to the Mining and Geology Department for appropriate decision.

The Committee directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to expedite decision on the said proposal and intimate the same to the Committee within one week.

21. The Committee during first day of its Sixteenth Sitting held on 22.07.2019 directed the Chairman, MSPCB to submit details of the regulatory regime presently in force to govern establishment and operation of coal depots in the State along with a proposal to fill gaps, if any, in such regime to ensure prevention and control of generation of acid mine drain (AMD) from such depots. The same is still awaited. The Committee therefore directs the Chairman, MSPCB to provide the above information to the Committee positively within one week.
22. The Committee in first day of its Sixteenth Sitting held on 22.07.2019 noted that establishment and operation of a coal mine in Meghalaya requires prior consent from the MSPCB under Section 25 of Water (Prevention and Control of Pollution) Act, 1974. The Committee also noted that it is an admitted position that all coal mines in the State had been established and operated without obtaining prior consent from the Board. The owners of all these mines are therefore, liable to be punished under Section 44 of the Water (Prevention and Control of Pollution) Act, 1974 for contravention of section 24 of the said Act, without a need to establish before the concerned Court of Law that establishment and operation of such mines have caused pollution of one or more water streams.



Keeping in view the above, the Committee in the said sitting directed the Chairman, MSPCB to initiate necessary penal actions in accordance with all relevant provisions of the Water (Prevention and Control of Pollution) Act, 1974 and all other Environmental Acts, rules and regulation against the persons involved in illegal mining of coal in the State. In response the Member Secretary, in a communication dated 13.08.2019 addressed to the Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters), Government of Meghalaya stated that the MSPCB has sought advice of its Standing Legal Counsel on the matter. In response the Standing Legal Counsel gave his opinions as follows:-

- (i) That a prior general public notice is necessary to be published in leading local news paper barring all mining operations, mining activities, coal depots, establishments, coal transportation, etc., from carrying out any activity without prior consent from the board. Failing which, legal actions may be followed.
- (ii) That the Directorate of Mineral Resources, Forest Department, District Administration, etc., may immediately stop issuing challans, clearance, granting any permission or licence to any mine owner or miner or trader without prior consent from the Board.
- (iii) That the Board on being approached for availing consent by the occupier will ensure by visiting the identified site/location/ETPs and will inspect it in the presence of the Stakeholders tested & mapped and further assure that no effluent or pollutant is allowed to leak in to the river or stream or land before granting consent.
- (iv) That unless the aforesaid are initiated afresh and complied by all the stakeholders before granting consent, it would be too huge a task to identify any coal miner, or mine owner or trader spread out across the interiors of the State.

The Committee after examination of the matter is of the view that the name and address of the mine owners have already been provided to the MSPCB by the Directorate of Mineral Resources. It is also an admitted position that all coal mines in the State have been established and operated without obtaining prior consent from the Board. The Committee is also of the view that every power conferred on any person or any authority under any statute always cast a duty on such person or authority to exercise such power to achieve the intent and purpose under which such power has been conferred on such person or authority. The MSPCB is thus duty bound to exercise all the Powers conferred on it under relevant sections, including section 44 of the Water (Prevention and Control of

Pollution) Act, 1974 to initiate proceedings against all those persons who have undertaken mining of coal in contravention of the provisions of section 21 of the said Act.

The Committee therefore reiterates its earlier direction to the effect that the MSPCB shall initiate necessary penal actions in accordance with all relevant provisions of the Water (Prevention and Control of Pollution) Act, 1974 and all other environmental Acts, rules and regulation against the persons involved in illegal mining of coal in the State and submit a report to this Committee within one month.

23. The Committee after perusal of certain documents placed before it by the Member-Secretary, MSPCB in first day of its Sixteenth Sitting held at Shillong on 22.07.2019 observed that actions are proposed to be taken by the MSPCB against only a limited number of persons involved in illegal mining, storage and transportation of coal resulting in pollution of rivers, streams and other water bodies in the State. The Committee was of the view that the mining, storage and transportation of about 12 million metric tonnes of coal permitted to be transported by the Hon'ble Supreme Court and the Hon'ble NGT from time to time after ban on illegal rat hole coal mining in the State was imposed by the NGT in April, 2014 could not have been undertaken by these limited number of persons.

The Committee keeping in view the above, in the said Sitting directed the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to furnish to the MSPCB and to this Committee a district-wise list of all persons involved in mining, storage and transportation of coal permitted to be transported by the Hon'ble Supreme Court and the Hon'ble NGT after the ban on illegal rat-hole coal mining was imposed by the Hon'ble NGT in April 2014. The said list is still awaited.

The Committee therefore, reiterates its direction to the effect that the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department shall positively furnish to the MSPCB and to this Committee within one week a district-wise list of all persons involved in mining, storage and transportation of coal permitted to be transported by the Hon'ble Supreme Court and the Hon'ble NGT after the ban on illegal rat-hole coal mining was imposed by the Hon'ble NGT in April 2014.

24. The Committee keeping in view that use of high sulphur local coal by Thermal Power Plants (TPPs) in the State may cause environmental pollution, in the first day of its Sixteenth Sitting held at Shillong on 22.07.2019 directed the Addl. Director General (Central), North Eastern Regional Office, MoEFCC, Gol to request the MoEFCC, Gol and the

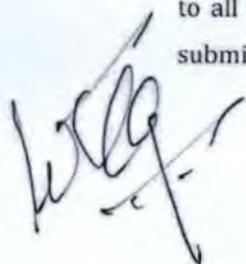
State Environment Impact Assessment Authority (SEIAA), Meghalaya to stipulate an appropriate additional condition in Environment Clearances (ECs) granted to all the TPPs in the State to prohibit use of high sulphur local coal by these TPPs.

Mr. S.K. Agarwal, Addl. Director General of Forests (Central), North Eastern Regional Office, MoEFCC, GoI in a communication dated 08.08.2019 addressed to the Member-Secretary of this Committee stated that the Regional Office vide letters dated 06.08.2019 communicated a copy of the minutes of the said Sitting to the Member -Secretary, Impact Assessment -I (Thermal) Division in the MoEFCC, GoI and the Member -Secretary, SEIAA, Meghalaya with a request to impose an appropriate additional condition in the EC of TPPs operating in the State. The Committee takes a copy of the said letter on record.

It has also been stated in the said letter that the SEIAA, Meghalaya vide letter dated 29.07.2019 has already stipulated an additional condition to the effect that *"the PP shall not use coal in Thermal Power Plant procured from the local source, since illegal activities of coal mining is rampant in the State."* in the Environmental Clearance (EC) to the Meghalaya power Limited

The Committee notes that in case of the Meghalaya Power Limited a condition to the effect *"In case source of fuel supply is changed at a later stage (now proposed on imported coal from Indonesia the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change., In such a case the necessity for re-conducting public hearing may be decided by the Ministry in consultation with the Expert Appraisal Committee"* has already been stipulate in the EC to the said TPP. Stipulation of an additional condition in the EC to the said TPP by the SEIAA, Meghalaya by the said letter dated 29.07.2019 will therefore not serve purpose. In fact the Committee in its several previous meetings has directed the North Eastern Regional Office of the MoEFCC, GoI to take necessary actions to stipulate a similar condition in the ECs granted to other TPPs in the State. Instead of doing so, an additional condition in ECs granted to other TPPs, the SEIAA Meghalaya has stipulated an additional condition to EC granted to the Meghalaya Power Limited, which already had a condition to prohibit use of high sulphur local coal.

The Committee therefore, reiterates its earlier direction to the effect that the Addl. Director General of Forests (Central), North Eastern Regional Office, MoEFCC, GoI shall take immediate necessary actions to get an additional condition stipulated in ECs granted to all TPPs in the State to prohibit use of high sulphur local coal by all such TPPs and submit a report to the Committee within one month.



25. Mr. S.K. Agarwal, Addl. Director General of Forests (Central), North Eastern Regional Office, MoEFCC, GoI states that decision of the MoEFCC, GoI on the proceedings initiated against the Meghalaya Power Limited for use of locally sourced coal in violation of a condition stipulated in the EC to the said TPP is still awaited.

The Committee notes with great concern long delay in taking a decision in the matter and reiterates its earlier direction to the effect that the Addl. Director General in-charge North Eastern Regional Office of the MoEFCC, GoI shall ensure that appropriate punitive measure against the said TPP for violation of a condition stipulated in the EC shall be taken at the earliest and submit a report to the Committee within one month.

26. Smt. I. Mawlong, Joint Secretary to the Government of Meghalaya, Revenue and Disaster Management Department states that the State Government after examination of a draft Comprehensive Disaster Management Plan, both "on-site" and "off-site" received from the Deputy Commissioner, East Jaintia Hills District observed that the same is not up to the mark and needs further improvements. The State Government has therefore, recently requested the Deputy Commissioner, East Jaintia Hills District to submit a revised draft Plan. On receipt, the same will be placed before the State Disaster Management Authority for consideration and approval.

The Committee directs the Commissioner and Secretary to the Government of Meghalaya, Revenue and Disaster Management Department to take all possible measures to prepare an acceptable plan, get the same approved by the competent authority and provide a copy thereof duly approved by the competent authority to this Committee within fifteen days.

27. Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department states that necessary directions have been issued to the officers in the Mining and Geology Department and the District Administration who have been authorised under Section 22 of the Mines and Minerals (Development and Regulation) Act, 1957 to file complaint against the persons involved in illegal raising and transportation of coal to exercise power vested on them. He further states that till date no enquiry has been initiated by any of these Authorised Officers in the Mining and Geology Department and the District Administration to file complaint before the concerned competent Court of Law for violation of the Mines and Minerals (Development and Regulation) Act, 1957.

The Committee notes the above with great concern and directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to ensure that all such officers exercise powers conferred on them to enquire into and file complaint against the persons involved in illegal raising and transportation of coal in the State. A monthly report on the enquiries initiated and complaints filed by such officers shall be submitted to this Committee every month. First such report shall be submitted to this Committee on or before 10.09.2019.

28. Mr. H. Nongpluh, IPS, Addl. Director General of Police (L &O/ TAP/ SB/Borders), Government of Meghalaya states that in the Nangal Bibra P.S. case No. 10 (03) of 2013, Post-Mortem Report has already been received from the District Medical and Health Officer, Williamnagar. Charge-sheet in the said case, which was pending so far due to non-receipt of the said post-mortem report, will be filed before the concerned Court of Law within one week. The Committee directs the Director General of Police, Meghalaya to submit a report on the same to the Committee within fifteen days.
29. Mr. H. Nongpluh, IPS, Addl. Director General of Police (L &O/ TAP/ SB/Borders), Government of Meghalaya states that in compliance of directions issued by the Committee in the first day of its Sixteenth Sitting held on 22.07.2019, Police Check Posts have already been set up at Dongkiingding in West Khasi Hills District and Nartiang in West Jaintia Hills District to effectively avert illegal transportation of coal by using vulnerable internal routes passing through these areas. The Committee notes the same.
30. The Committee in first day of its Sixteenth Sitting held on 22.07.2019 directed Mr. M.B.K. Reddy, IPS, Chief Executive Officer, the Meghalaya State Compensatory Afforestation Fund Management and Planning Authority (CAMPA) to place before the Committee a plan formulated by the Meghalaya State CAMPA to obtain approval of the competent authorities for execution of various activities from the CAMPA. He was also directed to the effect that details of activities to be undertaken in areas affected by coal mining shall separately be provided to the Committee. The same are still awaited.

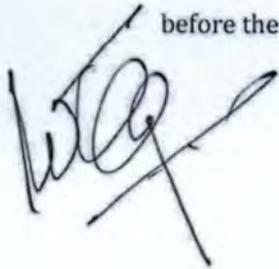
The Committee therefore reiterates its earlier direction to the effect that Mr. M.B.K. Reddy, Chief Executive Officer, Meghalaya State CAMPA shall provide a copy of the said Plan to the Committee within one week. Details of activities to be undertaken in areas affected by the coal mining shall also be provided to the Committee separately within one week.

31. Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department states that the Government of Meghalaya vide Notification dated 13.03.2019 has notified 'Authorised Officers' to seize mineral raised or transported illegally along with the vehicles. He further states that the officers authorised by above notification shall also exercise power conferred under sub-section (5) of section 21 of Mines and Minerals (Development and Regulation) Act, 1957 to recover mineral raised unlawfully from such person or where such mineral has already been disposed to recover price thereof.

He further states that the Chief Secretary, Meghalaya convened a meeting on 07.01.2019 in connection with illegal mining and transportation of coal and a direction was issued to form a joint operation team of police, mining and transport Departments under the supervision of respective Deputy Commissioner/Superintendent of Police to seize coal and machineries/equipment in each mining districts of the State. Deputy Commissioner from time to time to have deputed Magistrate and Executive Magistrate, and police to conduct checking in mines to seize mineral, tools and vehicles used in illegal coal mining. The authorised officers under Section 21 and section 22 of the Mines and Minerals (Development and Regulation) Act, 1957 are enforcing the provisions of the Act.

The Committee directs the Commissioner and Secretary to the Government of Meghalaya to place before the Committee a copy of notification/communication wherein it has been stated that the officers authorised by the notification dated 13.03.2019 shall also exercise power conferred under sub-section (5) of section 21 of Mines and Minerals (Development and Regulation) Act, 1957 to recover mineral raised unlawfully or where such mineral has already been disposed to recover price thereof. The Committee further directs that the district-wise details of minerals or price thereof recovered by such Authorised Officers and the mineral, tools, and vehicles seized by the Joint Operation Teams shall also be placed before the Committee within one month.

32. Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department states that the State Government has initiated measures to frame Rules under Section 23 C of the Mines and Minerals (Development and Regulation) Act, 1957 for preventing illegal mining, transportation and storage of minerals and for the purposes connected therewith. He further states that these draft rules are yet to be placed before the Cabinet for approval.



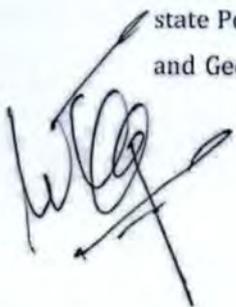
The Committee reiterates its earlier direction to the effect that the Commissioner and Secretary to the Government of Meghalaya, Mining & Geology Department shall complete all necessary procedural requirements and notify these rules within one month. A copy of a Gazette Notification containing these rules shall be provided to the Committee within one month.

33. Mr. Z. Changsan, Regional Director, North Eastern Regional Directorate, CPCB states that he has received a communication from the Mining and Geology Department, Government of Meghalaya to the effect that Dr. Manjunatha C., IFS, Secretary to be Government of Meghalaya, Mining and Geology Department has been nominated to be a member of the Sub-Committee to be headed by Dr. Shantanu Kumar Dutta, Addl. Director, North Eastern Regional Directorate of the CPCB to scrutinise the proposal involving use of new technologies for restoration of environment in general and quality of water in particular, in areas affected by coal mining in Meghalaya.

The Committee directs the Principal Secretary to the Government of Meghalaya, Forest & Environment Department; the Chairman, Meghalaya State pollution Control Board and the Addl. Director General of Forests (Central), North Eastern Regional Office of the MoEFCC, Gol to nominate their representative to the said Sub-Committee within one week. The Committee further directs that on receipt of the nomination from all concerned, the Regional Director, North Eastern Regional Directorate, CPCB shall issue a formal notification to constitute the Sub-Committee. The notification shall clearly state the Terms of Reference (ToR) of the Sub-Committee. The representative of the Meghalaya State Pollution Control Board shall be the Member Secretary of the said Sub - Committee who shall from time to time issue notification for holding the meeting of the said Sub - Committee.

The Committee, in partial modification of its earlier directions, directs that recommendation of the Sub-Committee shall be placed before the Committee for its examination and approval.

34. Mr. M. Somorjit Singh, Scientist, North Eastern Space Application Centre (NESAC), Umiam provides a copy of the final draft of a report on a study assigned to NESAC to prepare geospatial inputs for planning and restoration of areas affected by coal mining in East and West Jaintia Hills districts in Meghalaya to the representatives of the CPCB, Meghalaya state Pollution Control Board (MSPCB), Forests and Environment Department and Mining and Geology Department and requests that the comments, if any, on the said report may

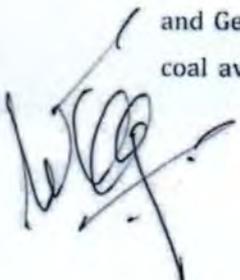


be provided to the NESAC within fifteen days, so that the same may be incorporated in the report before the same is finalised.

The Committee directs the Principal Secretary to the Government of Meghalaya, Forests and Environment Department; the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department; the Chairman, MSPCB and the Regional Director, North Eastern Regional Directorate, CPCB to examine the said draft report and communicate their comments, if any, on the report to the NESAC within fifteen days. The Committee also directs the NESAC to finalise the report and provide a copy thereof to the Committee within three weeks, The Committee further directs the NESAC to expedite preparation of similar reports for the remaining coal bearing districts in the State and submit a copy thereof to the Committee within one month.

The Committee also decided that decision of a proposal of the NESAC to undertake similar land-use Land -cover analysis of the areas having coal dumps/depots for the period immediately before the ban on coal mining was imposed by the Hon'ble NGT in April 2014 and once in a year thereafter (*i.e.* 2014, 2015, 2016, 2017 and 2019) at an estimated outlay of Rs. 24, 35, 500/- (rupees twenty four lakh thirty five thousand five hundred) only to ascertain that coal stated to be existing at these dumps/depots was continuously existing at each such dump/depot since ban on rat hole coal mining was imposed by the Hon'ble NGT in April, 2014 will be taken after the receipt of a copy of the draft policy being formulated by the Mining and geology Department, Government of Meghalaya for handing over and transportation of coal permitted to be transported by the Hon'ble Supreme, is received by the Committee.

35. The Committee directs the Commissioner and Secretary to Government of Meghalaya, Mining and Geology Department to submit monthly reports on safety measures including fencing of the abandoned and working coal pits as per the Coal Mines Regulations, 2017 and Mines and Minerals (Development and Regulation) Act, 1957 and all other applicable laws undertaken by the Mining & Geology Department, Government of Meghalaya in association with the Deputy Commissioners of the respective districts to prevent human and animal deaths due to accidental falling in unguarded coal mining pits/shafts. The first such report for the month of August 2019 shall be submitted to the Committee on or before 10.09.2019.
36. Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department states that a Policy for transportation and handing over of the coal available at various Depots in the State to the Coal India Limited for its disposal



through e-auction will shortly be placed before the Cabinet for approval. The Policy as approved by the Cabinet will be provided to the Committee.

The Committees directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department that the policy as approved by the Cabinet shall be placed before the Committee at the earliest. The Committee further directs that the Policy as approved by the Cabinet will be examined by the Committee it in its Second Special Sitting to be held at Guwahati on 07.09.2019.

37. Dr. A. Saraf, learned Senior Advocate along with Smti. N.N. Dutta, learned Advocate appears before the Committee on behalf of **State Cement Limited**. Mr. Pradeep Purohit, Vice President, Star Cement Limited is also present during the Sitting. Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters), Government of Meghalaya places before the Committee documents relating to two cement plants (*viz.* Star Cement Limited and Star Cement Meghalaya Limited) and one Thermal Power Plants (*viz.* Meghalaya Power Limited) of Star Cement Limited received by him vide three separate communications, each dated 13.08.2019. The Committees takes these documents on record.

As per these documents, year wise details of clinker (MT)/power (kwh) produced and coal procured by each of these plants ,since the illegal rat hole coal mining was banned by the Hon'ble NGT in April 2014 (*viz.* 2014-15 to 2018-19), are as below:

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Star Cement Limited	Clinker produced (MT)	3,30,010	4,92,055	5,67,241	5,15,350	6,00,025	25,04,681
	Coal procured (MT)	13,417	47,628	10,192	25,267	10,989	1,07,493
Star Cement Meghalaya Limited	Clinker produced (MT)	15,49,349	16,29,025	15,79,345	15,41,945	14,36,600	77,36,264
	Coal procured (MT)	58,448	1,48,954	9,775	67,624	84,188	3,68,989
Meghalaya Power Limited	Power Produced (Million kwh)	167.923	183.114	201.624	190.059	170.116	912.836
	Coal procured (MT)	25,182	68,092	41,863	36,129	18,024	1,89,290

It has also been stated in these documents that these plants also purchased alternate fuels such as Mu Slate, Petcoke and Saw dust. Year-wise details quantity of alternate fuels stated to be used by each of these plants is as below:

(Metric Tonne)

Plant	Nature of Alternate Fuel	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Star Cement Limited	Mu Slate	50,042	91,556	82,969	1,92,859	1,01,129	5,18,555
Star Cement Meghalaya Limited	Mu Slate/ Pet Coke/ Saw Dust	1,87,631	3,01,027	2,03,188	4,45,209	1,86,032	13,23,087
Meghalaya Power Limited	Mu Slate	1,06,243	1,39,303	1,73,348	2,87,638	1,58,652	8,65,184

It has also been stated in these communications that average estimated requirement of coal and alternate fuel for production of clinker by these plants is 9% - 14% and 25% - 35% respectively. Similarly, it has also been stated in these communications that average estimated requirement of coal and alternate fuel for production of one kwh of power by the said Thermal Power Plant is 0.45 - 0.65 kg per kwh and 1.20 - 1.60 kg per kwh.

The Committee after examination of the Techno-Economic Feasibility Report of the Modernisation & Expansion of the then existing plant of the Cement Manufacturing Company Limited (now Stat Cement Limited) from 1800 TPD to 2400 TPD clinker and a similar report of 5300 TPD clinkerization plant (now State Cement Meghalaya Limited), both prepared by Holtec Consulting Private Limited, a copy of the which was provided to the Committee during the meeting by Mr. Pradeep Vyas, Vice Chairman, Star Cement Limited, the Committee observes that both these plants have been designed to use 100% Meghalaya coal available locally from areas within the distance of 50 kms. Nowhere in these reports it is stated that any of these plants can be operated by any alternate fuel other than coal.

As per these reports, net calorific value of the local coal to be used in these clinker plants is 5,800 Kcal/kg. It has also been stated in these reports that specific heat consumption of these plants is 740 Kcal per kg of clinker. The average estimated requirement of coal as per these information given in these reports is 12.75 %. Keeping in view that the project proponent in

their own communication has stated that estimated requirement of coal for these plants is upto 14 % and both these plants are more than 10 years old, the Committee is of the view that actual requirement of coal for production of clinker by both these plants is atleast 14 %.

The Committee after examination of the Techno-Economic Feasibility Report of the Meghalaya Power Limited prepared jointly by Technical Consultant - Cethar Consulting Engineers (P) Ltd., Chennai and Financial Consultant- KBG Consultants Pvt. Ltd., Kolkata, a copy of the which was provided to the Committee during the meeting by Mr. Pradeep Vyas, Vice Chairman, Star Cement Limited, the Committee observes that the said plant was designed to use coal sourced from nearby coal mines at Bapung and Khliehriat, Jaintia Hills, in Meghalaya & captive mines, Meghalaya. Requirement of the locally sourced Meghalaya coal at 100 % capacity for the said 43 MW TPP, as per the said report, is 720 MT per day. The specific fuel requirement for the said TPP, as per the information given in the said plant is therefore 0.70 kg/ kwh. Nowhere, in the said report it has been stated that it will be feasible to run the plant by using any alternate fuel other than coal.

Keeping in view the non-availability of a legal source of the local coal, Environmental Clearance (EC) to the said TPP was accorded subject to among others a condition that *"In case source of fuel supply is changed at a later stage (now proposed on imported coal from Indonesia the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change., In such a case the necessity for re-conducting public hearing may be decided by the Ministry in consultation with the Expert Appraisal Committee"*. The North Eastern Regional Office of the MoEFCC, GoI during routine monitoring of conditions stipulated in EC to the said TPP has observed that in contravention of the said condition, the plant has been operated by using locally sourced coal. For the said violation, the North Eastern Regional Office has requested the MoEFCC, GoI to initiate penal measures in accordance with the provisions of the Environment (Protection) Act, 1986 against the said TPP. In pursuance, a show cause notice has already been issued to the said TPP by the MoEFCC, GoI.

In the information provided by Mr. Pradeep Vyas, Vice-President, Star Cement Limited it has been stated that during the last five years Star Cement has procured 6,65,772 metric tonnes of coal and 27,06,862 metric tonne of alternate fuel. As per these information two of these plants (viz. Star Cement Limited and Meghalaya Power Limited) used only one type of alternate fuel (viz. Mu Slate). As per these information, one of these plants (viz. Star Cement Meghalaya Limited), apart from the Mu Slate, used pet coke and saw dust have also been used as alternate

fuel.

Use of alternate fuel, in place of coal in these plants, which have been designed to use coal as an exclusive fuel, requires major modification/alteration in their design and operation. Nothing was placed before the Committee to the effect that design of these plants have been altered/modified to enable them to utilise fuel such as Mu slate having very low calorific value of about 1200 Kcal/ kg in place of the high calorific value local Meghalaya coal of about 5800 Kcal/kg calorific value. During the year 2016-17 as per the information provided Mr. Pradeep Vyas, the Star Cement Meghalaya Limited was operated by using 9,775 MT coal and 2,03,188 MT of alternate fuel. The Committee is of the view that even with modifications, a clinker plant cannot attain the requisite kiln temperature with such a low calorie fuel mix.

The Committee also observes that paragraph 2 of the Environment Impact Assessment (EIA) Notification issued by the MOEFCC, GoI vide S.O. 1533 dated 16.09.2006 mandates prior EC in the cases involving change in product mix. Mr. Pradeep Vyas, Vice President, Star Cement Limited admits that no such EC has been obtained for any of these plants. Mr. H. Tynsong, Scientist D, North Eastern Regional Office of the MoEFCC, GoI draws attention of the Committee to specific condition no. (xi) (*viz. efforts shall be made to use low -grade lime, more fly ash and solid waste in cement manufacturing*) and no. (xii) (*viz. an effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly*) stipulated in EC to Star Cement Meghalaya Ltd. issued by the MoEFCC, GoI vide letter dated 28.10.2009 and states that these conditions specifically provides for use of alternate fuel. He further states that keeping in the above, use of alternate fuel in place of coal by the said plant does not requires prior EC. The Committee after examination of six-monthly self-compliance reports to said EC, a copy of which is available on website of the Star Cement Limited, observes that in respect of the afore-mentioned condition no. (xi) it has been reported that "*SMCL is a clinkerization unit, no fly ash is used in the unit. The generated solid waste from the pollution control equipment has been recycled and re-used in the process and has been used for clinker manufacturing. Amount 8-10 % of low grade lime available in the mine has been used in the process*". Similarly, in respect of the afore-mentioned specific condition no. (xii) it has been reported that "*Provision already made to use of high calorific waste i.e. waste oil in the kiln. The tank capacity is 1000 litres. The used oil disposal process along with photograph has been submitted along with CREP in MoEF&CC, Shillong & New Delhi.*" Use of any alternate fuel, as is being claimed by Mr. Pradeep Vyas, Vice President, Star Cement Limited, has not been reported anywhere in these self-compliance report. Even for the used oil, merely making a provision for its use and not any actual use has been reported.



Apart from the revised EC, change in fuel for a plant also requires prior No objection Certificate approval of the MSPCB. The Member- Secretary, MSPCB places before the Committee a letter dated 24.09.2017 wherein the MSPCB communicated its no-objection certificate to M/s. Star Cement Meghalaya Limited for use of Petroleum Coke in its cement plant subject to conditions stipulated in the said letter. However, use of Petroleum Coke by the said Cement Plant is not reported in the Six Monthly self-compliance reports in respect of the said plant for the period after 24.09.2017.

The mining/ winning/ extraction of Mu slate claimed to be used by these plants requires prior mining lease. It also requires payment of royalty and other taxes to the State Government. Nothing is placed before the Committee to indicate that any mining lease has been granted in the State for mining of Mu slate and the Mu slate, if any, used by these plants has been sourced from an area having valid mining] lease after payment of requisite royalty and other taxes payable to the State Government. Subject to confirmation within one week by the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department, committee is of the view that State of Meghalaya neither has a valid mining lease for Mu slate nor any royalty has so far been realised by the State on slate used by any of the cement plants or TPPs in the State.

Keeping in view the above, the Committee prima facie is of the view that the gap in coal required to produce reported quantity of clinker and power by the afore-mentioned plants of the Star Cements Limited in all probability has been met by illegally sourced local coal. Even if a part of it has been met by any alternate fuel, the same has been done in violation of the environmental and mining laws and also without payment of the requisite royalty and other taxes to the State Government.

Keeping in view the above, the Committee is of the view that neither it is technically feasible, nor it is legally possible to replace coal by alternate fuel by any of these cement and power plants

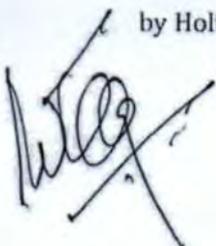
Year-wise details of clinker/power produced, coal required to produce reported quantity of clinker/power produced (@ 14% for clinker and 0.70 kg of coal per kwh of power produced) and gap in coal requirement which has in all probability been met from illegally sourced local coal in respect of each of the afore-mentioned three plants of the Star Cement Limited, since the ban on illegal rat-hole coal mining was imposed by the Hon'ble NGT in April 2014, are as below:

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	

1	2	3	4	5	6	7	8
Star Cement Limited	Clinker produced (MT)	3,30,010	4,92,055	5,67,241	5,15,350	6,00,025	25,04,681
	Coal required (MT)	46,201	68,888	79,414	72,149	84,004	3,50,655
	Coal procured (MT)	13,417	47,628	10,192	25,267	10,989	1,07,493
	Gap (MT)	32,784	21,260	69,222	46,882	73,015	2,43,162
Star Cement Meghalaya Limited	Clinker produced (MT)	15,49,349	16,29,025	15,79,345	15,41,945	14,36,600	77,36,264
	Coal required (MT)	2,16,909	2,28,064	2,21,108	2,15,872	2,01,124	10,83,077
	Coal procured (MT)	58,448	1,48,954	9,775	67,624	84,188	3,68,989
	Gap (MT)	1,58,461	79,110	2,11,333	1,48,248	1,16,936	7,14,088
Meghalaya Power Limited	Power Produced (Million kwh)	167.92	183.11	201.62	190.06	170.12	912.84
	Coal required (MT)	1,17,546	1,28,180	1,41,137	1,33,041	1,19,081	6,38,985
	Coal procured (MT)	25,182	68,092	41,863	36,129	18,024	1,89,290
	Gap (MT)	92,364	60,088	99,274	96,912	1,01,057	4,49,695
Total for above three plants	Coal required (MT)	3,80,656	4,25,131	4,41,659	4,21,063	4,04,209	20,72,718
	Coal procured (MT)	97,047	2,64,674	61,830	1,29,020	1,13,201	6,65,772
	Gap (MT)	2,83,609	1,60,457	3,79,829	2,92,043	2,91,008	14,06,946

38. Mr. R.K. Pareek, President, **Meghalaya Cement Limited** appears before the Committee and places before the Committee documents relating to one cement plant and one 10 MW capacity Captive Power Plant. The Committees takes these documents on record.

The Committee after examination of the Techno-Economic Feasibility Report of the Augmentation of the Clinkerization capacity of the plant from 900 TPD to 2,600 prepared by Holtec Consulting Private Limited, a copy of the which was provided to the Committee



during this Sitting by Mr. R.K. Pareek, observes that the said plant has been designed to use 100% Meghalaya coal available locally. As per the said report, net calorific value of the local coal to be used in the clinker plants is 5,800 Kcal/kg. It has also been stated in the said reports that specific heat consumption of these plants is 840 Kcal per kg of clinker. The average estimated requirement of coal as per the information given in the said report is 14.66 %.

The Committee after examination of the Techno-Economic Feasibility Report of the 10 MW capacity Captive Power Plant prepared by AKB Power Consultants Pvt. Ltd., a copy of the which was provided to the Committee during the Sitting by Mr. R.K. Pareek, observes that the said plant was envisaged to use coal sourced from Western Parts of Meghalaya Hills. The Annual requirement of the locally sourced Meghalaya coal at 100 % capacity for the said 10 MW TPP, as per the said report, is 63,072 MT. The specific fuel requirement for the said TPP, as per these information given in the said report, is therefore 0.72 kg/kwh. Nowhere, in the said report it has been stated that it will be feasible to run the plant by using any alternate fuel other than coal.

Year-wise details of clinker/power produced, coal required to produce reported quantity of clinker/power (@ 14.66% for clinker and 0.72 kg of coal per kwh of power produced) and gap in coal requirement which has, in all probability been met from illegally sourced local coal in respect of clinker/cement plant and captive TPP of the Meghalaya Cement Limited, since the ban on illegal rat-hole coal mining was imposed by the Hon'ble NGT in April 2014, are as below:

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Clinker/ Cement Plant	Clinker produced (MT)	7,98,378	8,43,815	6,96,071	8,39,931	8,38,237	40,16,432
	Coal required (MT)	1,17,042	1,23,703	1,02,044	1,23,134	1,22,886	5,88,809
	Coal procured (MT)	77,457	29,899	30,881	35,220	34,317	2,07,774
	Gap (MT)	39,585	93,804	71,163	87,914	88,569	3,81,035
Captive	Power Produced	27.738	54.472	58.191	68.590	69.887	278.88

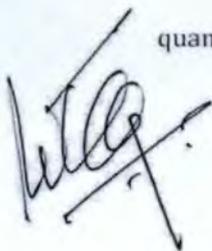
Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Thermal Power Plant (TPP)	(Million kwh)						
	Coal required (MT)	19,971	39,220	41,898	49,385	50,319	2,00,792
	Coal procured (MT)	19,076	14,787	15,087	18,792	19,670	87,412
	Gap (MT)	895	24433	26811	30593	30649	1,13,380
Total for the Clinker/ Cement and TPP	Coal required (MT)	1,37,014	1,62,923	1,43,942	1,72,519	1,73,204	7,89,601
	Coal procured (MT)	96,533	44,686	45,968	54,012	53,987	2,95,186
	Gap (MT)	40,481	1,18,237	97,974	1,18,507	1,19,217	4,94,415

39. Mr. M.P. Sharma, Authorised Signatory, **Amrit Cement** appears before the Committee and places before the Committee some of the documents relating to one cement plant and one 12 MW capacity Captive Power Plant of Amrit Cement. The Committee takes these documents on record.

In the absence of Techno-Economic Feasibility Report of the Clinker/Cement and Captive Power Plant, a copy of which has not been submitted to the Committee, it is not feasible for the Committee to assess the estimated requirement of coal to produce a one MT of clinker and one unit of power by the said cement and power plants respectively. Subject to further correction on receipt of these reports from the Amrit Cement, the Committee assumes that specific requirement of coal for the Clinker/Cement and Thermal Power Plants of Amrit Cement Ltd. will be same as the corresponding unit requirement of coal by similar plants of the Meghalaya Cements Ltd.

The documents submitted by Mr. M.P. Sharma also does not contain year-wise details of coal consumed by these clinker and captive power plants. The Committee therefore, decides to utilise the year-wise quantity of coal consumed by these plants as indicated in a report submitted to the Committee by North Eastern Regional Directorate of CPCB for further analysis.

Year-wise details of clinker/power produced, coal required to produce reported quantity of clinker and power (@ 14.66% coal for clinker and 0.72 kg of coal per kwh of

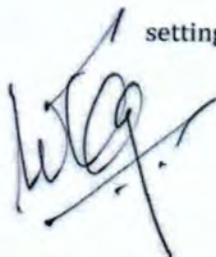


power) and gap in coal requirement which has in all probability been met from been met from illegally sourced local coal in respect of Clinker/Cement plant and captive TPP of the Amrit Cement, since the ban on illegal rat-hole coal mining was imposed by the Hon'ble NGT in April 2014, are as below:

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Clinker/ Cement Plant	Clinker produced (MT)	3,07,286	4,03,205	4,25,842	4,01,497	5,40,902	20,78,732
	Coal required (MT)	45,048	59,110	62,428	58,859	79,296	3,04,742
	Coal procured (MT)	23,217	30,464	32,173	30,335	40,868	1,57,057
	Gap (MT)	21,831	28,646	30,255	28,524	38,428	1,47,685
Captive Thermal Power Plant (TPP)	Power Produced (Million kwh)	44.976	54.197	49.257	46.977	77.392	272.80
	Coal required (MT)	32,383	39,022	35,465	33,823	55,722	1,96,415
	Coal procured (MT)	16,773	20,212	18,369	17,519	28,861	1,01,734
	Gap (MT)	15,610	18,810	17,096	16,304	26,861	94,681
Total for the Clinker/ Cement and TPP	Coal requirement (MT)	77,431	98,132	97,893	92,683	1,35,018	5,01,157
	Coal procured (MT)	39,990	50,676	50,542	47,854	69,729	2,58,791
	Gap (MT)	37,441	47,456	47,351	44,829	65,289	2,42,366

40. Mr. G. S. Sodhi, Authorised Signatory, **Goldstone Cements Limited** appears before the Committee and places before the committee documents relating to one cement plant and one 10 MW capacity Captive Power Plant. The Committees takes these documents on record.

The Committee after examination of the Techno-Economic Feasibility Report for setting up of 2615 TPD Green Field Cement Plant of Goldstone Cements Ltd. at village



Musiang Lamare in East Jaintia Hills district, a copy of which was provided to the Committee during the Sitting by Mr. R.G.S. Sodhi, observes that the said plant has been designed to use the coal available in command area of the site (i.e. local Meghalaya Coal). As per the said report, the average estimated requirement of coal for the said plant is 18% of the weight of clinker produced. Mr. G.S. Sodhi also states that the plant started operations in the year 2016-17.

It has also been stated in the documents provided by Mr. G.S. Sodhi to the Committee during the meeting that apart from the coal, alternate fuel such as Mu Slate/Saw dust etc. have also been utilised for production of clinker by the said plant. For the detailed reasons given in respect of similar claims made by Star Cement Limited, the Committee is of the view the neither it is technically feasible, nor it is legally possible to replace coal by alternate fuel. The Committee therefore decides not to take into account the use of such alternate fuel while assessing the gap in the coal required to produce reported quantity of clinker.

Year-wise details of clinker/power produced, coal required to produce reported quantity of clinker power (@ 18.00%), gap in coal requirement which has in all probability been met from illegally sourced local coal and quantity of alternate fuel claimed to be purchased by the said cement plant of Goldstone Cement Limited, since the ban on illegal rat-hole coal mining was imposed by the Hon'ble NGT in April 2014, are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
2	3	4	5	6	7	8
Clinker produced (MT)	-	-	1,52,995	3,99,197	4,82,500	10,34,692
Coal required (MT)	-	-	27,539	71,855	86,850	1,86,245
Coal procured (MT)	-	-	5,918	21,295	4,946	32,159
Alternate fuel (Muslate/ Saw Dust etc.) claimed to be purchased	-	-	99,242	2,65,532	2,57,928	6,22,702

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
2	3	4	5	6	7	8
Gap (MT)	-	-	21,621	50,560	81,904	1,54,086

41. Ms. P. Bora, Legal Head, **Dalmia Bharat Cement Ltd (formerly known as Adhunik Cement Ltd)**, who is present in today's Proceedings states that a part of the information and documents sought by the Committee have already been provided to the North Eastern Regional Directorate of the CPCB who is undertaking detailed fuel (coal) Audit of various cement plants and Thermal Power Plants in Meghalaya. She further states that the remaining information and documents will also be provided to the CPCB shortly.

The Committee directs the Dalmia Bharat Cement Ltd. to provide all requisite information and documents to this Committee as well as to the CPCB within one week without fail.

Subject to further correction on receipt of information/documents from the Dalmia Bharat Cement Limited, the Committee decides to estimate gap in coal requirement for the above plant based on the data compiled by the CPCB and assuming that estimated requirement of coal to produce one MT of clinker and one unit of power is same as the corresponding requirement of coal for cement and TPP of the Meghalaya Cement Limited.

Year-wise details of clinker/power produced, coal required to produce reported quantity of clinker and power (@ 14.66% for clinker and 0.72 kg of coal per kwh of power) and gap in coal requirement which has in all probability been met from illegally sourced local coal in respect of Clinker/Cement plant and 25 MW capacity captive TPP of the Dalmia Bharat Cement Limited, as per data provided by Dalmia Bharat Cement Limited to CPCB, since the ban on illegal rat-hole coal mining was imposed by the Hon'ble NGT in April 2014, are as below:

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Clinker/ Cement	Clinker produced (MT)	6,68,239	7,32,700	7,92,075	9,00,686	10,84,883	41,78,583
	Coal required	97,964	1,07,414	1,16,118	1,32,041	1,59,044	6,12,580

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Plant	(MT)						
	Coal procured (MT)	25,400	62,789	35,165	63,851	79,203	2,66,408
	Gap (MT)	72,564	44,625	80,953	68,190	79,841	3,46,172
Captive Power Plant	Power Produced (Million kwh)	117.403	108.108	88.733	102.485	110.108	526.84
	Coal required (MT)	84,530	77,838	63,888	73,789	79,278	3,79,323
	Coal procured (MT)	14,225	34,167	16,960	15,770	13,570	94,692
	Gap (MT)	70,305	43,671	46,928	58,019	65,708	2,84,631
Total for the Clinker/ Cement and Power plants	Coal required (MT)	1,82,494	1,85,252	1,80,006	2,05,830	2,38,322	9,91,903
	Coal procured (MT)	39,625	96,956	52,125	79,621	92,773	3,61,100
	Gap (MT)	1,42,869	88,296	1,27,881	1,26,209	1,45,549	6,30,803

42. Mr. P. Kr. Jothi, Authorised Signatory of **Green Valley Industries Limited** appears before the Committee and places before the Committee a communication dated 14.08.2019 addressed to Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters), Government of Meghalaya wherein it is stated that the invitation to attend this Sitting was received by them only on 12.08.2019. It is also stated in the said communication that invitation to attend previous Sitting of the Committee held on 23.07.2019 has also not been received by them. He further states that nature of information sought by the Committee is also not known to them. The Committee place a copy of the said communication on record.

Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters) places before the Committee a document wherein receipt of the invitation to attend previous sitting of the Committee containing details of information/documents



sought by the committee has been duly acknowledged by a representative of Green Valley Industries Limited.

The Committee therefore directs Managing Director of Green Valley Industries Limited that all information/documents sought by the Committee shall positively be provided to the Committee within one week.

Subject to further correction on receipt of information/documents from the Green Valley Industries Limited, the Committee decides to estimate gap in coal requirement for the above cement plant based on the data compiled by the CPCB and assuming that estimated requirement of coal to produce one MT of clinker by the cement plant of Green Valley Industries Limited is same as the corresponding requirement of coal for cement plant of the Meghalaya Cement Limited.

Year-wise details of clinker/power produced, coal required to produce reported quantity of clinker (@ 14.66% of clinker) and gap in coal requirement which has in all probability been met from illegally sourced local coal in respect of Clinker/Cement plant of the Green Valley Industries Limited, since the ban on illegal rat-hole coal mining was imposed by the Hon'ble NGT in April 2014, are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Clinker produced (MT)	3,88,036	3,68,412	3,83,369	4,31,151	4,35,984	20,06,952
Coal required (MT)	56,886	54,009	56,202	63,207	63,915	2,94,219
Coal procured (MT)	44,844	50,555	46,762	51,068	30,278	2,23,507
Gap (MT)	12,042	3,454	9,440	12,139	33,637	70,712

43. Mr. Y.S. Sharma, AGM, Accounts and Finance, **JUD Cements Limited** appears before the Committee and places before the Committee a communication dated 13.08.2019 addressed to Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters), Government of Meghalaya wherein it is stated that their unit was not in operation in the recent past, hence most of their officials were on leave, under the circumstances, currently they are not in position to compile and provide the information

sought by the Committee. It has also been stated in the said communication that their officials are supposed to resume their duties in the last week of the current month i.e. August, 2019. Mr. Y.S. Sharma in the said communication requests that they may be allowed the time till first week of September, 2019 to compile and provide the requisite data to the Committee. The Committee places a copy of the said communication on record.

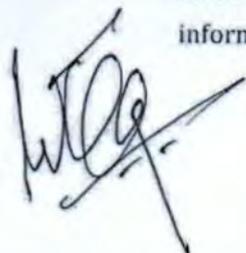
The Committee directs the Managing Director of JUD Cements Limited that all information/documents sought by the Committee shall positively be provided to the Committee within one week.

Subject to further correction on receipt of information/documents from the JUD Cements Limited, the Committee decides to estimate gap, if any, in coal requirement for the above cement plant based on the data compiled by the CPCB and assuming that estimated requirement of coal to produce one MT of clinker by the cement plant of JUD Cements Limited is same as the corresponding requirement of coal for cement plant of the Meghalaya Cement Limited.

Year-wise details of clinker produced, coal required to produce reported quantity of clinker (@ 14.66% of clinker) and gap in coal requirement which has in all probability been met from illegally sourced local coal in respect of Clinker/Cement plant of JUD Cements Limited, since the ban on illegal rat-hole coal mining was imposed by the Hon'ble NGT in April 2014, are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Power Produced (Million kwh)	1,80,367	2,33,961	1,45,419	1,72,206	1,24,702	8,56,655
Coal required (MT)	26,442	34,299	21,318	25,245	18,281	1,25,586
Coal procured (MT)	22,729	17,788	8,512	24,529	16,332	89,890
Gap (MT)	3,713	16,511	12,806	716	1,949	35,696

44. Mr. A.B. Rajan from **Hill Cement Limited** appears before the Committee and requests the Committee to grant time till first week on November 2019 to provide requisite information/documents to the Committee. The Committee found the same unacceptable



and directs the Managing Director of Hill Cement Limited that all information/documents sought by the Committee shall positively be provided to the Committee within one week.

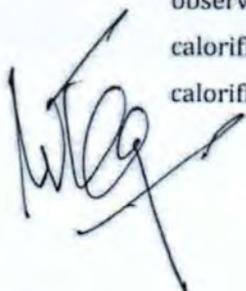
Subject to further correction on receipt of information/documents from the Hill Cement Limited, the Committee decides to estimate gap in coal requirement for the above cement plant based on the data compiled by the CPCB and assuming that estimated requirement of coal to produce one MT of clinker by the cement plant of Hill Cement Limited is same as the corresponding requirement of coal for cement plant of the Meghalaya Cement Limited.

Year-wise details of clinker/power produced, coal required to produce reported quantity of clinker (@ 14.66% of clinker) and gap in coal requirement which has in all probability been met from illegally sourced local coal in respect of Clinker/Cement plant of the Hill Cement Limited, since the ban on illegal rat-hole coal mining was imposed by the Hon'ble NGT in April 2014, are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Clinker produced (MT)	1,22,646	2,14,389	2,56,984	2,03,999	2,33,902	10,31,920
Coal required (MT)	17,980	31,429	37,674	29,906	34,290	1,51,279
Coal procured (MT)	7,358	10,000	13,948	6,120	7,107	44,533
Gap (MT)	10,622	21,429	23,726	23,786	27,183	1,06,746

45. Mr. S. K. Patra and Mr. U. Das from **M/s Shyam Century Limited** appears before the Committee and places before the committee documents relating to their 13.80 MW capacity Captive Power Plant. The Committees takes these documents on record.

Committee after examination of the Detailed Project Report for the said 13.80 MW Captive Power Plant prepared by AKB Power Consultants Private Limited, a copy of which was provided to the Committee during the Sitting by Mr. S. K. Patra, the Committee observes that the said plant was designed to use both biomass fuel (with estimated calorific value of 3500 K cal/kg) and locally sourced Meghalaya coal (with estimated calorific value of 5500 K cal/kg). The annual requirement of fuel by the said plant at 100%



capacity is 77,616 MT of biomass fuel and 14,256 MT of Meghalaya coal. The specific fuel requirement of the said plant as per the said report is 0.527 kg/kwh of coal or 0.827 kg/kwh of biomass.

It has also been stated in the documents handed over to the Committee during the Sitting that specific fuel requirement of the said TPP is 0.50- 0.70 kg of coal per kwh and 1.00 -1.40 kg of alternate fuel such as coke fine, Tamilnadu Charcoal fines etc. per kwh. Keeping in view that the said TPP is about 15 years old and all other TPPs have also reported specific fuel requirement around 0.70 kg/kwh of coal, the Committee is of the view that actual specific fuel requirement of the said TPP is 0.70 kg / kwh of coal or 1.40 kg/kwh of the alternate fuel.

Year-wise details of power produced, fuel required to produce reported quantity of power (@ 0.70 kg of coal/kwh or 1.40 kg of alternate fuel/kwh) and gap in coal requirement which has in all probability been met from illegally sourced local coal in respect of captive TPP of the Shyam Century Limited is as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Power Produced (Million kwh)	64.117	55.246	104.403	68.898	34.702	327.366
Coal required (MT)	44,882	38,672	73,082	48,229	24,291	2,29,156
Coal procured (MT)	43576	32461	72086	13704	4960	1,66,787
Alternate fuel procured	446	-	-	-	29	475
Gap (MT)	1,083	6,211	996	34,525	19,317	62,132

46. Mr. S. Choudhury and Mr. V. Agarwal attends this Sitting of the on behalf of **Maithan Alloys Limited** and places before the Committee a copy of Detailed Project Report (DPR) of their 15 MW capacity captive Thermal Power Plant prepared by AKB Power Consultants Pvt. Ltd. .The Committee takes a copy of the said DPR on record. The remaining information/document sought by the Committee have already been provided during second day of Sixteenth Siting held on 23.07.2019.

The Committee after examination of the Detailed Project Report observes that the said plant was designed to use both bamboo chips/dust (with estimated calorific value of 2914 K cal/kg) and locally sourced Meghalaya coal (with estimated calorific value of 7,142 K cal/kg). As per the said DPR, the annual requirement of fuel by the said plant at 100% capacity is 32,400 MT of bamboo chips and 37,800 MT of Meghalaya coal. The specific fuel requirement of the said plant as per the said report is therefore 0.527 kg/kwh of coal or 0.827 kg/ kwh of biomass.

It has also been stated in the documents handed over to the Committee during the meeting that specific fuel requirement of the said TPP is 0.72 kg/kwh. The same appears to be comparable to the specific fuel requirement for other TPPs.

As per the information provided by Maithan Alloys Limited, during the period of last five years 2014-15 to 2018-19) its captive TPP produced 331.823 Million units of power. At the afore-mentioned specific fuel requirement of 0.72 kg of coal per kwh, production of the above power required 2,35,527 MT of coal against which the above firm, as per these documents, purchased 3,13,785 MT coal. From the above, it appears that the above TPP did not use any illegally raised coal during these years.

The Committee further notes that the quantity of coal procured by Maithan Alloys Limited as per the Statement submitted to the Committee is substantially different than the quantity of coal reportedly consumed by the said Plant, as per the details given in a report on coal consumption by the Thermal Power Plants and Cement Industries submitted to the Committee by North Eastern Regional Directorate of CPCB. The Committee therefore, directs the North Eastern Regional Directorate of CPCB to re-examine the records relating to purchase and use of coal by above TPP and submit a report to the Committee within fifteen days.

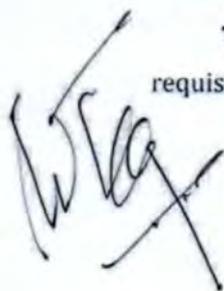
47. Mr. A. K. Verma attends this Sitting of the Committee on behalf of **Shree Sakambari Ferro Alloys Pvt. Ltd.** and places before the Committee information and documents sought by the Committee. The Committee takes a copy of these documents on record.

On perusal of these information and documents the Committee observes that unit of power produced by the said Thermal Power Plant stated in the Statement provided to the Committee does not appear to be in order. The Committee also observes that the quantity of coal reported to be consumed by Shree Sakambari Ferro Alloys Pvt. Ltd., as per the Statement submitted to the Committee in this Sitting is substantially different than the quantity of coal reportedly consumed by the said Plant as per details given in a report on

coal consumption by the Thermal Power Plants and Cement Industries submitted to the Committee by North Eastern Regional Directorate of CPCB. The Committee therefore directs the North Eastern Regional Directorate of CPCB to re-examine the records relating to purchase and use of coal by above TPP and submit a report to the Committee within fifteen days.

48. In compliance of directions issued by the Committee in the second day of Sixteenth Sitting held at Shillong on 23.03.2019 Mawmluh Cherra Cements Limited places before the Committee the Balance Sheet as on 31.03.2019. The Committee place a copy of the said balance Sheet on record.
49. The Committee notes that a report on audit of each of the Coke Plants from which the coke has reportedly been sourced by the Jaintia Cement Limited, in the format stipulated by the Committee for resource (coal) audit of cement factories and Thermal Power Plants, is still awaited from North Eastern Regional Directorate of CPCCB. The Committee therefore reiterates its earlier direction to the effect that the North Eastern Regional Directorate of CPCB, Shillong shall undertake audit of each of the Coke Plants from which the coke has reportedly been sourced by the Jaintia Cement Limited in the format stipulated by the Committee for resource (coal) audit of cement factories and Thermal Power Plants in Meghalaya and submit a report to the Committee within one month.
50. The Committee further notes that a report on audit of each of the Coke Plants located in Meghalaya in the format stipulated by the Committee for resource (coal) audit of cement factories and Thermal Power Plants in Meghalaya is still awaited from North Eastern Regional Directorate of CPCCB. The Committee therefore reiterates its earlier direction to the effect that the North Eastern Regional Directorate of CPCB, Shillong shall undertake audit of each of the Coke Plants located in Meghalaya in the format stipulated by the Committee for resource (coal) audit of cement factories and Thermal Power Plants in Meghalaya and submit a report to the Committee within one month.
51. The Committee notes with great concern that the inspite of prior notice, one Cement Plant (*viz.* Virgo Cements Limited) and one Thermal Power Plant (*viz.* CMJ Breweries Limited) neither deputed a representative to attend this Sitting as well the Sixteenth Sitting of the Committee held at Shillong on 23.07.2019, nor have provided information/documents sought by the Committee from them.

The Committee directs the Managing Director of these Plants to provide the requisite information to this Committee within one week without fail.



**AGENDA ITEM NO. 3**

52. Dr. C. Sawanliana, Sr. Principal Scientist, Council of Scientific and Industrial Research-Central Institute of Mining and Fuel Research (CSIR-CIMFR), Dhanbad made a presentation on progress made in study assigned to the CSIR-CIMFR to develop a protocol on closure of abandoned rat hole coal mines by controlled blasting. During the presentation Dr. Sawanliana stated that the CIMFR proposes to develop a protocol to close entry to coal seams by controlled blasting. The surface openings of the mines, including the box-cut shafts, are proposed to be closed either by filling it with debris or by construction of RCC slabs. The Committee observes that the proposed protocol appears to be different than what was envisaged while assigning the study to the CIMFR. The Committee also observes that due to non-availability of large quantity of debris in close vicinity of the mines it may not be cost-effective to close mines and box cut shafts of the existing mines by filling it with debris.

The Committee keeping in view the above advises Dr. C. Sawanliana to re-examine and suitably amend the proposed protocol. The amended protocol may provide for closure of the openings of the mines and box-cut shafts by controlled blasting at the suitable locations around periphery of such openings. The Committee also suggested that in the initial phase mines located in river beds and in close vicinity of rivers/ streams may be selected for closure by controlled blasting. The Committee also advises Dr. C. Sawanliana to re-examine and appropriately reduce the time-lines suggested for the study as majority of the secondary data required for the study are already available with the MSPCB, North Eastern Space Application Centre (NESAC) and other agencies.

53. Dr. A. Kr. Singh, Sr. Principal Scientist, CSIR - CIMFR, Dhanbad makes a brief presentation on progress made in a study assigned to the CSIR-CIMFR on development of a protocol for treatment of acid mine drain originating from coal mines. During the presentation Dr. Singh states that the study envisages design and development of a prototype plant having the capacity to treat acidic water originating from rat hole coal mines at the rate of 250 litres/hour. The estimated cost of the plant is likely to be about Rs. 15.00 lakh. He further states that operation of the plant will also involve expenditure on consumable, power, manpower, repair and maintenance.

The Committee observes that due to high capital and running costs it will not be feasible to use the proposed plant for restoration of the quality of acidic water in the

rivers/streams in the coal mining affected areas in the State. The plant can at best be used to meet requirement of drinking water in such areas.

The Committee keeping in view the above advises Dr. A.K. Singh to explore feasibility to reduce the cost of the proposed prototype. The Committee also advises Dr. A.K. Singh to re-examine and appropriately reduce the time-lines suggested for the study as majority of the secondary data required for the study are already available with the MSPCB, NESAC and other agencies.

**AGENDA ITEM NO. 4**

54. The Chairman of the Committee states that he received two similar representations dated 12.07.2019 and dated 11.07.2019 from Mr. Marthon Sangma, Hon'ble Member Legislative Assembly and Mr. Nizamuddin R. Marak respectively regarding use of rack loading infrastructure having an area of 2,34,455 sqm (23.45 hectare) at Mendipathar Railway Station for evacuation of coal allowed to be transported by the Hon'ble Supreme Court. He further states that keeping in view that the Mining and Geology Department in the Government of Meghalaya is preparing a policy for sale and transportation of already extracted coal, transportation of which has been permitted by the Hon'ble Supreme Court, he directed the Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters), Government of Meghalaya to send a copy of these representations to the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department for consideration. The Committee takes a copy of these representations on record.

Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department confirms the receipt of these representations and states that availability of rake loading infrastructure at Mendipathar Railway Station will be kept in view while finalising a policy for handing over of the coal allowed to be transported by the Hon'ble Supreme Court to the Coal India Limited for its disposal through e-auction.

The Committee notes the same and directs the Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters), Government of Meghalaya to invite Chief Commercial Manager, North East Frontier Railways to attend Second Special Sitting of the Committee to be held at Guwahati on 07.09.2019 to finalize modalities for transportation and disposal of coal allowed to be transported by the Hon'ble Supreme Court through e-auction by the Coal India Limited.

**AGENDA ITEM NO. 5**

55. The Chairman of the Committee states that he received a representation dated Nil from Mr. Rakbirthson D. Sangma regarding estimate of actual quantity of coal lying in the State of Meghalaya for auctioning in terms of the Hon'ble Supreme Court's final Order and Judgement dated 03.07.2019. . In the said representation it has been stated that quantity of coal stated to lying at various depots in the State reported to the Hon'ble Supreme Court by the State of Meghalaya may be 1,000 (one thousand) only times more than the actual quantity of coal lying at these depots.

He further states that keeping in view that the Mining and Geology Department in the Government of Meghalaya is preparing a policy for sale and transportation of already extracted coal, transportation of which has been permitted by the Hon'ble Supreme Court, he directed the Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters), Government of Meghalaya to send a copy of these representations to the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department for consideration. The Committee takes a copy of these representations on record. The Committee takes a copy of the said representations on record.

Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department confirms receipt of the said representation and states that complete details of all the depots and coal available at each such depot in the State has been placed before the Hon'ble Supreme Court. A copy thereof is also being provided to the Committee. He further states that allegations made in the said representation is baseless, frivolous and devoid of any merit.

The Committee takes note of the seriousness of the allegations made in the said representation and directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department that to counter such allegations in an effective and transparent manner, video recording of all the coal depots where the coal to be handed over to the Coal India Limited is presently lying, to be recorded by joint teams consisting of a representative from the Mining and Geology Department, Meghalaya State Pollution Control Board and the Coal India Limited, as directed by the Committee in its First Special Sitting held at Shillong on 12.07.2019 and use of high resolution satellite imageries for different time-intervals since the imposition of ban on coal mining by the Hon'ble NGT to ascertain continuous existence of all such coal dumps since imposition of ban on coal mining by the Hon'ble NGT in April 2014, shall be essential components of the

Policy being formulated for handing over of the coal to the Coal India Limited for disposal through e-auction.

**AGENDA ITEM NO. 6**

56. The Chairman of the Committee states that he received a proposal from a concerned Authority in the Indian Army on involvement of Eco Task Force (ETF) Battalions for restoration of environment in areas affected by illegal rat hole coal mining in Meghalaya. The Committee takes a copy of the said proposal on record.

Mr. C.P. Marak, IFS, Principal Secretary to the Government of Meghalaya, Mining and Geology Department states that a proposal seeking raising of an ETF Battalion in the State is presently pending before the Government. Decision on the said proposal is awaited mainly due to inability of the State to make available the requisite funds to meet infrastructural and operational needs of the Battalion. The State is also finding it difficult to make available requisite land for establishment of the headquarters and other operational units of the EFT Battalion.

The Committee directs that the said proposal may first be deliberated by the Sub-Committee constituted under Chairmanship of Dr. Shantanu Kr. Dutta, Addl. Director, CPCB. A report of the Sub-committee on the matter may be placed before the Committee within two months. Representative of the Forests and Environment Department in the said Sub-Committee shall make available all relevant information on the matter to the Sub-Committee.

**AGENDA ITEM NO. 7**

57. The Chairman of the Committee states that he received a copy of a communication dated 02.08.2019 from Dr. Manjunatha C. IFS, Secretary to the Government of Meghalaya, Mining and Geology Department addressed to the Director of Mineral Resources, Government of Meghalaya containing approval of the Government of Meghalaya for transportation of 38,340 MT coal seized and auctioned under section 21 (4A) of the Mines and Minerals (Development and Regulation) Act, 1957 in favour of Mr. Erantis Sympli, Byndihati Village, East Jaintia Hill district. The Committee takes a copy of the said communication on record.

Mr. T. Dkhar, IAS, Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department states that the said illegally mined coal was seized by the officers duly authorised by the State Government. The Competent Court by an order dated 12.07.2019 has confiscated the said coal in favour of the State Government.

The Committee directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to provide to the Committee within a week a copy of the Order(s) made by the concerned Court to confiscate the said coal along with the following information:

Name and full address of person(s) from whose possession the seizure has been made	Date of seizure	Quantity seized (MT)	Name and designation of the Officer(s) who has made the seizure	Case/ Complaint No.	Punishment awarded to the person(s) from whose possession the seizure has been made
(1)	(2)	(3)	(4)	(5)	(6)

Date of publication of Notice Inviting Bids for disposal of the coal	Last date for receipt of Bids	No. of Bids Received	The base Rate (Rs/MT) at which the bid has been accepted
(7)	(8)	(9)	(10)

Taxes and other levies to be paid by the successful bidder (Rs./MT)					Gross Amt. payable by successful bidder (Rs./MT)
Royalty	DMF	MEPRF	GST	Any other amt. (pl. specify)	
(11)	(12)	(13)	(14)	(15)	(16)

The Committee also notes that in compliance of direction issued to the Committee by the Hon'ble NGT by order dated 11.04.2019, the Committee in its Twelfth Sitting held at Shillong on 25.04.2019 issued a direction to the effect that to regulate the transportation of coal, the State Government shall follow the procedure similar to one stipulated in Appendix XII of the EIA Notification 2006, inserted vide Notification bearing No. S.O. 141 (E) dated 15.01.2016 for monitoring of sand mining and river bed mining, so that the transportation of coal is regulated. The system provides for adequate security features of Transit Pass (TP)/ Challans to prevent their counterfeiting or multiple use, scanning and uploading of TPs/ Challans on a centralised server to facilitate checking of

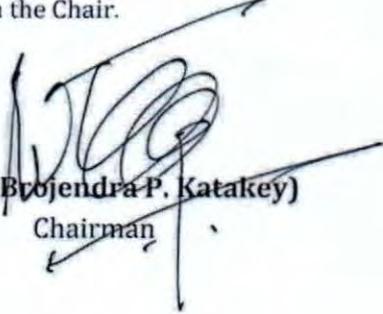
TPs/Challans to check their validity, GPS tracking of vehicles and generation of reports and alerts in case of detection of any anomaly. The Committee further notes that to ensure expeditious disposal (after obtaining prior approval of the concerned court) of seized coal in a transparent manner the Committee in the said Sitting directed that the Mining and Geology Department, Government of Meghalaya shall explore the feasibility to dispose of such coal through e-auction conducted by the Coal India Limited. The State Government while allowing transportation of such a huge quantity of the coal has appeared to have ignored these directions. The Committee directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department to apprise the Committee the reasons for ignoring the afore-mentioned directions of the Committee while disposing off the said seized coal.

58. The Committee proposes to have its Second Special Sitting at 11.00 AM onwards on 07.09.2019 in the Conference Hall at Guest House of the North Eastern Coalfields Coal India Limited located at Black Diamond Towers, GS Rd, ABC, Post Office, Christian Basti, Guwahati, Assam 781 005 to examine the Policy being formulated by the State for handing over of the coal available at such depots to the Coal India Limited for disposal through e-auction.

To have meaningful discussions in the said Sitting, the Committee directs the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department that a copy of the said Policy as approved by the Cabinet shall be provided to all members of the Committee atleast one week before the said Special Sitting.

The Member-Secretary of the Committee shall invite all concerned to attend the said Special Sitting.

The meeting ended with a vote of thanks from the Chair.

  
(Justice Brojendra P. Katakey)  
Chairman

S/d  
True Copy

**Annexure R17/7**

Item Nos. 01

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 110(THC)/2012

Threat to life arising out of coal mining  
in south garo hills district

Applicant(s)

Versus

State of Meghalaya &amp; Ors.

Respondent(s)

Date of hearing: 22.08.2019

**CORAM:** **HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON**  
**HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER**  
**HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER**  
**HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

For Applicant(s):

Mr. Raj Panjwani, Sr. Advocate with Mr. Aagney  
Sail, Advocate

For Respondent (s):

Mr. Ranjan Mukherjee, Mr. Avijit Mani Tripathi,  
Mr. Shaurya Sahay, Kr. K.V Kaarlyngdoh,  
Advocates for State of Meghalaya  
Mr. AND Rao, Mr Amber Sachdeva, Advocate for  
Star Cement & Meghalaya Power  
Mr. P. Yobin, Advocate for State of Assam**ORDER**

1. The matter pertains to remedial action against unscientific 'Rat Hole' Mining of coal in the State of Meghalaya. Proceedings commenced on the basis of a news item to the effect that on 06.07.2012, thirty coal labourers were trapped in a coal mine and fifteen of them died. After due consideration of the matter, on 17.04.2014, this Tribunal directed the State of Meghalaya to ensure that rat hole mining is stopped forthwith throughout the State and any illegal transport of coal shall not take place until further orders.

2. On 09.06.2014, to give effect to order dated 17.04.2014, a Committee was formed to quantify extracted coal and its location, assess its value and also to prescribe mode of its transportation. In the light of the report this Tribunal, on 07.10.2017, noted that 6.3 million tonnes of illegally mined coal valued at Rs. 307 Crores was lying in the State on which royalty of Rs. 400 Crores was assessed. Direction was issued for videography in the operation of the weigh bridges. The issue of quantum of coal to be permitted to be transported was to be gone into with the assistance of the Committee. Further, direction was issued to credit the amount of royalty in a separate account with 10% of the value of coal to be credited to Environment Protection Fund. On 31.03.2016, the Tribunal directed that except the coal already transported, the remaining will vest in the State.
3. Finally, on 31.08.2018, after reviewing the earlier proceedings, this Tribunal directed that rat hole mining will remain prohibited and so also the transportation of the mined material. The State will be the custodian of the available coal for which necessary inventory will be prepared. For restoration of the environment and rehabilitation of the victims, this Tribunal directed constitution of a Committee to be headed by a former High Court Judge. The Committee was at liberty to take up incidental issues.
4. The Committee gave its report on 02.01.2019 which was considered vide order dated 04.01.2019 with regard to the following questions framed by the Committee:-

*“(A) Whether coal mining activities, including extraction of coal and the transportation of the same, are going on despite the order passed by*

*the Hon'ble NGT imposing ban on coal mining and transportation?*

- (B) Quantity of extracted coal as on the date on which the ban was imposed by the Hon'ble NGT and left to be transported?*
- (C) Quantity of un-inventoried coal which has been extracted before imposition of ban by the Hon'ble NGT?*
- (D) Whether coal mining activities as well as dumping of coal results in adverse environmental effect, if so, the nature and extent thereof?*
- (E) What are the steps required to be taken by the Committee for restoration of the environment and rehabilitation of victims of coal mining?*
- (F) The extent of execution of the Action Plan prepared by the Committee?"*

5. The Tribunal noted that a further tragic incident took place on 13.12.2018 where 15 workers were trapped. The report was that the illegal mining was still continuing. The assessed quantity of such coal was 23,25,663.54 MT. The mining was resulting in adverse impact on the environment for which a study was required to be undertaken. Action plan was proposed for restoration of the environment. In view of the consistent failure of the State in enforcing the law, this Tribunal held the State to be liable to deposit a sum of Rs. 100 Crores with the Central Pollution Control Board (CPCB) to be spent for restoration of the environment. The Tribunal also observed that the Committee may consider seizure of equipments used for illegal mining or transportation, to be released only after payment of 50% of the showroom price of such equipments. The Tribunal suggested that the Committee may consider the following:

*"36. The Committee may also consider the following:-*

- 1. Any cranes and trucks found to be involved in illegal mining or transportation which have not yet been seized may also be seized. The seized vehicles or equipments be released by the*

*concerned District Magistrates only after recovering damages to the extent of 50% of the showroom price of the vehicles or equipments. The said amount may also be credited to the restoration fund.*

- 2. Efforts be expedited to identify victims who have suffered at least since 01.07.2012 and to assess loss to the environment and the manner of restoration.*
  - 3. Disaster Management Plan for the whole of the area 'on site' as well as 'off site' needs to be prepared and put into operation.*
  - 4. Appropriate technology to replace rat hole mining.*
  - 5. Resource (coal) audit of Meghalaya Power Limited and Star Cement Limited to ascertain the legitimate procurement of coal and its source.*
  - 6. The Committee may take services of NEERI Nagpur, Indian School of Mine, Dhanbad, FRI Dehradun, CPCB apart from any other agency for making assessment of the damages.*
  - 7. Survey of health of the habitants may also be considered.*
  - 8. Skill Development Programmes to provide alternative means of employment to the workers involved in rat hole mining may be considered.*
  - 9. Mitigation/restoration of impacted areas due to AMD."*
6. Further report was considered on 11.04.2019. The Tribunal approved the recommendations including those for installation of digital display boards in respect of quality of water of the concerned areas and evolving mechanism for effective action against transportation of illegally mined coal such as electronic manifest system, audit of source of coal acquired by the power generation and cement plants.

7. Further report dated 02.08.2019 has been received from the Committee to be considered today. We may note that the Hon'ble Supreme Court, vide judgement dated 03.07.2019, in *Civil Appeal No. 10720 of 2018 (State of Meghalaya v. All Dimasa Students Union, Dima Hasao District Committee and Ors)* and other connected decided Appeals arising from orders of this Tribunal, directing, *inter alia*, as follows:

**“Conclusions:-**

191. From the foregoing discussions we arrived at following conclusions:-

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9) As per statutory regime brought in force by notification dated 15.01.2016 issued under Environment (Protection) Act, 1986, environmental clearance is required for a project of coal for mining of any extent of area. While implementing statutory regime for carrying mining operations in the Hills Districts of the State of Meghalaya, the State of Meghalaya has to ensure compliance of not only MMDR Act, 1957 but Mines Act, 1952 as well as Environment (Protection) Act, 1986.

10) In Hill District of State of Meghalaya for carrying coal mining operations in privately owned/community owned land it is not the State Government which shall grant the mining lease under Chapter V of Rules, 1960, but it is the private owner/community owner of the land, who is also the owner of the mineral, who shall grant lease for mining of coal as per provisions of Chapter V of Rules, 1960 after obtaining previous approval of the Central Government through the State Government.

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13) In event the mining is carried out by a mining lease holder as per the provisions of Act, 1957 and Rules, 1960 with an approved mining plan there can be no objections in carrying of such

*mining operations under the regulation and control of the State of Meghalaya. We clarify that in event mining operations are undertaken in privately owned/community owned land in Hills Districts of Meghalaya in accordance with mining lease with approved mining plan as per Act, 1957 and Mineral Concessions Rule, 1960, the ban order dated 17.04.2014 of the tribunal of the NGT shall not come in way of carrying mining operations.*

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- 20) *The coal extracted and lying in open after 15.05.2016 does not automatically vest in the State of Meghalaya and the owner of the coal or the person who has mined the coal shall have the proprietary right in the mineral which shall not be lost.*
- 21) *The suggestion of learned Amicus Curiae that entire extracted coal lying at various places in hills districts of Meghalaya be directed to be taken over by Coal India Ltd. is accepted. The Coal India Ltd. may dispose of the same as per its normal method of disposal and proceeds be dealt with as per directions issued.*
- 22) *The State having carried out the assessment of the coal lying in the aforesaid four districts including the details of the quantities and the details of owners being available with it, it may ensure that entire coal is handed over to the Coal India Ltd., as per the mode and manner to be formulated by Katakey Committee in consultation with officers of the Coal India Ltd. and the State of Meghalaya.*
- 23) *It is for Coal India Ltd. to decide as to venue, where they shall receive the coal, i.e., either at any of its depot or any other place in the State of Meghalaya and it is for the Coal India Ltd. to finalise the process of disposal and auction of the coal. It shall be the duty of the State of Meghalaya and its officers especially Deputy Commissioner of the area concerned to enter details of quantity of the coal, name of the owner and place from where it is collected. All concerned*

shall take steps to ensure weighment of the coal when it is received by Coal India Ltd.

24) The expenses of transportation shall be borne by the State of Meghalaya, Coal India Ltd. or by both, which expenses shall be deductible from the price received of the coal. The State of Meghalaya shall be entitled to royalty and payment towards MERP Fund as well as taxes out of the price of the coal. After deducting its expenses for transportation with 10% of price of the coal, the Coal India Ltd. shall remit the balance amount to the State and it is for the State after deducting the royalty and payment to the MERP Fund and taxes to pay back balance the amount to the owner.

25) The coal which has been seized by the State in illegal transportation and illegal mining for which different cases have been registered by the State, is not to be dealt with as directed above. The seized coal shall be dealt by the State in accordance with Section 21 of the Act, 1957 and on being satisfied, the State can take a decision to recover the entire quantity of coal so illegally raised without lawful authority.

192 In view of the foregoing discussions and conclusions, all these appeals are decided in the following manner: -

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4) All I.As. seeking direction for transportation of coal are disposed of directing: -

i) All extracted coal as assessed by State of Meghalaya lying in different districts of State of Meghalaya which as per order of NGT is in custody of State of Meghalaya shall be handed over to Coal India Ltd. for proper disposal.

ii) The Katakey Committee after discussion with Coal India Ltd. and State of Meghalaya shall formulate a mechanism for transport, weighment of all assessed coal.

- iii) *The Coal India Ltd. shall auction the coal so received by it as per its best judgment and remit the proceed to State to the extent as directed above.*
- iv) *All coal seized by the State for which cases have already been registered shall be dealt by the State in accordance with Section 21 of 1957 Act."*

8. We may now deal with the report of the Committee which is, *inter alia*, as follows:

***“It is, therefore, evident that though the learned counsel appearing for the State of Meghalaya submitted before the Hon’ble Tribunal that the compliance report in that regard shall be submitted to this committee within two weeks, the direction to install Digital Display Boards has not been fully implemented till date. As stated above, such Boards have been installed in the State Capital, i.e., in Shillong only. The same have not been installed in the coal mining affected districts and Sub-Divisions so far.***

*The Committee directs the aforementioned 4(four) Cement Plants, namely, Green Valley Industries Ltd, Gold Stone Cement Ltd, Hills Cement Ltd and Virgo Cement Ltd and one Thermal Power Plant, namely, CMJ Breweries Ltd to depute their representatives to attend the next sitting of the Committee scheduled to be held on 14.08.2019 along with all required information and documents without fail.*

*The Secretary to the Govt. of Meghalaya, Mining and Geology Department, during the Proceeding No. 16-B held on 23.07.2019 has produced before the Committee a letter dated 22.07.2019 seeking a month's time to formulate a comprehensive plan and proper policy of transportation and handing over of coal to the Coal India Limited for disposal/auction as per rules of the Coal India Limited. The Committee has also been*

*informed that after finalisation, the same shall be placed before the Committee for deliberation.*

*Based on the said communication, one month time has been granted to the Mining and Geology Department, Govt of Meghalaya. The second special sitting scheduled to be held in Guwahati on 26.07.2019 with the representatives of the Coal India Limited and the concerned departments of the Govt of Meghalaya to discuss about the formulation of a policy for transportation and handing over of the coal to the Coal India Limited, has, therefore, been postponed and the next date was decided to be fixed in its Proceeding to be held on 14.08.2019.*

*The Committee in the said Proceeding has recorded that the majority of the directions issued by it in the Proceeding No.12 dated 25.04.2019 have not been implemented so far and hence the Commissioner & Secretary to the Govt of Meghalaya, Mining and Geology Department has been directed to submit a report on the status of implementation of each of these directions in the sitting scheduled to be held on 14.08.2019.*

***From the aforesaid position, it is, therefore, evident that the directions issued by the Committee in its Proceeding No.12 dated 25.04.2019 have not been fully complied with till date.***

**(C) CONSIDERATION OF THE RECOMMENDATIONS OF THE COMMITTEE MADE IN ITS PROCEEDING NOS. 13, 14 AND 15 DATED 03.05.2019, 03.06.2019 AND 28.06.2019, COPIES OF WHICH HAVE BEEN SENT BY MAIL IN [ngp.filing@gmail.com](mailto:ngp.filing@gmail.com) ON 08.07.2019.**

- (1) *The Committee in the Proceeding No.13 dated 03.05.2019 recommended for consideration for release of an amount of Rs.40,36,500/- from the MEPR Fund to implement the pilot project for afforestation and reclamation of coal mining affected land and organisation of festival-cum-*

*mass awareness programme submitted by the Principal Chief Conservator of Forest (Climate Change Research and Training), Govt of Meghalaya and North Eastern Regional Office of the Central Pollution Control Board.*

(2) *The Committee also in the Proceeding No. 14 dated 03.06.2019 has recommended for consideration by the Hon'ble Tribunal for passing necessary order for deployment of CAPFs to assist the State Police in checking the transportation and mining of coal in the State for the purpose of enforcement of the direction issued from time to time to ban illegal mining and transportation of coal.*

(3) *The Committee in the said Proceeding had also recommended for consideration by the Hon'ble Tribunal to release an amount of rupees one crore from MEPR fund to facilitate the Forest & Environment Department for aforestation of the coal mine affected areas and to ensure availability of adequate number of good quality plants.*

(4) *The Committee in the Proceeding No.15 dated 25.06.2019 has also recommended for consideration by the Hon'ble Tribunal for release of Rs.19,19,500/- from the MEPR Fund towards the cost to be incurred in the Pilot Project of Micro Algae Treatment of the acidic water in the identified stream in the coal mining affected areas to be implemented by M/S Trinity Impex International.*

*The Hon'ble Tribunal may consider the aforesaid recommendations of the Committee.*

*The Committee, on 31.08.2019 shall submit the further report relating to the status of implementation of the Action Plan prepared by it, directions issued by it from time to time and also the directions issued by the Hon'ble Supreme Court in Civil Appeal No. 10720 of*

*2018 (State of Meghalaya Vs All Dimasa Students Union, Dima Hasao District Committee and Ors) and other analogous matters passed In Judgment & Order dated 03.07.2019.”*

9. Learned Counsel for State of Meghalaya submitted that with regard to display boards, further steps have been taken and a report dated 03.08.2019 has been filed before this Tribunal and a report will also be filed before the Committee. The Committee may look into the same.

10. As regards effective action against illegal transportation, the Committee has suggested deployment of Central Armed Forces and the State Police. The Committee has also suggested release of certain funds. Learned counsel for the State submitted that the recommendations of the Committee be accepted.

11. We accept the recommendations of the Committee for release of the amount as presented in para (3) & (4) of recommendations as noted above. As regards deployment of Central Armed Police Forces (CAPF), our attention has been drawn to earlier proceedings before this Tribunal in order dated 25.03.2015 as follows:

“

*1. The Additional Secretary, North East in the Ministry of Home, Central Government shall, within a period of two weeks from today, hold a meeting with the Chief Secretary of the State of Meghalaya and other concerned Authorities and consider the proposal of the State of Meghalaya for deployment of appropriate force to ensure compliance of orders of the Tribunal and protection of the Environment and Ecology, particularly water bodies as recorded in various orders of the Tribunal. We are hopeful, that the decision will be taken objectively and in the interest of public at large.”*

12. We are informed that in pursuance thereof, the Central Government did provide the requisite Forces at that time. In the light thereof, the State of Meghalaya to follow the same course of approaching the Central Government. The Central Government may give due consideration to such proposal expeditiously.
13. Only other issue which survives for consideration is the enforcement of directions of the Hon'ble Supreme Court for handing over coal already mined and lying at various places in Meghalaya to the Coal India Ltd. As per directions of the Hon'ble Supreme Court, in the judgement dated 03.07.2019 the same may be looked into by the Committee in consultation with the officers of Coal India and the State of Meghalaya. We suggest that the Committee may fix specific timeline for the purpose.
14. Our attention in this regard has been drawn to a *Challan* dated 13.08.2019 issued by the Divisional Mining Officer, Jowai with regard to transportation of the 'auctioned' mineral. Learned Counsel for the State may ascertain whether the transportation is in terms of the scheme prepared by the Committee in accordance with the directions of the Hon'ble Supreme Court and if not, remedial action may be taken. The Committee may look into this aspect and applicability of online electronic manifest system for regulating movements of vehicles and issuance of *challans* as per the Tribunal's order dated 11.04.2019.
15. The companies in question are directed to furnish the requisite information to the Committee, failing which this Tribunal may have to take coercive measures against the Chief Executive Officers of the

companies. This aspect will be considered in the light of further report of the Committee. The Committee may also make its recommendations about the conduct of officers not cooperating in compliance of orders of the Hon'ble Supreme Court and this Tribunal so that the State may take appropriate action and inform this Tribunal.

16. The Committee has proposed to send its further report by 31.08.2019. Thereafter, a further report be sent after three months by 30.11.2019.
17. List again on 10.12.2019 or as and when the occasion arises.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

August 22, 2019  
Original Application No. 110(THC)/2012  
AK

**S/d**  
**True Copy**

# Green Valliey Industries Limited

CIN NO. U26942ML2007PLC008273

Date: 26.08.2019

To,  
**The Additional Principal Chief Conservator of Forests**  
 (Planning, Development and Legal Matters)  
 Department of Forests and Environment,  
 Sylvan House, Lower Lachumiere,  
Shillong – 793 001

Re: Submission of information/documents

Sir,

We are in receipt of your e-mail dt. 21<sup>st</sup> August'2019 attaching a copy of the record of minutes of proceedings of Seventeenth Sitting of the Committee constituted by the Hon'ble National Green Tribunal (NGT) under Chairmanship of Hon'ble Mr. Justice B.P. Katakey, Former Judge, Guwahati High Court held on 14th August, 2019 at 10.00 AM onward in Conference Hall at Office of the Principal Chief Conservator of Forests & Head of Forest Force, Sylvan House, Lower Lachumiere, Shillong for our information and necessary actions as indicated therein.

We have gone through the same and noted the content therein. In this regard we would like to state as under:

In Para 42 of the attached record of minutes the following is stated:

*'Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters) places before the Committee a document wherein receipt of the invitation to attend previous sitting of the Committee containing details of information/documents sought by the committee has been duly acknowledged by a representative of Green Valliey Industries Limited.'*



*Manoj*  
 27/8/19

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 Regd. Office & Plant: Vill. Nongsning, P.O. Chiehruphi, PS. Khliehriat, Dist. Jaintia Hills, Meghalaya-793 200  
 Group Corporate Office: 602 'LORDS' 7/1, Lord Sinha Road, Kolkata-700 071, T +91 33 22827367 / 7368 F +91 33 22828307  
 E : info@greenvalliey.com

In this regard, we would like to humbly state that the copy of the invitation to attend the meeting held on 23.07.2019 said to be acknowledged by our representative was not produced in the meeting held on 14.08.2019 in the presence of Mr. P.K. Joshi, our representative, who was present in the said meeting. We, therefore, request your good office to please provide us with a copy of the same for our records and ready reference. Till we receive a receipted or acknowledged copy of the invitation, we have no option but to assert that such communication was not received by us from your good office to appear before the Hon'ble Committee on 23<sup>rd</sup> July 2019.

Even though we are not aware of exact requirements till date, based on our verbal discussions with some of the attendees of the meeting held as on 14.08.2019, we are enclosing the following information/documents in the matter:

- Year-wise details of clinker produced in Financial Year 2014-15 to 2018-19.
- Year-wise details of coal and/or any other alternate fuel consumed for production of Clinker as stated above.
- A copy of annual report for the Financial Year 2014-15 to 2017-18.

We hope these will meet your requirements.

Thanking you,

Yours truly,  
For Green Valliey Industries Ltd.



(Authorised Signatory)

Encl.: As above.



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A GNG GROUP COMPANY

# Green Valley Industries Limited

CIN NO.: U26942ML2007PLC008273

## Annexure – A

### Year Wise Clinker Production from 2014-15 to 2018-19

Year	Production (in MT)
2014-15	3,88,036
2015-16	3,68,412
2016-17	3,83,369
2017-18	4,31,151
2018-19	4,35,984



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**A GNG GROUP COMPANY**

# Green Valliey Industries Limited

CIN NO.: U26942ML2007PLC008273

## Annexure – B

### Year Wise Coal / Alternate Fuel Consumption from 2014-15 to 2018-19

Year	Coal (in MT)	Alternate Fuel (In MT)
2014-15	44,844	17,105
2015-16	50,555	18,280
2016-17	46,762	28,221
2017-18	51,068	35,020
2018-19	30,278	49,122

**S/d**  
**True Copy**



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**A GNG GROUP COMPANY**



6263  
Annexure R17/9 (Colly)  
GOVERNMENT OF MEGHALAYA  
DEPARTMENT OF FORESTS AND ENVIRONMENT

163

OFFICE OF  
THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS : MEGHALAYA  
& HEAD OF FOREST FORCE

No. MFG.39/87/NGT (C)/ Vol.-IX/ 12, 733

Dated Shillong, the 5<sup>th</sup> September, 2019

**From:** **Shri H. C. Chaudhary, IFS**  
Addl. Principal Chief Conservator of Forests (Planning, Development and Legal Matters), Government of Meghalaya, Shillong

**To:** **The Managing Director**  
Green Valley Industries Limited  
Village- Nongsning, P.O. Chiehruphi  
East Jaintia Hills District, Meghalaya

**Sub:** Record of Minutes of Proceedings of Seventeenth Sitting of the Committee constituted by the Hon'ble National Green Tribunal (NGT) under Chairmanship of Hon'ble Mr. Justice B.P. Katakey, Former Judge, Guwahati High Court held at Shillong on 14<sup>th</sup> August, 2019.

**Ref.:** This office letter No. MFG.39/87/NGT(C)/Vol.VIII/11,256-329 dated 20.08.2019

Sir/Madam,

In continuation of this Office's letter under reference on the above-mentioned subject it is stated that the following information/documents desired by the Committee constituted by the Hon'ble National Green Tribunal (NGT) under Chairmanship of Hon'ble Mr. Justice B.P. Katakey, Former Judge, Guwahati High Court are still awaited:

- (i) Year-wise details of the quantity of cement/ clinker on which transport subsidy, if any, has been claimed by the plant since imposition of ban on coal mining in the State in April 2014;
- (ii) A copy of annual report for each of the years since imposition of ban on coal mining in the State (A copy of Audit Report has only been received by this Office);
- (iii) Average estimated quantity of coal and / or any other alternate fuel(s) required to produce one tonne of clinker and / or one unit (kwh) of power; and
- (iv) A copy of Detailed Project Reports (DPRs) submitted to the Bank(s) / Financial Institution(s) to obtain loan for establishment / expansion / modernisation of the plant.

Accordingly, you are requested to submit the afore-mentioned information/documents to this Office **on or before 16.09.2019 without fail**. Year-wise details (viz. nature and quantity) of each alternate fuel along with source thereof may also be provided to this office.

It is also brought to your notice that the Hon'ble National Green Tribunal in order dated 22.08.2019 in Original Application No. 110 (THC)/2012 in the matter of Threat to life arising out of coal mining in south garo hills district *versus* State of Meghalaya and others directed that the companies in question are directed to furnish the requisite information to the Committee, failing

*oa*

which this Tribunal may have to take coercive measures against the Chief Executive Officers of the companies. The Hon'ble NGT in the said order further directed that this aspect will be considered in the light of further report of the Committee.

This is for your information and necessary action.

Yours faithfully,

**Encl.:** As above.

*05/09/2019*

**(H C Chaudhary, IFS)**

Addl. Principal Chief Conservator of Forests  
Planning, Development and Legal Matters  
(E-mail: harishcc@yahoo.com) -

Memo No. MFG.39/87/NGT (C)/ Vol.-IX/12, 734

Dated Shillong, the <sup>5<sup>th</sup></sup> September, 2019  
**Issued on** \_\_\_\_\_

**Copy to:**

1. The Principal Secretary to the Government of Meghalaya, Forests and Environment Department, Shillong for information.

*05/09/2019*

**Addl. Principal Chief Conservator of Forests**  
Planning, Development and Legal Matters

**S/d**  
**True Copy**



Date: 10<sup>th</sup> September' 2019

To,  
The Additional Principal Chief Conservator of Forests  
(Planning, Development and Legal Matters)  
Department of Forests and Environment,  
Sylvan House, Lower Lachumiere,  
Shillong – 793 001

Sub: Submission of information/documents

Sir,

We are in receipt of your e-mail dt. 5<sup>th</sup> September'2019 asking us to submit various information / documents desired by the Committee constituted by the Hon'ble National Green Tribunal (NGT) under Chairmanship of Hon'ble Mr. Justice B.P. Katakey, Former Judge, Guwahati High Court.

In this regard, we would like to inform as under:

1. Year-wise details of the quantity of cement / clinker on which transport subsidy has been claimed by us between 01.04.2014 & 16.01.2016 are attached herewith marked Annexure – 'A'. We have not claimed transport subsidy after 16.01.2016.
2. We have already submitted copies of our annual report for the Financial Year 2014-15 to 2017-18 which consists of Audit Report along with audited accounts vide our letter dated 26.08.2019. Copies of the same are once again enclosed herewith collectively marked Annexure – 'B'.
3. Average estimated quantity of Coal required to produce 1 MT of Clinker was approximately around 13 Kgs (13 %). This was based on assumption of various parameters like quality of coal available, raw mix design, plant efficiency etc. Variation in any one or more parameters from the assumptions taken will change the estimated quantity accordingly. Since we do not have Thermal Power Plant, this data for per unit (kwh) of power generation is not relevant to us.



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**A GNG GROUP COMPANY**

6266  
**Green Valliey Industries Limited**

CIN NO.: U26942ML2007PLC008273

166

4. A copy of Detailed Project Report (DPR) submitted to the Bank(s) / Financial Institution(s) to obtain loan for establishment of the plant is attached herewith marked Annexure – 'C'.
5. Year-wise consumption of alternate fuel (Muslate) is attached herewith marked Annexure – 'D'.

We hope the above will meet your requirements.

Thanking you,

Yours truly,  
For Green Valliey Industries Ltd.

  
(Authorised Signatory)

Encl.: Annexure A to D as stated above.



**Guwahati Office:** 4th Floor, LB Plaza, G.S. Road, Bhangagarh, Guwahati-781 005, T +91 361 2465481 / 82 / 83 / 84  
**Regd. Office & Plant:** Vill. Nongsning, P.O. Chiehruphi, PS. Khliehriat, Dist. Jaintia Hills, Meghalaya-793 200  
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**Annexure – 'A'****Year-wise of quantity of Cement & Clinker on which Transport Subsidy has been claimed since Apr' 2014**

Financial Year	Quantity (MT)	
	Cement	Clinker
2014-15	3,01,806	28,595
2015-16 *	2,43,364	6,855

\* up to 16.01.2016 only (Last date of Transport Subsidy Claim made by us)



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Annexure - 'D'

Year Wise Muslate consumption from 2014-15 to 2018-19

Financial Year	Quantity (MT)
2014-15	17,105
2015-16	18,280
2016-17	28,221
2017-18	35,020
2018-19	49,122

S/d  
True Copy



Guwahati Office: 4th Floor, LB Plaza, G.S. Road, Bhangagarh, Guwahati-781 005, T +91 361 2465481 / 82 / 83 / 84  
Regd. Office & Plant: Vill. Nongsning, P.O. Chiehruphi, PS. Khliehriat, Dist. Jaintia Hills, Meghalaya-793 200  
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E : info@greenvalliey.com

**A GNG GROUP COMPANY**

# **THE FIFTH INTERIM REPORT**

of

The Independent Committee

Consisting of

**JUSTICE BROJENDRA PRASAD KATAKEY**  
FORMER JUDGE, GUWAHATI HIGH COURT, GUWAHATI

**PROF. S. C. BHOWMIK**  
RUNGTA CHAIR PROFESSOR, DEPARTMENT OF MINING ENGINEERING  
REPRESENTATIVE OF THE INDIAN INSTITUTE OF TECHNOLOGY- INDIAN SCHOOL  
OF MINES (IIT -ISM), DHANBAD 826 004

**DR. SHANTANU KUMAR DUTTA, ADDL. DIRECTOR**  
REPRESENTATIVE OF THE CENTRAL POLLUTION CONTROL BOARD

On

**RESOURCE (COAL) AUDIT OF CEMENT INDUSTRIES AND  
THERMAL POWER PLANTS IN MEGHALAYA**

**Submitted To**

**The Hon'ble National Green Tribunal, Principal  
Bench, New Delhi**

**On 02.12.2019**

Constituted vide order dated 31.08.2019 to go into the issues  
arising out of the coal mining in the State of Meghalaya



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## CHAPTER-1: BACKGROUND

1.1 On 12.11.2018, the Committee visited some coal mine areas in East Jaintia Hills District. The Committee on the said day also visited two Cement Plants (*viz.* Star Cement Limited and Star Cement Meghalaya Limited) and a Thermal Power Plant (*viz.* Meghalaya Power Limited) of the Star Cement Limited located at Lumshnong village in East Jaintia Hills District. The Committee during the visit to these plants made following observations:-

- (i) M/s Meghalaya Power Limited is a 43 MW Coal Based Power Plant. The Unit stands beside M/s Star Cement Limited, which is an integrated cement plant. M/s Meghalaya Power Limited, M/s Star Cement Limited and another cement plant, namely, M/s Star Cement Meghalaya Limited, are Units of same group of Companies. The cement plants are branded as 'Star Cement'.
- (ii) Huge quantity of coal is lying in open coal storage areas. The representative of the cement plants, present during the visit, claims that they procure coal for the plant from North East Coalfields Limited, Margherita and from Eastern Coal Fields as well as from the State of Nagaland. It has also been stated that they procured coal from local market when the transportation of the coal from mines in the State of Meghalaya was allowed by the Hon'ble Supreme Court and Hon'ble National Green Tribunal. They also claimed import of about 20,000 MT of coal from Malaysia during the last financial year.
- (iii) As per the record of the Central Pollution Control Board, the Star Cement Group of Companies, which has 2(two) power plants of 1 X 43 MW and 1 X 8 MW capacity, which need considerable amount of coal for operating the power plants. It has 2(two) integrated cement Units, *viz.* Star Cement Limited and Star Cement Meghalaya Limited, which use coal of about 15% of total clinker production.
- (iv) Moreover, as per the record of Central Pollution Control Board, there are few other Coal Based Power Plants in Lumshnong areas of East Jaintia Hills District. The capacity of captive power plants of various cement producing mills, as is available with the Central Pollution Control Board, is given below –



<i>Sl. No.</i>	<i>Name of the Cement Plant</i>	<i>Capacity of Captive Power Plants</i>
1.	<i>Adhunik Cement Limited</i>	<i>25 MW</i>
2.	<i>Meghalaya Cements Limited</i>	<i>12 MW</i>
3.	<i>Amrit Cements Limited</i>	<i>10 MW</i>
4.	<i>Goldstone Cements Limited</i>	<i>10 MW</i>

1.2 The Committee in its Fourth Sitting held on 13.11.2019 took note of the above observations and directed the North Eastern Regional Directorate of the Central Pollution Control Board (CPCB) to prepare and submit a report on the coal consumption in the Captive Power Plants of the Cement Manufacturing Units of East Jaintia Hills District and also in the clinker production for the last 4 (four) years (*viz.* 2014-15, 2015-16, 2016-17 and 2017-18) based on technical data on average coal requirement per MT of clinker production and coal consumption per million units of power generation.

1.3 During Fifth Sitting of the Committee held on 07.12.2019 the North Eastern Regional Directorate of the CPCB assured the Committee that based on compilation of the data, a report on coal consumption as sought by the Committee in its Fourth Sitting will be submitted to the Committee within a week.

1.4 During Sixth Sitting of the Committee held on 20.12.2019 the North Eastern Regional Directorate of the CPCB informed the Committee that the report as asked for relating to year - wise requirement, source of procurement and consumption of coal by the Cement Industries, Power Plants and Captive Power Plants in the State of Meghalaya, shall be submitted to the Committee in its next meeting

1.5 The Committee through its First Interim Report dated 31.12.2018 placed its observations on the matters as contained in paragraph 1.1 above, before the Hon'ble National Green Tribunal (NGT). The Hon'ble NGT in Order dated 04.01.2019 took note of these observations and directed that the Committee may consider the

resource (coal) audit of Meghalaya Power Limited and Star Cement Limited to ascertain the legitimate procurement of coal and its source.

1.6 During Seventh Sitting of the Committee held on 11.01.2019 the North Eastern Regional Directorate of the CPCB informed that out of 7 (seven) Captive Power Plants in the State of Meghalaya, the relevant data relating to coal consumption from 6 (six) Plants have been collected. It was also informed that the data from the remaining 1 (one) Plant viz. Goldstone Cement Limited will be collected soon and the consolidated data for all these 7 (seven) plants will be submitted to the Committee in its next Sitting.

1.7 During Eighth Sitting of the Committee held on 11.02.2019 the North Eastern Regional Directorate of the CPCB submitted a report on coal consumption by Thermal Power Plants and Cement Industries in the State of Meghalaya. As per the said report the State of Meghalaya is home to sixteen (16) Cement Industries and nine (9) Thermal Power Plants. Except one standalone Thermal Power Plants (viz. Meghalaya Power Limited), all other Thermal Power Plants are Captive Power Plants of the Cement and other Industries. Out of these sixteen (16) Cement Industries, one (1) Cement Industry (viz. Billionium Cement Limited) is a clinker grinding unit which does not use any coal. It has also been stated in the said report of the North Eastern Regional Directorate of the CPCB that three (3) Cement Industries (viz. H.M. Cement Limited, RNB Cement Limited and Megatech Engineers Limited) did not consume any coal since the year 2014-15 as these industries were under shutdown. It has also been stated in the said report that out of these sixteen (16) Cement Industries, two industries (viz. Jaintia Cement Limited and Virgo Cement Limited) are vertical shaft Kiln (VSK) based cement producing units. These units use coke breeze/low ash metallurgical coke (LAMC) as a fuel. No coal has been used by any of these industries since ban on rat hole mining was imposed by the Hon'ble NGT in the month of April, 2014.

1.8 The Committee took a copy of the said Report on record for further examination and directed the North Eastern Regional Directorate of the CPCB to submit a report to the Committee as to whether the procurement of coal from Meghalaya by the Thermal Power Plants and Cements Industries has violated any

condition set forth in the licence/ permission granted for setting up of such power plants and cement industries and if so, the required action to be taken against those Thermal Power Plants and Cement Industries. The Committee further directed that the said report shall be submitted on 25.02.2019.

**1.9** During Ninth Sitting of the Committee held on 25.02.2019 the North Eastern Regional Directorate of the CPCB sought more time to submit a report relating to the violation or otherwise of any condition set forth in the license/ permission granted to the thermal power plants and cement industries by procuring coal locally from the State of Meghalaya and also the action required to be taken against those thermal power plants and cement industries. The Committee allowed the North Eastern Regional Directorate of the CPCB to submit the report till its next Sitting to be held on 25.03.2019.

**1.10** During Eleventh Sitting of the Committee held on 25.03.2019 the North Eastern Regional Directorate of CPCB submitted an updated report on coal consumption by Cement Industries and Thermal Power Plants in the State of Meghalaya. The Committee after examination of the said Report observed that year-wise details of coal reported to be consumed by various Cement and Thermal Power Plants have only been provided in the said report. The Committee further noted that in the absence of year-wise details of cement or the power produced by each of the Cement Industries and Thermal Power Plants and the quantity of coal required to produce such quantity of cement or power, it is not possible for the Committee to ascertain that quantity of coal reported to be procured by these plants was sufficient to produce reported quantity of cement/power. The Committee further noted that difference between the quantity of coal reportedly consumed by each of the Cement Industries and Thermal Power Plant and the quantity of coal required to produce such reported quantity of cement or power by each such plant, if any, could have been met by illegally mined coal. The Committee therefore directed the North Eastern Regional Office of the CPCB to revise the report keeping in view the above observations and submit the same to the Committee during its next Sitting to be held on 25.04.2019.

**1.11** The Hon'ble NGT by order dated 11.04.2019 directed that the Committee may also consider requiring audit of the sources of coal acquired by the power generation and cement plants in the State of Meghalaya.

**1.12** The Committee in its twelfth Siting held on 25.04.2019 formulated a format for undertaking resource (coal) audit of each Cement Industry and Thermal Power Plant in the State of Meghalaya by North Eastern Regional Directorate of the CPCB in compliance of the directions issued by the Hon'ble NGT's by the said Order dated 11.04.2019.

**1.13** During Fourteenth Sitting of the Committee held on 03.06.2019 representative of the CPCB informed the Committee that information in respect of resource (coal) audit of Cement Industries and Thermal Power Plants in the State of Meghalaya to be undertaken by them in compliance of directions issued by the Hon'ble NGT by order dated 11.04.2019 has been received from only two such units. Information received from these units also does not appear to be correct. The Committee during the said Sitting noted that reluctance of these Cement Industries and Thermal Power Plants to provide requisite information not only amounts to total disregard and disrespect to the Hon'ble NGT and to the CPCB but also creates a suspicion about use of illegally mined coal by these plants. The Committee further noted that continuous defiance of these units is highly unacceptable and cannot be tolerated any further. The Committee, keeping in view the above, directed that in case any of these units continues to wilfully disobey the requests made by the North Eastern Regional Directorate of CPCB to provide the data/information required by them to conduct the resource (coal) audit, the North Eastern Regional Directorate of CPCB shall initiate appropriate punitive action, as per law, against each such defaulting units.

**1.14** The Committee during its Fourteenth Sitting held on 03.06.2019 also noted that year-wise details of coal purchased by each of these units since imposition of ban on mining of coal in the State by the Hon'ble NGT are already available in the first report prepared by the North Eastern Regional Directorate of the CPCB. The Committee further noted that other information such as annual production of coal/power and specific fuel consumption by each such units are available in the Annual Reports and Detailed Project Report (DPR) of these units, a copy of which is either

available in the public domain or is already available with North Eastern Regional Directorate of the CPCB. The Committee keeping in view the above directed that the North Eastern Regional Directorate CPCB shall complete resource (coal) audit of each cement/power plant in the State and submit a report to the Committee within a month, without fail.

1.15 The Committee in its Fifteenth Sitting held on 28.06.2019 noted that from perusal of information on the clinker and power produced by some of these plants available in their annual reports, a copy of which is available in the public domain *prima facie* it appears that quantity of coal reported to be procured by some of these plants is grossly insufficient to produce reported quantity of cement and/or power by such plants. The Committee further noted that the gap has, in all probability, been met by illegally mined coal. The same, if found to be true, has not only resulted in gross violation of the orders of the Hon'ble NGT and the Hon'ble Supreme Court but has also resulted in enormous loss of revenue to the State. To have a preliminary assessment of illegally sourced coal, if any, used by any of these plants/industries after ban on mining of coal was imposed by the Hon'ble NGT in April, 2014, the Committee directed the Managing Directors/ Chief Executive Officers of all Cement Industries and Thermal Power Plants in the State of ~~West Bengal~~ to depute their duly authorised representative(s) to remain present before the Committee in its sitting to be held on 23.07.2019 and produce before the Committee, along with supporting documentary evidence, the following information /documents:

- (i) Year-wise details of clinker and / or power produced since imposition of ban on coal mining in the State in April 2014;
- (ii) Year-wise details of coal and / or any other alternate fuel procured since imposition of ban on coal mining in the State in April 2014;
- (iii) Year-wise details of the quantity of cement/ clinker on which transport subsidy, if any, has been claimed by the plant since imposition of ban on coal mining in the State in April 2014;
- (iv) A copy of annual report for each of the years since imposition of ban on coal mining in the State ;

- (v) Average estimated quantity of coal and / or any other alternate fuel(s) required to produce one tonne of clinker and / or one unit (kwh) of power; and
- (vi) A copy of Detailed Project Reports (DPRs) submitted to the Bank(s) / Financial Institution(s) to obtain loan for establishment / expansion / modernization of the plant.

**1.16** During Sixteenth Sitting of the Committee representatives of 9 (nine) Cement Industries (*viz.* Amrit Cement, Cosmos Cement Limited, Dalmia Bharat Cement Limited, Jaintia Cement Limited, JUD Cement Limited, Mawmluh Cherra Cement Limited, Meghalaya Cement Limited, Star Cement Limited and Star Cement Meghalaya Limited) and four (4) Thermal Power Plants (*viz.* Maithan Alloys Limited, Meghalaya Power Limited, Shree Sakambari Ferro Alloys Pvt. Ltd. and Shyam Century Ferrous Ltd.) appeared before the Committee. A summary of deliberations held on the matter during the said Sitting of the Committee is as below:

- (i) Representatives of Mawmluh Cherra Cement Limited, Jaintia Cement Limited, Maithan Alloys Limited and Shree Sakambari Ferro Alloys Pvt. Ltd. submitted information and documents sought by the Committee. The Committee observed certain discrepancies in information submitted by Maithan Alloys Limited and Shree Sakambari Ferro Alloys Pvt. Ltd. and requested them to depute a representative to attend next sitting of the Committee to be held on 14.08.2019 along with the corrected information. The Committee also noted that the information provided by the Mawmluh Cherra Cement Limited does not contain Annual Report for the year 2018-19.
- (ii) Representative of Jaintia Cement Limited informed that they do not use coal as a fuel. He further stated that the entire fuel requirement for the said plant is met from the Coke Breeze sourced from Assam. The Committee directed the North Eastern Regional Directorate of the CPCB to undertake audit of each of the Coke Plants from which the coke has reportedly been sourced by the Jaintia Cement Limited in the format stipulated by the Committee for resource (coal) audit of cement factories and Thermal Power Plants in Meghalaya and submit a report to the Committee within one month. The said Report is still awaited from the North Eastern Regional Directorate of CPCB.

- (iii) The representative of Cosmos Cement informed that they have not yet installed the plant and machineries of the Cement Plant and have therefore neither commenced production of the cement nor have purchased any coal.
- (iv) Dr. Shantanu Kumar Dutta, Addl. Director, North East Regional Directorate of the CPCB who is also a member of the Committee informed that the RNB Cement Limited will not be able to provide any information or document as the plant has been taken over by the National Company Law Tribunal (NCLT) and is managed by an Interim Resolution Professional (IRP).
- (v) Representatives of Amrit Cement, Meghalaya Cement Limited, Meghalaya Power Limited, Star Cement Limited and Star Cement Meghalaya Limited initially questioned the jurisdiction of the Committee to seek information from them. Later on they agreed to provide the information and documents sought by the Committee provided additional time is granted to them. Similarly representatives of Dalmia Bharat Cement Limited, JUD Cement and Shyam Century Ferrous Limited requested the Committee to provide additional time for submission of the information and documents sought by the Committee. In spite of prior notice, five Cement Industries (*viz.* Greenvalley Industries Limited, Goldstone Cements Limited, Hills Cements Limited, RNB Cement Limited and Virgo Cements Limited) and one Thermal Power Plant (*viz.* CMJ Breweries Limited) did not depute a representative to attend Sixteenth Sitting of the Committee. The Committee directed the afore-mentioned defaulting Industries to depute a representative to attend next Sitting of the Committee to be held at Shillong on 14.08.2019 along with all information and documents sought by the Committee, without fail.

1.17 During Seventeenth Sitting of the Committee held on 14.08.2019, representatives of nine (9) Cement Industries (*viz.* Amrit Cement, Dalmia Bharat Cement Limited, Goldstone Cement Limited, Green Valley Industries Limited, Hill Cement Limited, JUD Cements Limited, Meghalaya Cement Limited, Star Cement Limited and Star Cement Meghalaya Limited) and four (4) Thermal Power Plants (*viz.* Maithan Alloys Limited, Meghalaya Power Limited, Shree Sakambari Ferro Alloys Pvt. Ltd. and Shyam Century Limited) appeared before the Committee. A learned Senior Counsel along with one other Counsel appeared before the Committee on behalf of Star Cement Limited and two of its subsidiaries (*viz.* Star

Cement Meghalaya Limited and Meghalaya Limited). A summary of deliberations held on the matter during the said Sitting of the Committee is as below:

- (i) The Mawmluh Cherra Cement Limited provided a copy of Annual Report for the year 2018-19. The Committee took the same on record.
- (ii) Three (3) Cement Industries (*viz.* Goldstone Cement Limited, Meghalaya Cement Limited, Star Cement Limited and Star Cement Meghalaya Limited) and four (4) Thermal Power Plants (*viz.* Maithan Alloys Limited, Meghalaya Power Limited, Shree Sakambari Ferro Alloys Pvt. Ltd. and Shyam Century Limited) submitted information and documents sought by the Committee.
- (iii) One (1) Cement Industry (*viz.* Amrit Cement) provided some of the information/document sought by the Committee. Four (4) Cement Industries (*viz.* Dalmia Bharat Cement Limited, Greenvalley Industries Limited, Hill Cement Limited and JUD Cement Limited) sought additional time to provide information/documents sought by the Committee. In spite of prior notice, one Cement Industry (*viz.* Virgo Cements Limited) and one Thermal Power Plant (*viz.* CMJ Breweries Limited) neither deputed a representative to attend meeting of the Committee nor provided the information/documents to the Committee. The Committee directed all these defaulting Industries to provide the information/documents to the Committee within one week positively.
- (iv) The Committee noted that the quantity of coal procured by Maithan Alloys Limited and Shri Sakambari Ferro Alloys Pvt. Ltd, as per the statements submitted to the Committee, is substantially different than the quantity of coal reportedly consumed by the these Plants, as per the details given in a report on coal consumption by the Thermal Power Plants and Cement Industries submitted to the Committee by North Eastern Regional Directorate of CPCB. The Committee therefore, directed the North Eastern Regional Directorate of CPCB to re-examine the records relating to purchase and use of coal by above Thermal Power Plants and submit a report to the Committee within fifteen days.
- (v) The Committee noted that *prima-facie* the quantity of coal purchased by majority of Cement Industries and Thermal Power Plants is much lower than the quantity of coal required to produce reported quantity of clinker and/or electricity.

- (vi) Many of the Cement Industries and Thermal Power Plants claimed that they have used large quantity of slate in place of coal. The Committee noted that it is neither technically feasible nor legally permissible to use large quantity of slate in place of coal.

**1.18** The Star Cement Meghalaya vide letter dated 26.08.2019 submitted a representation wherein, among others, it has been stated that observations made by the Committee that *prima-facie* they have used illegal coal for production of clinker/power is not based on the factual information but on the premise that use of alternate fuel by them is not technically feasible and that no royalty on the same was paid. The Committee sent a copy of the said representation to the MSPCB, the North Eastern Regional Directorate of the CPCB and North Eastern Regional Office of the Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India (GoI) for their comments.

**1.19** During Eighteenth Sitting of the Committee held on 16.09.2019, the MSPCB, the North Eastern Regional Directorate of the CPCB and North Eastern Regional Office of the MoEFCC, GoI submitted their comments on submissions made by the Star Cement in their said letter dated 26.08.2019. The Committee took a copy of these comments on record and directed as below:

- (i) The MSPCB shall provide to the Committee a copy of Environmental Statements submitted to them by all Cement Industries and Thermal Power Plants in the State of Meghalaya for the period from 20014-15 to 2018-19.
- (ii) The MSPCB shall provide to the Committee a copy of all authorizations/ no objection certificates granted by them to Cement Industries and Thermal Power Plants in the State of Meghalaya for use of any fuel other than coal.
- (iii) The MSPCB shall provide to the Committee a copy of 'Consent to Establish' and/or 'Consent to Operate', if any, granted for mining of slate or muslate in the State of Meghalaya. In case no such consent has been granted, the same shall also be intimated to the Committee within one week
- (iv) The North Eastern Regional Office of the MoEFCC, GoI and the State Environmental Impact Assessment Authority (SEIAA), Meghalaya shall provide to the Committee a copy of Environmental Clearance(s), if any, granted for mining of slate in the State of Meghalaya. In case no such EC has been issued by them the same shall also be intimated to the Committee.

- (v) The North eastern Regional Directorate of the CPCB shall provide to the Committee a copy of data which formed the basis for making a submission before the Committee while preparing its First Interim Report to the effect that the two integrated cement units of State Cement Limited (*viz.* Star Cement Limited and Star Cement Meghalaya Limited) use coal of about 15% of total clinker production. The CPCB may also provide the reasons for discrepancy between the said information provided in December 2018 and the information provide vide letter dated 13.09.2019 wherein it has been stated that actual requirement of coal by these cement plants is even less that self-declared quantity of 12.75% of clinker production.

1.20 During Eighteenth Sitting of the Committee held on 16.08.2019, the Commissioner and Secretray to the Government of Meghalaya, Mining and Geology Department informed the Committee that no mining lease has been granted so far for extraction of slate in the State of Meghalaya. He further stated that local suppliers have supplied muslate or slate sourced from overburden of coal mining carried out prior to ban imposed by Hon'ble NGT. He also stated that six (6) Cement Industries (*viz.* Dalmia Bharat Cement Limited, Goldstone Cement Limited, Green Valley Industries Limited, Meghalaya Cements Limited, Star Cement Limited and Star Cement Meghalaya Limited) and one (1) Thermal Power Plant (*viz.* Meghalaya Power Ltd.) have paid royalty on slate used by them.

1.21. Later on, the Committee received requisite information/documents sought from all defaulting Cement Industries and Thermal Power Plants. The Committee also received information/documents sought from the MSPCB, North Eastern Regional Directorate of CPCB and North Eastern Regional Office of the MoEFCC, Gol in its Eighteenth Sitting held on 16.09.2019.



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## CHAPTER 2: ANALYSIS OF INFORMATION PROVIDED BY INDUSTRIES AND REGULATORY AUTHORITIES

### 2.1 Mawmluh Cherra Cement Limited

2.1.1 The Mawmluh Cherra Cement Limited was initiated incorporated as a private enterprise under the Indian Companies Act, 1913 in the name of the 'Assam Cement Limited' on 20.05.1955 to establish first cement plant of the entire North East India at a place named Mawmluh located near Cherrapunjee at about 56 km from Shillong. Keeping in view the inability of the original promoters to raise requisite funds for establishment of the plant, the Government of Assam decided to take-over the enterprise. Accordingly, on 01.01.1964 the Assam Cement Limited became a Government of Assam undertaking with very small and token percentage of share given to private sector. The Cement Plant having installed capacity of 85,000 tones of cement per annum was commissioned in November 1964. With the reorganization of the composite State of Assam resulting in creation of a new State of Meghalaya on 22.01.1972 the control and management of the above enterprise formally passed over to the State of Meghalaya. On 07.05.1974 the above enterprise was rechristened as Mawmluh-Cherra Cement Limited (hereinafter referred to as "MCCL").

2.1.2 The Committee examined the Techno-Economic Feasibility Report for expansion of existing cement plant of MCCL consisting of three long wet process kilns (Kiln 1 of 250 tons per day (TPD) and Kiln 2 and 3 of 340 TPD each) by addition of 600 TPD dry process kiln in the existing cement plant prepared by Holtec Consulting Private Limited in 2004. The said report envisages coal sourced from nearby areas as a fuel for the said plant. List of raw materials for the said plant given in the said Report does not include any other fuel. It has also been stated in the Said Report that specific coal requirement (*i.e.* percentage of coal required to produce a unit quantity of clinker) for the said plant is 16%.

2.1.2 Presently, the dry process kiln of 600 tpd capacity is only operational in the MCCL. The all three wet process kilns have been de-commissioned in 2014. Foundation stone of the said dry process kiln was laid in 2004. The same however,



could be commissioned in the month of September 2016. Hence, after the imposition of ban on illegal rat-hole coal mining was imposed by the Hon'ble NGT in April 2014 the cement plant of the MCCL was in operation for a period of about three years (*viz.* from September 2016 to March 2019).

**2.1.3** Year-wise details of clinker produced and the coal procured by the MCCL to produce such clinker, since the ban on illegal rat hole coal mining was imposed by the Hon'ble NGT in April 2019 (*viz.* from the year 2014-15 to the year 2018-19) (hereinafter referred to as 'Audit Period') is as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Clinker produced (MT)	-	-	32,505	40,440	38,530	1,11,475
Coal procured (MT)			10,196	10,192	11,802	32,190

**2.1.4** The representative of North Eastern Regional Directorate of CPCB informed the Committee that after due scrutiny of all requisite documents, they have found that the entire afore-mentioned quantity of 32,190 MT coal has been procured by MCCL from legal sources.

**2.1.5** The Committee notes that as per the afore-mentioned information, the reported specific coal consumption (*i.e.* percentage of coal consumed to produce a unit quantity of clinker) for the MCCL during the Audit Period is 28.876 %. The Committee also notes that in paragraph 1 of the 'Guidelines on Co-processing in Cement/Power/ Steel Industry' issued by the CPCB in February, 2010, a copy of the which has been placed before the Committee by North Eastern Regional Directorate of the CPCB, it has been stated that 40 million tones of coal is required to produce 200 million tomes of cement in the entire country. The specific coal consumption for the cement industry for the country as a whole, as per the said Guidelines, is 20%.

**2.1.6** The Committee notes that the reported specific coal consumption by the MCCL during the Audit Period (*i.e.* 28.876%) is substantially higher than the

average specific coal consumption of the Cement Industry for the country as a whole (i.e. 20 %). The Committee further notes that the reported specific coal consumption of the MCCL is also substantially higher than the same for other Cement Industries in Meghalaya. **The Committee is therefore; of the view that during the Audit Period the entire requirement of coal for the MCCL has been met from legal sources.**

## **2.2 Star Cement Limited and its Two Subsidiaries (viz. Star Cement Meghalaya Limited and Meghalaya Power Limited)**

**2.2.1** The Star Cement Limited (formerly known as Cement Manufacturing Company Limited) is the largest cement manufacturer of the North-East India. The first cement plant of the Star Cement Limited, having installed capacity to produce 1,800 TPD clinker was commissioned TPD at Lumshnong village in East Jaintia Hills District in the year 2005. Later on the installed capacity of the said plant was enhanced to produce 2400 TPD clinker. During, 2013, Star Cement Meghalaya Limited, a wholly owned subsidiary of the Star Cement Limited, commissioned a cement plant having installed capacity to produce 5,300 TPD clinker. The Meghalaya Power Limited, a fully owned subsidiary of the Star Cement Limited established 8 MW Thermal Power Plant. The said plant was commissioned in 2009. Later on the installed capacity of the said Thermal Power Plant was enhanced to 51 MW by addition of an eight 43 MW unit. The said Thermal Power Plant having installed capacity of 43 MW was commissioned in 2013. All these Cement Plants and Thermal Power Plant of the Star Cement Limited and its afore-mentioned subsidiaries are located in Lumshnong village in close vicinity to each other. All these plants were in operation before the ban on illegal rat-hole coal mining was imposed by the Hon'ble NGT in April 2014.

**2.2.2** The Committee in its Sixteenth Sitting held on 23.07.2019 examined a Techno-Economic Feasibility Report (TEFR) of the Modernization & Expansion of the then existing plant of the Cement Manufacturing Company Limited (now Star Cement Limited) from 1800 TPD to 2400 TPD clinker and a similar report of 5300 TPD clinkerization plant of the Star Cement Meghalaya Limited, both prepared by Holtec Consulting Private Limited, a copy of the which was provided to the



Committee by representatives of the Star Cement Limited, and observed that both these plants have been designed to use 100% Meghalaya coal available locally from areas within the distance of 50 kms. Nowhere in these reports is it stated that any of these plants can be operated by any alternate fuel other than coal. It has also been stated in these Reports that net calorific value of the local coal to be used in these clinker plants is 5,800 Kcal/kg. It has also been stated in these Reports that specific heat consumption of these plants is 740 Kcal per kg of clinker. The specific coal requirement for both these plants, as per the aforementioned information given in these Reports, is 12.75 %.

2.2.3 The Committee in its Sixteenth Sitting held on 23.07.2019 also examined TEFR of the Meghalaya Power Limited prepared jointly by Technical Consultant – Cethar Consulting Engineers (P) Ltd., Chennai and Financial Consultant- KBG Consultants Pvt. Ltd., Kolkata, a copy of the which was provided to the Committee by a representative of the Star Cement Limited, and observed that as per the said Report the said plant has been designed to use coal sourced from nearby coal mines at Bapung and Khliehriat, Jaintia Hills, in Meghalaya & captive mines, Meghalaya. Requirement of the locally sourced Meghalaya coal at 100 % capacity for the said 43 MW TPP, as per the said Report, is 720 MT per day. The specific fuel requirement for the said TPP, as per the information given in the said Report, is therefore 0.70 kg/ kwh. Nowhere, in the said Report it has been stated that it will be feasible to run the plant by using any alternate fuel other than coal.

2.2.4 The Committee in its Sixteenth Sitting held on 23.07.2019 also noted that Environmental Clearance (EC) to the said TPP has been accorded by the Ministry of Environment and Forests, Government of India subject to, among others, a condition that *"In case source of fuel supply is changed at a later stage (now proposed on imported coal from Indonesia the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change., In such a case the necessity for re-conducting public hearing may be decided by the Ministry in consultation with the Expert Appraisal Committee"*. The Committee also noted that the North Eastern Regional Office of the MoEFCC, GoI during routine monitoring of conditions stipulated in EC to the said TPP has

observed that in contravention of the said condition, the plant has been operated by using locally sourced coal. For the said violation, the North Eastern Regional Office has requested the MoEFCC, GoI to initiate penal measures in accordance with the provisions of the Environment (Protection) Act, 1986 against the said TPP. In pursuance, a show cause notice has been issued to the said TPP by the MoEFCC, GoI. No action has however been taken against the Meghalaya Power Limited for continuous violation of the said condition stipulated in the EC for last several years.

2.2.5 The Committee after examination of documents submitted by representatives of the Star Cements Limited in its Sixteenth Sitting held on 23.07.2019 noted that year-wise details of clinker (in MT) or power (in kwh) produced and coal procured by each of the afore-mentioned three plants of the Star Cements Limited during the Audit Period are as below:

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Star Cement Limited	Clinker produced (MT)	3,30,010	4,92,055	5,67,241	5,15,350	6,00,025	25,04,681
	Coal procured (MT)	13,417	47,628	10,192	25,267	10,989	1,07,493
Star Cement Meghalaya Limited	Clinker produced (MT)	15,49,349	16,29,025	15,79,345	15,41,945	14,36,600	77,36,264
	Coal procured (MT)	58,448	1,48,954	9,775	67,624	84,188	3,68,989
Meghalaya Power Limited	Power Produced (Million kwh)	167,923	183,114	201,624	190,059	170,116	912,836
	Coal procured (MT)	25,182	68,092	41,863	36,129	18,024	1,89,290
Total	Clinker produced (MT)	18,79,359	21,21,080	21,46,586	20,57,295	20,36,625	102,40,945
	Power Produced (Million kwh)	167,923	183,114	201,624	190,059	170,116	912,836
	Coal procured (MT)	97,047	2,64,674	61,830	1,29,020	1,13,201	6,65,772

2.2.6 During sixteenth Sitting of the Committee representatives of the Star Cement Limited also placed before the Committee a document stating therein that during the Audit Period, apart from the coal these plants also purchased alternate fuels such as Mu Slate, Petcoke and Saw dust. Year-wise details of the quantity of alternate fuels stated to be purchased by each of these plants are as below:

(Metric Tonne)

Plant	Nature of Alternate Fuel	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Star Cement Limited	Mu Slate	50,042	91,556	82,969	1,92,859	1,01,129	5,18,555
Star Cement Meghalaya Limited	Mu Slate/ Pet Coke/ Saw Dust	1,87,631	3,01,027	2,03,188	4,45,209	1,86,032	13,23,087
Meghalaya Power Limited	Mu Slate	1,06,243	1,39,303	1,73,348	2,87,638	1,58,652	8,65,184
<b>Total</b>		<b>3,43,916</b>	<b>5,31,886</b>	<b>4,59,505</b>	<b>9,25,706</b>	<b>4,45,813</b>	<b>27,06,826</b>

2.2.7 The Committee during its Sixteenth Sitting also noted that it has also been stated in the documents submitted to the Committee by representatives of the Star Cements Limited that average estimated requirement of coal and alternate fuel for production of clinker by these plants is 9% - 14% and 25% - 35% respectively. Similarly, it has also been stated in these communications that average estimated requirement of coal and alternate fuel for production of one kwh of power by the said Thermal Power Plant is 0.45 – 0.65 kg per kwh and 1.20 – 1.60 kg per kwh.

2.2.8 The Committee during its Sixteenth Sitting also noted that keeping in view that the project proponent in their own communication has stated that estimated requirement of coal for these plants is upto 14 % and both these plants are more than 10 years old, the actual requirement of coal for production of clinker by both these plants is atleast 14 % of the clinker produced. The Committee in the said

Sitting held on 23.07.2019 also noted that specific coal requirement for the Meghalaya Power Limited is atleast 0.70 kg/kwh as has been stated in its TEFR.

**2.2.9** The Committee in its Sixteenth Sitting also noted that use of alternate fuel, in place of coal in these plants, which have been designed to use coal as an exclusive fuel, requires major modification/alteration in their design and operation. The Committee in the said Sitting also noted that nothing was placed before the Committee to the effect that design of these plants have been altered/modified to enable them to utilise fuel such as slate having very low calorific value in place of the high calorific value local Meghalaya coal of about 5800 Kcal/kg calorific value. The Committee also noted that as per documents provided to the Committee, during the year 2016-17, the clinker plant of the Star Cement Meghalaya Limited was operated by using 9,775 MT coal and 2,03,188 MT of alternate fuel. The Committee in the said Siting noted that even with modifications, a clinker plant cannot attain the requisite kiln temperature with such a low calorie fuel mix.

**2.2.10** The Committee in its Sixteenth Sitting also noted that paragraph 2 of the Environment Impact Assessment (EIA) Notification issued by the MoEFCC, Gol vide S.O. 1533 dated 16.09.2006 mandates prior EC in the cases involving change in product mix. A representative of Star Cement Limited admitted before the Committee that no such EC has been obtained for any of these plants. Mr. H. Tynsong, Scientist D, North Eastern Regional Office of the MoEFCC, Gol during the said Sitting drawn attention of the Committee to specific condition no. (xi) (*viz. efforts shall be made to use low -grade lime, more fly ash and solid waste in cement manufacturing*) and no. (xii) (*viz. all efforts shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly*) stipulated in EC to Star Cement Meghalaya Ltd. issued by the MoEFCC, Gol vide letter dated 28.10.2009 and stated that these conditions specifically provides for use of alternate fuel. He further stated that keeping in the above, use of alternate fuel in place of coal by the said plant does not requires prior EC. The Committee after examination of six-monthly self-compliance reports to said EC, a copy of which is available on website of the Star Cement Limited, observed that in respect of the afore-mentioned condition no. (xi) it has been reported that "SMCL is

*a clinkerization unit, no fly ash is used in the unit. The generated solid waste from the pollution control equipment has been recycled and re-used in the process and has been used for clinker manufacturing. Amount 8-10 % of low grade lime available in the mine has been used in the process".* Similarly, in respect of the afore-mentioned specific condition no. (xii) it has been reported that *"Provision already made to use of high calorific waste i.e. waste oil in the kiln. The tank capacity is 1000 litres. The used oil disposal process along with photograph has been submitted along with CREP in MoEF&CC, Shillong & New Delhi."* The Committee further noted that use of any alternate fuel, as was claimed by a representative of the Star Cement Limited, has not been reported anywhere in these self-compliance reports. The Committee also noted that even for the used oil, merely making a provision for its use and not any actual use has been reported in these self-compliance reports.

**2.2.11** The Committee in its Sixteenth Meeting also noted that apart from the revised EC, change in fuel for a plant also requires prior No Objection Certificate (NoC) from the MSPCB. The Member- Secretary of the MSPCB, during the said Meeting placed before the Committee a letter dated 24.09.2017 wherein the MSPCB communicated its no-objection certificate to M/s. Star Cement Meghalaya Limited for use of Petroleum Coke in its cement plant subject to conditions stipulated in the said letter. The Committee in the said Sitting further noted that use of Petroleum Coke by the said Cement Plant is not reported in any of the six monthly self-compliance for the period after 24.09.2017.

**2.2.12** The Committee in the Sixteenth Sitting also noted that the mining/ winning/ extraction of slate claimed to be used by these plants requires prior mining lease. It also requires payment of royalty and other taxes to the State Government. Nothing was placed before the Committee during the said sitting to indicate that any mining lease has been granted in the State for mining of slate and the slate, if any, used by these plants has been sourced from an area having valid mining lease after payment of requisite royalty and other taxes payable to the State Government.

**2.2.13** The Committee in the Sixteenth Sitting noted that year-wise details of clinker/power produced, coal required to produce reported quantity of



clinker/power produced (@ 14% for clinker and 0.70 kg of coal per kwh of power produced) and gap in coal requirement in respect of each of the afore-mentioned three plants of the Star Cement Limited during the Audit Period are as below:

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Star Cement Limited	Clinker produced (MT)	3,30,010	4,92,055	5,67,241	5,15,350	6,00,025	25,04,681
	Coal required (MT)	46,201	68,888	79,414	72,149	84,004	3,50,655
	Coal procured (MT)	13,417	47,628	10,192	25,267	10,989	1,07,493
	Gap (MT)	32,784	21,260	69,222	46,882	73,015	2,43,162
Star Cement Meghalaya Limited	Clinker produced (MT)	15,49,349	16,29,025	15,79,345	15,41,945	14,36,600	77,36,264
	Coal required (MT)	2,16,909	2,28,064	2,21,108	2,15,872	2,01,124	10,83,077
	Coal procured (MT)	58,448	1,48,954	9,775	67,624	84,188	3,68,989
	Gap (MT)	1,58,461	79,110	2,11,333	1,48,248	1,16,936	7,14,088
Meghalaya Power Limited	Power Produced (Million kwh)	167.92	183.11	201.62	190.06	170.12	912.84
	Coal required (MT)	1,17,546	1,28,180	1,41,137	1,33,041	1,19,081	6,38,985
	Coal procured (MT)	25,182	68,092	41,863	36,129	18,024	1,89,290
	Gap (MT)	92,364	60,088	99,274	96,912	1,01,057	4,49,695
Total for above three plants	Coal required (MT)	3,80,656	4,25,131	4,41,659	4,21,063	4,04,209	20,72,718
	Coal procured (MT)	97,047	2,64,674	61,830	1,29,020	1,13,201	6,65,772
	Gap (MT)	2,83,609	1,60,457	3,79,829	2,92,043	2,91,008	14,06,946

2.2.14 The Committee in its Sixteenth Sitting noted that prima-facie it appears that the gap in coal required to produce reported quantity of clinker and power by the afore-mentioned plants of the Star Cements Limited has been met by illegally sourced local coal. The Committee in the said Sitting also noted that even if a part of it has been met by any alternate fuel, the same has been done in violation of the environmental and mining laws and also without payment of the requisite royalty and other taxes to the State Government. The Committee also noted that neither it is technically feasible, nor it is legally permissible to replace coal by alternate fuel by any of these cement and power plants.

2.2.15 The Star Cement Limited vide letter dated 26.07.2019 submitted a representation stating therein that observations made by the Committee that *prima facie* they have used illegal coal for production of clinker/ power is not based on the factual information but on the premise that use of alternate fuel by them is not technically feasible and that no royalty on the same was paid. Among others, the following has also been stated in the said representation:

- (i) TEFRs are prepared with a view to take a considered decision regarding technical and financial viability of undertaking a project and also is a requirement for funding by financial institutions/ banks. The TEFRs are prepared on the basis of available data and certain assumptions. The details given in the TEFRs and that actual found on the ground at the time of implementation of the project may widely vary. The energy requirement for production of clinker and power given in these Reports cannot be the ground for deciding the actual energy/ coal/ alternate fuel used by them. They had stated that the coal requirement for the plants is 9 -14 %. Based on the above the coal requirement cannot be taken as at least 14%. The age of the plants has nothing to do with the energy required to produce clinker/ power. In fact with passage of time and experience gained, the efficiency of the plants by and large improves.

- (ii) No major or even minor modification/ alteration in the plant design is required at all for using alternate fuel such as slate and pet coke by their plants. The plants can use coal as well as alternate fuel (slate).
- (iii) Revised EC is required only when product mix is changed and not for change in the use of fuel.
- (iv) The EC granted in respect of MPL specifically observes that "*imported coal from Indonesia will be used until domestic coal is available*". It is relevant to mention that none of the ECs granted after 3.6.2011 (when they were granted the EC), the MoEF & CC has prescribed the condition that only imported coal will be used. Similarly in the EC granted earlier to that date also, no such condition was prescribed. In any case for alleged violation of the conditions of the EC, the issue is under consideration of the competent authority and it is not linked with whether they have used legal coal or otherwise. Moreover, on their own they have approached SEIAA seeking change in the EC condition and this matter is yet to be decided.
- (v) Each and every payment for purchase of coal and alternate fuel has been made by cheque by them. The details of the payments made by them can easily be verified. There is no way they could have made any payment in cheque for purchase of illegal coal and no cash transaction has ever taken place for purchase of coal at all. On examination of their books of accounts and Annual Reports, the date - wise details of the payment made by them can easily be verified.
- (vi) Full royalty on purchase of alternate fuel by them has been paid on behalf of the suppliers by them.
- (vii) The alternate fuel is primarily overburden dumps produced during excavation of coal and does not require a separate mining lease at all. Like coal the alternate fuel (slate) was also produced as overburden during rat hole mining of coal - subsequently banned by the Hon'ble NGT.

- (viii) They have never been involved in illegal mining operations. The coal/ alternate fuel has been purchased by them from various local suppliers and royalty for the same has been paid. The Hon'ble Supreme Court has also held only that quantity of coal which was found to be illegally being transported as illegal coal. The ownership of the entire balance quantity lying on ground and already disposed of has been held to be that legally belonging to the concerned land owners/miners. In any case they have neither been involved in illegal mining (because they have not been involved in mining activity of coal/muslate) nor purchase of any illegal coal/ alternate fuel at all.
- (ix) Use of slate in the power plant results in generation of additional fly ash on account of it containing high ash content. The fly ash produced is used in manufacturing of PPC cement by them as well as by others. In fact they have been purchasing fly ash from other sources to meet their full requirement. The use of alternate fuel for production of power by the power plants is environmentally desirable, financially viable and results in use of the by product (fly ash) for further use as a raw material. Similarly in the cement plants use of alternate fuel, which has low sulphur content, is beneficial from the point of view of production process and is also environmentally desirable. However, it results in higher cost of production by way of additional transportation costs, handling cost, storage costs etc., due to which whenever coal at a reasonable rate is available, the same is not preferred by cement plants and power plants etc.
- (x) In fact the Meghalaya Power Limited has used slate during the years 2012 - 13 and 2013 - 14 also.
- (xi) The letter dated 24.11.2017 of the Divisional Mining Officer addressed to the Director of Mineral Resources, Meghalaya, a copy of the which was enclosed to the said representation, shows that alternate fuel (Slate / Muslate) was extensively being used by them as substantial quantity of the same were found to be physically available at their plants.

2.2.16 The Committee vide letter dated 28.09.2019 sent a copy of the said representation to the MSPCB, North Eastern Regional Office of the MoEFCC, Gol and North Eastern Regional Directorate of the CPCB for comments.

2.2.17 In reply, the MSPCB vide letter dated 13.09.2019 informed the Committee that revised Consent to Operate under the Air/ Water Act is not required for use of alternate fuel. It was also informed by the MSPCB that *prima facie* the use of alternate fuel by the cement and power plants is technically feasible and is in fact encouraged by the Pollution Control Board. A copy of Environmental Statement of the afore-mentioned plants of the Star Cement Limited was also provided to the Committee.

2.2.18 Similarly, the North Eastern Regional Directorate of the CPCB vide letter dated 13.09.2019 submitted following comments on the said representation of the Star Cements Limited:

- (i) As per the literature available in published journal of repute (*Ref: Mishra, H. K. and Ghosh, R. K, 1996, Geology, Petrology and Utilization Potential of some Tertiary coals of the North-eastern Region of India. International Journal of Coal Geology, 30: 65 - 100*) the calorific value of Eocene and Oligocene coal deposit of Meghalaya is in the range of 6500 - 8500 and 6255 - 8650 kcal/kg respectively. If we go with the published literature it could be assumed the coal requirement in actual clinker production in these cement plants of Star Cement Limited could be even less than the percentage (12.75%) requirement of coal as indicated in the TEFR assuming that calorific value of the Meghalaya coal at 5800 kcal/kg.
- (ii) If the industries use Pet Coke or slate as alternate fuel resource (AFR) it is not required to modify or attach a new fuel/ material feeding system. AFRs are generally used together with coal. As the physical characteristics of the Pet Coke and slate are similar to the coal these alternate fuel can be used in the existing coal mills for pulverization before feeding into the Kilns or the boilers after blending with coal. The CPCB has been working on use of AFR, Hazardous Wastes (HW) and Refused Derived Fuel (RDF) in the cement mills, power

plants and also in the blast furnaces so as to use the resources inherited in the wastes generated by various industries or municipalities. It is already established that disposal of wastes in the cement kilns, power plants, blast furnaces, etc. could be best possible method to dispose of the wastes in an environmentally sound manner in one hand and also to recover the resources inherited in the wastes by these industries so that use of conventional fuel is reduced significantly.

- (iii) The CPCB has published guidelines for use of AFR/ HW/ RDF in these industries. The CPCB has been conducting workshops, seminars *etc.*, amongst the stakeholders to promote the use of these AFR/ HW/ RDF in Cement Kiln or boilers.
- (iv) Besides the encouragement by CPCB, MoEF & CC, of late, has been stipulating specific condition to a few cement mills in Meghalaya to use HW/ RDF/ AFR in kilns. The EC granted to various cement industries in the region stipulates such conditions.
- (v) To use AFR/ RDF/ HW in the kilns, amendment in the EC by the concerned project is not required as per the provisions of the EC Notification, 2006. Amendment of EC is required for expansion, modification of projects and also changing in product mix. Using of AFR/ HW/RDF is only a change in fuel mix but not a change in product mix. By using AFR/ HW/RDF in a kiln/ boiler/ furnace, use of conventional fuel like coal is reduced. The arrangement helps in reducing the consumption of conventional fuel like coal and this brings in reduction in greenhouse gas emission. Thus, the use of AFR/ HW/RDF in cements kilns/ power plants/ blast furnace, etc., have significant environmental benefits and therefore such industries are encouraged to use AFR/ HW/RDF. Moreover, as the country is facing lot of problems in managing the solid wastes, use of these wastes in kilns shall also minimize the waste disposal problems in the country.
- (vi) As per provisions of the Hazardous Wastes and Other Wastes (Management and Transboundary Movement) Rules, 2016, an industry has to apply to SPCB

for authorization under the Rules for using Hazardous Wastes (HW) in its kiln/ boiler/ furnace. As per the provisions of the said Rules, CPCB prepares guidelines for use of HW in cement kiln/ boiler/ furnace. Such guidelines for various types of HW are available in the website of CPCB.

- (vii) Cement industries and power plants in Meghalaya, the industries are using slate as AFR in the cement kilns and the power plants. It is understood that slate are also mined together with coal in the coalfields of Meghalaya. Slates are differentiated from coal from their appearance and structure. It is learnt that slates commonly occur as overburdens together with the coal deposits. Slates are having less calorific value than the coal and therefore have less market values. Though data is not available regarding calorific value of slate in the State of Meghalaya, during field visit to the industries, use of slate/ Muslate by the industries were observed. When coal mining was in operation before the mining ban, various small crushers were observed in the coal depots. These crushers used to crush/ pulverize the slate into powder form and used to mix with the coal.
- (viii) From the sample documents supplied by the industries, it is observed that the industries are paying royalty on the slate being procured. The CPCB in general does not go into the detail of the royalty payment by the industries.
- (ix) The CPCB agrees to the point that the Cement Industries/ Power Plants are not involved in illegal mining of coal or slate. Documentary evidences have been submitted by the industries that the fuel/ AFR are procured after payment or royalty.

**2.2.19** The North Eastern Regional Office of the MoEFCC vide letter dated 12.09.2019 submitted, among others, the following comments on the said representation of the Star Cements Limited:

- (i) The EC is required only when product mix is changed and not for change in the use of fuel. Even though the project has used alternate fuel in their cement manufacturing process, there is no change in product mix as the produce produced is cement. The specific condition No. 12 in EC accorded to Star

Cement Limited by the MoEFCC, GoI vide letter dated 28.10.2009 specifically provides that all efforts shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly

- (ii) Para 3 of the guidelines for Pre-processing and Co-Processing of the Hazardous Waste and other wastes in Cement Plants as per Hazardous and Other Waste (Management and Trans-Boundary Movement) Rules, 2016 issued by the CPCB provides that utilization of hazardous and other waste for co-processing or for any other use shall be carried out only after obtaining authorisation from the State Pollution Control Board in respect of wastes on the basis of standard operating procedure or guidelines provided by the CPCB. The Star Cement Limited has obtained NoC for use of pet-coke in cement plants, and no record is available in the North Eastern Regional Office of the MoEFCC for use of slate as alternate fuel.
- (iii) A Note given in col. 5 of the item 3 (b) pertaining to cement industries in Schedule to the Environment Impact Assessment (EIA) Notification, 2016 substituted by the Notification bearing S.O. No. 3518 (E) dated 23.11.2016 of the MoEFCC, GoI provides that fuel for cement industry be coal, pet coke, waste provided it meets the emission standard.

2.2.20 During Eighteenth Sitting of the Committee held on 16.09.2019, the Committee took on record the afore-mentioned communications from the MSPCB, the North Eastern Regional Directorate of the CPCB and North Eastern Regional Office of the MoEFCC, GoI containing their comments on submissions made by the Star Cement in their said representation dated 26.08.2019 and directed as below:

- (i) The MSPCB shall provide to the Committee a copy of Environmental Statements submitted to them by all Cement Industries and Thermal Power Plants in the State of Meghalaya for the period from 20014-15 to 2018-19.
- (ii) The MSPCB shall provide to the Committee a copy of all authorizations/ no objection certificates granted by them to Cement Industries and Thermal Power Plants in the State of Meghalaya for use of any fuel other than coal.
- (iii) The MSPCB shall provide to the Committee a copy of 'Consent to Establish' and/or 'Consent to Operate', if any, granted for mining of slate or muslate in



the State of Meghalaya. In case no such consent has been granted, the same shall also be intimated to the Committee within one week

- (iv) The North Eastern Regional Office of the MoEFCC, GoI and the State Environmental Impact Assessment Authority (SEIAA), Meghalaya shall provide to the Committee a copy of Environmental Clearance(s), if any, granted for mining of slate in the State of Meghalaya. In case no such EC has been issued by them the same shall also be intimated to the Committee.
- (v) The North eastern Regional Directorate of the CPCB shall provide to the Committee a copy of data which formed the basis for making a submission before the Committee while preparing its First Interim Report, to the effect that the two integrated cement units of Star Cement Limited (*viz.* Star Cement Limited and Star Cement Meghalaya Limited) use coal of about 15% of total clinker production. The CPCB may also provide the reasons for discrepancy between the said information provided in December 2018 and the information provided vide letter dated 13.09.2019 wherein it has been stated that actual requirement of coal by these cement plants is even less than self-declared quantity of 12.75% of clinker production.

**2.2.21** The North Eastern Regional Office of the MoEFCC, GoI vide a communication dated 11.10.2019 informed the Committee that as per records available with them no EC has been issued by the MoEFCC or SEIAA for mining of Slate in the State of Meghalaya.

**2.2.22** The North Eastern Regional Directorate of the CPCB vide a communication dated 11.10.2019 informed the Committee as below:

- (i) While preparing the Interim Report about the coal consumption by the cement plants in Meghalaya, Mr. P. Chakraborty, Unit Head of Calcom Cement India Ltd. (CCIL), a subsidiary of Dalmia Cement (Bharat) Limited, located at Umrangsoo, Assam was consulted for getting a neutral feedback. He was consulted because of his working experience and vast knowledge about clinker production in North East. It was reported by him that the coal requirement for clinker production stands at about 15% of total clinker production in general. This figure may vary about depending on the calorific value of the coal being used. Similar percentage coal consumption figure data is also supported by data available in the internet.

- (ii) During the detailed audit of cement plants in the State of Meghalaya regarding coal consumption, it was observed that the units started using alternate fuel to a significant extent which would bring down the consumption of coal further. Moreover, published paper by *Mishra & Ghosh (1996)* reported very high calorific value of Eocene and Oligocene coal found in Meghalaya in the range of 6500 – 8500 and 6255 – 8650 Kcal/ Kg respectively. It is understood that if coal with such high calorific value is used for clinker production together with other alternate fuel like slate, plastic waste, wood-dust etc., the coal consumption percentage will come down even below 12.75%, as reported in their earlier report.

2.2.23 The MSPCB vide a communication dated 30.09.2019 provided to the Committee Environmental Statement of nine cement plants (*viz.* Amrit Cement Limited, Green Valley Industries Limited, Hills Cements Company Limited, Jaintia Cements Limited, JUD Cements Limited, Meghalaya Cements Limited, Dalmia Cements (Bharat Limited), Gold Stone Cements Limited and Mawmluh Cherra Cements Limited). Environmental Statement of both Cement Manufacturing Plants and a Thermal Power Plant of the Star Cement Limited and its subsidiaries had already been provided to the Committee by the MSPCB vide letter dated 13.09.2019.

2.2.24 During Eighteenth Sitting of the Committee held on 16.08.2019, the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department informed the Committee that slate is a minor mineral. He further stated that collection and sharing of royalty on minor minerals in the Autonomous District was done under the power of the Executive Order No. TAD/FR/22/55 dated 22.01.1962 till framing of Meghalaya Minor Mineral Concession Rules, 2016 (MMMCR). The said rules came into force on 12.09.2016. He further stated that grant of mining lease/quarry permit for slate was not there till Meghalaya Minor Mineral Concession Rules, 2016 came into force.

2.2.25 The Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department further informed the Committee that no mining lease has been granted so far for extraction of slate in the State. He further stated that local suppliers have supplied the slate sourced from overburden of coal mining carried out prior to ban imposed by Hon'ble NGT to the Cement plants. The Cement plants

have paid royalty on slate used by them. He further stated that the amount of royalty paid by the Star Cement Limited and its subsidiaries for slate is as below:

Name and address of Cement or Thermal Power Plant	Date of Payment	Amount Paid (Rs.)	Qty. of Slate (MT)
Star Cement Limited	08.10.2018	1,84,14,900	4,09,220.000
	12.02.2019	43,75,111	97,224.690
	12.02.2019	12,12,000	12,120
	<b>TOTAL</b>	<b>2,40,02,011</b>	<b>5,18,564</b>
Star Cement Meghalaya Limited	10.08.2018	4,82,26,500	10,71,700.000
	12.02.2019	1,23,13,667	2,73,637.060
	12.02.2019	21,32,000	21,320.00
	<b>TOTAL</b>	<b>6,26,72,167</b>	<b>13,66,657.060</b>
Meghalaya Power Ltd.	08.10.20118	3,14,18,100	6,98,180.010
	12.02.2019	8,32,100	8321.000
	18.02.2019	93,27,040	2,07,267.550
	<b>TOTAL</b>	<b>4,15,77,240</b>	<b>9,13,768.560</b>
<b>GRAND TOTAL</b>		<b>12,82,51,418</b>	<b>27,98.989.62</b>

2.2.26 The Committee after examination of the matter frames following questions:

1. Whether the specific coal requirement of afore-mentioned Cement Manufacturing Plants and a Thermal Power Plant of the Star Cement Limited and its subsidiaries is substantially lower than specific coal requirement stated in the respective TEFRRs?
2. What is the actual specific coal requirement for the afore-mentioned Cement Manufacturing Plants and a Thermal Power Plant of the Star Cement Limited?
3. Whether it is technically feasible to use huge quantity of slate in lieu of coal without making any modification in design of these Plants?
4. Whether the afore-mentioned Plants of Star Cement Limited and its subsidiaries have actually used huge quantity of alternate fuel (*i.e.* Slate) in lieu of coal?

5. Whether slate, if used, has been used after obtaining all requisite regulatory approvals?

**Question No. 1.**

**2.2.27** As per the TEFR, the specific coal requirement of Mawmluh Cherra Cement Limited is 16%. However, as per details given in para 1.2.3 and 1.2.5 above, the actual specific coal requirement of the Mawmluh Cherra Cement Limited (MCCL), which uses the same relatively high calorific value Meghalaya coal, as is being used by Cement Manufacturing Plants and Thermal Power Plants of the Star Cement Limited and its subsidiaries is 28.876%. Specific coal requirement of Cement Plants of Star Cement Limited which uses the coal of almost similar quality as is being used by MCCL located in Meghalaya can-not be much lower than the specific coal requirement for the MCCL.

**2.2.28** As per the TEFR, the specific coal requirement of the 43 MW unit of the Meghalaya Power Limited is 0.70 kg/kwh. However, as per the Environmental Statement submitted by the Meghalaya Power Limited to the MSPCB, the actual specific fuel consumption for the said 43 MW Thermal Power Plant during the year 2015-16, 2016-17 and 2017-18 is 0.909 kg/kwh, 0.986 kg/kwh and 0.717 kg/kwh respectively. Similarly, as per the Environmental Statement submitted to the MSPCB by the Meghalaya Power Limited, the actual specific fuel consumption for the 8 MW unit of their Thermal Power Plant during the year 2014-15 and 2015-16 is 0.799 kg/kwh and 0.800 kg/kwh respectively. As per the Environmental Statement submitted by the Star Cement Limited to the MSPCB, during the year 2016-17 its cement plant consumed 1,21,803.193 MT of coal to produce 5,67,241 MT tonnes of clinker. The specific coal requirement for its cement plant during 2016-17 was 21.47%.

**2.2.29** Calorific value of Eocene and Oligocene coal deposit of Meghalaya in the range of 6500 – 8500 and 6255 – 8650 kcal/kg respectively reported in a published Journal, which formed the main basis for the North Eastern Regional Directorate of the CPCB to suggest that the actual specific coal requirement for cement manufacturing plants of the Star Cement Limited is less than the same stated in the respective TEFR, is for a coal sample collected on dry mineral-matter-free basis (*i.e.* for a sample of dry coal free from moisture and any other impurity). The coal actually available in the market does contain substantial quantity of moisture as

well as impurities, including the slate. The actual average calorific value of the Meghalaya coal available in the market is therefore; much lower than the calorific value reported in the said journal.

**2.2.30** While preparing the First Interim Report of the Committee in December 2018, the North Eastern Regional Directorate of the CPCB, after consulting one Mr. P. Chakraborty, Unit Head of Calcom Cement India Ltd. (CCIL), a subsidiary of Dalmia Cement (Bharat) Limited, located at Umrangsoo, Assam, which also uses the comparatively higher calorific value coal available in the North Eastern India, as is being used by Cement Plants of Star Cement Limited and other cements plants including a Cement Manufacturing plant of the Dalmia Cement (Bharat) Limited located in Meghalaya, has reported to the Committee that actual specific coal requirement for Cements Plants of Star Cement Limited is 15%.

**2.2.31** In paragraph 1 of the 'Guidelines on Co-processing in Cement/Power/ Steel Industry' issued by the CPCB in February, 2010, a copy of the which has been placed before the Committee by North Eastern Regional Directorate of the CPCB, it has been stated that 40 million tonnes of coal is required to produce 200 million tomes of cement in the entire country. The specific coal consumption for the cement industry for the country as a whole, as per the said Guidelines, is 20%.

**2.2.32** Keeping in view the above, the Committee is of the view that actual specific coal requirement of Cement Manufacturing Plants and a Thermal Power Plant of the Star Cements Limited and its subsidiaries is higher than the same stated in the respective TEFRRs.

#### **Question No. 2**

**2.2.33** As per details given in para 2.28, the Meghalaya Power Limited in the Environmental Statement submitted to the MSPCB has reported that specific coal consumption of its Thermal Power Plant varied from 0.717 kg/kwh to 0.986 kg/kwh, the Committee is of the view that average actual specific coal requirement of the Thermal Power Plants of the Meghalaya Power Limited is about 0.850 kg/kwh.

**2.2.34** For assessment of actual specific coal consumption of the Cement Plants of the Star Cement Limited and it subsidiary, the Committee took note of the followings:

- (i) Specific coal consumption for the cement industry for the country as a whole, as per information available in the Guidelines on Co-processing in Cement/Power/ Steel Industry' issued by the CPCB in February, 2010 is 20%;
- (ii) Average specific coal consumption for a similar Cement Plant of MCCL located in Meghalaya using almost similar quality of coal as is being used by cement plants of the Star Cement Limited and its subsidiaries, is 28.876%;
- (iii) As per the Environmental Statement submitted by the Star Cement Limited to the MSPCB, during the year 2016-17 its cement plant consumed 1,21,803.193 MT of coal to produce 5,67,241 MT tonnes of clinker. The specific coal requirement for the said cement plant of the Star Cement Limited during 2016-17, as per the information by Star Cement Limited itself was 21.47%;
- (iv) As per information obtained by North Eastern Regional Directorate of CPCB from one Mr. Mr. P. Chakraborty, Unit Head of a similar cement plant located in adjoining areas of Assam using almost similar quality of coal as is being used by cement plants of Star Cement Limited and its subsidiaries, average specific coal consumption of cement plants in the Region is about 15%.

**2.2.35** The Committee after examination of facts given in para 2.234 above, is of the view that the actual specific coal consumption for cement plants of Star Cement Limited and its subsidiaries located in Meghalaya is atleast 15% of the weight of clinker produced.

**Question No. 3:**

**2.2.36** All the cement manufacturing plants and thermal power plants of Star Cement Limited and its subsidiaries in Meghalaya have been designed to use locally sourced coal from the Meghalaya as a fuel. Even if the physical characteristics of the slate are similar to coal, use of slate having very low calorific value in place of high calorie coal requires modifications/changes in design of the plant, especially the components of the plants dealing with handing, processing, grinding and storage of fuel. The Star Cement Limited in their representation dated 26.07.2019 has categorically stated that no such modifications have been made in design of their cement and power plants. As per the information provided by Star Cement Limited during the year 2018-19 their cement plant used 10,989 MT coal and 1,01,129 MT slate. The Committee is of the view that even after modifications it is not feasible to achieve the required kiln temperature with such a low calories fuel mix.

2.2.37 Keeping in view the above, the Committee is of the view that except the small quantity of slate already mixed in the locally mined coal, it is not feasible to run the cement and thermal power plants of the Star Cement Limited by replacing about three-fourth of their coal requirement by a non-fuel mineral such as slate, as is being claimed by the Star Cement Limited.

#### Question No.4

2.2.38 The Star Cement Limited has claimed that huge quantity of slate has been used in-lieu of coal by all its Cement Manufacturing and Thermal Power Plants located in the State of Meghalaya. However, use of slate has not been reported in majority of Environmental Statements submitted by them to CPCB. In majority of these reports, use of coal as a fuel has only been reported. The Committee during its visit to fuel depot of the Meghalaya Power Limited on 12.11.2019 did not see any slate. During the visit, representative of the Meghalaya Power Limited also did not report to the Committee that a major part of the energy requirement of their plants is met from slate, as is now being claimed by them.

2.2.39 The Star Cement Limited at page 13 of their Annual Report for the year 2017-18 has prominently highlighted that its coal is accessed from 10-20 kilometres. Nowhere in any of the Annual Report it has been stated that about three-fourth of the energy requirement of their huge Cement Manufacturing Plants and Thermal Power Plants has been met by a non-fuel mineral (*viz.* slate).

2.2.40 It has also been claimed by the Star Cement Limited in their said representation dated 26.07.2019 that slate has been sourced from overburden dumps produced during excavation of coal. Except for a small quantity of overburden generated during creation of box-cutting, rat-hole mining does not involve generation of overburden. The Winning of lakhs of metric tonnes of slate from the overburden dumps, as has been claimed by the Star Cement Limited and other Cement Manufacturers and Thermal Power Plants, does not seem feasible. No such large overburden dumps having the capacity to allow extraction of several lakh tonnes of slates have been detected by the North Eastern Space Application Centre (NESAC) while undertaking land-use land-cover analysis of coal mining affected areas in Jaintia Hill districts.

2.2.41 Specific conditions no. (xi) (*viz. efforts shall be made to use low -grade lime, more fly ash and solid waste in cement manufacturing* and no. (xii) (*viz. all efforts*

*shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly)* in the EC to Star Cement Meghalaya Ltd. issued by the MoEFCC, GoI vide letter dated 28.10.200 stipulates use of waste the said plant. The Committee after examination of six-monthly self-compliance reports to said EC, a copy of which is available on website of the Star Cement Limited, observed that in respect of the afore-mentioned condition no. (xi) it has been reported that *"SMCL is a clinkerization unit, no fly ash is used in the unit. The generated solid waste from the pollution control equipment has been recycled and re-used in the process and has been used for clinker manufacturing. Amount 8-10 % of low grade lime available in the mine has been used in the process"*. Similarly, in respect of the afore-mentioned specific condition no. (xii) it has been reported that *"Provision already made to use of high calorific waste i.e. waste oil in the kiln. The tank capacity is 1000 litres. The used oil disposal process along with photograph has been submitted along with CREP in MoEF&CC, Shillong & New Delhi."* The Committee further noted that use of any alternate fuel, as is being claimed by the Star Cement Limited has not been reported anywhere in these self-compliance reports. The Committee also noted that even for the used oil, merely making a provision for its use and not any actual use has been reported in these self-compliance reports.

2.2.42 Keeping in view the above, the Committee is of the view that **except for a small quantity of slate found mixed in the locally mined coal, the Cement Manufacturing Plants and Thermal Power Plants of the Star Cement Limited have not used slate as a fuel in lieu of coal.**

#### Question No. 5

2.2.43 Slate is a fine-grained, foliated metamorphic rock that is created by the alteration of shale or mudstone by low-grade regional metamorphism. It is mainly used for roofing, flooring, and flagging because of its durability and attractive appearance. Slate is mainly a non-fuel mineral. As far as cement industries are concerned, the slate being originated from the shale may be used, to some extent, in place of shale. The composition of the slate does not make it possible to use it as a fuel in place of coal.

**2.2.44** Till the declaration of the slate as a minor mineral by the Ministry of Mines, Government of India vide Notification bearing S.O. No. 423 (E) dated 10.02.2015, the slate was classified as a major mineral. The slate along with shale is listed at Sl. No. (7) in Schedule II of the Meghalaya Minor Mineral Concession Rules, 2016 (MMMCR).

**2.2.45** Clause (d) in Section 3 of the Mines and Mineral (Development and Regulation) Act, 1957 provides that "mining operation" means any operations undertaken for the purpose of winning any mineral. Winning or obtaining of slate from any area, even from overburden dump, as has been claimed by the Star Cement Limited in their representation dated 26.07.2019, as per the said definition, attracts provisions of Section 4 of the MMDR Act, which mandates prior mining lease for any operation undertaken for the purpose of winning any mineral.

**2.2.46** The Meghalaya Minor Mineral Concession Rules, 2016, which came into force on 12.09.2016, provide an elaborate mechanism for grant of mining lease or quarry permit for mining/winning of minor mineral for use in an industry. A mining lease or a quarry permit for winning of a minor mineral, including slate, as per the MMMCR, can be granted only after a prior Environmental Clearance and 'Consent to Establish' is obtained from the concerned regulatory Authorities. Grant of mining lease also requires preparation of a detailed mining plan duly approved by the concerned competent authority in the Mining and Geology Department in Government of Meghalaya. It also requires prior approval of Central Government under the Forest (Conservation) Act, 1980 in case mining/winning of such mineral involves any forest land. Actual winning/mining of slate requires 'Consent to Operate' from the State Pollution Control Board. As per Rule 29 of the MMMCR, a person who undertakes mining operations (viz. respective lessee or the holder of quarry permit) is responsible for payment of royalty. As per the said rule, in case of a mining lease royalty is to be paid by the concerned lessee on a quarterly basis. Similarly, in case of a quarry, royalty is to be paid before transportation.

**2.2.47** The Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department has informed the Committee that no mining lease has been granted so far for extraction of slate in the State of Meghalaya. The North Eastern Regional Office of the MoEFCC, GoI has informed the Committee that the MoEFCC, GoI and the Meghalaya SEIAA have not granted any EC for mining of slate in the State. Similarly, the MSPCB has informed the Committee that so far no 'Consent to

Operate' or 'Consent to Establish' has been granted by them to any person, firm or company for mining of Slate in the State of Meghalaya.

**2.2.48** The Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department has informed the Committee that the Star Cement Limited and its subsidiaries has paid an amount of Rs. 12.82 crore as royalty on 27.98 lakh MT state claimed to be used by their Cement Manufacturing Plants and Thermal Power Plant located in the State of Meghalaya. The entire royalty on slate has been paid during the year 2018 and 2019, much after the MMMCR came into force. Majority of the said royalty has been paid during the month of February 2019 after the resource (coal) audit of these companies was started by this Committee.

**2.2.49** The North Eastern Regional Directorate of CPCB, MSPCB and North Eastern Regional Office of the MoEFCC stated that the slate has been used by these plants in lieu of the coal in pursuance of (i) Guidelines on Co-processing in Cement/Power/ Steel Industry' issued by the CPCB in February, 2010; (ii) guidelines for Pre-processing and Co-Processing of the Hazardous Waste and other wastes in Cement Plants as per Hazardous and Other Waste (Management and Trans-Boundary Movement) Rules, 2016; and (iii) specific condition no. (xi) and (xii) as per details given in para 2.239 above stipulated in EC to Star Cement Meghalaya Ltd. issued by the MoEFCC, GoI vide letter dated 28.10.2009.

**2.2.50** The Committee after examination of the Guidelines on Co-processing in Cement/Power/ Steel Industry' issued by the CPCB in February, 2010 noted that the said guidelines contains an exhaustive list of waste materials covered by these guidelines. The slate does not find a place in the said list. Similarly, the Committee after examination of the guidelines for Pre-processing and Co-Processing of the Hazardous Waste and Other Wastes in Cement Plants as per Hazardous and Other Waste (Management and Trans-Boundary Movement) Rules, 2016 noted that these guidelines are applicable to the use of only the 'hazardous waste' and 'other waste' respectively defined in clause 17 and 23 of sub-rule (1) of rule 3 of the said rules. The slate, as per these definitions, is neither a 'hazardous waste' nor an 'other waste'. No Authorization from the MSPCB for use of slate, as is required for use of any hazardous or other waste has been obtained by the Star Cement for any of its Cement Manufacturing Plants and a Thermal Power Plant. **In any case, the slate**

being listed in schedule-II to the MMMCR, which as per the Star Cements Limited has the potential to replace three-fourth of the coal requirement for their huge Cement Manufacturing Plants and a Thermal Power Plant, can-not be classified as a waste.

2.2.51 As far as use of slate in compliance of the conditions stipulated in EC to Star Cement Meghalaya Ltd. issued by the MoEFCC, GoI vide letter dated 28.10.2009 is concerned, as stated in para 2.2.39 above, use of any alternate fuel, as is being claimed by the Star Cement Limited has not been reported anywhere in the six-monthly self-compliance reports to the said EC, a copy of which is available on website of the Star Cement Limited.

2.2.52 Keeping in view the above, the Committee is of the view that, the slate, if used, by the Cement Manufacturing Plants and Thermal Power Plant of the Star Cement Limited and its subsidiaries located in the State of Meghalaya, the same has been used in flagrant violation and contravention of the mining, environmental and pollution control laws as all such slate has admittedly been extracted without obtaining requisite Mining Lease, Consent to Establish, Consent to Operate and Environmental Clearance. If such use of slate, as claimed by Star Cement Limited has happened in the State, it must have caused huge damage to flora, fauna, rivers, streams, water bodies and the environment in general as all such slate has admittedly been extracted in a totally unregulated manner without any measure to mitigate its adverse impacts on the environment.

### **Conclusion**

2.2.53 After examination of the afore-mentioned questions, the Committee is of the view that it is neither technically feasible nor legally permissible to replace more than seventy percent of the coal required to produce reported quantity of clinker and the electricity by Cement Manufacturing Plants and Thermal Power Plants of the Star Cement Limited and its subsidiaries located in the State of Meghalaya during the Audit Period by a non-fuel mineral (*viz.* slate), as is being claimed by the Star Cements Limited. The Committee is of the view that the Star Cement Limited and its subsidiaries have purchased illegally mined coal in the name of slate to

circumvent the ban imposed by the Hon'ble NGT on illegal rat-hole coal mining in the State of Meghalaya and also to evade payment of Royalty, Contribution to Meghalaya Environment Protection and Restoration Fund (MEPRF), Goods and Service Tax, Contribution to District Mineral Fund (DMF) and other statutory duties.

**2.2.54** Even for the sake of an argument it is assumed that the claim of these plants that more than 72% of their coal requirement during the audit period has been met by a non-fuel mineral slate without making any change/modification in the design of these plants is true, it would have caused equal, if not more, damage to the flora, fauna, rivers, streams, water bodies and the environment in general in the State of Meghalaya as all such slate has admittedly been mined in an unscientific and haphazard manner without any mitigative measures and without obtaining mandatory mining lease, consent to establish, consent to operate, environmental clearance and authorisation/no-objection certificate from the State Pollution Control Board in a flagrant violation of the existing mining, environmental and labour safety laws

**2.2.55** Year-wise gaps in quantity of coal required to produce the reported quantity of clinker (@ 15 % as given in para 2.2.35 above) and electricity power (@ 0.850 kg/kwh as given in para 2.2.33 above) and the coal procured by Star Cement Limited and its subsidiaries from legal sources are as below:

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Star Cement Limited	Clinker produced (MT)	3,30,010	4,92,055	5,67,241	5,15,350	6,00,025	25,04,681
	Coal required (MT)	49,502	73,808	85,086	77,303	90,004	3,75,702
	Coal procured (MT)	13,417	47,628	10,192	25,267	10,989	1,07,493
	Gap (MT)	36,085	26,180	74,894	52,036	79,015	2,68,209

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Star Cement Meghalaya Limited	Clinker produced (MT)	15,49,349	16,29,025	15,79,345	15,41,945	14,36,600	77,36,264
	Coal required (MT)	2,32,402	2,44,354	2,36,902	2,31,292	2,15,490	11,60,440
	Coal procured (MT)	58,448	1,48,954	9,775	67,624	84,188	3,68,989
	Gap (MT)	1,73,954	95,400	2,27,127	1,63,668	1,31,302	7,91,451
Meghalaya Power Limited	Power Produced (Million kwh)	167.92	183.11	201.62	190.06	170.12	913.00
	Coal required (MT)	1,42,732	1,55,644	1,71,377	1,61,551	1,44,602	7,75,906
	Coal procured (MT)	25,182	68,092	41,863	36,129	18,024	1,89,290
	Gap (MT)	1,17,550	87,552	1,29,514	1,25,422	1,26,578	5,86,616
Total for above three plants	Coal required (MT)	4,24,636	4,73,806	4,93,365	4,70,145	4,50,096	23,12,047
	Coal procured (MT)	97,047	2,64,674	61,830	1,29,020	1,13,201	6,65,772
	Gap (MT)	3,27,589	2,09,132	4,31,535	3,41,125	3,36,895	16,46,275

### 2.3 Amrit Cement Limited and its Captive Thermal Power Plant

2.3.1 An Integrated Clinker cum Cement Manufacturing Plant of Amrit Cement Limited having installed capacity to produce 2,000 TPD clinker is located at Umlaper Village in East Jaintia Hills District in Meghalaya. It also has a Captive Thermal Power Plant having 12 MW installed capacity. Both these Clinker Manufacturing Plant and the Captive Thermal Power Plant were commissioned in the year 2012.

2.3.2 As per the information/documents provided to the Committee by the Amrit Cement Limited, year-wise quantities of clinker and power produced and the coal procured by the Amrit Cement Limited to produce such clinker and thermal power during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Clinker produced (MT)	3,07,286	4,03,205	4,25,842	4,01,497	5,40,902	20,78,732
Power Produced (in Million kwh)	44.976	54.197	49.257	46.977	77.392	272.799
Coal Procured (MT)	3,861	88,165	38,785	74,978	31,833	2,37,622

2.3.3 The Amrit Cement Limited has informed the Committee that during the Audit Period they have also procured alternate fuel. Except slate, nature of any other alternate fuel purchased by the Amrit Cement Limited has however been not intimated to the Committee. The MSPCB has informed the Committee that no authorization/non-objection certificate has been granted by the Board to the Amrit Cement Limited for use of any alternate fuel. The Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department informed the Committee that no royalty has been paid by Amrit Cement Limited on the slate claimed to be used by them during the Audit period. Year-wise quantities of the slate claimed to be purchased by the Amrit Cement Limited during the Audit Period are as below:

(Metric Tonne)

Year					Total
2014-15	2015-16	2016-17	2017-18	2018-19	
23,033	28,977	1,29,698	-	-	1,81,708

**2.3.4** The Committee, based on a detailed analysis of a similar claim of the Star Cement Limited on use of slate as an alternate fuel in lieu of coal, as given in para 2.2.26 to 2.2.52, is of the view that it is neither technically feasible nor legally permissible for the Amrit Cement Limited to replace more than half of their coal requirement by a non-fuel mineral such as slate.

**2.3.5** The Committee after examination of a Techno-Economic Feasibility Report (TEFR) for the said 0.61 million tonnes per annum (MTPA) clinker and 0.66 MTPA cement (PPC) greenfield cement project with 1 X 12 MW Captive Thermal Power Plant of Amrit Cement Limited prepared by RCV Consulting noted that the said clinker production unit, as per the said TEFR, has been designed to use Meghalaya coal having the estimated net calorific value of 6,000 Kcal/kg as fuel. It has also been stated in the said TEFR that several small collieries are in operation in the Khliehriat and Sutnga coalfields which are at a distance of about 25-30 km from the proposed plant site. The specific heat consumption, as per the said TEFR, for the said clinker production unit is, 750 kcal/ kg of clinker produced. The specific coal requirement for the said clinker manufacturing plant, as per the said TEFR is therefore 12.50 % of the weight of the clinker produced. After examination of the Environmental Statements submitted by the Amrit Cement Limited to the MSPCB, a copy of which has been provided to the Committee by the MSPCB, the Committee observed that quantity of coal actually consumed by the said Cement Manufacturing Plant and Thermal Power Plant has not been indicated in any of these Statements. For the detailed reasons given in para 2.2.35 above, the Committee is of the view that actual specific coal consumption for clinker manufacturing plant of the Amrit Cement Limited is atleast 15%.

**2.3.6** The Committee further noted that it has been stated in the said TEFR that 100 % fuel proposed for the captive power plant shall be coal from Khliehriat/ Sutnga area in Meghalaya. The boiler of the said captive power plant, as per the said TEFR, is suitable to accept E-grade coal with ash content upto 45 %. It has also been stated in the said TEFR that for every fifteen days the said plant will require about 4,000 MT of coal. The specific coal requirement for the said Captive Power Plant, as per the said information, is therefore about 1.20 kg/kwh. The Committee however is

of the view that the actual specific coal requirement for the said Captive Thermal Power Plant is same as the specific coal requirement of the Thermal Power Plant of the Star Cement Limited *i.e.* 0.850 kg/kwh.

2.3.7 Year-wise gaps in the quantity of coal required to produce the reported quantity of clinker (@ 15 % as given in para 2.3.5) and electricity power (@ 0.850 kg/kwh as given in para 2.3.6) and the coal procured by Amrit Cement Limited from legal sources during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Clinker produced (MT)	3,07,286	4,03,205	4,25,842	4,01,497	5,40,902	20,78,732
Power Produced (Million kwh)	44.976	54.197	49.257	46.977	77.392	272.799
Coal required to produced clinker (MT)	46,093	60,481	63,876	60,225	81,135	3,11,810
Coal required to produce Power (MT)	38,230	46,067	41,868	39,930	65,783	2,31,879
Total Coal Required (MT)	84,323	1,06,548	1,05,745	1,00,155	1,46,919	5,43,689
Coal Procured (MT)	3,861	88,165	38,785	74,978	31,833	2,37,622
Gap (MT)	80,462	18,383	66,960	25,177	1,15,086	3,06,067

## 2.4 Dalmia Cement (Bharat) Limited and its Captive Thermal Power Plant

2.4.1 An Integrated Clinker cum Cement Manufacturing Plant having an installed capacity to 1.30 MTPA clinker and 1.50 MTPA Cement was established by M/s. Adhunik Cement Ltd. at Thangskai Village in East Jaintia Hills District. It also has a Captive Thermal Power Plant of 25 MW installed capacity. Both Clinker Manufacturing Plant and the Captive Thermal Power Plant were commissioned in

the year 2010. Later on, both the Cement Manufacturing Plant and the captive Thermal Power Plant were acquired by the Dalmia Cements (Bharat) Limited.

**2.4.2** As per the information/documents provided to the Committee by the Dalmia Cement (Bharat) Limited, year-wise quantities of the clinker and the power produced and the coal procured by the Dalmia Cement (Bharat) Limited to produce such clinker and thermal power during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
Clinker produced (MT)	6,68,239	7,32,700	7,92,075	9,00,686	10,84,883	<b>41,78,583</b>
Power Produced (in Million kwh)	117.403	108.108	88.733	102.485	110.108	<b>526.84</b>
Coal and Pet Coke Procured (MT)	17,433	98,296	56,208	1,07,092	54,478	<b>3,33,507</b>

**2.4.3** It has also been stated in documents submitted to the Committee by the Dalmia Cement (Bharat) Limited that in addition to the above, alternate fuel has also been used. These alternate fuels, as per the information provided by the Dalmia Bharat Cement Limited, include saw dust, agro-waste, slate *etc.* Quantity of these alternate fuels claimed to be used by the Dalmia Bharat Cement Limited during the Audit Period has not been provided to the Committee.

**2.4.4** It has also been stated in documents provided to the Committee by the Dalmia Bharat Cement Limited that applicable taxes, duties and royalties have been paid on these alternate fuel. The Commissioner and Secretray to the Government of Meghalaya, Mining and Geology Department informed the Committee that Dalmia Cement (Bharat) Limited on 08.02.2019 paid an amount of Rs. 4.10 crore to the Mining and Geology Department, Government of Meghalaya as royalty on 9.12 lakh metric tonnes of slate claimed to be consumed by them. It is worthwhile to note that the entire royalty on the slate claimed to be consumed by the Dalmia Cement (Bharat) Limited was paid on 08.02.2019 after the resource (coal) audit of Cement



Manufacturing Plants and Thermal Power Plants in Meghalaya was initiated by the Committee. The MSPCB has informed the Committee that the MSPCB vide letter dated 01.12.2017 has granted authorization/ no-objection certificate for use of pet-coke by the Dalmia Cement (Bharat) Limited. The Same was renewed on 27.11.2018. Apart from the pet-coke, the MSPCB vide letter dated 19.04.2017 granted authorization to the Adhunik Cement Ltd. (now Dalmia Cement (Bharat) Limited) for use of eight non-hazardous waste (viz. rice hay, rice husk, whole tyre, tyre chips, wood chips, saw dust, textile paper and paper waste). The MSPCB informed the Committee that the Dalmia Cement (Bharat) Limited neither sought nor received any authorization from the MSPCB for use of slate in its Cement Manufacturing Plant and Thermal Power Plant.

2.4.5 The Committee, based on a detailed analysis (given in para 2.2.26 to 2.2.52) of a similar claim of the Star Cement Limited on use of alternate fuel in lieu of coal is of the view that it is neither technically feasible nor legally permissible for the Dalmia Cement (Bharat) Limited to replace more than two-third of their coal requirement, as is being claimed by them, by any alternate fuel.

2.4.6 The Dalmia Cement (Bharat) Limited informed the Committee that copy of the Detailed Project Report (DPR) of Adhunik Cement Limited, which now stand merged with Dalmia Cement (Bharat) Limited, is not available with them. It was also informed by the Dalmia Cement (Bharat) Limited that they are trying to obtain a copy of the same from the concerned banker. Though the Dalmia Cement (Bharat) Limited assured the Committee that they will submit the DPRs as and when the same can be obtained, the Committee till the finalization of this report did not receive a copy of the said DPR. The Dalmia Cement (Bharat) Limited also informed the Committee that average estimated quantity of coal and/or any other alternate fuel(s) required to produce one tone of clinker and one unit (kwh) of power will primarily depend on the calorific value of coal/any other alternate fuel. They further informed that there is very high variation in various kinds of fuel used and therefore there is no standard per ton usage which can be estimated as it varies from year to year.

2.4.7 In the absence of the DPR and input on specific fuel consumption from the Dalmia Cement (Bharat) Limited, it is not possible for the Committee to correctly assess the specific fuel requirement for the Cement Manufacturing Plant and Thermal Power Plant of the Dalmia Cement (Bharat) Limited. The Committee therefore is of the view that specific fuel requirements of the Cement Manufacturing Plant and Captive Thermal Power Plant of the Dalmia Cement (Bharat) Limited are same as the specific fuel requirements of the similar plants the Star Cement Limited (*viz.* 15 % of the clinker produced and 0.850 kg/kwh of the power produced).

2.4.8 Year-wise gaps in quantity of coal required to produce the reported quantity of clinker (@ 15 % as given in para 2.4.7) and electricity power (@ 0.850 kg/kwh as given in para 2.4.7) and the coal procured by the Dalmia Cement (Bharat) Limited from legal sources during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Clinker produced (MT)	6,68,239	7,32,700	7,92,075	9,00,686	10,84,883	41,78,583
Power Produced (Million kwh)	117.403	108.108	88.733	102.485	110.108	526.837
Coal required to produced clinker (MT)	1,00,236	1,09,905	1,18,811	1,35,103	1,62,732	6,26,787
Coal required to produce Power (MT)	99,793	91,892	75,423	87,112	93,592	4,47,811
Total Coal Required (MT)	2,00,028	2,01,797	1,94,234	2,22,215	2,56,324	10,74,599
Coal and Pet Coke Procured (MT)	17,433	98,296	56,208	1,07,092	54,478	3,33,507
Gap (MT)	1,82,595	1,03,501	1,38,026	1,15,123	2,01,846	7,41,092

## 2.5 Goldstone Cement Limited and its Captive Thermal Power Plant

2.5.1 An Integrated Clinker cum Cement Manufacturing Plant having an installed capacity of 0.56 MTPA clinker and 0.88 MTPA cement was established by M/s. Goldstone Cements Limited in Musiang Lamare (Old) village in East Jaintia Hills District. It also has a Captive Thermal Power Plant of 10 MW installed capacity. Both the Clinker Manufacturing Plant and the Captive Thermal Power Plant were commissioned on 02.07.2016.

2.5.2 As per the information/documents provided to the Committee by the Goldstone Cements Limited, year-wise quantity of clinker and power produced and the coal procured by the Goldstone Cements Limited to produce such clinker and thermal power during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
2	3	4	5	6	7	8
Clinker produced (MT)	Nil	Nil	1,52,995	3,99,197	4,82,500	<b>10,34,692</b>
Power Produced (in Million kwh)	Nil	Nil	14.251	50.881	71.846	<b>136.978</b>
Coal Procured (MT)	Nil	Nil	5,918	21,295	4,946	<b>32,159</b>

2.5.3 The Goldstone Cements Limited has informed the Committee that during the Audit Period they have also procured alternate fuel such as Muslate/Saw Dust etc. The MSPCB has informed the Committee that the no authorization/non-objection certificate has been granted by the Board to the Goldstone Cement Limited for use of any alternate fuel. The Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department informed the Committee that the Goldstone Cements Limited has paid an amount of Rs. 2.93 crores to the State of Meghalaya as a royalty on 6,51,134 MT slate claimed to be consumed by them. The Committee noted that the entire amount of royalty was paid on 15.02.2019 after resource (coal) Audit of Cement Manufacturing Plants and Thermal Power Plants in



the State of Meghalaya was initiated by the Committee. Year-wise details of alternate fuel claimed to be purchased by the Goldstone Cements Limited during the Audit Period are as below:

*(Metric Tonne)*

Year					Total
2014-15	2015-16	2016-17	2017-18	2018-19	
Nil	Nil	99,242	2,65,532	2,57,928	<b>6,22,702</b>

2.5.4 The Committee, based on a detailed analysis of a similar claim of the Star Cement Limited on use of alternate fuel in lieu of coal, as given in para 2.2.26 to 2.2.52, is of the view that it is neither technically feasible nor legally permissible for the Amrit Cement Limited to replace about ninety percent of their coal requirement by any alternate fuel.

2.5.5 The Committee after examination of the Techno-Economic Feasibility Report for setting up of the 2615 TPD Green Field Cement Plant of Goldstone Cements Ltd. at village Musiang Lamare in East Jaintia Hill district observed that the said plant has been designed to use the coal available in command area of the site (i.e. local Meghalaya Coal). As per the said report, the average estimated requirement of coal for the said plant is 18% of the weight of clinker produced.

2.5.6 Even after a specific request, the Goldstone Cement Limited did not provide a copy of the Techno-Economic Feasibility Report (TEFR) for their Captive Thermal Power Plant. The Goldstone Cements Limited informed the Committee that specific fuel requirements for their captive Thermal Power Plant is 0.50 to 0.70 kg of coal per kwh and 1.25 to 1.60 kg of alternate fuel such as slate, bamboo, saw dust, wood chips etc. per kwh. No documentary evidence in support of these claims regarding specific fuel requirement were provided to the Committee by the Goldstone Stone Cement Limited. The Committee is therefore of the view that specific fuel requirement of the Captive Thermal Power Plant of the Goldstone Cement Limited is same as the specific fuel requirement of the similar plant of the Star Cement Limited (*viz.* 0.850 kg/kwh of the power produced).

2.5.7 Year-wise gaps in quantity of coal required to produce the reported quantity of clinker (@ 18 % as given in para 2.5.5) and electricity power (@ 0.850 kg/kwh as given in para 2.5.6) and the coal procured by Goldstone Cement Limited from legal sources during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Clinker produced (MT)	Nil	Nil	1,52,995	3,99,197	4,82,500	<b>10,34,692</b>
Power Produced (Million kwh)	Nil	Nil	14.251	50.881	71.846	<b>136.978</b>
Coal required to produced clinker (MT)	Nil	Nil	27,539	71,855	86,850	<b>1,86,245</b>
Coal required to produce Power (MT)	Nil	Nil	12,113	43,249	61,069	<b>1,16,431</b>
Total Coal Required (MT)	Nil	Nil	39,652	1,15,104	1,47,919	<b>3,02,676</b>
Coal Procured (MT)	Nil	Nil	5,918	21,295	4,946	<b>32,159</b>
Gap (MT)	Nil	Nil	33,734	93,809	1,42,973	<b>2,70,517</b>

## 2.6 Green Valley Industries Limited

2.6.1 An Integrated Clinker cum Cement Manufacturing Plant having an installed capacity of 1300 TPD Cement (expandable to 2600 TPD cement) was established by Green Valley Industries Limited at Nongsning village in East Jaintia Hills District. The said plant was commissioned in the year 2010.

2.6.2 As per the information/documents provided to the Committee by the Green valley Industries Limited, year-wise quantities of the clinker produced and the coal procured by the Green Valley Industries Limited to produce such clinker during the Audit Period are as below:



Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Clinker produced (MT)	3,88,036	3,68,412	3,83,369	4,31,151	4,35,984	20,06,952
Coal procured (MT)	44,844	50,555	46,762	51,068	30,278	2,23,507

2.6.3 It has also been stated in documents submitted to the Committee by the Green Valley Industries Limited that apart from the coal they have also used slate as an alternate fuel. Year-wise details of alternate fuel claimed to be purchased by the Green Valley Industries Limited during the Audit Period are as below:

(Metric Tonne)

Year					Total
2014-15	2015-16	2016-17	2017-18	2018-19	
17,105	18,280	28,221	35,020	49,122	1,12,363

2.6.4 The MSPCB has informed the Committee that the no authorization/non-objection certificate has been granted by the Board in favour of the Green Valley Industries Limited for use of slate as an alternate fuel. The Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department informed the Committee that the Green Valley Industries Limited has paid an amount of Rs. 78.80 lakh to the State of Meghalaya as a royalty on 1.62 lakh MT slate claimed to be consumed by them. The Committee noted that the entire amount of royalty was paid in the month of July 2019 much after resource (coal) Audit of Cement Manufacturing Plants and Thermal Power Plants in the State of Meghalaya was initiated by the Committee.

2.6.5 The Committee, based on a detailed analysis (given in para 2.2.26 to 2.2.52) of a similar claim of the Star Cement Limited on use of alternate fuel in lieu of coal, is of the view that it is neither technically feasible nor legally permissible for the Green Valley Industries Limited to replace more than thirty percent of their coal requirement, as is being claimed by them, by a non-fuel mineral such as slate.

**2.6.6** The Committee after examination of a Techno-Economic Feasibility Report (TEFR) for the said 1300 TPD expandable to 2600 TPD Greenfield Cement Project of the Green Valley Industries Limited prepared by Holtec Consulting Private Limited, observed that the said clinker cum cement manufacturing plant of the Green Valley Industries Limited has been designed to use 100 % Meghalaya coal having a net calorific value of 6,000 Kcal/kg being exploited by locals in the areas around Khliehriat and Sutnga, which are located at a distance of about 18 km and 28 km respectively from the plant site as a fuel. The specific heat consumption, as per the said TEFR, for the said clinker production unit is 780 kcal/ kg of clinker produced. The specific coal requirement for the said clinker manufacturing plant, as per the said TEFR is 13.00 %.

**2.6.7** After examination of the Environmental Statements submitted by the Green Valley Industries Limited to the MSPCB, a copy of which has been provided to the Committee by the MSPCB, it has been observed that quantity of coal actually consumed by the said Cement Manufacturing Plant has not been indicated in any of these Statements. For the detailed reasons given in para 2.2.35 above, the Committee is of the view that actual specific coal consumption for clinker manufacturing plant of the Green Valley Industries Limited is atleast 15%.

**2.6.8** Year-wise gaps in quantity of coal required to produce the reported quantity of clinker (@ 15 % as given in para 2.6.7) and the coal procured by Green Valley Industries Limited from legal sources during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Clinker produced (MT)	3,88,036	3,68,412	3,83,369	4,31,151	4,35,984	12,50,504
Coal required to produced clinker (MT)	58,205	55,262	57,505	64,673	65,398	1,87,576
Coal Procured (MT)	44,844	50,555	46,762	51,068	30,278	1,28,108
Gap (MT)	13,361	4,707	10,743	13,605	35,120	59,468

## 2.7 Hill Cement Company Limited

2.7.1 An Integrated Clinker cum Cement Manufacturing Plant having an installed capacity of 2,500 TPD clinker and 3,000 TPD Cement was established by Hill Cement Company Limited at Mynkree village in East Jaintia Hills District. The said plant was commissioned in the year 2007.

2.7.2 As per the information/documents provided to the Committee by the Hill Cement Company Limited, year-wise quantities of the clinker produced and the coal procured by the Hill Cement Company Limited to produce such clinker during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Clinker produced (MT)	1,22,646	2,14,389	2,56,984	2,03,999	2,33,902	10,31,920
Coal procured (MT)	-	11,989	9,797	2,248	13,347	37,381

2.7.3 It has also been stated in documents submitted to the Committee by the Hill Cement Company Limited that apart from the coal they have also used slate as an alternate fuel. Year-wise quantities of slate claimed to be purchased by the Hill Cement Company Limited during the Audit Period are as below:

(Metric Tonne)

Year					Total
2014-15	2015-16	2016-17	2017-18	2018-19	
29,228	-	1,61,688	-	-	1,90,916

2.7.4 The MSPCB has informed the Committee that the no authorization/non-objection certificate for use of slate has been granted by the Board in favour of the Hill Cement Company Limited. The Commissioner and secretary to the Government of Meghalaya, Mining and Geology Department informed the Committee that the Hill Cement Company Limited did not make payment of royalty to the State of Meghalaya on the slate claimed to be utilized by them.

2.7.5 The Committee, based on a detailed analysis (given in para 2.2.26 to 2.2.52) of a similar claim of the Star Cement Limited on use of alternate fuel in lieu of coal, is of the view that it is neither technically feasible nor legally permissible for the Hill Cement Limited to replace more than three-fourth of their coal requirement, as is being claimed by them, by a non-fuel mineral such as slate.

2.7.6 The Committee after examination of a Detailed Project Report of the aforementioned Cement Manufacturing Plant of the Hill Cement Company, a copy of which was provided to the Committee, noted that it does not contain anything on the nature as well as per unit requirement of the fuel for the said plant. The Committee after examination of the Environmental Statements of the said Cement Manufacturing Plant of the Hills Cement Company Limited for the years 2013-14, 2014-15 and 2014-15, a copy of which was provided to the Committee by the MSPCB, observed that quantity of coal actually consumed by the said Cement Manufacturing Plant and Thermal Power Plant has not been indicated in any of these Statements. For the detailed reasons given in para 2.2.35 above, the Committee is of the view that actual specific coal consumption for clinker manufacturing plant of the Hill Cement Company Limited is atleast 15%.

2.7.8 Year-wise gaps in quantity of coal required to produce the reported quantity of clinker (@ 15 % as given in para 2.7.7) and the coal procured by Hill Cement Company Limited from legal sources during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Clinker produced (MT)	1,22,646	2,14,389	2,56,984	2,03,999	2,33,902	10,31,920
Coal required to produced clinker (MT)	18,397	32,158	38,548	30,600	35,085	1,54,788
Coal Procured (MT)	0	11,989	9,797	2,248	13,347	37,381
Gap (MT)	18,397	20,169	28,751	28,352	21,738	1,17,407

## 2.8 Jaintia Cement Limited

2.8.1 An Integrated Clinker cum Cement Manufacturing Plant having an installed capacity of 150 TPD cement was established by Jaintia Cements Limited in Latyrke village in East Jaintia Hills District. Commercial production in the said cement plant started in the year 1992.

2.8.2 During sixteenth Sitting of the Committee held on 23.07.2019 a representative of the Jaintia Cement Limited informed the Committee that the Jaintia Cement Limited does not use coal as a fuel. He informed the Committee that the entire fuel requirement for the said plant is met from the coke breeze sourced from Assam. He further informed the Committee that during the Audit Period the Jaintia Cement Limited produced 1,00,153 MT clinker by consuming 26,203.11 MT Coke Breeze. The average per unit requirement of Coke Breeze is 26.163 % (i.e. 261.63 kg Coke Breeze per tonne of Clinker).

2.8.3 The Committee in the said Meeting advised the North Eastern Regional Directorate of the CPCB to undertake audit of each of the Coke Plants from which the coke has reportedly been sourced by the Jaintia Cement Limited and submit a report to the Committee within one month. The said report is awaited from North Eastern Regional Directorate of the CPCB.

## 2.9 JUD Cements Limited

2.9.1 An Integrated Clinker cum Cement Manufacturing Plant having an installed capacity of 900 TPD clinkerization facility and 1,350 TPD cement grinding unit was established by JUD Cement Limited at Wahiajer (Narpuh) village in East Jaintia Hills District. The said plant commenced its production in November 2009.

2.9.2 As per the information/documents provided to the Committee by the JUD Cement Limited, year-wise quantities of the clinker produced and the coal reportedly consumed by the JUD Cement Limited to produce such clinker during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Clinker produced (MT)	1,80,367	2,33,961	1,45,419	1,71,206	1,24,702	8,55,655
Coal consumed procured (MT)	-	16,348	2,099	377	370	19,194

2.9.3 It has also been stated in documents submitted to the Committee by the JUD Cement Limited that apart from the coal they have also used Coke Breeze, soft coke and diesel as alternate fuels. Year-wise quantities of coke breeze, soft coke and diesel claimed to be consumed by the JUD Cements Limited during the Audit Period are as below:

Nature of Fuel	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
Coke Breeze (MT)	9,120	0	0	23	67	9,210
Soft Coke (MT)	0	0	6,055	10,875	8,560	25,490
Diesel (KL)	37.40	21.45	21.01	24.92	34.34	139.12

2.9.4 The MSPCB has informed the Committee that the no authorization/non-objection certificate has been granted by the Board in favour of the JUD Cement Limited for use of the coke breeze or the soft coke or the diesel as an alternate fuel. In none of the Environmental Statement of the JUD Cement Limited for the years 2013-14, 2014-15 and 2015-16, a copy of which was provided to the Committee by the MSPCB, use of diesel as an alternate fuel has been reported by the JUD Cements Limited.

2.9.5 The Committee after examination of a Techno-Economic Feasibility Report (TEFR) for the said Cement cum Clinker manufacturing plant of the JUD Cement Limited prepared by West Bengal Consultancy organization Limited, Kolkata, a copy

of which was provided to the Committee by JUD Cements Limited, noted that the said clinker production unit, as per the said TEFR, has been designed to use Meghalaya coal to be procured from locally available coal base. It has also been stated in the said TEFR that these are locally owned small mines available in the area and substandard in quality compared to coal available in ECL, BCCL, CCL, MCL etc. It has also been stated in the said TEFR that coal is the main fuel for manufacture of cement in India. The consumption of coal in a typical dry process system, as per the said TEFR, ranges from 20-25% of clinker production. In the documents submitted to the Committee by the JUD Cements Limited it has been stated that specific fuel requirement of the said clinker manufacturing plant of the JUD Cement Limited is 16.50 %. The Committee is therefore of the view that specific coal requirement of the said Clinker Manufacturing Plant of the JUD Cements Limited is 16.50%.

**2.9.6** Year-wise gaps in quantity of coal required to produce the reported quantity of clinker (@ 16.50 % as given in para 2.9.5) and the coal procured by the JUD Cement Limited during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Clinker produced (MT)	1,80,367	2,33,961	1,45,419	1,71,206	1,24,702	8,55,655
Coal required to produced clinker (MT)	29,761	38,604	23,994	28,249	20,576	1,41,183
Coal consumed (MT)	0	16,348	2,099	377	370	19,194
Gap (MT)	29,761	22,256	21,895	27,872	20,206	1,21,989

## 2.10 Meghalaya Cements Limited and its Captive Thermal Power Plant

**2.10.1** An Integrated Clinker cum Cement Manufacturing Plant of Meghalaya Cement Limited having installed capacity to produce 2,600 TPD cement is located at

Thangskai village in in East Jaintia Hills District of Meghalaya. The original plant having installed capacity to produce 900 TPD cement was commissioned in 2006. Later on, in the year 2011 installed capacity of the said plant was enhanced to 2,600 TPD. A Captive Thermal Power Plant of the Meghalaya Cement Limited having 10 MW installed capacity is also located adjacent to its said Cement Manufacturing Plant.

**2.10.2** As per the information/documents provided to the Committee by the Meghalaya Cement Limited, year-wise quantities of clinker and power produced and the coal procured by the Meghalaya Cements Limited to produce such clinker and the electrical power during the Audit Period are as below:

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Clinker/ Cement Plant	Clinker produced (MT)	7,98,378	8,43,815	6,96,071	8,39,931	8,38,237	<b>40,16,432</b>
	Coal procured (MT)	77,457	29,899	30,881	35,220	34,317	<b>2,07,774</b>
Captive Thermal Power Plant (TPP)	Power Produced (Million kwh)	27.738	54.472	58.191	68.590	69.887	<b>278.88</b>
	Coal procured (MT)	19,076	14,787	15,087	18,792	19,670	<b>87,412</b>
Total for the Clinker/ Cement and TPP	Coal procured (MT)	96,533	44,686	45,968	54,012	53,987	<b>2,95,186</b>

**2.10.3** The Meghalaya Cement Limited has informed the Committee that during the Audit Period they have also procured alternate fuel slate. Year-wise quantities of slate used by Meghalaya Cements Limited in its Cement Manufacturing Plant and the Captive Thermal Power Plant were however not provided to the Committee.

The MSPCB informed the Committee that the Meghalaya Cements Limited neither sought nor received any certificate of registration/authorization from the MSPCB for use of slate in its Cement Manufacturing Plant and Thermal Power Plant. The Commissioner and Secretary to the Government of Meghalaya, Mining and Geology informed the Committee that the Meghalaya Cement Limited, during the months of March and July 2017 has paid an amount of Rs. 1.00 crore to the State of Meghalaya as a royalty on 2.23 lakh MT slate claimed to be consumed by them.

**2.10.4** The Committee, based on a detailed analysis of a similar claim of the Star Cement Limited on use of slate as an alternate fuel in lieu of coal, as given in para 2.2.26 to 2.2.52, is of the view that it is neither technically feasible nor legally permissible for the Amrit Cement Limited to replace more than half of their coal requirement by a non-fuel alternate fuel such as slate..

**2.10.5** The Committee after examination of the Techno-Economic Feasibility Report of the Augmentation of the Clinkerization capacity of the plant from 900 TPD to 2,600 prepared by Holtec Consulting Private Limited, a copy of the which was provided to the Committee by the Meghalaya Cement Limited, observed that the said plant has been designed to use 100% Meghalaya coal available locally. As per the said report, net calorific value of the local coal to be used in the clinker plants is 5,800 Kcal/kg. It has also been stated in the said reports that specific heat consumption of these plants is 840 Kcal per kg of clinker. The average estimated requirement of coal as per the information given in the said report is 14.66 %. For the detailed reasons given in para 2.2.35 above, the Committee is of the view that actual specific coal consumption for clinker manufacturing plant of the Meghalaya Cement Limited is at-least 15%.

**2.10.6** The Committee after examination of the Techno-Economic Feasibility Report of the 10 MW capacity Captive Power Plant prepared by AKB Power Consultants Pvt. Ltd., a copy of the which was provided to the Committee by the Meghalaya Cement Limited, observed that the said plant was envisaged to use coal sourced from Western parts of Meghalaya Hills. The Annual requirement of the locally sourced Meghalaya coal at 100 % capacity for the said 10 MW TPP, as per the said



report, is 63,072 MT. The specific fuel requirement for the said TPP, as per these information given in the said report, is therefore 0.72 kg/kwh. Nowhere, in the said report it has been stated that it will be feasible to run the said Thermal Power Plant by using any alternate fuel other than coal. The Committee is of the view that specific fuel requirement of the Captive Thermal Power Plant of the Meghalaya Cement Limited is same as the specific fuel requirement of the similar plant of the Star Cement Limited (*viz.* 0.850 kg/kwh of the power produced).

2.10.7 The year-wise gaps in quantity of coal required to produce the reported quantity of clinker (@ 15 % as given in para 2.10.5) and electricity power (@ 0.850 kg/kwh as given in para 2.10.6) and the coal procured by the Meghalaya Cements Limited from legal sources during the Audit Period are as below:

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Clinker/ Cement Plant	Clinker produced (MT)	7,98,378	8,43,815	6,96,071	8,39,931	8,38,237	40,16,432
	Coal required (MT)	1,19,757	1,26,572	1,04,411	1,25,990	1,25,736	6,02,465
	Coal procured (MT)	77,457	29,899	30,881	35,220	34,317	2,07,774
	Gap (MT)	42,300	96,673	73,530	90,770	91,419	3,94,691
Captive Thermal Power Plant (TPP)	Power Produced (Million kwh)	27.738	54.472	58.191	68.59	69.887	278.878
	Coal required (MT)	23,577	46,301	49,462	58,302	59,404	2,37,046
	Coal procured (MT)	19,076	14,787	15,087	18,792	19,670	87,412
	Gap (MT)	4,501	31,514	34,375	39,510	39,734	1,49,634
Total for the Clinker/ Cement and TPP	Coal required (MT)	1,43,334	1,72,873	1,53,873	1,84,291	1,85,140	8,39,511
	Coal procured (MT)	96,533	44,686	45,968	54,012	53,987	2,95,186
	Gap (MT)	46,801	1,28,187	1,07,905	1,30,279	1,31,153	5,44,325

## 2.11 Virgo Cements Limited

2.11.1 An Integrated Clinker cum Cement Manufacturing Plant having an installed capacity of 1,060 TPD clinker and 1,452 TPD of Cement has been established by Virgo Cements Limited at Dams village in North Garo Hill district of Meghalaya.

2.11.2 The Virgo Cements Limited informed the Committee that no coal is used in their said plant as it has a Vertical Shaft Kiln (VSK) where low ash metallurgical (LAM) coke or coke breeze is used as a fuel.

2.11.3 The Committee after examination of the Techno-Economic Feasibility Report for expansion of the said plant to 1060 TPD capacity prepared by Ercom Engineers Pvt. Limited, a copy of which was provided to the Committee by the Virgo Cements Limited, observed that the said plant was envisaged to use coke breeze to be sourced from nearby area of the Guwahati as a fuel. Specific fuel requirement for the said plant, as per the said report, is 0.289 tonnes of coke breeze per tonne of clinker or 28.90 %.

2.11.4 The Committee after examination of the matter is prima-facie of the view that Virgo Cement Limited did not use illegally mined local coal during the Audit Period. The Committee however advised the North Eastern Regional Directorate of the CPCB to undertake an audit to ascertain that coke breeze or LAM coke originating from legal source has only been used by the said Plant.

## 2.12 RNB Cement Limited

2.12.1 An Integrated Clinker cum Cement Manufacturing Plant having an installed capacity of 600 TPD cement along with a 10 MW capacity Captive Thermal Power Plant was established by RNB Cement Limited at Barapani Industrial area in Ri-Bhoi District of Meghalaya in the year 2008.

2.12.2 The North East Regional Directorate of the CPCB informed the Committee that the RNB Cement Limited will not be able to provide any information or document as the plant has been taken over by the National Company Law Tribunal (NCLT) and is present managed by an Interim Resolution Professional (IRP) *w.e.f.*



13.06.2019. Information about the quantities of clinker and thermal power produced and the quantity of coal purchased by the RNB Cement Limited during the Audit Period could not be obtained by the Committee. In the absence of these information it is not feasible for the Committee to undertake Resource (coal) Audit of the RNB Cements Limited.

### 2.13 Captive Thermal Power Plant of Shyam Century Ferrous Limited

2.13.1 A Captive Thermal Power Plant of the Shyam Century Ferrous Limited having installed capacity of 13.80 MW is located in Export Promotion Industrial Park (EPIP) Byrnihat in Ri-Bhoi district of Meghalaya.

2.13.2 As per the information/documents provided to the Committee by the Shyam Century Ferrous Limited, year-wise quantities of power produced and the coal procured by the Shyam Century Ferrous Limited to produce such power during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Power Produced (Million kwh)	64.117	55.246	104.403	68.898	34.702	327.366
Coal procured (MT)	43576	32461	72086	13704	4960	1,66,787

2.13.3 The Shyam Century Ferrous Limited has informed the Committee that during the Audit Period they have also procured and utilised in the said Captive Thermal Power Plant alternate fuel. Year-wise quantities of alternate fuel claimed to be purchased by Shyam Century Ferrous Limited during the audit period are as below:

(metric tonne)

Year					Total
2014-15	2015-16	2016-17	2017-18	2018-19	



1	2	3	4	5	6
446	-	-	-	29	475

**2.13.4** Keeping in view that quantity of alternate fuel claimed to be purchased by Shyam Century Ferrous Alloy Limited is very low, the Committee decided to ignore the same in this resource (coal) audit.

**2.13.5** The Committee after examination of the Detailed Project Report (DPR) for the said 13.80 MW Captive Power Plant prepared by AKB Power Consultants Private Limited, a copy of which was provided to the Committee by Shyam Century Limited, observed that the said plant was designed to use both biomass fuel (with estimated calorific value of 3,500 Kcal/kg) and locally sourced Meghalaya coal (with estimated calorific value of 5,500 Kcal/kg). The annual requirement of fuel by the said plant at 100% capacity is 77,616 MT of biomass fuel and 14,256 MT of Meghalaya coal. The specific fuel requirement of the said plant, as per the said report, is thus 0.527 kg/kwh of coal or 0.827 kg/ kwh of biomass.

**2.13.6** It has also been stated in the documents handed over to the Committee by the Shyam Century Ferrous Limited that specific fuel requirement of their said Captive Thermal Power Plant is 0.50- 0.70 kg of coal per kwh and 1.00 -1.40 kg of alternate fuel such as coke fine, Tamilnadu Charcoal fines etc. per kwh.

**2.13.7** Keeping in view the detailed analysis given in para 2.2.33 and also keeping in view that though the said Thermal Power Plant has been designed to use alternate fuels other than coal, the Shyam Century Ferrous Alloy Limited has himself reported that during the entire Audit Period 475 MT alternative fuel has only been used by them, the Committee is of the view that specific coal requirement of the said Captive Thermal Power Plant of the Shyam Century Limited is atleast equal to specific coal requirement of the a Thermal Power Plant of much larger capacity of the Star Cement Limited located in Meghalaya (viz. 0.850 kg/kwh of the power produced).

**2.13.8** The year-wise gaps in quantity of coal required to produce the reported quantity of the electrical power (@ 0.850 kg/kwh as given in para 2.13.7) and the

coal procured by Shyam Century Ferrous Limited from legal sources during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Power Produced (Million kwh)	64.117	55.246	104.403	68.898	34.702	327.366
Coal required (MT)	54,499	46,959	88,743	58,563	29,497	2,78,261
Coal procured (MT)	43,576	32,461	72,086	13,704	4,960	1,66,787
Gap (MT)	10,923	14,498	16,657	44,859	24,537	1,11,474

#### 2.14 Captive Thermal Power Plant of Maithan Alloys Limited

2.14.1 A Captive Thermal Power Plant of the Maithan Alloy Limited having installed capacity of 15 MW is located in Export Promotion Industrial Park (EPIP) Byrnihat in Ri-Bhoi district of Meghalaya.

2.14.2 As per the information/documents provided to the Committee by the Maithan Alloys Limited, year-wise quantities of power produced and the coal procured by the Maithan Alloys Limited to produce such power during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Power Produced (Million kwh)	62.588	49.241	97.440	89.061	33.493	331.823
Coal procured - Within Meghalaya (MT)	77,573	51,318	61,950	64,595	6,384	2,61,820
Coal procured - Outside Meghalaya (MT)	-	-	929	36,692	14,345	51,966



Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Total Coal Procured (MT)	77,573	51,318	62,879	1,01,287	20,729	3,13,786

2.14.3 The Maithan Alloys Limited has informed the Committee that during the Audit Period they have also procured alternate fuel. Year-wise quantities of different types of alternate fuel claimed to be purchased by Maithan Alloys Limited during the Audit Period are as below:

(metric tonne)

Type of alternate fuel	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Rice Husk	-	-	-	5,039	1,973	7,012
Saw Dust	-	-	-	275	505	780
Coke Breeze	-	-	-	0	2,354	2,354
Wood Chips	-	-	-	0	60	60
<b>Total</b>	-	-	-	<b>5,314</b>	<b>4,892</b>	<b>10,206</b>

2.14.4 The Committee after examination of the Detailed Project Report (DPR) of the said 15 MW capacity Captive Thermal Power Plant of the Maithan Alloys Limited prepared by AKB Power Consultants Pvt. Ltd., a copy of which was provided to the Committee by the Maithan Alloys Limited, observed that the said plant has been designed to use both bamboo chips/dust (with estimated calorific value of 2914 K cal/kg) and locally sourced Meghalaya coal (with estimated calorific value of 7,142 K cal/kg). As per the said DPR, the annual requirement of fuel by the said plant at 100% capacity is 32,400 MT of bamboo chips and 37,800 MT of Meghalaya coal. The specific fuel requirement of the said plant as per the said report is therefore 0.527 kg/kwh of coal or 0.827 kg/ kwh of biomass. It has however been stated in

documents provided to the Committee by Maithan Alloys Limited that specific fuel requirement of the said TPP is 0.72 kg/kwh.

**2.14.5** As per the information provided by Maithan Alloys Limited, during the Audit Period the Maithan Alloy Limited purchased 3,13,785 MT coal to produce 331.823 Million units of power by the said 15 MW capacity Captive Thermal Power Plant. The actual specific fuel purchased for the said Captive Thermal Power Plant of Maithan Alloys Limited during the Audit Period is 0.945 kg/kwh. The same is comparable to or even higher than the estimated specific fuel consumption for other Thermal Power Plants located in the State of Meghalaya. Apart from the above, the Maithan Alloy Limited has claimed to purchase alternate fuel such as rice husk, saw dust, coke breeze and wood chips also. The Committee therefore is of the view that during the Audit Period Maithan Alloys Limited did not use any illegally mined local coal from the Meghalaya.

**2.15 Captive Thermal Power Plant of Shree Sakambari Ferro Alloys Pvt. Ltd.**

**2.15.1** A Captive Thermal Power Plant of Shree Sakambari Ferro Alloys Pvt. Ltd having installed capacity of 10 MW is located in Riwiang Village in West Khasi Hills District, Meghalaya. The said Thermal Power Plant was commissioned in the month of June 2014.

**2.15.2** As per the Environmental Statement Submitted by Shree Shakambari Ferro Alloys Pvt. Ltd. to the MSPCB the actual specific coal consumption of the said Captive Thermal Power Plant of Shree Sakambari Ferro Alloys Pvt. Ltd. during the Audit Period is as below:

(kg/kwh)

2014-15	2015-16	2016-17	2017-18	2018-19
1	2	3	4	5
0.83	0.85	0.85	0.81	0.85

**2.15.3** On perusal of information and documents received from Shree Shakambari Ferro Alloy Limited the Committee observed that unit of power produced by the

said Thermal Power Plant stated in the Statement provided to the Committee does not appear to be correct. The Committee also observed that the quantity of coal reported to be consumed by Shree Sakambari Ferro Alloys Pvt. Ltd., as per the Statement submitted to the Committee is substantially different than the quantity of coal reportedly consumed by the said Plant as per details given in a report on coal consumption by the Thermal Power Plants and Cement Industries submitted to the Committee by North Eastern Regional Directorate of CPCB. The Committee therefore advised the North Eastern Regional Directorate of CPCB to re-examine the records relating to purchase and use of coal by said Thermal Power Plant of Shree Sakambari Ferro Alloys Pvt. Ltd. and submit a report to the Committee. The said report is still awaited by the Committee.

## 2.16 Captive Thermal Power Plant of CMJ Breweries Private Limited

**2.16.1** A Captive Thermal Power Plant of the CMJ Breweries Private Limited having installed capacity of 3.50 MW is located in Export Promotion Industrial Park (EPIP) Byrnihat in Ri-Bhoi district of Meghalaya.

**2.16.2** As per the information/documents provided to the Committee by the CMJ Breweries Private Limited, year-wise quantities of power produced and the coal procured by the CMJ Breweries Private Limited to produce such power during the Audit Period are as below:

Items	Year					Total
	2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7
Power Produced (Million kwh)	5.746	7.925	4.329	8.597	6.260	32.86
Coal procured (MT)	15,232	16,606	10,874	15,738	2,985	61,435

**2.16.3** The CMJ Breweries Private Limited has informed the Committee that during the Audit Period they have also procured husk as an alternate fuel. Year-wise

quantities of rice husk claimed to be procured by CMJ Breweries Private Limited during the audit period are as below:

(metric tonne)

Year					Total
2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6
-	-	-	5,011	23,235	28,246

**2.16.4** The Committee after examination of the Detailed Project Report (DPR) of the CMJ Breweries Private Limited prepared by M/s. Suvidha Consultancy Limited, Guwahati noted that the said DPR does not contain anything about the nature and per unit requirement of the fuel. It has however been stated in documents provided to the Committee by the CMJ Breweries Private Limited that their Captive Thermal Power Plant has a back pressure turbine and the steam is mainly used for the process heating and the power is additionally generated using the same steam. So the fuel consumption in the back pressure turbine is not comparable to the conventional plant condensing type turbines. It has also been stated in these documents that average estimated quantity of fuel required to produce power in their said Captive Thermal Power Plant is 2.35 kg of coal per kwh or 3.50 kg of husk per kwh.

**2.16.5** The Committee noted that quantities of the coal and rice husk purchased by the CMJ Breweries Private Limited was sufficient to produce the power reportedly produced by the CMJ Breweries Private Limited during the audit period as per the reported specific fuel consumption of 2.35 kg of coal per kwh or 3.50 kg of husk per kwh. Subject to confirmation by the North Eastern Regional Directorate of the CPCB of the claim of the CMJ Breweries Private Limited regarding the use of rice husk as a fuel, the Committee is of the view that no illegally mined legal has been utilised by the CMJ Breweries Private Limited during the Audit Period.

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## CHAPTER 3: FINDINGS AND RECOMMENDATIONS

### 3.1 FINDINGS

3.1.1 Except for the clinker manufacturing plant of the Mawmluh Cherra Cement Limited (A State PSU) and Captive Power Plants of the Maithan Alloy Limited and the CMJ Breweries Private Limited, there is a huge gap in quantity of coal required to produce reported quantity of clinker and/or power and the coal reported to be purchased from legal sources during the Audit Period by all other Cement Manufacturing Plants and Thermal Power plants in the State of Meghalaya for which resource (coal) audit could be completed by the Committee. Year-wise quantities of the coal required to produce reported quantities of clinker and/or power, the coal actually purchased from legal sources and the gap between the two for each of these Plants are as below:

(metric tonnes)

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Star Cement Limited and its two subsidiaries	Coal required*	4,24,636	4,73,806	4,93,365	4,70,145	4,50,096	23,12,048
	Coal procured**	97,047	2,64,674	61,830	1,29,020	1,13,201	6,65,772
	Gap	3,27,589	2,09,132	4,31,535	3,41,125	3,36,895	16,46,276
Amrit Cement Limited and its Captive TPP	Coal required*	84,323	1,06,548	1,05,745	1,00,155	1,46,919	5,43,690
	Coal procured**	3,861	88,165	38,785	74,978	31,833	2,37,622
	Gap	80,462	18,383	66,960	25,177	1,15,086	3,06,068
Dalmia Cement (Bharat) Limited and	Coal required*	2,00,028	2,01,797	1,94,234	2,22,215	2,56,324	10,74,598
	Coal procured**	17,433	98,296	56,208	1,07,092	54,478	3,33,507

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
its Captive TPP	Gap	1,82,595	1,03,501	1,38,026	1,15,123	2,01,846	7,41,091
Goldstone Cement Limited and its Captive TPP	Coal required*	0	0	39,652	1,15,104	1,47,919	3,02,675
	Coal procured**	0	0	5,918	21,295	4,946	32,159
	Gap	0	0	33,734	93,809	1,42,973	2,70,516
Green Valley Industries Limited	Coal required*	58,205	55,262	57,505	64,673	65,398	3,01,043
	Coal procured**	44,844	50,555	46,762	51,068	30,278	2,23,507
	Gap	13,361	4,707	10,743	13,605	35,120	77,536
Hill Cement Company Limited	Coal required*	18,397	32,158	38,548	30,600	35,085	1,54,788
	Coal procured**	0	11,989	9,797	2,248	13,347	37,381
	Gap	18,397	20,169	28,751	28,352	21,738	1,17,407
JUD Cements Limited	Coal required*	29,761	38,604	23,994	28,249	20,576	1,41,184
	Coal procured**	0	16,348	2,099	377	370	19,194
	Gap	29,761	22,256	21,895	27,872	20,206	1,21,990
Meghalaya Cements Limited and its Captive TPP	Coal required*	1,43,334	1,72,873	1,53,873	1,84,291	1,85,140	8,39,511
	Coal procured**	96,533	44,686	45,968	54,012	53,987	2,95,186
	Gap	46,801	1,28,187	1,07,905	1,30,279	1,31,153	5,44,325
Captive TPP of Shyam Century	Coal required*	54,499	46,959	88,743	58,563	29,497	2,78,261
	Coal	43,576	32,461	72,086	13,704	4,960	1,66,787

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Ferrous Ltd.	procured**						
	Gap	10,923	14,498	16,657	44,859	24,537	1,11,474
TOTAL	Coal required*	10,13,183	11,28,007	11,95,659	12,73,995	13,36,954	59,47,798
	Coal procured**	3,03,294	6,07,174	3,39,453	4,53,794	3,07,400	20,11,115
	Gap	7,09,889	5,20,833	8,56,206	8,20,201	10,29,554	39,36,683

\*: Coal required to produce reported quantities of clinker and/or power

\*\* : Coal reported to be procured from legal sources

3.1.2 The Committee is of the view that the entire gap of **39.37 lakh MT** between the quantity of the coal required to produce reported quantity of the clinker and the electrical power and the coal purchased from legal sources by these Plants during the Audit Period **constituting about two-third of the coal requirement of these plants during the Audit Period has been met from the illegally mined local coal.** Demand for a huge quantity of illegally mined coal from these plants has sustained and supported a wide scale illegal rat-hole coal mining in the State of Meghalaya in flagrant violation of a ban imposed by the Hon'ble NGT.

3.1.3 Continuance of illegal rat-hole coal mining in the State of Meghalaya to meet the huge requirement of coal for these Cement Manufacturing Plants and the Thermal Power Plants have caused huge damage to flora, fauna, rivers, streams, water bodies and the environment in general in the State of Meghalaya. It has also made the ban imposed by the Hon'ble NGT on illegal rat-hole coal mining virtually inoperative.

3.1.4 No royalty, taxes and any other statutory levies has been paid to the State of Meghalaya on the illegally mined coal utilised by these Cement Manufacturing Plants and Thermal Power Plants during the Audit Period resulting in a huge loss to the State exchequer. In fact ban on the illegal rat-hole coal mining in the State of

Meghalaya came as a boon to these Cement Manufacturing Plants and Thermal Power Plants in the State of Meghalaya as it virtually exempted them from the requirement of payment of royalty, taxes and other statutory levies payable on more than two-third of the coal consumed by them. The amounts of royalty (@ Rs. 675 per MT), contribution to Meghalaya Environment Protection and Restoration Fund (MEPR Fund) at the rate of Rs. 485 per MT and GST/VAT @ 5 % of the sale value of approx. Rs. 8,000 per MT amounting to Rs 400 per MT) payable on the illegally mined coal utilised by each of these Cement Manufacturing Plants and Thermal Power Plants during the Audit Period are as below:

(Amt.: Rupees in crore)

Sl. No.	Plant	Qt. of illegal coal used (MT)	Royalty	MEPRF	GST/ VAT	Total
1	2	3	4	5	6	7
1.	Star Cement Limited and its two subsidiaries	16,46,276	111.124	79.844	65.851	256.819
2.	Amrit Cement	3,06,068	20.660	14.844	12.243	47.747
3.	Dalmia Bharat Cement Ltd	7,41,092	50.024	35.943	29.644	115.610
4.	Goldstone Cement Ltd.	2,70,516	18.260	13.120	10.821	42.200
5.	Green Valley Industries Ltd.	77,536	5.234	3.760	3.101	12.096
6.	Hill Cement Ltd.	1,17,407	7.925	5.694	4.696	18.315
7.	JUD Cement Ltd.	1,21,990	8.234	5.917	4.880	19.030
8.	Meghalaya Cement Ltd.	5,44,325	36.742	26.400	21.773	84.915
9.	Shyam Century Ferrous Ltd.	1,11,474	7.524	5.406	4.459	17.390
<b>Total</b>		<b>39,36,684</b>	<b>265.726</b>	<b>190.929</b>	<b>157.467</b>	<b>614.123</b>

3.1.5 The royalty and VAT/GST amounting to Rs. 423.194 crore payable on illegally mined coal utilised by the Cement Manufacturing Plants and Thermal Power Plants, if realised and properly utilised, can significantly enhance living

standard of the tribal residents, especially those residing in the areas affected by such illegal coal mining, of the State. Similarly, an amount of Rs. 190.929 crore payable to MEPR Fund for the said illegally mined coal utilised by these Plants, if properly utilised, may greatly help in restoration of flora, fauna, rivers, streams, water bodies and the environment in general damaged by illegal rat-hole coal mining in the State of Meghalaya.

**3.1.6** Claim of these Cement Manufacturing Plants and Thermal Power Plants that about two-third of their coal requirement have been met by a non-fuel mineral (i.e. slate) without making any change in the design of these plants is not tenable. The Committee, based on a detailed analysis given in para 2.2.26 to 2.2.52, is of the view that it is neither technically feasible nor legally permissible for these plants to replace more than two-third of their coal requirement by a non-fuel mineral such as slate.

**3.1.7** These Plants have purchased illegally mined local coal in the name of slate to circumvent the ban imposed by the Hon'ble NGT on illegal rat-hole coal mining in the State of Meghalaya and also to evade payment of royalty, GST/VAT and other statutory levies and contribution to MEPR Fund on the coal utilised by them.

**3.1.8** Even for the sake of an argument it is assumed that the claim of these plants that more than two-third of their coal requirement during the Audit Period has been met by a non-fuel mineral (*viz.* slate) without making any change/modification in the design of these plants is true, it would have caused equal, if not more, damage to the flora, fauna, rivers, streams, water bodies and the environment in general in the State of Meghalaya as all such slate has admittedly been mined in an unscientific and haphazard manner without any mitigative measures and without obtaining mandatory mining lease, consent to establish, consent to operate, environmental clearance and authorisation/no-objection certificate from the State Pollution Control Board in a flagrant violation of the existing mining, environmental, pollution control and labour safety laws.

**3.1.9** Transportation and use of a huge quantity of illegally mined coal by these plants could not have escaped notice of regulatory authorities, both in the State of Meghalaya and the Union of India. It could not have escaped notice of the district



and police administration. Instead of taking actions to prevent use of illegally mined coal by these plants and to initiate appropriate proceedings under relevant provisions of the Mines and Minerals (Development and Regulation) Act, 1957; the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986 against these Plants for use of illegally mined local coal, the regulatory authorities have tried to regularise/justify the use of illegally mined coal by accepting royalty on slate claimed to be used by these plants and by supporting the claim of these Plants that it is technically and legally feasible to replace two-third of the coal requirement of these plants by a non-fuel mineral such as slate and the slate can be used by these plants as a waste without obtaining any clearance under the Mines and Minerals (Development and Regulation) Act, 1957; the Water (Prevention and Control of Pollution) Act, 1974; the Air (Prevention and Control of Pollution) Act, 1981; the Environment (Protection) Act, 1986 and the rules, regulations & guidelines framed thereunder.

**3.1.10** As per information provided to the Committee by the Mining and Geology Department in the State of Meghalaya, none of these plants participated in a public auction conducted by the State of Meghalaya to sell more than 38,000 MT of seized coal available at locations in close vicinity of majority of these plants. The Committee therefore is of the view that a major part of the coal requirement of these plants is still being met from illegally mined local coal.

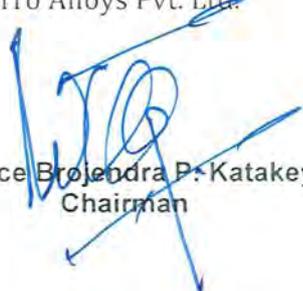
## **3.2 RECOMMENDATIONS**

**3.2.1** To put a stop to the illegal rat-hole mining of the coal being undertaken in the State of Meghalaya in flagrant violation of the mining, environmental and labour safety laws as well as the orders issued by the Hon'ble Supreme Court and the Hon'ble NGT to meet the requirement of the coal for the Cement Manufacturing Plants and Thermal Power Plants in the State of Meghalaya and also to restore damage caused the flora, fauna, rivers, streams, water bodies and environment in general by illegal rat-hole coal mining, the Committee recommends that the Hon'ble NGT may consider to issue the following directions:

1. The Chief Secretary of the State of Meghalaya shall undertake monthly review the quantity of clinker and/or power produced by each Cement Manufacturing Plants and Thermal Power Plant in the State of Meghalaya and the quantity of coal purchased by each such plant from legal sources to produce such reported quantities of clinker and/or power. Such review for a month shall be undertaken on or before tenth day of the next month. A quarterly report stating therein the month-wise quantities of clinker and/or power produced, quantity of coal consumed to produce such quantities of clinker and/or power by each such plant and action(s), if any, taken against any such plant in case of any anomaly observed during the review shall be submitted to this Tribunal by the Chief Secretary, Meghalaya. Such report for a quarter shall be submitted to this Tribunal on or before fifteenth day of the next quarter.
2. The State of Meghalaya; the Ministry of Environment, Forest and Climate Change, Government of India and the Meghalaya State Pollution Control Board shall initiate proceedings in accordance with the provisions of the Mines and Minerals (Development and Regulation) Act, 1957; the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986 and the rules, regulations & guidelines framed thereunder against each of the Cement Manufacturing Plants and the Thermal Power Plants who has used illegally mined local coal after a ban on the rat-hole coal mining in the State of Meghalaya was imposed by this Tribunal in the month of April, 2014.
3. The State of Meghalaya shall realise royalty, GST/VAT, contribution to the MEPR Fund and any other statutory tax and/levy payable on the illegally mined coal utilised by these Cement Manufacturing Plants and the Thermal Power Plants in the State of Meghalaya after the ban on illegal rat-hole mining in the State of Meghalaya was imposed by this Tribunal in April 2014.
4. To restore the damage caused to the flora, fauna, rivers, streams, water bodies and the environment in general by illegal rat-hole mining of coal and also to mitigate the suffering caused to the local tribal residents by the illegal rat-hole coal mining, the State of Meghalaya shall realise from each of the aforementioned Cement Manufacturing Plants and Thermal Power Plants who have

used illegally mined local coal after a ban on illegal rat-hole coal mining was imposed by this Tribunal in the month of April 2014, an amount of Rs. 400 per tonne of coal to be utilised by each such plants on or after the date of this order and deposit the same in the MEPR Fund. Such amount for coal utilised during a month shall be realised on or before fifteenth day of the next month. Not less than fifty percent of these amounts shall be utilised for restoration of damage caused to the flora, fauna, rivers, streams, water bodies and the environment in general by illegal rat-hole mining of the coal in the State of Meghalaya. The balance amounts shall be utilised for socio-economic development of the tribal residents in areas affected by the coal mining in the State of Meghalaya. It is clarified that the afore-mentioned amount of Rs. 400 per MT of coal shall be in addition the contribution to MEPRF at the rate of Rs. 485 per MT of coal already being realised by the State in compliance of earlier orders of this Tribunal. The Chief Secretary, Meghalaya shall formulate draft guidelines for utilisation of these amounts and place the same before the Committee constituted by this Tribunal under Chairmanship of Mr. Justice B.P. Katakey, former Judge, Guwahati High Court. The Committee shall within one month from the date of receipt, examine the draft guidelines and place the same along with the comments/observation before this Tribunal for approval.

5. The North Eastern Regional Directorate of the CPCB shall complete audit of coke claimed to be utilised by the Jaintia Cement Limited and the Virgo Cement Limited and submit a report to the Committee constituted by this Tribunal under Chairmanship of the Mr. Justice B.P. Katakey, former Judge, Guwahati High Court. The North Eastern Regional Directorate of the CPCB shall also submit the report sought by the said Committee in respect of the Captive Thermal Power Plant of Shree Shakambari Ferro Alloys Pvt. Ltd.

  
(Justice Brojendra P. Katakey)  
Chairman

**Annexure R17/11**

Item No. 01

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**Original Application No. 110(T<sub>HC</sub>)/2012Threat to life arising out of coal mining  
in south garo hills district

Applicant(s)

Versus

State of Meghalaya &amp; Ors.

Respondent(s)

Date of hearing: 09.01.2020

Date of uploading on the website: 17.01.2020

**CORAM:** HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE S.P WANGDI, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER  
HON'BLE MR. SIDDHANTA DAS, EXPERT MEMBER

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**ORDER****Background: unscientific Rat Hole mining in the State of Meghalaya – directions for preventive and remedial action**

1. This order may be read in continuation of order dated 22.08.2019. The matter pertains to remedial action against unscientific 'Rat Hole' Mining of coal in the State of Meghalaya. Proceedings commenced on the basis of a news item to the effect that on 06.07.2012, thirty coal labourers were trapped in a coal mine and fifteen of them died. After due consideration of the matter, on 17.04.2014, this Tribunal directed the State of Meghalaya to ensure that rat hole mining is stopped forthwith throughout the State and any illegal transport of coal shall not take place until further orders.
2. On 09.06.2014, to give effect to order dated 17.04.2014, a Committee was formed to quantify extracted coal and its location, assess its value and also to prescribe mode of its transportation. In the light of the report this Tribunal, on 07.10.2017, noted that 6.3 million tonnes of illegally mined coal valued at Rs. 307 Crores was lying in the State on which royalty of Rs. 400 Crores was assessed. Direction was issued for videography in the operation of the weigh bridges. The issue of quantum of coal to be permitted to be transported was to be gone into with the assistance of the Committee. Further, direction was issued to credit the amount of royalty in a separate account with 10% of the value of coal to be credited to Environment Protection Fund. On 31.03.2016, the Tribunal directed that except the coal already transported, the remaining will vest in the State. Finally, on 31.08.2018, after reviewing the earlier proceedings, this Tribunal

directed that rat hole mining will remain prohibited and so also the transportation of the mined material. The State will be the custodian of the available coal for which necessary inventory will be prepared.

**Constitution of Monitoring Committee for restoration of environment and rehabilitation of victims and other connected and incidental issues.**

3. This Tribunal, vide order dated 31.08.2018, directed constitution of a Committee to be headed by a former High Court Judge of the Guwahati High Court for restoration of the environment and rehabilitation of the victims. The Committee was at liberty to take up incidental issues. The Committee was also to supervise issues arising out of receivership/custodianship of already extracted coal, including environmental issues arising out storage and remedial steps. Other Members of the Committee were to be representatives of CPCB and Indian School of Mines, Dhanbad. The State of Meghalaya was to provide records, logistics and facilities to the Committee. The Committee was free to requisition services of technical experts from the State and to carry out field visits. The Committee was also free to set up its website for receiving and giving information and to involve educational institutions for awareness and feedback. The Committee was to meet twice in a month to review the progress and to fix further targets and send reports to this Tribunal every two months.

**Orders of this Tribunal dated 04.01.2019, 11.04.2019 and 22.08.2019 on reports received from the Committee.**

4. The Committee gave its report on 02.01.2019 which was considered vide order dated 04.01.2019 with regard to the following questions framed by the Committee:-

- “(A) Whether coal mining activities, including extraction of coal and the transportation of the same, are going on despite the order passed by the Hon’ble NGT imposing ban on coal mining and transportation?*
- (B) Quantity of extracted coal as on the date on which the ban was imposed by the Hon’ble NGT and left to be transported?*
- (C) Quantity of un-inventoried coal which has been extracted before imposition of ban by the Hon’ble NGT?*
- (D) Whether coal mining activities as well as dumping of coal results in adverse environmental effect, if so, the nature and extent thereof?*
- (E) What are the steps required to be taken by the Committee for restoration of the environment and rehabilitation of victims of coal mining?*
- (F) The extent of execution of the Action Plan prepared by the Committee?”*

5. The Tribunal noted that a further tragic incident took place on 13.12.2018 where 15 workers were trapped. The report was that the illegal mining was still continuing. The assessed quantity of such coal was 23,25,663.54 MT. The mining was resulting in adverse impact on the environment for which a study was required to be undertaken. Action plan was proposed for restoration of the environment. In view of the consistent failure of the State in enforcing the law, this Tribunal held the State to be liable to deposit a sum of Rs. 100 Crores with the Central Pollution Control Board (CPCB) to be spent for restoration of the environment. The Tribunal also observed that the Committee may consider seizure of equipments used for illegal mining or transportation, to be released only after payment of 50% of the showroom price of such equipments. The Tribunal suggested that the Committee may consider the following:

*“36. The Committee may also consider the following:-*

- 1. Any cranes and trucks found to be involved in illegal mining or transportation which have not yet been seized may also be seized. The seized vehicles or equipments be released by the concerned District Magistrates only after*

*recovering damages to the extent of 50% of the showroom price of the vehicles or equipments. The said amount may also be credited to the restoration fund.*

- 2. Efforts be expedited to identify victims who have suffered at least since 01.07.2012 and to assess loss to the environment and the manner of restoration.*
- 3. Disaster Management Plan for the whole of the area 'on site' as well as 'off site' needs to be prepared and put into operation.*
- 4. Appropriate technology to replace rat hole mining.*
- 5. Resource (coal) audit of Meghalaya Power Limited and Star Cement Limited to ascertain the legitimate procurement of coal and its source.*
- 6. The Committee may take services of NEERI Nagpur, Indian School of Mine, Dhanbad, FRI Dehradun, CPCB apart from any other agency for making assessment of the damages.*
- 7. Survey of health of the habitants may also be considered.*
- 8. Skill Development Programmes to provide alternative means of employment to the workers involved in rat hole mining may be considered.*
- 9. Mitigation/restoration of impacted areas due to AMD.”*

6. Further report was considered on 11.04.2019. The Tribunal approved the recommendations including those for installation of digital display boards in respect of quality of water of the concerned areas and evolving mechanism for effective action against transportation of illegally mined coal such as electronic manifest system, audit of source of coal acquired by the power generation and cement plants.

7. The matter was further considered on 22.08.2019 in the light of report dated 02.08.2019 received from the Committee as follows:-

“1 to 6 xxx

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7. Further report dated 02.08.2019 has been received from the Committee to be considered today. We may note that the Hon'ble Supreme Court, vide judgement dated 03.07.2019, in Civil Appeal No. 10720 of 2018 (State of Meghalaya v. All Dimasa Students Union, Dima Hasao District Committee and Ors) and other connected decided Appeals arising from orders of this Tribunal, directing, inter alia, as follows:

**“Conclusions:-**

191. From the foregoing discussions we arrived at following conclusions:-

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9) As per statutory regime brought in force by notification dated 15.01.2016 issued under Environment (Protection) Act, 1986, environmental clearance is required for a project of coal for mining of any extent of area. While implementing statutory regime for carrying mining operations in the Hills Districts of the State of Meghalaya, the State of Meghalaya has to ensure compliance of not only MMDR Act, 1957 but Mines Act, 1952 as well as Environment (Protection) Act, 1986.

10) In Hill District of State of Meghalaya for carrying coal mining operations in privately owned/community owned land it is not the State Government which shall grant the mining lease under Chapter V of Rules, 1960, but it is the private owner/community owner of the land, who is also the owner of the mineral, who shall grant lease for mining of coal as per provisions of Chapter V of Rules, 1960 after obtaining previous approval of the Central Government through the State Government.

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13) In event the mining is carried out by a mining lease holder as per the provisions of Act, 1957 and Rules, 1960 with an approved mining plan there can be no objections in carrying of such mining operations under the regulation and control of the State of Meghalaya. We clarify that in event mining operations are undertaken in privately owned/community owned land in Hills Districts of Meghalaya in accordance with mining lease with approved mining plan as per Act, 1957 and Mineral Concessions Rule, 1960, the ban order dated 17.04.2014 of the tribunal of the NGT shall not come in way of carrying mining operations.

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20) The coal extracted and lying in open after 15.05.2016 does not automatically vest in the State of Meghalaya and the owner of the coal or the

*person who has mined the coal shall have the proprietary right in the mineral which shall not be lost.*

- 21) *The suggestion of learned Amicus Curiae that entire extracted coal lying at various places in hills districts of Meghalaya be directed to be taken over by Coal India Ltd. is accepted. The Coal India Ltd. may dispose of the same as per its normal method of disposal and proceeds be dealt with as per directions issued.*
- 22) *The State having carried out the assessment of the coal lying in the aforesaid four districts including the details of the quantities and the details of owners being available with it, it may ensure that entire coal is handed over to the Coal India Ltd., as per the mode and manner to be formulated by Katakey Committee in consultation with officers of the Coal India Ltd. and the State of Meghalaya.*
- 23) *It is for Coal India Ltd. to decide as to venue, where they shall receive the coal, i.e., either at any of its depot or any other place in the State of Meghalaya and it is for the Coal India Ltd. to finalise the process of disposal and auction of the coal. It shall be the duty of the State of Meghalaya and its officers especially Deputy Commissioner of the area concerned to enter details of quantity of the coal, name of the owner and place from where it is collected. All concerned shall take steps to ensure weighment of the coal when it is received by Coal India Ltd.*
- 24) *The expenses of transportation shall be borne by the State of Meghalaya, Coal India Ltd. or by both, which expenses shall be deductible from the price received of the coal. The State of Meghalaya shall be entitled to royalty and payment towards MERP Fund as well as taxes out of the price of the coal. After deducting its expenses for transportation with 10% of price of the coal, the Coal India Ltd. shall remit the balance amount to the State and it is for the State after deducting the royalty and payment to the MERP Fund and taxes to pay back balance the amount to the owner.*
- 25) *The coal which has been seized by the State in illegal transportation and illegal mining for which different cases have been registered by the State, is not to be dealt with as directed above. The seized coal shall be dealt by the State in accordance with Section 21 of the Act, 1957 and on being satisfied, the State can take a decision to recover the entire quantity of coal so illegally raised without lawful authority.*

192 In view of the foregoing discussions and conclusions, all these appeals are decided in the following manner: -

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4) All I.As. seeking direction for transportation of coal are disposed of directing: -

i) All extracted coal as assessed by State of Meghalaya lying in different districts of State of Meghalaya which as per order of NGT is in custody of State of Meghalaya shall be handed over to Coal India Ltd. for proper disposal.

ii) The Katakey Committee after discussion with Coal India Ltd. and State of Meghalaya shall formulate a mechanism for transport, weighment of all assessed coal.

iii) The Coal India Ltd. shall auction the coal so received by it as per its best judgment and remit the proceed to State to the extent as directed above.

iv) All coal seized by the State for which cases have already been registered shall be dealt by the State in accordance with Section 21 of 1957 Act.”

8. We may now deal with the report of the Committee which is, inter alia, as follows:

**“It is, therefore, evident that though the learned counsel appearing for the State of Meghalaya submitted before the Hon'ble Tribunal that the compliance report in that regard shall be submitted to this committee within two weeks, the direction to install Digital Display Boards has not been fully implemented till date. As stated above, such Boards have been installed in the State Capital, i.e., in Shillong only. The same have not been installed in the coal mining affected districts and Sub-Divisions so far.**

The Committee directs the aforementioned 4(four) Cement Plants, namely, Green Valley Industries Ltd, Gold Stone Cement Ltd, Hills Cement Ltd and Virgo Cement Ltd and one Thermal Power Plant, namely, CMJ Breweries Ltd to depute their representatives to attend the next sitting of the Committee scheduled to be held on 14.08.2019 along with all required information and documents without fail.

The Secretary to the Govt. of Meghalaya, Mining and Geology Department, during the Proceeding No. 16-B held on 23.07.2019 has produced before the Committee a letter dated 22.07.2019 seeking a month's time to formulate a

comprehensive plan and proper policy of transportation and handing over of coal to the Coal India Limited for disposal/auction as per rules of the Coal India Limited. The Committee has also been informed that after finalisation, the same shall be placed before the Committee for deliberation.

Based on the said communication, one month time has been granted to the Mining and Geology Department, Govt. of Meghalaya. The second special sitting scheduled to be held in Guwahati on 26.07.2019 with the representatives of the Coal India Limited and the concerned departments of the Govt. of Meghalaya to discuss about the formulation of a policy for transportation and handing over of the coal to the Coal India Limited, has, therefore, been postponed and the next date was decided to be fixed in its Proceeding to be held on 14.08.2019.

The Committee in the said Proceeding has recorded that the majority of the directions issued by it in the Proceeding No.12 dated 25.04.2019 have not been implemented so far and hence the Commissioner & Secretary to the Govt. of Meghalaya, Mining and Geology Department has been directed to submit a report on the status of implementation of each of these directions in the sitting scheduled to be held on 14.08.2019.

**From the aforesaid position, it is, therefore, evident that the directions issued by the Committee in its Proceeding No.12 dated 25.04.2019 have not been fully complied with till date.**

**(C) CONSIDERATION OF THE RECOMMENDATIONS OF THE COMMITTEE MADE IN ITS PROCEEDING Nos. 13, 14 AND 15 DATED 03.05.2019, 03.06.2019 AND 28.06.2019, COPIES OF WHICH HAVE BEEN SENT BY MAIL IN ngp.filingAgmail.com ON 08.07.2019.**

(1) The Committee in the Proceeding No.13 dated 03.05.2019 recommended for consideration for release of an amount of Rs.40,36,500/- from the MEPR Fund to implement the pilot project for afforestation and reclamation of coal mining affected land and organisation of festival-cum-mass awareness programme submitted by the Principal Chief Conservator of Forest (Climate Change Research and Training), Govt. of Meghalaya and North Eastern Regional Office of the Central Pollution Control Board.

(2) The Committee also in the Proceeding No. 14 dated 03.06.2019 has recommended for consideration by the Hon'ble Tribunal for passing necessary order for deployment of CAPFs to assist the State Police in checking the transportation and mining of coal in the State for the

*purpose of enforcement of the direction issued from time to time to ban illegal mining and transportation of coal.*

*(3) The Committee in the said Proceeding had also recommended for consideration by the Hon'ble Tribunal to release an amount of rupees one Crore from MEPR fund to facilitate the Forest & Environment Department for afforestation of the coal mine affected areas and to ensure availability of adequate number of good quality plants.*

*(4) The Committee in the Proceeding No.15 dated 25.06.2019 has also recommended for consideration by the Hon'ble Tribunal for release of Rs.19,19,500/- from the MEPR Fund towards the cost to be incurred in the Pilot Project of Micro Algae Treatment of the acidic water in the identified stream in the coal mining affected areas to be implemented by M/S Trinity Impex International.*

*The Hon'ble Tribunal may consider the aforesaid recommendations of the Committee.*

*The Committee, on 31.08.2019 shall submit the further report relating to the status of implementation of the Action Plan prepared by it, directions issued by it from time to time and also the directions issued by the Hon'ble Supreme Court in Civil Appeal No. 10720 of 2018 (State of Meghalaya v. All Dimasa Students Union, Dima Hasao District Committee and Ors.) and other analogous matters passed In Judgment & Order dated 03.07.2019."*

9. *Learned Counsel for State of Meghalaya submitted that with regard to display boards, further steps have been taken and a report dated 03.08.2019 has been filed before this Tribunal and a report will also be filed before the Committee. The Committee may look into the same.*
10. *As regards effective action against illegal transportation, the Committee has suggested deployment of Central Armed Forces and the State Police. The Committee has also suggested release of certain funds. Learned counsel for the State submitted that the recommendations of the Committee be accepted.*
11. *We accept the recommendations of the Committee for release of the amount as presented in para (3) & (4) of recommendations as noted above. As regards deployment of Central Armed Police Forces (CAPF), our attention has been drawn to earlier proceedings before this Tribunal in order dated 25.03.2015 as follows:*

*"1. The Additional Secretary, North East in the Ministry of Home, Central Government shall, within a period of two weeks from today, hold a meeting with the Chief Secretary of the State of Meghalaya and other concerned*

*Authorities and consider the proposal of the State of Meghalaya for deployment of appropriate force to ensure compliance of orders of the Tribunal and protection of the Environment and Ecology, particularly water bodies as recorded in various orders of the Tribunal. We are hopeful, that the decision will be taken objectively and in the interest of public at large.”*

12. *We are informed that in pursuance thereof, the Central Government did provide the requisite Forces at that time. In the light thereof, the State of Meghalaya to follow the same course of approaching the Central Government. The Central Government may give due consideration to such proposal expeditiously.*
13. *Only other issue which survives for consideration is the enforcement of directions of the Hon'ble Supreme Court for handing over coal already mined and lying at various places in Meghalaya to the Coal India Ltd. As per directions of the Hon'ble Supreme Court, in the judgement dated 03.07.2019 the same may be looked into by the Committee in consultation with the officers of Coal India and the State of Meghalaya. We suggest that the Committee may fix specific timeline for the purpose.*
14. *Our attention in this regard has been drawn to a Challan dated 13.08.2019 issued by the Divisional Mining Officer, Jowai with regard to transportation of the 'auctioned' mineral. Learned Counsel for the State may ascertain whether the transportation is in terms of the scheme prepared by the Committee in accordance with the directions of the Hon'ble Supreme Court and if not, remedial action may be taken. The Committee may look into this aspect and applicability of online electronic manifest system for regulating movements of vehicles and issuance of challans as per the Tribunal's order dated 11.04.2019.*
15. *The companies in question are directed to furnish the requisite information to the Committee, failing which this Tribunal may have to take coercive measures against the Chief Executive Officers of the companies. This aspect will be considered in the light of further report of the Committee. The Committee may also make its recommendations about the conduct of officers not cooperating in compliance of orders of the Hon'ble Supreme Court and this Tribunal so that the State may take appropriate action and inform this Tribunal.*
16. *The Committee has proposed to send its further report by 31.08.2019. Thereafter, a further report be sent after three months by 30.11.2019.*
17. *List again on 10.12.2019 or as and when the occasion arises.”*

**Judgement of the Hon'ble Supreme Court dated 03.07.2019 (2019) 8 SCC 177 in Appeals arising out of orders of this Tribunal**

8. We have perused the judgement of the Hon'ble Supreme Court dated 03.07.2019, (2019) 8 SCC 177 in Appeals arising out of orders of this Tribunal as the said judgement governs some of the issues dealt with by the Committee which are also to be dealt with by this Tribunal. It is clear from the judgment of the Hon'ble Supreme Court that the Hon'ble Supreme upheld the jurisdiction of this Tribunal in dealing with the matter and constituting the Monitoring Committee. Though the private owners of the land had right in the minerals, no unregulated and unscientific mining could be carried out. The Mining Policy of the State was required to be consistent with the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act) and mining even by owner was required to be regulated under the statutory scheme. The Environmental Clearance (EC) was required in terms of Notification dated 15.01.2016. Compliance of MMDR Act, Mines Act, 1952 as well as Environment (Protection) Act, 1986 (EP Act) is necessary. The Mineral Concession Rules 1960 are also required to be followed. Schedule VI to the Constitution does not affect the said laws. Order of the Tribunal dated 17.04.2014 was upheld banning Rat Hole mining as the manner of such mining was not consistent with the statutory scheme. However, the said ban will not bar legal and scientific mining as per statutory scheme. Order of the Tribunal constituting MEPR fund was also upheld. Order dated 04.01.2019 requiring deposit of Rs. 100 Crores with CPCB for restoration of environment was also upheld but the same could be paid out of the Meghalaya Environment Protection and Restoration Fund' (MEPR Fund). The extracted coal laying at various places was

directed to taken over by Coal India Limited. The coal was to be handed over to Coal India Limited by the State in the manner formulated by the Committee. The Hon'ble Supreme Court noted that the Committee has done commendable job in studying and examining the various environmental aspects and suggesting mitigation measures. The State of Meghalaya and Coal India Limited were directed to deliberate with the Committee to finalize plan for transportation and handling over of the coal for disposal as per Rules which may be beneficial for the owners of the mine as well as the State. The Coal India Limited was also to take steps for payment of the coal and the State of Meghalaya was entitled to royalty and taxes. After deducting cost of transportation/royalty and payment to MEPR fund and taxes plus 10% of the value of the coal, the balance was to be disbursed to the owner. The disbursement was to be made by the State. The coal seized in illegal transportation of illegal mining was to be dealt by the State under Section 21 of the MMDR Act separately.

**Resume of proceedings till 22.08.2019**

9. The above resume shows that the Committee has already furnished three reports dated 02.01.2019, 31.03.2019 and 02.08.2019 which have been dealt with by this Tribunal vide orders dated 04.01.2019, 11.04.2019 and 22.08.2019 respectively.
10. The issues dealt with in the first three reports in short are:

**“3.1 First Interim Report**

*3.1.1 The Committee submitted its First Interim Report dated 31.12.2018 to the Hon'ble NGT on 02.01.2019. The said First Interim report contains findings of the Committee on the following questions framed by the Committee:-*

- A. *Whether coal mining activities, including extraction of coal and the transportation of the same, are going on despite the order passed by the Hon'ble NGT imposing ban on coal mining and transportation?*
- B. *Quantity of extracted coal as on the date on which the ban was imposed by the Hon'ble NGT and left to be transported?*
- C. *Quantity of un-inventoried coal which has been extracted before imposition of ban by the Hon'ble NGT?*
- D. *Whether coal mining activities as well as dumping of coal results in adverse environmental effect, if so, the nature and extent thereof?*
- E. *What are the steps required to be taken by the Committee for restoration of the environment and rehabilitation of victims of coal mining?*
- F. *The extent of execution of the Action Plan prepared by the Committee?*

### **3.2 Second Interim Report**

3.2.1 *The Committee submitted its Second Interim Report dated 30.03.2019 to the Hon'ble NGT. In the said Report, the Committee placed before the Hon'ble NGT the current status of the following issues:*

- (i) *Availability and investment of amounts available in the MEPR Fund.*
- (ii) *Monitoring of quality of water in the rivers and streams of the areas affected by coal mining.*
- (iii) *Steps taken for neutralisation of Acid Mine Drainage (AMD) contaminated water in the rivers & streams of the areas affected by coal mining activities.*
- (iv) *Status of the ongoing water supply schemes in coal mining affected areas in East Jaintia Hills District, under the Pubic Health Engineering Department.*
- (v) *Seizure of cranes, trucks etc. involved in illegal mining or transportation and release of such vehicles and equipment.*
- (vi) *Skill Development Schemes*
- (vii) *Survey of health of the habitants of the areas affected by coal mining.*
- (viii) *Framing of Disaster Management Plan, both "on site" and "off site".*
- (ix) *Verification of un-inventorised coal.*
- (x) *Procurement of coal by the Cement Companies from the local market in the State of Meghalaya.*
- (xi) *Pilot Projects to be undertaken by CIMFR-CISR, Dhanbad*
- (xii) *Awareness Camps/ Programme.*

- (xiii) Applications for compensation to the next of kin of the persons who died during illegal mining and to the persons who suffered injuries during due to illegal coal mining.
- (xiv) Preparation of Geospatial Database inputs of Planning and Restoration of areas affected by coal mining in the State of Meghalaya.
- (xv) Coal mining activities including transpiration of coal.

3.2.2 The Committee in the said Report also recommended that the Hon'ble NGT may permit release of an amount of Rs.96.59 lakh for procurement of 6(six) numbers of vehicles mounted with Water Tankers to be used for supplying potable waters to the villagers of the villages in the district of East Jaintia Hills affected by coal mining activities and where the potable water has not so far been supplied.

### 3.3 **Third Interim Report**

3.3.1 The Committee submitted its Third Interim Report dated 02.08.2019 to the Hon'ble NGT on 02.08.2019. In the said Report, the Committee placed before the Hon'ble NGT the current status of the following directions issued by the Hon'ble NGT in the Order dated 11.04.2019:

- (i) Release and utilisation of an amount of Rs.96.59 lakh from the MEPR Fund in favour of the Deputy Commissioner, East Jaintia Hills District for purchase of the six vehicles mounted with water tankers.
- (ii) Installation of Digital Display Boards at the Headquarters of coal mining affected Districts and Sub-Divisions and display thereon quality of water in ten worst polluted rivers/streams in the District/Sub-Division.
- (iii) Audit of the source of coal acquired by the power generation and cement plants in the State of Meghalaya.
- (iv) Mechanism to be adopted for effective action against illegal transportation of coal such as electronic manifest system for regulating movement of vehicles and issuance of challans.”

11. Orders of this Tribunal dated 04.01.2019, 11.04.2019 and 22.08.2019 on the above three reports in short are:-

#### **Order dated 04.01.2019:**

“4.1.2 In view of the consistent failure of the State in enforcing the law, the Hon'ble NGT held the State to be liable to deposit a sum of Rs. 100 Crores with the Central Pollution Control Board (CPCB) to be spent for restoration of the environment. The Hon'ble NGT also observed that the Committee may consider

seizure of equipment used for illegal mining or transportation, to be released only after payment of 50% of the showroom price of such equipment.

4.1.3. The Hon'ble NGT in the said order dated 04.01.2019 also suggested that the Committee may consider the following:

- (i) Any cranes and trucks found to be involved in illegal mining or transportation which have not yet been seized may also be seized. The seized vehicles or equipment be released by the 4 concerned District Magistrates only after recovering damages to the extent of 50% of the showroom price of the vehicles or equipment. The said amount may also be credited to the restoration fund.
- (ii) Efforts be expedited to identify victims who have suffered at least since 01.07.2012 and to assess loss to the environment and the manner of restoration.
- (iii) Disaster Management Plan for the whole of the area 'on site' as well as 'off site' needs to be prepared and put into operation.
- (iv) Appropriate technology to replace rat hole mining.
- (v) Resource (coal) audit of Meghalaya Power Limited and Star Cement Limited to ascertain the legitimate procurement of coal and its source.

**Order dated 11.04.2019:**

4.2.2 The Hon'ble NGT in the said order dated 11.04.2019 also noted the finding of the Committee that despite the order passed by the Hon'ble Supreme Court prohibiting transportation of coal, the same has not been stopped by the authorities for the reasons best known to them as well as another finding relating to non-installation of Digital Display Boards in the Sub-Division, Districts and the State Headquarters/Capital, displaying the quality of water in the respective areas for information of general public. The

Hon'ble NGT, having regard to the submission of the learned counsel appearing for the State of Meghalaya directed that the aforesaid issues will be duly dealt with and a compliance report shall be filed before the committee within two weeks, directed the Committee to consider the same on its next sitting, i.e., on 25.04.2019. The committee was also given liberty to consider the matter and pass further orders/recommendations.

4.2.3 The Hon'ble NGT vide the said Order also directed that the Committee may consider requirement of foolproof mechanism to be adopted for effective action against transportation of illegally mined coal such as electronic manifest system for regulating movement of vehicles and issuance of challans and also may consider audit of resource of coal acquired by the Power Generation and Cement Plants in the State of Meghalaya.

**Order dated 22.08.2019:**

4.3.2 The Hon'ble NGT in the said Order dated 22.08.2019 also directed as below:

- (i) For making available Central Armed Police Force (CAPF) the State of Meghalaya shall follow the same course of approaching the Central Government as has been done by them in the past in compliance of directions issued by the Hon'ble NGT vide order dated 25.03.2015. The Central Government may give due consideration to such proposal expeditiously.
- (ii) As per directions of the Hon'ble Supreme Court, in the judgement dated 03.07.2019 the enforcement of directions of the Hon'ble Supreme Court for handing over coal already mined and lying at various places in Meghalaya to the Coal India Ltd may be looked into by the Committee in consultation with the officers of Coal India and the State of Meghalaya. The Committee may fix specific timeline for the purpose.

(iii) *Learned Counsel for the State may ascertain whether the transportation under a Challan dated 13.08.2019 issued by the Divisional Mining Officer, Jowai with regard to transportation of the 'auctioned' mineral is in terms of the scheme prepared by the Committee in accordance with the directions of the Hon'ble Supreme Court and if not, remedial action may be taken. The Committee may look into this aspect and applicability of online electronic manifest system for regulating movements of vehicles and issuance of challans as per the Tribunal's order dated 11.04.2019.*

(iv) *The cement companies in question are directed to furnish the requisite information to the Committee, failing which this Tribunal may have to take coercive measures against the Chief Executive Officers of the companies. This aspect will be considered in the light of further report of the Committee.*

(v) *The Committee may also make its recommendations about the conduct of officers not cooperating in compliance of orders of the Hon'ble Supreme Court and this Tribunal so that the State may take appropriate action and inform this Tribunal.”*

**Further reports- 04<sup>th</sup> Interim Report dated 31.08.2019, 05<sup>th</sup> Interim Report dated 02.12.2019 and 06<sup>th</sup> Interim Report dated 03.12.2019**

12. After order of this Tribunal dated 22.08.2019, the Committee has dealt with the matter and furnished following further reports in the matter:-

1. 04<sup>th</sup> Interim Report dated 31.08.2019
2. 05<sup>th</sup> Interim Report dated 02.12.2019
3. 06<sup>th</sup> Interim Report dated 03.12.2019.

13. We also have for our consideration response of the State of Meghalaya to the 04<sup>th</sup> and 06<sup>th</sup> interim reports. M.A. No. 03/2020 in O.A. No. 73/2014 is being dealt with by a separate order.
14. We have heard the learned Amicus Curiae – Shri Raj Panjwani, Senior Advocate and Mr. Raju Ramachandren, Senior Advocate representing the State of Meghalaya. Other counsel representing various parties present have not made any oral submissions.
15. Accordingly, we proceed to consider the reports furnished by the Committee and the response thereto.

**4<sup>th</sup> Interim Report dated 31.08.2019**

16. In the 4<sup>th</sup> Interim Report the Committee considered the mechanism to deal with the complaints under Section 21 of the MMDR Act of illegal raising and transportation of coal, procedure for exercise of powers under Section 21 (5) of the MMDR Act, action to be taken in new cases of illegal mining/storage and transportation, action for preventing illegal mining and storage, recovery of fresh stock of coal extracted prior to ban, action for violation of Water (Prevention and Control of Pollution) Act, 1974 and EP Act apart from action under MMDR Act, steps for mitigating environment pollution caused by acidic water and emitting from the coal depots/ dumps, mechanism in term of EIA Notification of 2006, video recording of consignments for illegal transportation of coal, scheme to reward informers giving information about illegal mining/transportation, establishing coal mine surveillance system and SOP to deduct illegal mining or dumping of coal, disposal of coal confiscated under Section 21(5) of MMDR Act, preparation of geological and feasibility report for

scientific coal mining, execution of pilot project for treatment of acidic water and for afforestation and reclamation of coal mining affected land, preparation of draft guidelines for utilization of amounts of MEPR fund including amount of Rs. 100 Crore transfer to CPCB, continuation of Prof. (retired) A.K. Singh, from Indian School of Mines, Dhanbad as Member of the Committee, recording of coal depots where coal is to be handed over to Coal India Limited by joint Committee. After due consideration the Committee has suggested the following directions:-

*“The Hon'ble NGT may consider to pass the following directions:*

*1. The State of Meghalaya shall constitute a Monitoring Committee under Chairmanship of the Chief Secretary to undertake monthly review of actions taken by various 'Authorized Officers' to file complaints before concerned Courts of Law under Section 21 of the MMDR Act against the persons involved in illegal raising and transportation of coal. (para 5.1.2.12 (i))*

*2. The State of Meghalaya shall formulate guidelines stipulating therein a detailed procedure for exercise of the powers conferred on the State under sub-section (5) of section 21 of the MMDR Act to recover mineral raised unlawfully from such person or where such mineral has already been disposed to recover price thereof (para 5.1.2.12 (ii))*

*3. The State of Meghalaya shall mandatorily invoke provisions of sub-section (5) of section 21 of the MMDR Act in all new cases where illegal raising or storage or transportation of coal is detected in the State of Meghalaya. (para 5.1.2.12 (iii))*

*4. The State of Meghalaya shall in exercise of powers conferred by Section 23 (C) of the MMDR Act formulate rules for preventing illegal mining, transportation and storage of minerals and shall notify the same in the official Gazette within one month. (para 5.1.2.12 (iv))*

*5. In the cases where any person declares any fresh stock of coal purported to be extracted prior to imposition of the ban by the Hon'ble NGT, apart from other punitive actions, actions under sub-section (5) to section 21 of the MMDR Act to recover such coal shall mandatorily be initiated by the State of Meghalaya (para 5.1.2.12 (v)).*

6. Subject to provisions of the Law of Limitation, the MSPCB and CPCB shall initiate necessary action to file complaints under relevant sections of the Water Act against persons involved in raising, storage and transportation of the coal reportedly extracted prior to imposition of ban on rat hole coal mining in the State of Meghalaya by the Hon'ble NGT in April 2014, transportation of which has been allowed by the Hon'ble NGT and the Hon'ble Supreme Court. (para 5.1.3.6 (i))

7. In case any fresh illegal mining, storage or transportation of coal in the State of Meghalaya is detected by the Police or District Administration or the Mining and Geology Department, apart from initiation of proceedings under relevant provisions of the MMDR Act against the persons involved in such mining, storage and transportation of the coal, the same shall also be intimated to the MSPCB and CPCB for initiation of necessary actions to file complaint against relevant section(s) of the Water Act against such person. Details of all such cases detected after imposition of ban on illegal rat hole coal mining in April, 2017 shall also be communicated to the MSPCB and CPCB for similar actions. (para 5.1.3.6 (ii)).

8. In case any fresh raising of coal in the State of Meghalaya is detected by the Police or District Administration or the Mining and Geology Department, apart from initiation of proceedings under relevant provisions of the MMDR Act against the persons involved in such illegal raising of the coal, the same shall be intimated to the North Eastern Regional Office of the Ministry of Environment, Forest and Climate Change, Government of India for initiation of necessary actions to file complaint against relevant section of the EP Act against such persons. Details of all such cases detected on or after 15.01.2016 shall also be communicated to the North Eastern Regional Office of the Ministry of Environment, Forest and Climate Change, Government of India for similar actions. (para 5.1.4.3(i))

9. The CPCB and the MSPCB shall critically examine the regulatory regime presently in force to govern establishment and operation of coal depots/dumps in the State of Meghalaya and take necessary actions to fill gaps, if any, in such regime to prevent, minimize and mitigate environment pollution caused by acidic water emanating from such depots (para 5.2.3).

10. The State of Meghalaya shall within one month put in place a mechanism stipulated in Appendix XII of the EIA Notification 2006 to regulate transportation of coal in the State. No transportation of coal in the State of Meghalaya shall, after a period of one month, be allowed till such system containing all the features stipulated in the said Notifications is fully operationalized. (para 5.3.7 (i))

11. The State of Meghalaya shall operationalize a system to video record consignment of each truck passing through all probable routes likely to be used for illegal transportation of coal. The State of Meghalaya shall identify suitable

locations which may cause least disturbance to non truck traffic and install a system of Close Circuit Cameras to ensure video recording of registration number and consignment of each truck passing through each such routes. To minimize inconvenience to non-truck traffic, feasibility of installation of such system at existing toll gates, checkpoints, parking lanes/ bays etc. may be explored. In case no such toll gates, check points, parking lanes/ bays etc. exist at the required locations, the State of Meghalaya in consultation with and/or assistance of the National Highways and Infrastructure Development Corporation (NHIDCL) and/or National Highways Authority of India (NHAI) shall construct additional lanes to facilitate checking of trucks without causing inconvenience to other traffic. Temper proof continuous video recordings made at the check points shall be retained at least for a period of one year and shall periodically be reviewed / checked by the authorities in the Police, Civil Administration and Mining & Geology Department from time to time. (para 5.3.7 (ii))

12. State of Meghalaya shall within a month frame a scheme to suitable reward the informers in case the information on illegal mining and/or transportation of coal provided by such informers is found to be true. Confidentiality of the persons furnishing the information, shall at all cost be maintained so that such informer is not threatened by anyone who are interested in continuing coal mining activities. (para 5.3.7 (iii)).

13. The State of Meghalaya with the assistance of North Eastern Space Applications Centre (NESAC), Department of Space, Government of India, shall within a period of three months put in place a Coal Mine Surveillance System (CMSS) in the State of Meghalaya and also develop a Standard Operating Procedure (SoP) providing for effective follow up action, in case any illegal mining or dumping of coal is detected by the MSS. The CMSS to be developed may be similar to one which has already been developed by the Ministry of Mines and Indian Bureau of Mines (IBM) with assistance from the Bhaskaracharya Institute for Space Application and Geo-Informatics (BISAG), Gandhinagar and Ministry of Electronics and Information Technology (MEITY). {para 5.3.7 (iv)}.

14. The coal which has either been recovered by the State in exercise of powers conferred under sub-section (5) of Section 21 of the MMDR Act or has been confiscated in favour of the State of Meghalaya by an order of a Court of Law and the coal which has been seized by the Officers Authorised by the State Government in this behalf disposal of which has been permitted by the concerned Competent Court of Law, shall be disposed of only through e-auction conducted by the Coal India Limited {para 5.3.7 (v)}.

15. The State of Meghalaya shall expedite drilling of requisite number of bore-holes in 1 sq. km. area in Khliehriat-Sutnga

area in East Jaintia Hills District and complete preparation of Geological Report and Feasibility Report for scientific coal mining in the said area within two months. {para 5.4.2.2 (i)}.

16. The State of Meghalaya is allowed to use an amount of Rs. 4,15,000 (rupees four lakh fifteen thousand) only plus GST at the applicable rates for execution of a Pilot Project on treatment of acidic water at a Water Supply Scheme (WSS) under the Public Health Engineering (PHE) Department at Lelad village in East Jaintia Hills District by using micro-algae consortia as an alternative to lime solution by M/s. Trinity Impex International & Phycospectrum Environmental Research Centre. {para 5.5.6.6 (i)}.

17. The State of Meghalaya and the CPCB are allowed to utilize an amount of Rs.40,36,500/- from the MEPR Fund to implement a pilot project for afforestation and reclamation of coal mining affected land and organization of a festival-cum-mass awareness programme submitted by the Principal Chief Conservator of Forest (Climate Change Research and Training), Govt. of Meghalaya and North Eastern Regional Directorate of the CPCB. (para 5.5.8.2 (i)).

18. The State of Meghalaya shall within one month formulate draft guidelines, strictly in conformity with the broad parameters suggested by the Justice Katakey Committee in its fourteenth Sitting held on 03.06.2019, for utilization of amounts available in the MEPR Fund in an expeditious and transparent manner and submit the same to the Committee. The Committee shall examine the draft guidelines and place the same along with its comments thereon before this Tribunal within one month of receipt of the guidelines. (para 5.5.9.8 (i)).

19. The amount available in the MFPR Fund including an amount of Rs. 100 Crores transferred to the CPCB in compliance of direction issued by the Hon'ble Supreme Court in paragraph 179 of Judgment dated 03.07.2019 in the Civil Appeal No. 10720 of 2018 in the matter of State of Meghalaya versus All Dimasa Student Union, Dima-Hasao District Committee and Ors. and other connected matters and the interest accrued thereon shall be used exclusively for implementation of Action Plan prepared by the Committee for restoration of environment in areas affected by coal mining in the State of Meghalaya. The Committee based on inputs received from various stakeholders or on its own motion may periodically review, revise and update the Action Plan. (para 5.5.9.8 (ii)).

20. Even after expiry of the term of his engagement as a Chair Professor at Indian School of Mines (IIT-ISM), Dhanbad, Professor (Retd.) A.K. Singh shall continue to be a member of the Committee as a representative of the Director, IIT-ISM, Dhanbad. (para 5.7.1.3 (i)).

21. Video recording of all the coal depots where the coal to be handed over to the Coal India Limited is presently lying, to

*be recorded by joint teams consisting of a representative from the Mining and Geology Department, Meghalaya State Pollution Control Board and the Coal India Limited, in the manner as directed by the Committee in its First Special Sitting held at Shillong on 12.07.2019 and use of high resolution satellite imageries for different time-intervals since the imposition of ban on coal mining by the Hon'ble NGT to ascertain continuous existence of all such coal dumps since imposition of ban on coal mining by this Hon'ble Tribunal in April 2014, shall be essential components of the Policy being formulated by the State of Meghalaya for handing over of the coal to the Coal India Limited for disposal through e-auction. (para 5.7.4.7 (i)).*

*The Committee in this report dated 31.08.2019 has highlighted the various orders passed by the Hon'ble NGT, gist of various earlier reports submitted by it, the directions issued by the Hon'ble NGT on the said reports, relevant order passed by the Hon'ble Supreme Court and the issues examined by the Committee after submission of the second interim report, together with summary of recommendations for consideration of the Hon'ble NGT, as the Committee has completed one year from the date of its constitution by the Hon'ble NGT vide its order dated 31.08.2018.”*

#### **5<sup>th</sup> Interim Report dated 02.12.2019**

17. The 5<sup>th</sup> Interim Report mere the back ground of earlier proceedings, sums up the minutes of the meetings and analysis the information given by the industries and regulatory authorities at length and thereafter records findings and recommendations. The report has been uploaded on the website of the National Green Tribunal. The questions considered in the said report in para 2.2.6 are:-

1. Whether the specific coal requirement of afore-mentioned Cement Manufacturing Plants and a Thermal Power Plant of the Star Cement Limited and its subsidiaries is substantially lower than specific coal requirement stated in the respective TEFRs?

2. What is the actual specific coal requirement for the aforementioned Cement Manufacturing Plants and a Thermal Power Plant of the Star Cement Limited?
3. Whether it is technically feasible to use huge quantity of slate in lieu of coal without making any modification in design of these Plants?
4. Whether the afore-mentioned Plants of Star Cement Limited and its subsidiaries have actually used huge quantity of alternate fuel (*i.e.* Slate) in lieu of coal?
5. Whether slate, if used, has been used after obtaining all requisite regulatory approvals?

18. After analyzing the entire data the findings recorded are:-

**“CHAPTER 3: FINDINGS AND RECOMMENDATIONS**

**3.1 FINDINGS**

*3.1.1 Except for the clinker manufacturing plant of the Mawmluh Cherra Cement Limited (A State PSU) and Captive Power Plants of the Maithan Alloy Limited and the CMJ Breweries Private Limited, there is a huge gap in quantity of coal required to produce reported quantity of clinker and/or power and the coal reported to be purchased from legal sources during the Audit Period by all other Cement Manufacturing Plants and Thermal Power plants in the State of Meghalaya for which resource (coal) audit could be completed by the Committee. Year-wise quantities of the coal required to produce reported quantities of clinker and/or power, the coal actually purchased from legal sources and the gap between the two for each of these Plants are as below:*

(metric tonnes)

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	
Star Cement Limited and its two subsidiaries	Coal required *	4,24,636	4,73,806	4,93,365	4,70,145	4,50,096	<b>23,12,048</b>
	Coal procured **	97,047	2,64,674	61,830	1,29,020	1,13,201	<b>6,65,772</b>
	Gap	3,27,589	2,09,132	4,31,535	3,41,125	3,36,895	<b>16,46,276</b>
Amrit Cement Limited and its captive TPP	Coal required *	84,323	1,06,548	1,05,745	1,00,155	1,46,919	<b>5,43,690</b>
	Coal procured **	3,861	88,165	38,785	74,978	31,833	<b>2,37,622</b>
	Gap	80,462	18,383	66,960	25,177	1,15,086	<b>3,06,068</b>
Dalmia Cement (Bharat) Limited and its Captive TPP	Coal required*	2,00,028	2,01,797	1,94,234	2,22,215	2,56,324	<b>10,74,598</b>
	Coal procured **	17,433	98,296	56,208	1,07,092	54,478	<b>3,33,507</b>
	Gap	1,82,595	1,03,501	1,38,026	1,15,123	2,01,846	<b>7,41,091</b>
Goldstone Cement Limited and its Captive TPP	Coal required*	0	0	39,652	1,15,104	1,47,919	<b>3,02,675</b>
	Coal procured **	0	0	5,918	21,295	4,946	<b>32,159</b>
	Gap	0	0	33,734	93,809	1,42,973	<b>2,70,516</b>
Green Valley Industries Limited	Coal required *	58,205	55,262	57,505	64,673	65,398	<b>3,01,043</b>
	Coal procured **	44,844	50,555	46,762	51,068	30,278	<b>2,23,507</b>
	Gap	13,361	4,707	10,743	13,605	35,120	<b>77,536</b>
Hill Cement Company Limited	Coal required *	18,397	32,158	38,548	30,600	35,085	<b>1,54,788</b>
	Coal procured **	0	11,989	9,797	2,248	13,347	<b>37,381</b>
	Gap	18,397	20,169	28,751	28,352	21,738	<b>1,17,407</b>
JUD Cements Limited	Coal required *	29,761	38,604	23,994	28,249	20,576	<b>1,41,184</b>
	Coal procured **	0	16,348	2,099	377	370	<b>19,194</b>
	Gap	29,761	22,256	21,895	27,872	20,206	<b>1,21,990</b>

<i>Meghalaya Cements Limited and its Captive TPP</i>	<i>Coal required *</i>	1,43,334	1,72,873	1,53,873	1,84,291	1,85,140	<b>8,39,511</b>
	<i>Coal procured **</i>	96,533	44,686	45,968	54,012	53,987	<b>2,95,186</b>
	<i>Gap</i>	46,801	1,28,187	1,07,905	1,30,279	1,31,153	<b>5,44,325</b>
<i>Captive TPP of Shyam Century</i>	<i>Coal required *</i>	54,499	46,959	88,743	58,563	29,497	<b>2,78,261</b>
	<i>Coal procured **</i>	43,576	32,461	72,086	13,704	4,960	<b>1,66,787</b>
	<i>Gap</i>	10,923	14,498	16,657	44,859	24,537	<b>1,11,474</b>
<i>Ferrous Limited</i>	<i>Coal required *</i>	10,13,183	11,28,007	11,95,659	12,73,995	13,36,954	<b>59,47,798</b>
	<i>Coal procured **</i>	3,03,294	6,07,174	3,39,453	4,53,794	3,07,400	<b>20,11,115</b>
	<i>Gap</i>	7,09,889	5,20,833	8,56,206	8,20,201	10,29,554	<b>39,36,683</b>

\*: *Coal required to produce reported quantities of clinker and/or power*

\*\*: *Coal reported to be procured from legal sources.*

3.1.2 *The Committee is of the view that the entire gap of 39.37 lakh MT between the quantity of the coal required to produce reported quantity of the clinker and the electrical power and the coal purchased from legal sources by these Plants during the Audit Period constituting about two-third of the coal requirement of these plants during the Audit Period has been met from the illegally mined local coal. Demand for a huge quantity of illegally mined coal from these plants has sustained and supported a wide scale illegal rat-hole coal mining in the State of Meghalaya in flagrant violation of a ban imposed by the Hon'ble NGT.*

3.1.3 *Continuance of illegal rat-hole coal mining in the State of Meghalaya to meet the huge requirement of coal for these Cement Manufacturing Plants and the Thermal Power Plants have caused huge damage to flora, fauna, rivers, streams, water bodies and the environment in general in the State of Meghalaya. It has also made the ban imposed by the Hon'ble NGT on illegal rat-hole coal mining virtually inoperative.*

**3.1.4** *No royalty, taxes and any other statutory levies has been paid to the State of Meghalaya on the illegally mined coal utilised by these Cement Manufacturing Plants and Thermal Power Plants during the*

*Audit Period resulting in a huge loss to the State exchequer. In fact ban on the illegal rat-hole coal mining in the State of Meghalaya came as a boon to these Cement Manufacturing Plants and Thermal Power Plants in the State of Meghalaya as it virtually exempted them from the requirement of payment of royalty, taxes and other statutory levies payable on more than two-third of the coal consumed by them. The amounts of royalty (@ Rs. 675 per MT), contribution to Meghalaya Environment Protection and Restoration Fund (MEPR Fund) at the rate of Rs. 485 per MT and GST/VAT @ 5 % of the sale value of approx. Rs. 8,000 per MT amounting to Rs 400 per MT) payable on the illegally mined coal utilised by each of these Cement Manufacturing Plants and Thermal Power Plants during the Audit Period are as below:*

<b>S. No.</b>	<b>Plant</b>	<b>Qt. of illegal coal used (MT)</b>	<b>Royalty</b>	<b>MEPRF</b>	<b>GST/VAT</b>	<b>Total</b>
1.	2.	3.	4.	5.	6.	7
1.	Star Cement Limited and its two subsidiaries	16,46,276	111.124	79.844	65.851	<b>256.819</b>
2.	Amrit Cement	3,06,068	20.660	14.844	12.243	<b>47.747</b>
3.	Dalmia Bharat Cement Ltd	7,41,092	50.024	35.943	29.644	<b>115.610</b>
4.	Goldstone Cement Ltd.	2,70,516	18.260	13.120	10.821	<b>42.200</b>
5.	Green Valley Industries Ltd.	77,536	5.234	3.760	3.101	<b>12.096</b>
6.	Hill Cement Ltd.	1,17,407	7.925	5.694	4.696	<b>18.315</b>
7.	JUD Cement Ltd.	1,21,990	8.234	5.917	4.880	<b>19.030</b>
8.	Meghalaya Cement Ltd.	5,44,325	36.742	26.400	21.773	<b>84.915</b>
9.	Shyam Century Ferrous Ltd.	1,11,474	7.524	5.406	4.459	<b>17.390</b>
	<b>Total</b>	<b>39,36,684</b>	<b>265.726</b>	<b>190.929</b>	<b>157.467</b>	<b>614.123</b>

3.1.5 The royalty and VAT/GST amounting to Rs. 423.194 Crore payable on illegally mined coal utilised by the Cement Manufacturing Plants and Thermal Power Plants, if realised and properly utilised, can significantly enhance living standard of the tribal residents, especially those residing in the areas affected by such illegal coal mining, of the State. Similarly, an amount of Rs. 190.929 Crore payable to MEPR Fund for the said illegally mined coal utilised by these Plants, if properly utilised, may greatly help in restoration of flora, fauna, rivers, streams, water bodies and the environment in general damaged by illegal rat-hole coal mining in the State of Meghalaya.

3.1.6 Claim of these Cement Manufacturing Plants and Thermal Power Plants that about two-third of their coal requirement have been met by a non-fuel mineral (i.e. slate) without making any change in the design of these plants is not tenable. The Committee, based on a detailed analysis given in para 2.2.26 to 2.2.52, is of the view that it is neither technically feasible nor legally permissible for these plants to replace more than two-third of their coal requirement by a non-fuel mineral such as slate.

3.1.7 These Plants have purchased illegally mined local coal in the name of slate to circumvent the ban imposed by the Hon'ble NGT on illegal rat-hole coal mining in the State of Meghalaya and also to evade payment of royalty, GST/VAT and other statutory levies and contribution to MEPR Fund on the coal utilised by them.

3.1.8 Even for the sake of an argument it is assumed that the claim of these plants that more than two-third of their coal requirement during the Audit Period has been met by a non-fuel mineral (viz. slate) without making any change/modification in the design of these plants is true, it would have caused equal, if not more, damage to the flora, fauna, rivers, streams, water bodies and the environment in general in the State of Meghalaya as all such slate has admittedly been mined in an unscientific and haphazard manner without any mitigative measures and without obtaining mandatory mining lease, consent to establish, consent to operate, environmental clearance and authorisation/no-objection certificate from the State Pollution Control Board in a flagrant violation of the existing mining, environmental, pollution control and labour safety laws.

3.1.9 Transportation and use of a huge quantity of illegally mined coal by these plants could not have escaped notice of regulatory authorities, both in the State of Meghalaya and the Union of India. It could not have escaped notice to the District and police administration. Instead of taking actions to prevent use of illegally mined coal by these plants and to initiate appropriate proceedings under relevant provisions of the Mines

and Minerals (Development and Regulation) Act, 1957; the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986 against these Plants for use of illegally mined local coal, the regulatory authorities have tried to regularise/justify the use of illegally mined coal by accepting royalty on slate claimed to be used by these plants and by supporting the claim of these Plants that it is technically and legally feasible to replace two-third of the coal requirement of these plants by a non-fuel mineral such as slate and the slate can be used by these plants as a waste without obtaining any clearance under the Mines and Minerals (Development and Regulation) Act, 1957; the Water (Prevention and Control of Pollution) Act, 1974; the Air (Prevention and Control of Pollution) Act, 1981; the Environment (Protection) Act, 1986 and the rules, regulations & guidelines framed thereunder.

3.1.10 As per information provided to the Committee by the Mining and Geology Department in the State of Meghalaya, none of these plants participated in a public auction conducted by the State of Meghalaya to sell more than 38,000 MT of seized coal available at locations in close vicinity of majority of these plants. The Committee therefore is of the view that a major part of the coal requirement of these plants is still being met from illegally mined local coal.

### **3.2 RECOMMENDATIONS**

3.2.1 To put a stop to the illegal rat-hole mining of the coal being undertaken in the State of Meghalaya in flagrant violation of the mining, environmental and labour safety laws as well as the orders issued by the Hon'ble Supreme Court and the Hon'ble NGT to meet the requirement of the coal for the Cement Manufacturing Plants and Thermal Power Plants in the State of Meghalaya and also to restore damage caused the flora, fauna, rivers, streams, water bodies and environment in general by illegal rat-hole coal mining, the Committee recommends that the Hon'ble NGT may consider to issue the following directions:-

1. The Chief Secretary of the State of Meghalaya shall undertake monthly review the quantity of clinker and/or power produced by each Cement Manufacturing Plants and Thermal Power Plant in the State of Meghalaya and the quantity of coal purchased by each such plant from legal sources to produce such reported quantities of clinker and/or power. Such review for a month shall be undertaken on or before tenth day of the next month. A quarterly report stating therein the month-wise quantities of clinker and/or power produced, quantity of coal consumed to produce such quantities of clinker and/or power by each such plant and action(s), if any, taken against any such plant in case of any

*anomaly observed during the review shall be submitted to this Tribunal by the Chief Secretary, Meghalaya. Such report for a quarter shall be submitted to this Tribunal on or before fifteenth day of the next quarter.*

*2. The State of Meghalaya; the Ministry of Environment, Forest and Climate Change, Government of India and the Meghalaya State Pollution Control Board shall initiate proceedings in accordance with the provisions of the Mines and Minerals (Development and Regulation) Act, 1957; the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986 and the rules, regulations & guidelines framed thereunder against each of the Cement Manufacturing Plants and the Thermal Power Plants who has used illegally mined local coal after a ban on the rat-hole coal mining in the State of Meghalaya was imposed by this Tribunal in the month of April, 2014.*

*3. The State of Meghalaya shall realise royalty, GST/VAT, contribution to the MEPR Fund and any other statutory tax and/levy payable on the illegally mined coal utilised by these Cement Manufacturing Plants and the Thermal Power Plants in the State of Meghalaya after the ban on illegal rat-hole mining in the State of Meghalaya was imposed by this Tribunal in April 2014.*

*4. To restore the damage caused to the flora, fauna, rivers, streams, water bodies and the environment in general by illegal rat-hole mining of coal and also to mitigate the suffering caused to the local tribal residents by the illegal rat-hole coal mining, the State of Meghalaya shall realise from each of the aforementioned Cement Manufacturing Plants and Thermal Power Plants who have used illegally mined local coal after a ban on illegal rat-hole coal mining was imposed by this Tribunal in the month of April 2014, an amount of Rs. 400 per tonne of coal to be utilised by each such plants on or after the date of this order and deposit the same in the MEPR Fund. Such amount for coal utilised during a month shall be realised on or before fifteenth day of the next month. Not less than fifty percent of these amounts shall be utilised for restoration of damage*

caused to the flora, fauna, rivers, streams, water bodies and the environment in general by illegal rat-hole mining of the coal in the State of Meghalaya. The balance amounts shall be utilised for socio-economic development of the tribal residents in areas affected by the coal mining in the State of Meghalaya. It is clarified that the aforementioned amount of Rs. 400 per MT of coal shall be in addition the contribution to MEPRF at the rate of Rs. 485 per MT of coal already being realised by the State in compliance of earlier orders of this Tribunal. The Chief Secretary, Meghalaya shall formulate draft guidelines for utilisation of these amounts and place the same before the Committee constituted by this Tribunal under Chairmanship of Mr. Justice B.P. Katakey, former Judge, Guwahati High Court. The Committee shall within one month from the date of receipt, examine the draft guidelines and place the same along with the comments/observation before this Tribunal for approval.

5. The North Eastern Regional Directorate of the CPCB shall complete audit of coke claimed to be utilised by the Jaintia Cement Limited and the Virgo Cement Limited and submit a report to the Committee constituted by this Tribunal under Chairmanship of the Mr. Justice B.P. Katakey, former Judge, Guwahati High Court. The North Eastern Regional Directorate of the CPCB shall also submit the report sought by the said Committee in respect of the Captive Thermal Power Plant of Shree Shakambari Ferro Alloys Pvt. Ltd.”

**6<sup>th</sup> Interim Report dated 3.12.2019**

19. The 6<sup>th</sup> Interim Report deal with the objections raised by the State of Meghalaya before the Committee on the ground that the same is in violation of directions of the Hon'ble Supreme Court. After elaborate discussion of each and every objections raised by the State. The Committee summarized its recommendations as follows:-

**“CHAPTER- 6: SUMMARY OF RECOMMENDATIONS**

6.1 *The Committee recommends that the Hon'ble NGT may consider to pass the following directions:*

1. *The State of Meghalaya shall, immediately, provide to the North Eastern Space Application Centre (NESAC), Department of Space, Government of India, Umiam, the location (latitude and longitude) and other details of each dump where coal to be auctioned is located. The NEASC, shall within one week from the date of receipt of these details prepare a geo-referenced map depicting the location of each of these dumps and provide a copy of the same to the Secretary to the Government of Meghalaya, Mining and Geology Department and the Coal India limited for placing a copy thereof along with a list containing name and address of the owner and quantity of coal available at each such dump on their respective websites. (Para 2.20 WI*

2. *The Secretary to the Government of Meghalaya, Mining and Geology Department shall, immediately, place on website of the Department a copy of the additional affidavit containing details of 32,56,715 MT coal stated to be available at various depots filed before the Hon'ble Supreme Court on 10.04.2019 by the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department . (Para 2.20 (ii))*

3. *The North Eastern Space Application Centre (NESAC), Department of Space, Government of India, Umiam shall undertake land-use land-cover analysis of areas where coal to be handed over to the Coal India Limited is located by using high resolution satellite imageries for the following period:*

(a) *Immediately before the illegal rat-hole mining of coal was banned by this Tribunal by an order dated 17.04.2014; (Para 2.20 (iii) (a))*

(b) *Immediately before the additional affidavit dated 10.04.2019 containing details of 32,56,715 MT coal stated to be available at various depot was filed before the Hon'ble Supreme Court by the Commissioner and*

*Secretary to the Government of Meghalaya, Mining and Geology Department; and (Para 2.20 (iii) (b)).*

*(c) Once in the year 2015, 2016, 2017 and 2018, preferable in the month of April. (Para 2.20 (iii) (c))*

*4. Based on the said land-use land-cover analysis, the NESAC shall divide the coal available at each of the depot where the 32,56,715 MT coal is stated to be available into three categories namely:*

*(a) The coal continuously existing at the depot since the ban on the illegal rat-hole mining was imposed by this Tribunal on 17.04.2014; (Para 2.20 (iv) (a))*

*(b) The coal dumped at the depot after the filing of additional affidavit before the lion'ble Supreme Court on 10.04.2019; and (Para 2.20 (iv) (b))*

*(c) The coal dumped at the depot on any day between 17.04.2014 and 10.04.2019. (Para 2.20 (iv) (c)).*

*5. The finalisation of the mode and manner for handing over of the coal to the Coal India Limited and the disposal of the coal by the Coal India Limited through e-auction shall not wait completion of the afore-mentioned study by the NESAC. The amount realised from sale of such coal will however not be disbursed to the respective owner till the said study in respect of such coal is completed by the NESAC. (Para 2.20 (v))*

*6. The amount realised from auction of the coal shall be disbursed in the following manner:*

*(a) The State of Meghalaya shall exercise the powers vested on it under subsection (5) of section 21 of the Mines and Mineral (Development and Regulation) Act, 1957 and recover the amounts realised from the auction of the coal which was dumped at the depot after 10.04.2019 and transfer all such amounts along with taxes/royalty/levies realized thereon to the Consolidated Fund of the State of Meghalaya. Contribution to the MEPR Fund realised for such coal shall be transferred to the MEPR Fund. (Para 2.20 (vi) (a))*

*(b) Amounts realised from the sale of the coal which is continuously available in at the Depot shall be transferred to the respective owner. Taxes/royalty/levies realised on such coal shall be transferred to the Consolidated Fund of the*

*State of Meghalaya. Contribution to the MEPR Fund realised for such coal shall be transferred to the MEPR Fund. (Para 2.20 (vi) (b))*

*(c) Details of all such coal which was dumped at a depot between 17.04.2014 and 10.04.2019 shall be placed before the Hon'ble Supreme Court. Disbursal of amounts realised from the sale/auction of such coal shall be done in the manner the Hon'ble Supreme Court may stipulate. (Para 2.20 (vi) (c))*

*7. The State of Meghalaya and the Coal India Limited shall provide all the information and documents sought by the Katakey Committee for finalization of mode and manner of handing over of the coal available at various Depots to the Coal India Limited. The Committee shall finalize the mode and manner for handing over of the coal available at various depots to the Coal India Limited strictly in conformity with the directions issued by the Hon'ble Supreme Court. The State of Meghalaya and the Coal India Limited shall abide by the mode and manners finalised by the said Committee. (Para 2.20 (vii)).*

*8. To resolve disputes involving adulteration of coal quality in a lot between the day it is notified for auction and the day on which entire coal available in such lot is lifted by the successful bidder the collection and maintenance of reference samples by the Coal India Limited in the manner and for a period provided for collection and maintenance of such samples in the normal process of disposal of coal through e-auction by the Coal India Limited shall be an integral component of the mode and manners for handing over of the coal to the Coal India Limited. (Para 2.20 (viii)).*

*9. The mode and manner for handing over of the coal to the Coal India Limited shall contain time-lines for each step involved in handing over of the assessed coal to the CIL and its subsequent auction by the CIL. (Para 2.20 (ix))*

*10. Nature of records to be maintained and the authorities responsible to maintain each such record shall be specified in the mode and manner for handing over of the coal to the Coal India Limited. (Para 2.20 (x)).*

11. Number of officers of different ranks to be deployed by the Coal India Limited to plan, execute and monitor disposal of the coal through e-auction shall be specified in the mode and manner to be finalised by the Katakey Committee. (Para 2.20 (xi))

12. Reserve Price of the coal to be auctioned shall be fixed by the Coal India Limited as per its existing rules and policies for disposal of the coal through e-auction. (Para 2.20 (xii))

13. The Coal India Limited, the State of Meghalaya, the owner of the coal and their officers/employees shall be responsible for their respective acts of omission and commission in any dispute which may arise relating to quality and quantity of the coal stated to be available at various depots. (Para 2.20 (xiii)).

14. The mode of manner for handing over of the coal to the Coal India Limited shall provide for a legally tenable and practically feasible dispute resolution framework. (Para 2.20 (xiv)).

15. The State of Meghalaya shall install and make fully functional, within a month, a system involving establishment of a centralised server, uploading of transport permit/challans and tracking of coal loaded trucks through GPS and RFID tags as stipulated in the said Appendix-X[1 to the EIA Notification, 2016 to prevent and detect multiple use of transport permit/challans. Transportation of the coal in the State of Meghalaya shall not be permitted till the said system is made fully operational. (Para 2.20 (xv)).

16. The State of Meghalaya and the Meghalaya State Pollution Control Board shall initiate necessary actions to file compliant under relevant sections of the Mines and Mineral (Development and Regulation) Act, 1957, the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, and the Environment (Protection) Act, 1986 against the persons responsible for raising of transportation of all such coal which was dumped at any such depot on or after 10.04.2019. (Para 2.20 (xxvi)).

17. An agency not under superintendence and control of the State of Meghalaya shall enquire into the matter of export of illegally mined coal to Bangladesh, in the guise of coal permitted to be transported by various orders passed by the Hon'ble NGT and the Hon'ble Supreme from time-to-time, identify the person(s) responsible for such export and file complaint before the concerned competent Courts of Law under relevant provisions of the Law against all such persons. (Para 3.20 (i))

18. The State of Meghalaya shall place before this Tribunal the periodical details (viz. name & full address) of the exporter for each consignment of coal originating from the Meghalaya which was allowed by the Mining and Geology Department in the Government of Meghalaya for export to the Bangladesh from each of the seven LCS in Meghalaya since the ban on rat hole coal mining in Meghalaya was imposed by the Hon'ble NGT in April, 2014. (Para 3.20 (ii))

19. The State of Meghalaya shall initiate necessary actions in accordance with provisions of Section 21 of the Mines and Minerals (Development and Regulation) Act, 1957 against the persons responsible for export of the illegally raised coal to the Bangladesh from each of the seven LCSs in the State of Meghalaya in the guise of the coal permitted to be transported by the Hon'ble NGT and the Hon'ble Supreme Court by order passed from time-to-time. The actions to be initiated against such persons shall include actions under sub-section (5) of Section 21 of the said Act to recover price of such illegally raised coal along with rent, royalty or tax, as the case may be, payable to the Government in respect of such coal. (Para 3.20 (iii))

20. In case the coal reported to be available at several location between the DMR Checkgate/weighbridge and the Custom exit point at Gasuapara and such other Custom exit points in the State of Meghalaya is not a part of the 32,56,715 MT assessed coal to be handed over to the Coal India Limited for disposal through e-auction the Mining and Geology Department in the State of Meghalaya initiate necessary actions in accordance with provisions of Section

*21 of the Mines and Minerals (Development and Regulation) Act, 1957 against the persons responsible for raising and transportation of such coal and submit a report to this Tribunal. Such action shall include actions under sub-section (5) of section 21 of the said Act to recover all such illegally raised coal. (Para 3.20 (iv)).*

*21. The State of Meghalaya shall within three months, establish integrated check post and temper-proof weigh-in-motion weighbridge at each of the seven LCSs in the State of Meghalaya. Each such integrated check-post and weigh-in-motion weighbridge shall jointly be manned by the representative, one each from the Mining and Geology Department and the Forests & Environment Department in the State of Meghalaya and the Border Security Force (BSF) and the Customs Department in the Union of India. Each such integrated check-post and weigh-in-motion weighbridge shall be provided with an adequate number of CCTV cameras to ensure video recording of the registration number and the consignment loaded in each truck passing through such integrated check-post and the weighbridge. The network of CCTV cameras to be installed at the weighbridge shall also ensure video recording of the display panel indicating weight of each truck passing through such weighbridge. The footage of each CCTV camera installed at each integrated check-post and the weighbridge shall be retained for a minimum period of one year. (Para 3.21 (i))*

*22. Vigilance wing in the Customs and the BSF in the Union of India and the Home (Police) Department in the State of Meghalaya shall undertake regular inspection of the integrated check-posts and weigh-in-motion weighbridge and submit a quarterly report on such inspections to the Chief Secretary, Meghalaya and their respective Departmental Heads. (Para 3.21 (ii)).*

*23. The Director General of Police, Meghalaya shall ensure that all the person and vehicles, equipment, tools and machineries involved in raising and transportation of about 80,000 MT seized by the Meghalaya Police are identified and necessary*

*action as per the provisions of the Mines and Minerals (Development and Regulation) Act, 1957 and all other relevant Statutes and the rules framed thereunder are taken against all such persons and vehicles, equipment, tools and machineries. The similar actions shall also be taken for the coal, if any, to be seized in future. A monthly report on all the cases where the persons and vehicles, equipment, tools and machineries involved in raising and transportation of the seized coal could not be identified shall be submitted. (Para 4.19. (i))*

24. *The Director General of Police shall provide to the Meghalaya State Pollution Control Board details of persons involved in illegal mining and transportation of the coal. The Meghalaya State Pollution Control Board shall file complaint before the concerned competent Court of Law under relevant sections of the Water (Prevention and Control of Pollution) Act, 1974; the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the rules, guidelines and notifications issued thereunder against such persons. (Para 4.19 (ii)).*

25. *The State of Meghalaya shall formulate a comprehensive policy for auction of the seized coal and place a copy of the same before this Tribunal within a month. The policy shall provide, among others, establishment of a centralised depot in each coal mining affected district for safe and scientific storage of the seized coal and disposal of the seized coal in a fair and transparent manner after giving wide publicity. The Policy shall specifically provide that no coal shall be disposed of without giving a prior notice of atleast thirty (30) days. The copy of each such notice shall be published in atleast two prominent dailies having wide circulation. (Para 4.19 (iii)).*

26. *The State of Meghalaya shall, within a month, formulate a simple procedure for verification of the claims for receipt of ex-gratia from the labourers who received injuries while working in illegal rat-hole coal mines in the State of the Meghalaya and also from the next-of kin of laborers who were killed while working in such mines. Such*

*procedure may contain adequate safeguards to detect, deter and reject false claims. (Para 5.4 (1)).*

*27. State of Meghalaya shall disburse an amount of rupees five lakh to next of kin of each of the labourers who were killed while working in any illegal rat-hole coal mining in the State of Meghalaya including the labourers which were killed in a tragic accident in an illegal rat-hole mine in Ksan village in East Jaintia Hill district in December 2018. {Para 5.4 (ii)}.*

*28. State of Meghalaya shall disburse an amount of rupees five lakh to next of kin of each of the labourers who were killed and rupees two lakh to each of the labourers who received serious injuries while working in any illegal rat-hole coal mining in the State of Meghalaya including the labourers which were killed or received serious injuries in a tragic accident in an illegal rat-hole mine in Ksan village in East Jaintia Hill district in December 2018 and in South Garo Hills District in the year 2012.*

*29. State of Meghalaya, Meghalaya State Pollution Control Board and Central Pollution Control Board, shall implement the Action Plan prepared by the Committee, with modification wherever required and submit periodical report.*

*Before parting with the report, the Committee expresses its sincere gratitude to the Hon'ble National Green Tribunal in giving the opportunity to work on the subject.”*

### **Consideration of objections to the Report**

20. We have perused objections to the reports of the Committee dated 31.08.2019, 02.12.2019 and 03.12.2019 filed by the State of Meghalaya. During the hearing, we confronted learned senior counsel for the State of Meghalaya with the fact that since work of the Committee has been commended by the

Hon'ble Supreme Court as well as by this Tribunal earlier, the nature of objections are not appreciable. Learned senior counsel fairly stated that he will not press the objections. In the response to the report, he merely handed over a note to submit that some of the recommendations were not feasible. We quote the relevant part of the note to consider the said objections:-

S. N.	Recommendation	Not feasible	Reasons for being non-feasible
1	i. The State of Meghalaya shall provide NESAC the Longitudes & Latitudes of each dump where coal is to be auctioned. ii. NESAC to prepare geo-reference mapping for location of each dump and give it to State and CIL. iii. State and CIL will put it on their website.	√	<ul style="list-style-type: none"> <li>• Duplication of exercise of identification of sale-points.</li> <li>• Geo-referencing details already there in affidavit filed by State which has been provided to CIL and the same will be put up on website.</li> <li>• In terms of para 48 and 187-192 of the judgment of Supreme Court this exercise is not required.</li> </ul>
2	NESAC to conduct annual land-use land cover analysis to determine continuous existence of coal on the sale point.	√	<ul style="list-style-type: none"> <li>• Unnecessary exercise.</li> <li>• Supreme Court observed in Para 189 that All this 32,56,715 coal is illegally mined.</li> <li>• Yet directed its disposal thorough CIL and disbursal of funds to owners in paras 192-192.</li> </ul>
3.	NESAC shall then divide each sale-point into 3 categories, viz. (i) Coal continuously existing (ii) Dumped after 17.04.2014 (iii) Dumped after filing of affidavit		Same as in respect of 2 above
4.	Money realized from auction of coal shall not be disbursed till NESAC study is completed		Same as in respect of 2 above
5.	Amount realized shall be disbursed in following manner: (i) For Coal existing prior to 17.04.14-immediately. (ii) For coal dumped between 17.4.14 and filing of affidavit to be placed before SC for further direction. (iii) For coal dumped thereafter – All money to be transferred to State funds.	√	<ul style="list-style-type: none"> <li>• Contrary to Supreme Court judgment. Even after observing in Para 189 that <b>ALL</b> this 32,56,715 Coal is illegally mined, SC directed its disposal thorough CIL and disbursal of funds to owners in Para 192.</li> <li>• In para 186 the Supreme Court has affirmed ownership of private miners on all this 32,56,715 MT Coal and held that their proprietary rights are not extinguished.</li> </ul>
6.	Collection and maintenance of samples from each lot for purpose of future dispute resolution.	√	<ul style="list-style-type: none"> <li>• There are more than 20,000 sale points.</li> <li>• Further, the auction is on 'As is where is' basis and <u>prospective bidders are being given 14 days' time to physically verify the</u></li> </ul>

			<p><u>quantity and quality of coal lying at the dump.</u></p> <ul style="list-style-type: none"> <li>• <u>Owners are also mandated to submit NABL accredited lab certificate as to grade and sulfur content of Coal before their dump is notified for auction</u> and the same shall be part of auction notice.</li> </ul>
7.	Reserve Price of Coal to be auctioned shall be fixed by CIL as per their existing policy.	√	<ul style="list-style-type: none"> <li>• CIL has refused to do so in meeting dated 14.10.2019 and again on 02.12.2019 on the ground that it is not practically possible or technically and financially feasible for CIL to physically verify the quality of each lot of Coal located at 20,000 sale points for fixation of reserve price which is also dependent upon the cost of transportation of the same.</li> <li>• CIL submitted that it has no experience of coal mining in conditions like Meghalaya and has no experience of lifting and transportation of coal in such terrain where most of the stocks can be assed only through smaller four-wheel trucks and the hilly roads also cannot bear the load of huge quantity of coal being transported simultaneously.</li> <li>• These factors substantially affect the reserve price fixation of Coal.</li> <li>• The State of Meghalaya is having more experience of the coal mining and coal trading practices in the State of Meghalaya and having such domain knowledge of marketability of such Coal, is better suited to fixe reserve price.</li> </ul>
8.	CIL / State of Meghalaya/ owner/employee/ officer shall be liable for disputes relating to quality and quantity	√	<ul style="list-style-type: none"> <li>• The question of providing a Dispute Resolution Process in the plan does not arise because Auction is on 'as is where is' basis and Prospective bidders are allowed to inspect the lot before bidding. Hence, no liability of CIL and State of Meghalaya thereafter.</li> <li>• However, in case of a dispute between the seller and the buyer the remedy under ordinary law of the land is always available to them.</li> </ul>
9.	To provide legally tenable and practically feasible Dispute Resolution Mechanism	√	<ul style="list-style-type: none"> <li>• Same as in respect of 8 above.</li> </ul>
10.	Enquiry by an outside Agency into compliants of alleged export of illegally mined coal to Bangladesh and prosecution of persons involved in such alleged illegality	√	<ul style="list-style-type: none"> <li>• It will be an encroachment on executive powers of the State.</li> <li>• As submitted before the Committee, enquiry has already been initiated by the State and appropriate action in accordance with law shall be taken.</li> </ul>
11.	State of Meghalaya to disburse	√	<ul style="list-style-type: none"> <li>• PIL being W.P. (C) No. 3 of 2019</li> </ul>

	an amount of 5 lakh to each labourer deceased in Ksan mine incident of Dec. 2018		<p>has been filed in Hon'ble Supreme Court on that incident.</p> <ul style="list-style-type: none"> <li>• The Hon'ble Supreme Court observed that compensation is required to be paid to kin of victims in order dated 25.02.2019.</li> <li>• State filed I.A. No. 77028/19 on 06.05.2019, inter-alia informing the Court that 3 lakh ex-gratia payments has already been made qua each victim.</li> <li>• The Hon'ble Supreme Court closed all the issues except formulation of Standard Operating Procedure to deal with such mining incidents vide order dated 12.07.2019.</li> </ul>
12.	State of Meghalaya to pay 5 lakh for each death and 2 lakh for each injury in above incident as well as for the incident reported in South Garo Hills District in 2012.	√	<ul style="list-style-type: none"> <li>• For 2012 incident, ex-gratia payment has already been made to those who came forward to make claims and whose claims were found to be genuine.</li> </ul>

21. We have considered the above objections. We are unable to appreciate the reasons for the stand that the recommendations are not feasible. Even if the exercise is considered by the State to be unnecessary, no serious difficulty is shown in doing so. We are unable to hold that any of the direction is against the order of the Hon'ble Supreme Court or not feasible. The dispute resolution process recommended is certainly conducive to the handling of the long pending issues and is necessary for facilitating compliance of the directions for disposal of illegal mined material and the mandate of law. We, thus, reject the objections of the State of Meghalaya. It is a matter of regret that State of Meghalaya, has by uncalled for objections, created a situation to hamper a credible mechanism set up by this Tribunal and approved by the Hon'ble Supreme Court by practically compelling the Chairman of the Committee to seek recusal.

**Directions**

22. Under the circumstances, while accepting all the recommendations of the Committee in its 04<sup>th</sup> Interim Report dated 31.08.2019, 05<sup>th</sup> Interim Report dated 02.12.2019 and 06<sup>th</sup> Interim Report dated 03.12.2019, we also accept the request of Justice B.P. Katakey, former Judge, Guwahati High Court to be relieved.
23. Without in any manner meaning to dilute the exhaustive recommendations of the Committee, the substance of the recommendations of the Committee can be summed up to include monitoring of illegal raising and transportation of coal by the Chief Secretary of the State; steps for punitive measures for illegal mining – filling up gaps in the regulatory regime; action for preventing minimizing and mitigating environment pollution by acidic water from coal depots; electronic recording of movement of coal including by way of GPS and RFID Tags and having a central server for the purpose; inspection of wings of BSF and vigilance department; establishing and supervising check posts and weigh bridges; utilization of the compensation amount for legitimate purposes in terms of the recommendations in the report; continuing Prof. A.K. Singh, nominee, IIT-ISM, Dhanbad as member of the Committee; monitoring of sourcing of illegally mined coal by cement manufacturing/thermal power plants for enforcement of mining law, including punitive and remedial actions for

sourcing of illegally mined material, as found by the Committee; conducting necessary audit; study of land use and land cover analysis; drilling of bore holes in Khlihirt-Sutnga area in East Jaintia Hill District; preparation of geological report and feasibility report for scientific coal mining; compiling information about location of dumps of coal; finalizing mode and manner of handling of coal and its disposal including e-auction; transfer of coal to Coal India Limited; monitoring of illegal export of coal to Bangladesh by an independent agency; adopting satellite surveillance systems; action by the State PCB for enforcement of environmental norms; verification of claims of victims and disbursement of payments to them in the manner suggested by the Committee; implementing action plan prepared by the Committee by the State PCB etc. Compliance of all the recommendations may need to be closely monitored by the Committee.

24. On suggestion of State of Meghalaya, we substitute Justice B.D. Agarwal, former Judge, Guwahati High Court as Chairman of the Committee. We are informed that Justice B.D. Agarwal is Judicial Member of Lokayukt of Manipur State but is willing to undertake the present assignment subject to the State of Manipur relieving him or otherwise permitting him to do so. The State of Manipur may consider this aspect in consultation with Justice B.D. Agarwal. Subject to there being no objection, Justice B.D. Agarwal may take up the assignment at the earliest. The Committee may furnish its

further action taken report after three months preferably by 30.04.2020 by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in).

A copy of this order be sent by e-mail to the Chief Secretary, Meghalaya, CPCB, State PCB, IIT-ISM, Dhanbad, who may also furnish a copy to Prof. A.K. Singh (Retired), Justice B.P. Katakey, Justice B.D. Agarwal, former Judges of Guwahati High Court.

List for further consideration on 12.05.2020.

Adarsh Kumar Goel, CP

S.P Wangdi, JM

Dr. Nagin Nanda, EM

Siddhanta Das, EM

January 17, 2020  
O.A. No. 110(T<sub>HC</sub>)/2012  
A

**S/d**  
**True Copy**

**Annexure R17/ 12**  
**GOVERNMENT OF MEGHALAYA**  
**DIRECTORATE OF MINERAL RESOURCES**  
**SHILLONG**

Recd  
6/3/20  
292  
[Signature]

No.DMR/MM/768/2018/Pt-II/ Vol-IV/ 192

Dated Shillong, the 19.02.2020.

To, ✓

M/s Green Valley Industries Ltd.  
Nongsning, P.O-Chiehruphi  
East Jaintia Hills District

Sub:- Payment of Royalty, MEPRF on illegally source coal.

Sir/Madam,

In inviting a reference to the subject cited above, please find enclosed herewith Para-3.1.4 of the Fifth Interim Report of the Independent Committee on Resource (Coal) Audit of Cement Industries and Thermal Power Plants in Meghalaya submitted to the Hon'ble National Green Tribunal, Principal Bench, New Delhi on 02.12.2019. In this matter, you are directed to make the necessary payment as per the table enclose herewith within a month of issuance of this letter failing which necessary action as per law will be initiated.

Submitted for your information and necessary action.

Encl: As above

Yours faithfully

(Arunkumar Kembhavi, IAS)  
Director of Mineral Resources  
Meghalaya ::Shillong.

No.DMR/MM/768/2018/Pt-II/ Vol-IV/

Dated Shillong, the 19.02.2020.

Copy to:-

1. The Chief Secretary to the Govt. of Meghalaya, Mining & Geology Department for kind information.
2. The Member Secretary, Hon'ble NGT Committee for kind information of the Hon'ble Chairman and Hon'ble Members of the NGT Committee.
3. The Secretary to the Govt. of Meghalaya, Mining & Geology Department for kind information.

Director of Mineral Resources  
Meghalaya ::Shillong.

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	8
Ferrous Ltd.	procured**						
	Gap	10,923	14,498	16,657	44,859	24,537	1,11,474
	Coal required*	10,13,183	11,28,007	11,95,659	12,73,995	13,36,954	59,47,798
TOTAL	Coal procured**	3,03,294	6,07,174	3,39,453	4,53,794	3,07,400	20,11,115
	Gap	7,09,889	5,20,833	8,56,206	8,20,201	10,29,554	39,36,683

\*: Coal required to produce reported quantities of clinker and/or power

\*\* : Coal reported to be procured from legal sources

3.1.2 The Committee is of the view that the entire gap of 39.37 lakh MT between the quantity of the coal required to produce reported quantity of the clinker and the electrical power and the coal purchased from legal sources by these Plants during the Audit Period constituting about two-third of the coal requirement of these plants during the Audit Period has been met from the illegally mined local coal. Demand for a huge quantity of illegally mined coal from these plants has sustained and supported a wide scale illegal rat-hole coal mining in the State of Meghalaya in flagrant violation of a ban imposed by the Hon'ble NGT.

3.1.3 Continuance of illegal rat-hole coal mining in the State of Meghalaya to meet the huge requirement of coal for these Cement Manufacturing Plants and the Thermal Power Plants have caused huge damage to flora, fauna, rivers, streams, water bodies and the environment in general in the State of Meghalaya. It has also made the ban imposed by the Hon'ble NGT on illegal rat-hole coal mining virtually inoperative.

3.1.4 No royalty, taxes and any other statutory levies has been paid to the State of Meghalaya on the illegally mined coal utilised by these Cement Manufacturing Plants and Thermal Power Plants during the Audit Period resulting in a huge loss to the State exchequer. In fact ban on the illegal rat-hole coal mining in the State of

Meghalaya came as a boon to these Cement Manufacturing Plants and Thermal Power Plants in the State of Meghalaya as it virtually exempted them from the requirement of payment of royalty, taxes and other statutory levies payable on more than two-third of the coal consumed by them. The amounts of royalty (@ Rs. 675 per MT), contribution to Meghalaya Environment Protection and Restoration Fund (MEPR Fund) at the rate of Rs. 485 per MT and GST/VAT @ 5 % of the sale value of approx. Rs. 8,000 per MT amounting to Rs 400 per MT) payable on the illegally mined coal utilised by each of these Cement Manufacturing Plants and Thermal Power Plants during the Audit Period are as below:

(Amt. Rupees in crore)

Sl. No.	Plant	Qt. of illegal coal used (MT)	Royalty	MEPRF	GST/ VAT	Total
1	2	3	4	5	6	7
1.	Star Cement Limited and its two subsidiaries	16,46,276	111.124	79.844	65.851	256.819
2.	Amrit Cement	3,06,068	20.660	14.844	12.243	47.747
3.	Dalmia Bharat Cement Ltd	7,41,092	50.024	35.943	29.644	115.610
4.	Goldstone Cement Ltd.	2,70,516	18.260	13.120	10.821	42.200
5.	Green Valley Industries Ltd.	77,536	5.234	3.760	3.101	12.096
6.	Hill Cement Ltd.	1,17,407	7.925	5.694	4.696	18.315
7.	JUD Cement Ltd.	1,21,990	8.234	5.917	4.880	19.030
8.	Meghalaya Cement Ltd.	5,44,325	36.742	26.400	21.773	84.915
9.	Shyam Century Ferrous Ltd.	1,11,474	7.524	5.406	4.459	17.390
<b>Total</b>		<b>39,36,684</b>	<b>265.726</b>	<b>190.929</b>	<b>157.467</b>	<b>614.123</b>

3.1.5 The royalty and VAT/GST amounting to Rs. 423.194 crore payable on illegally mined coal utilised by the Cement Manufacturing Plants and Thermal Power Plants, if realised and properly utilised, can significantly enhance living

S/d  
True Copy

6395  
Annexure R17/ 13 (Colly)

295



भारत सरकार / Govt. of India  
वित्त मंत्रालय / Ministry of Finance  
राजस्व विभाग / Department of Revenue  
केंद्रीय वस्तु एवं सेवा कर आयुक्त का कार्यालय  
OFFICE OF THE COMMISSIONER OF CENTRAL GOODS & SERVICES TAX  
क्रेसेन्स बिल्डिंग, महात्मा गांधी रोड, शिलांग - 793 001  
CRESCENS BUILDING, M.G. ROAD, SHILLONG - 793 001



Hqrs. Anti-Evasion Unit, 2<sup>nd</sup> Floor, Crescens Building, M.G. Road, Shillong - 793 001

Tel: +91- 364 - 250 3161

E-Mail. hqrs.ae-shg@gov.in

C.No. IV (16)04/AE/CGST/SH/2020

Dated:

To,

M/s Green Valliey Industries Limited,  
Village-Nongsning, Elaka-Sutnga  
P.O.-Chiehruphi, P.S. -Khliehriat,  
East Jaintia Hills,  
Meghalaya - 793200

11 8 MAY 2020

Dear Sirs,

(Sub: The Fifth Interim Report on Resource (Coal) Audit of Cement Industries and Thermal Power Plants in Meghalaya)

As per Para 3.1 (Findings) of the Fifth Interim Report of the Independent Committee on Resource (Coal) Audit of Cement Industries and Thermal Power Plants in Meghalaya submitted to the Hon'ble National Green Tribunal, Principal Bench, New Delhi on 02.12.2019, the total coal required and the applicable royalty calculated in respect of your unit is as below:

Items	(metric tonnes)				Total	(Amt. in Crore Rupees) Royalty @ Rs. 675 per MT
	2015-16	2016-17	2017-18	2018-19		
Coal required*	55262	57505	64673	65398	242838	16.391

In this connection, you are requested to furnish the following:

- Details of payment made as royalty on coal (year-wise and month-wise)
- Details of Service Tax paid on Royalty on coal (year-wise and month-wise). If no Service Tax payment made, reasons thereof with supporting documents to be submitted.
- Details of GST paid on Royalty on coal (year-wise and month-wise). If no GST payment made, reasons thereof with supporting documents to be submitted.
- Details of Cess paid on coal (year-wise and month-wise). If no Cess payment made, reasons thereof with supporting documents to be submitted.

You are also requested to furnish the above details along with the amount of clinker produced (in metric tonnes) and coal procured (in metric tonnes) during the Financial Year 2019-20.

The desired information may be submitted positively by 05.06.2020.

Yours sincerely,

Jitesh Jain  
15/05/2020

(Jitesh Kumar Jain)  
Deputy Commissioner(A/E)

जितेश कुमार जैन/Jitesh Kumar Jain  
उपायुक्त (अपवंचन-रोध)  
Deputy Commissioner (Anti-Evasion)  
केंद्रीय वस्तु एवं सेवा कर  
Central Goods & Service Tax  
शिलांग / Shillong

S/d

True Copy

DIN - 20200570US00009QFEAD



Receipt  
25/6/20  
[Signature]

भारत सरकार / Govt. of India  
वित्त मंत्रालय / Ministry of Finance  
राजस्व विभाग / Department of Revenue

केंद्रीय वस्तु एवं सेवा कर आयुक्त का कार्यालय  
OFFICE OF THE COMMISSIONER OF CENTRAL GOODS & SERVICES TAX  
क्रेसेन्स बिल्डिंग, महात्मा गांधी रोड, शिलांग - 793 001  
CRESCENS BUILDING, M.G. ROAD, SHILLONG - 793 001



Hqrs. Anti-Evasion Unit, 2<sup>nd</sup> Floor, Crescens Building, M.G. Road, Shillong - 793 001

Tel: +91- 364 - 250 3161

E-Mail hqrs.ae-shg@gov.in

C.No. IV (16)04/AE/CGST/SH/2020

Dated:

15 JUN 2020

19<sup>th</sup> SUMMONS

(Under Section 70 of the Central Goods & Services Tax Act, 2017)

To,

M/s Green Valliey Industries Limited,  
Village-Nongsning, Elaka-Sutnga  
P.O.-Chiehruphi, P.S. -Khliehriat,  
East Jaintia Hills,  
Meghalaya - 793200

Whereas a case against M/s GREEN VALLIEY INDUSTRIES LIMITED (GSTIN-17AACCG9000D1Z3), having Principal Place of Business at Vill - Nongsning, Elaka - Sutnga, P.O.- Chiehruphi, P.S. - Khliehriat, East Jaintia Hills District, Meghalaya-793 200 about evasion of GST is being enquired by me under the provisions of the Central Goods & Services Tax Act, 2017.

And whereas I have reasons to believe that you are in possession of facts or/and documents and records, which are material to the above enquiry.

You are hereby summoned under Section 70 of the Central Goods & Services Tax Act, 2017, read with the CBEC's Circular No.3/3/2017-GST dated 05.07.2017, to submit soft copies of the documents as per schedule through e-mail at hqrs.ae-shg@gov.in by 29<sup>th</sup> June, 2020 and to appear before me in person or through an authorized representative on the 6<sup>th</sup> July, 2020 at 11:00 hrs. in this office situated at 2<sup>nd</sup> Floor, Crescens Building, M.G. Road, Shillong, to give evidence truthfully on such matters concerning the enquiry/investigation as you may be asked, and to produce the documents and records mentioned in the Schedule for examination.

#### SCHEDULE

- Details of payment made as royalty on coal (year-wise and month-wise)
- Details of Service Tax paid on Royalty on coal (year-wise and month-wise). If no Service Tax payment made, reasons thereof with supporting documents to be submitted.
- Details of GST paid on Royalty on coal (year-wise and month-wise). If no GST payment made, reasons thereof with supporting documents to be submitted.
- Details of Cess paid on coal (year-wise and month-wise). If no Cess payment made, reasons thereof with supporting documents to be submitted.
- The amount of clinker produced (in metric tonnes) and coal procured (in metric tonnes) during the Financial Year 2019-20.
- Reference is also invited to this office letter of even number 708 dated 18.05.2020 issued by the Deputy Commissioner (Hqrs. Anti-Evasion Unit) on the same matter (copy enclosed)

If you fail to obey to this Summons and intentionally omit to attend to give evidence or make statements and/ or to produce the documents and things, you will be liable to be punished under the provisions of Section 174-175 of the I.P.C., 1860.

Given under my hand and seal on this 12<sup>th</sup> day of June, 2020.



[Signature] 12/6/2020

(Hauzel Daniel)  
Superintendent (Anti-Evasion)

अधीनकार (अपव्ययन-रोध)  
अधीनकार (अपव्ययन-रोध)

Note: Under sub-section (2) of Section 70 of the CGST Act, 2017, the above inquiry is to be treated as a 'judicial proceeding' within the meaning of Section 193 and Section 228 of the Indian Penal Code, 1860 according to which intentionally giving false evidence or fabricating false evidence for the purpose of being used in these proceedings is an offence punishable under Section 193 of the Indian Penal Code, 1860 and intentionally offering insult, or causing any interruption to the officer sitting in these proceedings is an offence punishable under Section 228 of the Indian Penal Code, 1860 (45 of 1860).

S/d  
True Copy

**GOVERNMENT OF MEGHALAYA  
DIRECTORATE OF MINERAL RESOURCES  
SHILLONG**

No.DMR/MM/768/2018/Pt-II/ Vol-IV/269

Dated Shillong, the 16.07.2020.

To,

M/s Green Valley Industries Ltd.  
Nongsning, P.O-Chiehruphi  
East Jaintia Hills District

Sub:- Payment of Royalty, MEPRF on illegally source coal.

Sir/Madam,

In continuation to our earlier letter No.DMR/MM/768/2018/Pt-II/ Vol-IV/192 dt. 19.02.2020 on the subject cited above, you are directed to make the necessary payment of Royalty, MEPRF on illegally source coal within a month of issuance of this letter failing which necessary action as per law will be initiated.

Submitted for your information and necessary action.

Encl: As above

Yours faithfully

(Arunkumar Kembhavi, IAS)  
Director of Mineral Resources  
Meghalaya :::Shillong.

MemoNo.DMR/MM/768/2018/Pt-II/ Vol-IV/269 -A

Dated Shillong, the 16.07.2020.

Copy to:-

1. The Chief Secretary to the Govt. of Meghalaya, Mining & Geology Department for kind information.
2. The Member Secretary, Hon'ble NGT Committee for kind information of the Hon'ble Chairman and Hon'ble Members of the NGT Committee.
3. The Secretary to the Govt. of Meghalaya, Mining & Geology Department for kind information.

*ed-*  
Director of Mineral Resources  
Meghalaya :::Shillong.

**S/d  
True Copy**

## Green Valliey Industries Limited

298

CIN NO.: U26942ML2007PLC008273

No. GVIL/DMO/2/2020/06

11<sup>th</sup> September, 2020

To,  
The Divisional Mining Officer  
Jowai, Meghalaya - 793210

Sub: Submission of Monthly Data August 2020.

Dear Sir,

We would like to submit our monthly statement for the month of Aug-2020. You are requested to kindly accept and acknowledge the same.

Thanking you,

Yours faithfully  
For Green Valliey Industries Limited

  
Pawan Kumar Joshi  
(AVP - Commercial)



Guwahati Office: 4th Floor, LB Plaza, G.S. Road, Bhangagarh, Guwahati-781 005, T +91 361 2465481 / 82 / 83 / 84  
Regd. Office & Plant: Vill. Nongsning, P.O. Chiehruphi, PS. Khliehriat, Dist. Jaintia Hills, Meghalaya-793 200  
Group Corporate Office: 602 'LORDS' 7/1, Lord Sinha Road, Kolkata-700 071, T +91 33 22827367 / 7368 F +91 33 22828307  
E : info@greenvalliey.com

A GNG GROUP COMPANY

Point a

Monthly Statement of Clinker produced and Power Produced from Cement Plant and Thermal Plant for the Month of Aug-2020

Name of the Company: Green Valliey Industries Ltd

Month	Clinker Produced in Mt	Power produced in Mw
Aug-20	36,039.30	NA



Point b

Data on Quantity of Coal consumed and purchased by cement plants and Thermal Plants for the Month of Aug - 2020

Name of the Company: Green Valliey Industries Limited

Month	Coal consumed in MT	Coal Purchase in MT		
		From With in the state	From outside the state	Total Purchased in Mt
Aug-20	3,530.18	-	3,724.75	3,724.75

note ; need to verify the legal source of source of coal procured by cemen



## Point d

Statement of cement produced and power generated and quantity of coal used  
For the Month Of Aug 2020

Name of the Company: Green Valliey Industries Ltd

Month	Cement Produced in Mt	Clinker Produced in Mt	Quantity of coal Used in clinker produced Mt	Power generated in Mw	Quantity of coal Used in power generation in Mt	Alternate fuel in Mt
Aug-20	32,602.00	36,039.30	3,530.18	NA	NA	1,337.81

note ; need to verify the legal source of source of coal procured by cement plants



sd/  
TRUE COPY

## GOVERNMENT OF MEGHALAYA

OFFICE OF THE SUPERINTENDENT OF TAXES, EAST JAIÑTIA HILLS, KHLIEHRIAT.

NO.KHL/ST/NGT-25/2019-20/971

Dated Khliehriat, the 23<sup>rd</sup> September, 2020.Show Cause Notice

To,

M/S. Green Valley Industries Ltd  
Nongsning, East Jaintia Hills District**Subject:-** Realisation of VAT & GST on illegal coal used as per the fifth Interim Report on Resource (Coal) Audit of cement Industries and thermal power plant in Meghalaya.**Ref:-** No.KHL/ST/NGT-25/2019-20/1125

Dated 13.03.2020.

With reference to the subject cited above and as per the recommendation at para 3.2.1.3 of the Fifth Interim Report of the Independent Committee on Resource (Coal) Audit of cement Industries and Thermal power plants in Meghalaya submitted to the Honourable National Green Tribunal, Principal Bench, New Delhi on 02.12.2019. You are hereby reminded again to show cause in writing to the office of the undersigned on or before 20<sup>th</sup> October, 2020, as to why you should not pay VAT and GST on the illegal Coal used by your Company as mentioned below:-

Sl. no	Names of Plants	Items	VAT period from 2014 to 30.06.2017		GST period from 01.07.2017 to 2019		Total VAT And GST	
			Total MT under VAT	Total VAT @ RS. 400 as recommended by Fifth Report	Total MT under GST	Total GST @ RS. 400 as recommended by Fifth Report	Total MT under VAT and GST	Total VAT & GST @ RS. 400 as recommended by Fifth Report
5	M/S Green Valley Industries Ltd	Gap between coal required and coal procured	32212	₹ 12,884,900	45324	₹ 18,129,500	77536	₹ 31,014,400

Failure to reply on the above date Exparte action will be taken.

Yours faithfully,

(Shri H. Engleng)

Superintendent of Taxes  
East Jaiñtia Hills, Khliehriat.Dated Khliehriat, the 23<sup>rd</sup> September, 2020.

Memo. No. KHL/ST/

Copy to:

1. Commissioner of Taxes, Meghalaya, Shillong for favour of your information.

sd/

TRUE COPY

S/d  
True Copy(Shri H. Engleng)  
Superintendent of Taxes  
East Jaiñtia Hills, Khliehriat

## GOVERNMENT OF MEGHALAYA

OFFICE OF THE SUPERINTENDENT OF TAXES, EAST JAIÑTIA HILLS, KHLIEHRIAT.

NO.KHL/ST/NGT-25/2019-20/971

Dated Khliehriat, the 23<sup>rd</sup> September, 2020.Show Cause Notice

To,

M/S. Green Valley Industries Ltd  
Nongsning, East Jaintia Hills District**Subject:-** Realisation of VAT & GST on illegal coal used as per the fifth Interim Report on Resource (Coal) Audit of cement Industries and thermal power plant in Meghalaya.**Ref:-** No.KHL/ST/NGT-25/2019-20/1125 Dated 13.03.2020.

With reference to the subject cited above and as per the recommendation at para 3.2.1.3 of the Fifth Interim Report of the Independent Committee on Resource (Coal) Audit of cement Industries and Thermal power plants in Meghalaya submitted to the Honourable National Green Tribunal, Principal Bench, New Delhi on 02.12.2019. You are hereby reminded again to show cause in writing to the office of the undersigned on or before 20<sup>th</sup> October, 2020, as to why you should not pay VAT and GST on the illegal Coal used by your Company as mentioned below:-

Sl. no	Names of Plants	Items	VAT period from 2014 to 30.06.2017		GST period from 01.07.2017 to 2019		Total VAT And GST	
			Total MT under VAT	Total VAT @ RS. 400 as recommended by Fifth Report	Total MT under GST	Total GST @ RS. 400 as recommended by Fifth Report	Total MT under VAT and GST	Total VAT & GST @ RS. 400 as recommended by Fifth Report
5	M/S Green Valley Industries Ltd	Gap between coal required and coal procured	32212	₹ 12,884,900	45324	₹ 18,129,500	77536	₹ 31,014,400

Failure to reply on the above date Exparte action will be taken.

Yours faithfully,

(Shri H. Engleng)

Superintendent of Taxes  
East Jaiñtia Hills, Khliehriat.Dated Khliehriat, the 23<sup>rd</sup> September, 2020.

Memo. No. KHL/ST/

Copy to:

1. Commissioner of Taxes, Meghalaya, Shillong for favour of your information.

S/d  
True Copy(Shri H. Engleng)  
Superintendent of Taxes  
East Jaiñtia Hills, Khliehriat

DGGI/SRU/MISC/INV/01/2020-21/415

Date: 20.10.2020

304

CBIC-DIN-202010DEE300001RC4F3

Received  
K. K. K.  
28/10/2020

**SUMMONS**

[under Section 70 of the Central Goods and Services Tax Act, 2017]

To,

**Green Valliey Industries Limited**

Nongsning Elaka, Sutunga- East Jaintia  
Hills-793210, Meghalaya

WHEREAS, I, **DEBAJYOTI BHATTACHARJEE** am making inquiry in connection with **tax payment** under the Central Goods and Services Tax Act, 2017.

AND WHEREAS, I consider your attendance necessary to

- (a) give evidence and / or  
(b) produce documents or things of the following description in your possession or under your control:

1. Details of payments made to Govt. of Meghalaya for mining lease/licence, royalty etc for F.Y 2016-17 to 2020-21 (Up to Aug.2020) in the prescribed format as sought for vide this office letter of even No. 296 dated 16.09.2020.
2. Copy of demand notice, if any, issued to M/s Green Valliey Industries Ltd by Government of Meghalaya in compliance to the 5th interim report of the Independent Committee on Resource (Coal) Audit of Cement Industries etc. dated 02.12.2019 for utilizing 77,536 MT of illegally procured coal.
3. As mentioned in Annexure A attached

NOW, THEREFORE, in exercise of powers vested in me under Section 70 of the Central Goods and Service Tax Act, 2017 I do hereby summon you to appear before me in person on **02/11/2020** at **11:0:AM** at the office of **DGGI, Shillong Regional Unit, Old Arunachal Pradesh Secretariat, Shillong-793001**

Inquiry as aforesaid is deemed to be a judicial proceeding within the meaning of section 193 and section 228 of the Indian Penal Code, 1860 (45 of 1860) and non-compliance of this summon is an offence punishable under Section 174 & 175 of the Indian Penal Code, 1860.

Given under my hand and seal of office to-day the **20** day of **October**, **2020** at **SHILLONG**

Name : **DEBAJYOTI BHATTACHARJEE**Signature : *D. Bhattacharjee*  
20/10/2020Designation :  
**Superintendent / Appraiser / Senior Intelligence Officer**

**SUMMONS**

**[under Section 70 of the Central Goods and Services Tax Act, 2017]**

To,

Green Valliey Industries Limited

Nongsning Elaka, Sutunga- East Jaintia Hills-793210, Meghalaya

**Annexure-A**

1. Copy of stay order, if any, against the NGT Principal Bench New Delhi's Order dated 17.01.2020 in O.A. No. 110(THC)/2012.
2. Details of GST paid on Royalty amounting to Rs. 78.80 Lakh made to Government of Meghalaya on 1.62 Lakh M.T of slate.
3. Copy of Techno Economic Feasibility Report (TEFR) prepared by Holtec Consulting Private Limited and details of payments made to the party for the same.



Name : DEBAJYOTI BHATTACHARJEE

*D. Bhattacharjee*  
Signature: 20/1/2020

Designation :

Superintendent / Appraiser / Senior Intelligence Officer

sd/  
TRUE COPY

Green Valliey Industries Limited  
CIN NO.: U26942ML2007PLC008273

Date: 28.10.2020

The Director of Mineral Resources  
Government of Meghalaya  
Directorate of Mineral Resources  
Risa Colony, Maiki, Shillong  
Meghalaya – 793014

Sub: Payment of royalty and contribution to MEPRF on alleged illegality sourced coal

Ref.: Letter No. DMR/MM/768/2018/Pt-II/Vol-IV/192 dated 19.02.2020  
and letter No. DMR/MM/768/Pt-II/Vol-IV/269 dated 16.07.2020

Respected Sir,

M/s Green Valliey Industries Ltd. (“the Company”) is in receipt of your letter dated 19.02.2020 and the related letter dated 16.07.2020 referenced hereinabove with respect to the payment of royalty and contribution to Meghalaya Environment Protection and Restoration Fund (“MEPRF”) on illegally sourced coal.

At the outset, kindly permit us to most sincerely reiterate that the Company has not undertaken any illegal mining activity. The Company has been regularly paying the royalty on all the coal muslate (also referred to as ‘slate’) that it has used over the years.

The Company would therefore like to submit that it is not liable to make payment of the demand for the following reasons:

- a. The Company has never been involved in any legal mining of coal or muslate and the same has been clearly recorded in the fifth interim report of the Independent Committee on Resource (Coal) Audit of Cement Industries and Thermal Power Plants in Meghalaya (“the Committee”) dated 02.12.2019 at point 2.2.18 (ix) wherein the Central Pollution Control Board (“CPCB”) has stated that the cement industry are not involved in illegal mining of coal or slate. Documentary evidence was furnished before the Committee wrongly concluded that the Company has undertaken illegal mining of 77,536 MT of coal holding the Company liable for payment of Rs. 12.096 crore.
- b. Further the company has been paying the royalty in terms of Rule 29 of the Meghalaya minor Mineral Concession Rules 2016 (“MMMCR 2016”) before which the royalty was being collected in the autonomous district under the powers granted through the Executive Order no. TAD/FR/22/55. The same has also been recorded in the fifth interim report of the committee dated 02.12.2019. A copy of the challans highlighting the amount of royalty paid by the Company under the MMMCR 2016 is annexed herewith and marked as ANNEXURE A.

- c. It is pertinent to note that the Company has primarily been using coal as a fuel and therefore the use of muslates / late as an alternative fuel resource is very less. The fuel consumption of the Company for the duration between 2014-15 and 2018-19 is Coal – 2,23,507 MT & Alternate Fuel – 1,47,748 MT respectively.

It is pertinent to note that the Hon'ble Supreme Court has held in the case of State of Meghalaya v. All Dimasa Students Union Dima-Hasao District Committee & Ors. [Civil Appeal No. 10720/2018 vide judgment dated 03.07.2019) that the coal produced in the State except for the coal seized in illegal transportation is vested with the concerned land owner. Therefore, coal obtained cannot be treated as illegal on the ground of the non grant of mining lease for the same.

- d. The Company is an environmentally conscious, law-abiding entity and has been operating with all the relevant consents and clearances. The Company, has also been submitting its compliance reports regularly to the concerned authorities.

We would like to further draw your kind attention to the order of NGT dated 09.01.2020 (which was uploaded on 17.01.2020) in O.A. No. 110 (THC) of 2012 by which the Fifth Interim Report of the Committee dated 02.12.2019 was accepted. As you would know, this order of the Hon'ble NGT has been challenged before the Hon'ble Supreme court of India and therefore the matter is sub-judice.

We would therefore request your office to kindly withdraw letter no. DMR/MM/768/2018/pt-II/Vol-IV/192 dated 19.02.2020 and letter No.

DMR/MM/768/pt-II/Vol-IV/269 dated 16.07.2020, which was a reminder to the letter dated 19.02.2020 for the aforesaid reasons and not initiate any coercive steps against the Company. As stated above, the Company has never undertaken any illegal mining activity and is therefore not able to pay any further royalty over and above what has already been paid as royalty by the Company.

Thanking you,

Yours faithfully

For Green Valliey Industries Limited

Sd/-

(Authorized Signatory)

Encl: As above

Copy to:

1. Government of Meghalaya, Office of the Superintendent of Taxes, East Jaintia Hills, Khliehriat, Khliehriat West (Moolyngkut), East Jaintia Hills District – 793200
2. Chief Secretary to the Govt. of Meghalaya, Mining & Geology Department
3. The Secretary to the Govt. of Meghalaya, Mining & Geology Department

Meghalaya Schedule III (Sec.I) Form No. 65  
(Revised 1939)

DMR, Meghalaya  
Treasury/Sub-Treasury

Chalan No. 6269 Dated 01.07.19

Chalan of cash paid into the ..... at .....UBI, Jowai.....  
State Bank of India

To be filled in by the remitter			To be filled in by the Department Officer Or the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order No.
			Rs.	P.		
Green Valliey Industries Ltd. Nogsning Elaka Sutnga P.O. Chichruphi Khaleheriat East Jaintia Hills – 793200, Meghalaya		Payment of Royalty on Slate on 12333.77 MT FY 2016-17	5,55,020		08533 – Non-Ferrous Mining and Metallurgical Industries 00-Null 800- Other Receipts (04) Royalties / Dead Rend Minor Minerlas	Date ..... Correct, Receipt and Grant Receipt  (Signature) Full designation of the officer ordering the money to be paid
*(in words) Rupees Five Lakh Fifty Five Thousand Twenty Only Signature Date: 28.06.2019			SEAL OF: PAY CASH/TRANSFER 29 Jun 2019 SENIOR MANAGER UNITED BANK OF INDIA JOWAI BRANCH		To be used only the case of remittances to Bank through an officer of the Government Sd/- Signature of Departmental Officer	

Payment Date \_\_\_\_\_  
Treasurer

sd/-  
Treasury officer, Jaintia District

Assam Schedule III (Sec.I) Form No. 65  
(Revised 1939)

DMR, Meghalaya  
Treasury/Sub-Treasury

Chalan No. 6270 Dated 01.07.19

Chalan of cash paid into the ..... at .....UBI, Jowai.....  
State Bank of India

To be filled in by the remitter			To be filled in by the Department Officer Or the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order No.
			Rs.	P.		
Green Valliey Industries Ltd. Nogsning Elaka Sutnga P.O. Chichruphi Khaleheriat East Jaintia Hills – 793200, Meghalaya		Payment of Royalty on Slate on 26141.27 MT FY 2015-16	11,76,357		08533 – Non-Ferrous Mining and Metallurgical Industries 00-Null 800- Other Receipts (04) Royalties / Dead Rend Minor Minerlas	Date ..... Correct, Receipt and Grant Receipt  (Signature) Full designation of the officer ordering the money to be paid
*(in words) Rupees Eleven Lakh Seventy Six Thousand Three Hundred Fifty Seven Signature Date: 28.06.2019			SEAL OF: PAY CASH/TRANSFER 29 Jun 2019 SENIOR MANAGER UNITED BANK OF INDIA JOWAI BRANCH		To be used only the case of remittances to Bank through an officer of the Government  Sd/- Signature of Departmental Officer	

Payment Date \_\_\_\_\_  
Treasurer

sd/-  
Treasury officer, Jaintia District

Assam Schedule III (Sec.I) Form No. 65  
(Revised 1939)

DMR, Meghalaya  
Treasury/Sub-Treasury

Chalan No. 6271 Dated 01.07.19

Chalan of cash paid into the ..... at .....UBI, Jowai.....  
State Bank of India

To be filled in by the remitter			To be filled in by the Department Officer Or the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order No.
			Rs.	P.		
Green Valliey Industries Ltd. Nogsning Elaka Sutnga P.O. Chichruphi Khaleheriat East Jaintia Hills – 793200, Meghalaya		Payment of Royalty on Slate on 28818.3 MT FY 2014-15	12,96,824		08533 – Non-Ferrous Mining and Metallurgical Industries 00-Null 800- Other Receipts (04) Royalties / Dead Rend Minor Minerlas	Date ..... Correct, Receipt and Grant Receipt  (Signature) Full designation of the officer ordering the money to be paid
*(in words) Rupees Twelve Lakh Ninety Six Thousand Eight Hundred Twenty Four Signature Date: 28.06.2019			SEAL OF: PAY CASH/TRANSFER 29 Jun .2019 SENIOR MANAGER UNITED BANK OF INDIA JOWAI BRANCH		To be used only the case of remittances to Bank through an officer of the Government  Sd/- Signature of Departmental Officer	

Payment Date \_\_\_\_\_  
Treasurer

sd/-  
Treasury officer, Jaintia District

Meghalaya Schedule III (Sec.I) Form No. 65  
(Revised 1939)

DMR, Meghalaya  
Treasury/Sub-Treasury

Chalan No. 6781 Dated 05.07.19

Chalan of cash paid into the ..... at .....UBI, Jowai.....  
State Bank of India

To be filled in by the remitter			To be filled in by the Department Officer Or the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order No.
			Rs.	P.		
Green Valliey Industries Ltd. Nogsning Elaka Sutnga P.O. Chichruphi Khaleheriat East Jaintia Hills – 793200, Meghalaya		Payment of Royalty on Slate on 39833.15 MT FY 2017-18	17,92,492		08533 – Non-Ferrous Mining and Metallurgical Industries 00-Null 800- Other Receipts (04) Royalties / Dead Rend Minor Minerlas	Date ..... Correct, Receipt and Grant Receipt  (Signature) Full designation of the officer ordering the money to be paid
*(in words) Rupees Seventeen Lakh Ninety Two Thousand Four Hundred Ninety Two Only Signature Date: 28.06.2019			SEAL OF: PAY CASH/TRANSFER 05 Jul 2019 SENIOR MANAGER UNITED BANK OF INDIA JOWAI BRANCH		To be used only the case of remittances to Bank through an officer of the Government  Sd/- Signature of Departmental Officer	

Payment Date \_\_\_\_\_  
Treasurer

sd/-  
Treasury officer, Jaintia District

Assam Schedule III (Sec.I) Form No. 65  
(Revised 1939)

DMR, Meghalaya  
Treasury/Sub-Treasury

Chalan No. 6782 Dated 05.07.19

Chalan of cash paid into the ..... at .....UBI, Jowai.....  
State Bank of India

To be filled in by the remitter			To be filled in by the Department Officer Or the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order No.
			Rs.	P.		
Green Valliey Industries Ltd. Nogsning Elaka Sutnga P.O. Chichruphi Khaleheriat East Jaintia Hills – 793200, Meghalaya		Payment of Royalty on Slate on 44780.25 MT FY 2018-19  From 01.04.2018 to 23.01.2019	20,15,113		08533 – Non-Ferrous Mining and Metallurgical Industries 00-Null 800- Other Receipts (04) Royalties / Dead Rend Minor Minerlas	Date ..... Correct, Receipt and Grant Receipt  (Signature) Full designation of the officer ordering the money to be paid
*(in words) Rupees Twenty Lakh Fifteen Thousand One Hundred Thirteen Only Signature Date: 28.06.2019			SEAL OF: PAY CASH/TRANSFER 05 Jul 2019 SENIOR MANAGER UNITED BANK OF INDIA JOWAI BRANCH		To be used only the case of remittances to Bank through an officer of the Government Sd/- Signature of Departmental Officer	

Payment Date \_\_\_\_\_  
Treasurer

sd/-  
Treasury officer, Jaintia District

Assam Schedule III (Sec.I) Form No. 65  
(Revised 1939)

DMR, Meghalaya  
Treasury/Sub-Treasury

Chalan No. 6783 Dated 05.07.19

Chalan of cash paid into the ..... at .....UBI, Jowai.....  
State Bank of India

To be filled in by the remitter			To be filled in by the Department Officer Or the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order No.
			Rs.	P.		
Green Valliey Industries Ltd. Nogsning Elaka Sutnga P.O. Chichruphi Khaleheriat East Jaintia Hills – 793200, Meghalaya		Payment of Royalty on Slate on 10445.43 MT FY 2018-19 From 24.01.19 to 31.03.19	10,44,543		08533 – Non-Ferrous Mining and Metallurgical Industries 00-Null 800- Other Receipts (04) Royalties / Dead Rend Minor Minerlas	Date ..... Correct, Receipt and Grant Receipt  (Signature) Full designation of the officer ordering the money to be paid
*(in words) Rupees Ten Lakh Forty Four Thousand Five Hundred Forty Three Only Signature Date: 28.06.2019			SEAL OF: PAY CASH/TRANSFER 05 Jul 2019 SENIOR MANAGER UNITED BANK OF INDIA JOWAI BRANCH		To be used only the case of remittances to Bank through an officer of the Government  Sd/- Signature of Departmental Officer	

Payment Date \_\_\_\_\_  
Treasurer

sd/-  
Treasury officer, Jaintia District

sd/  
TRUE COPY

6416  
**Green Valliey Industries Limited**

CIN NO.: U26942ML2007PLC008273

316

Date: 28.10.2020

The Director of Mineral Resources  
Government of Meghalaya  
Directorate of Mineral Resources  
Risa Colony, Malki, Shillong,  
Meghalaya - 793014



Sub: Payment of royalty and contribution to MEPRF on alleged illegally sourced coal.

Ref: Letter No. DMR/MM/768/2018/Pt-II/Vol-IV/192 dated 19.02.2020 and Letter No. DMR/MM/768/2018/Pt-II/Vol-IV/269 dated 16.07.2020

Respected Sir,

M/s Green Valliey Industries Ltd. ("the Company") is in receipt of your letter dated 19.02.2020 and the related reminder letter dated 16.07.2020 referenced hereinabove with respect to the payment of royalty and contribution to Meghalaya Environment Protection and Restoration Fund ("MEPRF") on illegally sourced coal.

At the outset, kindly permit us to most sincerely reiterate that the Company has not undertaken any illegal mining activity. The Company has been regularly paying the royalty on all the coal and muslate (also referred to as 'slate') that it has used over the years.

The Company would therefore like to submit that it is not liable to make payment of the demand for the following reasons:

- a. The Company has never been involved in any illegal mining of coal or muslate and the same has been clearly recorded in the Fifth Interim Report of the Independent



**Guwahati Office:** 4th Floor, LB Plaza, G.S. Road, Bhangagarh, Guwahati-781 005, T +91 361 2465481 / 82 / 83 / 84

**Regd. Office & Plant:** Vill. Nongsning, P.O. Chiehruphi, PS. Khliehriat, Dist. Jaintia Hills, Meghalaya-793 200

**Group Corporate Office:** 602 'LORDS' 7/1, Lord Sinha Road, Kolkata-700 071, T +91 33 22827367 / 7368 F +91 33 22828307

E : info@greenvalliey.com

**A GNG GROUP COMPANY**

Committee on Resource (Coal) Audit of Cement Industries and Thermal Power Plants in Meghalaya ("the Committee") dated 02.12.2019 at point 2.2.18 (ix) wherein the Central Pollution Control Board ("CPCB") has stated that the cement industries are not involved in illegal mining of coal or slate. Documentary evidence was furnished before the Committee that the fuel/ alternative fuel resource are procured after payment of royalty. The Committee wrongly concluded that the Company has undertaken illegal mining of 77,536 MT of coal holding the Company liable for payment of Rs. 12.096 crore.

- b. Further, the Company has been paying the royalty in terms of Rule 29 of the Meghalaya Minor Mineral Concession Rules 2016 ("MMMCR 2016") before which the royalty was being collected in the autonomous district under the powers granted through the Executive Order no. TAD/FR/22/55. The same has also been recorded in the Fifth Interim Report of the Committee dated 02.12.2019. A copy of the challans highlighting the amount of royalty paid by the Company under the MMMCR 2016 is annexed herewith and marked as ANNEXURE A.
- c. It is pertinent to note that the Company has primarily been using coal as a fuel and therefore the use of Muslate / slate as an alternative fuel resource is very less. The fuel consumption of the Company for the duration between 2014-15 and 2018-19 is Coal – 2,23,507 MT & Alternate Fuel – 1,47,748 MT respectively.

It is pertinent to note that the Hon'ble Supreme Court has held in the case of *State of Meghalaya V All Dimasa Students Union, Dima-Hasao District Committee & Ors.* (Civil Appeal No. 10720/2018 vide judgment dated 03.07.2019) that the coal produced in the State except for the coal seized in illegal transportation is vested with the concerned land owner. Therefore, coal obtained cannot be treated as illegal on the ground of non-grant of mining lease for the same.

- d. The Company is an environmentally conscious, law-abiding entity and has been operating with all the relevant consents and clearances. The Company has also been submitting its compliance reports regularly to the concerned authorities.



We would like to further draw your kind attention to the order of the NGT dated 09.01.2020 (which was uploaded on 17.01.2020) in O.A. No. 110 (THC) of 2012 by which the Fifth Interim Report of the Committee dated 02.12.2019 was accepted. As you would know, this order of the Hon'ble NGT has been challenged before the Hon'ble Supreme Court of India and therefore the matter is sub-judice.

We would therefore request your office to kindly withdraw letter no. DMR/MM/768/2018/Pt-II/Vol-IV/192 dated 19.02.2020 and letter no. DMR/MM/768/2018/Pt-II/Vol-IV/269 dated 16.07.2020, which was a reminder to the letter dated 19.02.2020 for the aforesaid reasons and not initiate any coercive steps against the Company. As stated above, the Company has never undertaken any illegal mining activity and is therefore not liable to pay any further royalty over and above what has already been paid as royalty by the Company.

Thanking You,

Yours Sincerely,

For Green Valliey Industries Ltd.



(Authorized Signatory)



Encl: As above

Copy to:

1. Government of Meghalaya, Office of the Superintendent of Taxes, East Jaintia Hills, Khliehriat, Khliehriat West (Moolyngkut), East Jaintia Hills District – 793200
2. Chief Secretary to the Govt. of Meghalaya, Mining & Geology Department
3. The Secretary to the Govt. of Meghalaya, Mining & Geology Department

Meghalaya Schedule III (Sec. I) Form No. 65  
[Revised 1939]

DMR Chalan No.

MEGHALAYA  
Treasury/Sub-Treasury

Chalan of cash paid into the \_\_\_\_\_ at UBI, Jowai 01/07/19  
State Bank of India

To be filled in by the remitter			To be filled in by the Departmental Officer or the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order to the Bank
			Rs.	P.		
<p><b>GREEN VALLEY INDUSTRIES LTD.</b> Nongning Elaka Sutnga, P.O. Chichruphi Khiehriat, East Jaintia Hills-793200 : Meghalaya.</p>		<p>Payment of Royalty on State of 12333.77 MT  FY-2016-17</p> <p style="text-align: center;">Total</p>	<p>Rs. 5,55,000/-</p>		<p>000-Nature of Mining and Metallurgical Activities 00 - N/A 800 - Other Receipts (04) - Receipts - Cash Rent on Mineral</p>	<p>Date _____ Correct Receive and grant receipt  (Signature) Full designation of the Officer giving the money to be paid</p>

(In words) Rupees Five lakh Fifty Five thousand twenty only

To be used only the case of remittances to Bank through an officer of the Government

Signature [Signature]  
Date 28-06-2019

[Signature]  
Signature of Departmental Officer  
Divisional Mining Officer  
Department of Mines & Geology  
Jowai

Received Payment Date JUN 29 2019  
Treasurer [Signature] Senior Manager United Bank of India Jowai Br  
Accountant [Signature]

[Signature]  
Treasury Officer  
Asstt.

# DUPLICATE

6270

Form No. 65  
[Revised 1939]

DMR Chalan No.

Treasury/Sub-Treasury MEGHALAYA

Chalan of cash paid into the State Bank of India at UBI, Jowai on 01/07/19

To be filled in by the remitter			To be filled in by the Departmental Officer of the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order to the Bank
			Rs.	P		
GREEN VALLEY INDUSTRIES LTD. Nongning Elaka Sutnga, P.O. Chichruphi Khliehriat, East Jaintia Hills-793200 : Meghalaya.		Payment of Royalty on State on 26141.27 MT FY 2015 - 16  Total	Rs. 11,76,357/-		0853-Non-Ferrous Mining and Metallurgical Industries 00 - Null 800 - Other Receipts (04) - Royalties / Dead Rent on Mineral Receipts	Date Correct. Receive and grant receipt Signature) Full designation of the Officer ordering the money to be paid)

(In words) Rupees Eleven Lakh Seventy Six thousand three hundred fifty seven only.

To be used only in the case of remittances to Bank through an officer of the Treasury

Signature

*[Handwritten Signature]*

Signature of Departmental Officer  
Secretary of Mines, Jowai  
Office

*[Handwritten Signature]*

Date 28-06-2019

PAY CASH / TRANSFER

01 JUL 2019

Senior Manager  
United Bank of India  
Jowai Branch

Received Payment

Date

28 JUN 2019

Treasurer.

Senior Manager  
United Bank of India  
Jowai Branch

Accountant

Treasury Officer

Asstt

Form Schedule III (Sec. I) Form No. 65

[Revised 1939]

DMR Chalan No.

Treasury/Sub-Treasury MEGHALAYA

Chalan of cash paid into the

at UBI, Jowai

01/07/19

State Bank of India

To be filled in by the remitter			To be filled in by the Departmental Officer for the Treasury		
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Order to the Bank
			Rs	P	
GREEN VALL INDUSTRIES LTD. Nongning Elaka Sutnga, P.O. Chichruphi Khliehriat, East Jaintia Hills-793200 : Meghalaya.		Payment of Royalty on slate On 28818.3 MT  FY2014-15 Total	Rs. 12,96,824/-		0853-Non-Ferrous Mining and Metallurgical Industries 00 - Null 800 - Other Receipts (04) - Royalties / Dead Rent on Minor Mines  Date _____ Correct, Receive and grant receipt  (Signature) Full designation of use (under preserving) the money to be paid.

(In words) Rupees Twelve lakh ninety six thousand Eight hundred twenty four only.

To be used only the case of remittance to Bank through an officer of the Government

Signature

*[Signature]*

PAY CASH / TRANSFER

Date 28-06-2019

Signature of Departmental Officer  
Assistant Mining Officer  
Office  
Jowai

Received Payment

Date 9 JUN 2019

Treasurer

Senior Manager  
United Bank of India  
Jowai Branch  
Accountant

Treasury Officer  
Asstt

Jowai

Meghalaya Schedule III (Sec. I) Form No. 65

[Revised 1939]

MIR  
MEGHALAYA

Chalan No.

Treasury/Sub-Treasury

Chalan of cash paid into the \_\_\_\_\_ at UBI, Jowai

State Bank of India

05/07/19

To be filled in by the remitter			To be filled in by the Departmental Officer of the Treasury.		
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Order to the Bank
			Rs.	P	
<p>Name</p> <p><b>GREEN VALLEY INDUSTRIES LTD</b> Nongning Elaka Sutnga, P.O. Chichruphi Khliehriat, East Jaintia Hills-793200 : Meghalaya.</p>		<p>Payment of Royalty on State on 39833.15 MT FY 2017-18</p> <p>Total</p>	<p>Rs. 17,92,492/-</p>		<p>Head of Account</p> <p>0853-Non-Ferrous Mining and Metallurgical Industries</p> <p>00 -</p> <p>Date</p> <p>Correct Receipt and grant receipt</p> <p>Signature</p> <p>Full designation of the officer signing the money order</p>

\*(In words) Rupees Seventeen lakh ninety two thousand four hundred ninety two only.

Signature

Date 28.06.2019

To be used only in the case of remittances to Bank through an officer of the Government

Signature of Deputy Director  
Ministry of Mineral Resources  
Meghalaya

Received Payment \_\_\_\_\_ Date \_\_\_\_\_

Treasurer

Accountant

Treasury Officer  
Asstt

DUPLICATE

Form Schedule III (Sec. I) Form No. 65  
[Revised 1939]

DMR  
MEGHALAYA  
Chalan No.

Treasury/Sub-Treasury

Chalan of cash paid into the State Bank of India at Jowai

05/07/19

To be filled in by the remitter			To be filled in by the Departmental Officer of the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order to the Bank
			Rs.	P		
<p><b>GREEN VALLIEY INDUSTRIES LTD</b> Nongning Elaika Sutnga, P.O. Chichruphi Khliehriat, East Jaintia Hills-793200 : Meghalaya.</p>		<p>Payment at Royalty on state on 44780.29 MT FY-2018-19 from-01.04.2018 to 23.01.2019</p> <p>Total</p>	Rs. 20,15,113/-		<p>603-Non-Ferrous Mining and Metallurgical Industries 60 - Royalty 800 - Other Receipts (04) - Royalty on Dead Rent on Mining</p>	<p>Date Correct. Receive and grant receipt Original File (signature of the Officer concerned the receipt to be filed)</p>

(In words) Rupees Twenty Lakh Fifteen thousand one hundred thirteen only.

Signature

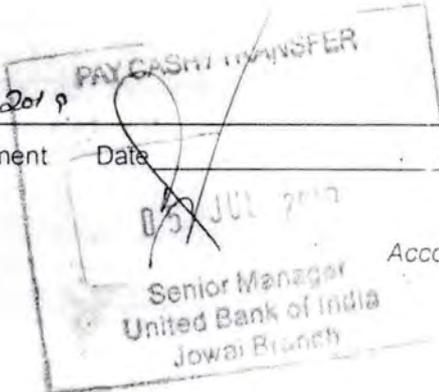
Date 28.06.2019

Received Payment

Date

Treasurer

Accountant



To be used only the case of remittances to Bank through an officer of the Government

Signature of Departmental Officer  
Divisional Mining Office  
Assistant of Mineral Revenue  
Meghalaya

Treasury Officer  
Asstt

DUPLICATE

Form Schedule III (Sec. I) Form No. 65

[Revised 1939]

Chalan No.

DMR

Treasury/Sub-Treasury MEGHALAYA

Chalan of cash paid into the State Bank of India at U.P.I, Jowai 05/07/19

To be filled in by the remitter			To be filled in by the Departmental Officer of the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order to the Bank
			Rs	P		
GREEN VALLEY INDUSTRIES LTD. Nongning Elaka Sutnga, P.O. Chichruphi Khliehriat, East Jaintia Hills-793200 : Meghalaya.		Payment of Royalty on State on 10445.43 MT FY 2018-19 from 24.01.2019 to 31.03.2019  Total	RS 10,44,543/-		0853-Non-Ferrous Mining and Metallurgical Industries 00 - Null 800 - Other Receipts (04) - Royalties / Dead Rent on Minerals	Date: _____ Correct: Receive and grant receipt (Signature) Full designation of the Officer ordering the remittance (in block)

(In words) Rupees Ten Lakh Fourty four thousand Five hundred Fourty three only.

Signature

PAY CASH / TRANSFER

Date 28.06.2019

To be used only the case of remittance to Bank through an officer of the Government

Signature of Departmental Officer  
Office of Mineral Resources  
Meghalaya Jowai

Received Payment 5 Date 2019

Treasurer Senior Manager  
United Bank of India  
Jowai Branch

Accountant

Treasury Officer  
Assit

S/d  
True Copy

Annexure R17/19  
6425  
**Green Valliey Industries Limited**

CIN NO.: U26942ML2007PLC008273

325

Date: 02.11.2020

The Superintendent / Appraiser / Senior Intelligence officer  
DGGI, SRU Shillong,  
Old Arunachal Pradesh Secretariat Building,  
Near Anjalee Petrol Pump,  
Shillong – 793 001

**Sub: Issue of Summon u/s 70 of CGST Act'2017 in connection with tax payments**

Dear Sir,

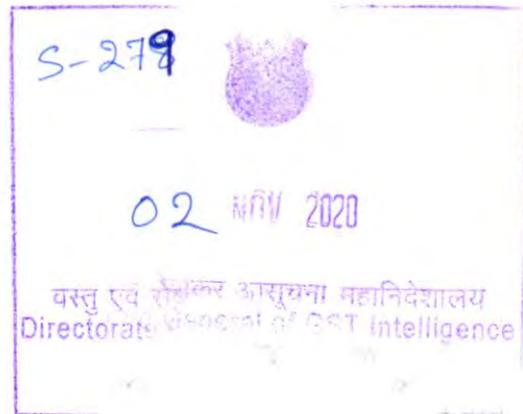
We are in receipt of your abovesaid Summons dated 20.10.2020 by speed post asking us to submit certain documents and appear before you on 02.11.2020. Your letter dated 20.10.2020 was delivered to us on 28.10.2020.

Due to ongoing Covid-19 pandemic we are taking all precautionary measures and working with very few numbers of employees.

We therefore request your good office to please give us a time of 30 days to compile the data and submit to your good office.

Thanking you,  
For Green Valliey Industries Ltd.

  
(Authorised Signatory)



sd/  
TRUE COPY



**Guwahati Office:** 4th Floor, LB Plaza, G.S. Road, Bhangagarh, Guwahati-781 005, T +91 361 2465481 / 82 / 83 / 84  
**Regd. Office & Plant:** Vill. Nongsning, P.O. Chiehruphi, PS. Khliehriat, Dist. Jaintia Hills, Meghalaya-793 200  
**Group Corporate Office:** 602 'LORDS' 7/1, Lord Sinha Road, Kolkata-700 071, T +91 33 22827367 / 7368 F +91 33 22828307  
E : info@greenvalliey.com

**A GNG GROUP COMPANY**

GOVERNMENT OF MEGHALAYA  
DIRECTORATE OF MINERAL RESOURCES  
SHILLONG.

326

No.DMR/MM/768/2018/Pt-II/ Vol-IV/427

Dated Shillong, the 18/11/2020.

To,

M/s Green Valley Industries Ltd.  
Nongsning, P.O-Chiehruphi  
East Jaintia Hills District - 793200

Sub:-

Show cause notice

Sir/Madam,

Resource (coal) audit of Cement industries and Thermal Power Plants in Meghalaya was conducted for the period 2014-15 to 2018-19 by Independent committee constituted by Hon'ble National Green Tribunal vide order dated 31.08.2018 in OA No. 110(THC)/2012. The Fifth Interim Report containing the findings of the committee was submitted by independent committee to the Hon'ble National Green Tribunal. The Hon'ble National Green Tribunal vide order dated 17.01.2020 in OA No. 110(THC)/2012 accepted the recommendation of the Independent Committee and held that Green Valley Industries Ltd has utilised **77,536 MT** of illegal coal during the period of 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19. You have violated the provisions of sub-section (1) and sub-section (1A) Section 4 of the Mines and Minerals (Development & Regulation) Act, 1957.

Therefore, you are directed to provide explanation as to why the case should not be registered against you under the sub-section (1) of Section 21 of the Mines and Minerals (Development & Regulation) Act, 1957.

Your explanation shall reach to the office of the undersigned within one week from the date of receipt of this notice.

Yours faithfully

(Arunkumar Kembhavi, IAS)  
Director of Mineral Resources  
Meghalaya :::Shillong.

Memo. No.DMR/MM/768/2018/Pt-II/ Vol-IV/427-A

Dated Shillong, the 3.11.2020.

Copy to:-

1. The Secretary to the Govt. of Meghalaya, Mining & Geology Department for kind information.
2. The Divisional Mining Officer, Jowai for information and necessary action.

sd/

TRUE COPY

sd/

Director of Mineral Resources  
Meghalaya :::Shillong.

Annexure R17/21  
**Green Valliey Industries Limited**

CIN NO.: U26942ML2007PLC008273

327 *etc*

**The Director of Mineral Resources**

Date: 23.11.2020

Government of Meghalaya

Directorate of Mineral Resources

Risa Colony, Malki, Shillong, Meghalaya - 793014

**Sub:** Show Cause Notice.

**Ref:** Letter No. DMR/MM/768/2018/Pt-II/Vol-IV/427 dated 03.11.2020

Respected Sir,

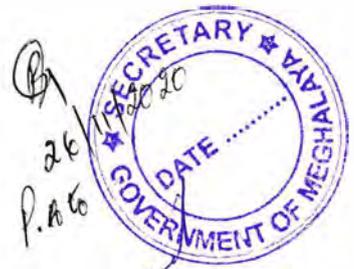
M/s Green Valliey Industries Ltd. ("the Company") is in receipt of your show cause notice dated 03.11.2020 (received on 18.11.2020) referenced hereinabove with respect to initiation of case under Section 21 (1) of Mines and Minerals (Development & Regulation) Act 1957 based on the conclusion arrived at by the Independent Committee formed by the Hon'ble National Green Tribunal in O.A. No. 110 (THC)/2012 that the Company has undertaken illegal mining of 77,536 MT of coal during the period of 2014-15, 2015-16, 2016-17, 2017-18, and 2018-19.

The Company has already submitted a detailed reply dated 28.10.2020 in response to Letter No. DMR/MM/768/2018/Pt-II/Vol-IV/192 dated 19.02.2020 and Letter No. DMR/MM/768/2018/Pt-II/Vol-IV/269 dated 16.07.2020 received by your office on 29.10.2020, the contents of which may be read along with this letter as a reply to the show cause notice dated 03.11.2020.

At the outset, kindly permit us to most sincerely reiterate that the Company has not undertaken any illegal mining activity. The Company has been diligently paying the royalty on all the coal and muslate (also referred to as 'slate') that it has used over the years. The Company would therefore like to respectfully submit that it is not liable to make any further payment for the following reasons:



*Received*  
*Received DMR Office Jowai*  
*27/11/2020*



*Office of the Director of Mineral Resources, Meghalaya, Shillong*

**Guwahati Office:** 4th Floor, LB Plaza, G.S. Road, Bhangagarh, Guwahati-781 005, T +91 361 2465481 / 82 / 83 / 84  
**Regd. Office & Plant:** Vill. Nongsning, P.O. Chiehruphi, PS. Khliehriat, Dist. Jaintia Hills, Meghalaya-793 200  
**Group Corporate Office:** 602 'LORDS' 7/1, Lord Sinha Road, Kolkata-700 071, T +91 33 22827367 / 7368 F +91 33 22828307  
E : info@greenvalliey.com

**A GNG GROUP COMPANY**

- a. The Company has never been involved in any illegal mining of coal or muslate and the same has been clearly recorded in the Fifth Interim Report of the Independent Committee on Resource (Coal) Audit of Cement Industries and Thermal Power Plants in Meghalaya ("the Committee") dated 02.12.2019 at point 2.2.18 (ix) wherein the Central Pollution Control Board ("CPCB") has stated that the cement industries are not involved in illegal mining of coal or slate. Documentary evidence was furnished before the Committee that the fuel/ alternative fuel resource are procured after payment of royalty. The Committee wrongly concluded that the Company has undertaken illegal mining of 77,536 MT of coal holding the Company liable for payment of Rs. 12.096 crore.
- b. Further, the Company has been paying the royalty in terms of Rule 29 of the Meghalaya Minor Mineral Concession Rules 2016 ("MMMCR 2016") before which the royalty was being collected in the autonomous district under the powers granted through the Executive Order no. TAD/FR/22/55. The same has also been recorded in the Fifth Interim Report of the Committee dated 02.12.2019. A copy of the challans highlighting the amount of royalty paid by the Company under the MMMCR 2016 has already been annexed with the reply dated 28.10.2020 however the same is being annexed herewith and marked as ANNEXURE A.
- c. It is pertinent to note that the Company has primarily been using coal as a fuel and therefore the use of Muslate / slate as an alternative fuel resource is very less. The fuel consumption of the Company for the duration between 2014-15 and 2018-19 is Coal – 2,23,507 MT & Alternate Fuel – 1,47,748 MT respectively. It is pertinent to note that the Hon'ble Supreme Court has held in the case of *State of Meghalaya v. All Dimasa Students Union, Dima-Hasao District Committee & Ors.* (Civil Appeal No. 10720/2018 vide judgment dated 03.07.2019) that the coal produced in the State except for the coal seized in illegal transportation is vested with the concerned land owner. Therefore coal obtained cannot be treated as illegal on the ground of non-grant of mining lease for the same.

- d. The Company is an environmentally conscious, law-abiding entity and has been operating with all the relevant consents and clearances. The Company has also been submitting its compliance reports regularly to the concerned authorities.

Since the Company has been paying the royalty in terms of Rule 29 of the Meghalaya Minor Mineral Concession Rules 2016 ("MMMCR 2016") and there has been no illegal mining undertaken by the Company, hence the provisions of Section 4 (1) and Section 4(1A) of the Mines and Minerals (Development & Regulation) Act 1957 have not been violated by the Company to attract penalties under Section 21 (1) of the Mines and Minerals (Development & Regulation) Act 1957.

We would like to further inform you that the order of the NGT dated 09.01.2020 (uploaded on 17.01.2020) in O.A. No. 110 (THC) of 2012 by which the Fifth Interim Report of the Committee dated 02.12.2019 was accepted, has been challenged before the Hon'ble Supreme Court of India and therefore the matter is sub-judice. Therefore, any action taken in light of the Fifth Interim Report of the Committee may cause hardship and grave injustice to the Company during the pendency of the matter and before the issue is resolved by the Hon'ble Supreme Court.

We would therefore request your office to kindly withdraw Letter No. DMR/MM/768/2018/Pt-II/Vol-IV/427 dated 03.11.2020, for the aforesaid reasons and not initiate any coercive steps against the Company. As stated above, the Company has never undertaken any illegal mining activity and therefore no action should be taken against the Company under Section 21(1) of the Mines and Minerals (Development & Regulation) Act, 1957.

Thanking You,

Yours Sincerely,

For Green Valley Industries Ltd.

  
(Authorized Signatory)

Encl: As above

Copy to:-

1. The Secretary to the Govt. of Meghalaya, Mining & Geology Department
2. The Divisional Mining Officer, Jowai

S/d  
True Copy

Green Valliey Industries Limited  
CIN NO.: U26942ML2007PLC008273

Date: 02.12.2020

To,  
The Superintendent / Appraiser / Senior Intelligence Officer  
DGGI, SRU Shillong  
Old Arunachal Pradesh Secretariat Building  
Near Anjalee Petrol Pump  
Shillong – 793001

Ref.: Out Letter dated 02.11.2020

This is with reference to our above said letter in response to your summons dated 20.10.2020 received by us on 28.0.2020, we would like to state as under:

- 1) Details of payments made to Government of Meghalaya for Mining lease/license, royalty etc. for FY 2016-17 to 2020-21 (upto Aug 20) in the prescribed format as sought for vide your letter no. 296 dated 16.09.2020 is attached herewith in separate sheet marked “Annexure-1)
- 2) Copy of demand notice issued to us by the Director of Mineral Resources, Shillong dated 19.02.2020 along with our reply dated 28.10.2020 is attached herewith collectively marked “Annexure-2”.
- 3) Details of GST paid on Royalty amounting to Rs. 78.80 lacs made to Government of Meghalaya on 1.62 lakh MT of Slate is attached herewith in separate sheet marked “Annexure-3”.

Thanking You,  
For Green Valliey Industries Limited.

Sd/-  
(Authorised Signatory)

Encl: As above

S. No	F.Y.	Mineral/Fuel	Date of payment	Payment made in respect of or on account of Royalty / DMF / MEPRF / NMET / Cess / MMRf / Mining Licence / Lease / Reconnaissance Permit / Prospecting Licence / Quarry Permit / Dead Rent / or Any other payment (please specify)	Challan No. vide which payment made	Amount paid	Quantity of Mineral / Fuel for which payment made	UOM	Amount of Service Tax paid on such amount paid to state Govt. if any	Amount of VAT on such amount paid to State Govt., if any	Amount of GST on such amount paid to State Govt., if any
1	2017-18	Lime Stone	08.08.2017	Royalty	10061	1,20,00,000.00	150000	MT	-	-	6,00,000
2	2017-18	Lime Stone	08.08.2017	Cess	10060	90,00,000	150000	MT	-	-	4,50,000
3	2017-18	Lime Stone	09.11.2017	Royalty	17268	80,00,000	150000	MT	-	-	4,00,000
4	2017-18	Lime Stone	09.11.2017	Cess	17269	60,00,000	100000	MT	-	-	3,00,000
5	-	Lime Stone	22.11.2017	Appl. fees for mining lease	17640	24,450	-	-	-	-	-
6	-	Lime Stone	22.11.2017	Appl. fees for mining lease	17639	53,550	-	-	-	-	-
7	-	Lime Stone	22.11.2017	Appl. fees for mining lease	17641	2,22,900	-	-	-	-	-
8	2017-18	Lime Stone	06.02.2018	Royalty	17398	40,00,000	50000	MT	-	-	2,00,000
9	2017-18	Lime Stone	06.02.2018	Cess	17401	30,00,000	50000	MT	-	-	1,50,000
10	2017-18	Lime Stone	23.03.2018	Royalty	17393	40,00,000	50000	MT	-	-	2,00,000
11	2017-18	Lime Stone	23.03.2018	Cess	17402	30,00,000	50000	MT	-	-	2,00,000

12	2017-18	Lime Stone	23.03.2018	Royalty	17397	40,00,000	50000	MT	-	-	2,00,000
13	2017-18	Lime Stone	23.03.2018	Cess	17405	30,00,000	50000	MT	-	-	2,00,000
14	2017-18	Lime Stone	18.01.2019	Cess	23692	21,00,000	35000	MT	-	-	3,78,000
15	2017-18	Lime Stone	18.01.2019	Royalty	23691	28,00,000	35000	MT	-	-	5,04,000
16	2017-18 & 2018-19	Lime Stone	06.02.2019	Royalty	24556	14,40,000	18000	MT	-	-	2,59,200
17	2017-18 & 2018-19	Lime Stone	06.02.2019	Cess	24554	10,80,000	18000	MT	-	-	1,94,400
18	2018-19	Lime Stone	04.04.2019	Cess	440	12,69,120	21152	MT	-	-	2,28,442
19	2018-19	Lime Stone	04.04.2019	Royalty	441	16,92,160	21152	MT	-	-	3,04,589
20	-	Shale	16.05.2019	Appl. fees for mining lease	3325	5000	-	-	-	-	-
21	-	Clay	16.05.2019	Appl. fees for mining lease	3326	5000	-	-	-	-	-
22	2016-17 & 2018-19	Lime Stone	09.09.2019	Cess	8943	76,68,422	127807	MT	-	-	-
23	2018-19	Lime Stone	18.10.2019	Royalty	10623	20,00,000	25000	MT	-	-	3,60,000
24	2018-19	Lime Stone	18.10.2019	Cess	10622	15,00,000	25000	MT	-	-	2,70,000
25	2018-19	Lime Stone	18.10.2019	Royalty	10625	20,00,000	25000	MT	-	-	3,60,000
26	2018-19	Lime Stone	18.10.2019	Cess	10621	15,00,000	25000	MT	-	-	2,70,000
27	2018-19	Lime Stone	12.11.2019	Royalty	11827 & 11828	40,00,000	50000	MT	-	-	7,20,000
28	2018-19	Lime Stone	12.11.2019	Cess	11824 & 11825	30,00,000	50000		-	-	5,40,000
29	-	Shale	31.01.2020	DFO Forest	16936	23,850	-	-	-	-	-
30	2018-19	Lime Stone	03.02.2020	Royalty	16935	32,00,000	40000	MT	-	-	5,76,000
31	2018-19	Lime Stone	03.02.2020	Cess	16935	24,00,000	40000	MT	-	-	4,32,000
32	2018-19	Lime Stone	24.02.2020	Royalty	17678	32,00,000	40000	MT	-	-	5,76,000

33	2018-19 & 2019-20	Lime Stone	04.03.2020	Royalty	18028	2,88,00,000	360000	MT	-	-	51,84,000
34	2020-21	Lime Stone	05.06.2020	Royalty	1484	2,00,00,000	200000	MT	-	-	36,00,000
35	2016-17	Slate	29.06.2020	Royalty	6269	5,55,020	12333.77	MT	-	-	-
36	2017-18	Slate	05.07.2019	Royalty	6781	5,92,317	13163	MT	-	-	-
37	2017-18	Slate	05.07.2019	Royalty	6781	12,00,169	26670	MT	-	-	2,16,029.59
38	2018-19	Slate	05.07.2019	Royalty	6782	20,15,113	44780.29	MT	-	-	3,62,720
39	2018-19	Slate	05.07.2019	Royalty	6783	10,44,543	10445.43	MT	-	-	1,88,018
40	-	-	30.07.2020	Appl. fees for mining lease	Letter No. GVIL/ MINES / FDP / 6.55/2020- 21 / 38 DTD 03.08.2020	72,034	-	-	-	-	-
41	-	-	31.07.2020	DFO Forest	3927	1,05,930	-	-	-	-	19,067
42	2020-21	Clay	31.07.2020	Royalty	3928	50,00,000	50000	MT	-	-	9,00,000
43	-	Clay	01.09.2020	Appl. fees for mining lease	5060	5,000	-	-	-	-	-
44	-	Clay	01.09.2020	Fees for grant of mining lese	5061	17,630	-	-	-	-	-
45	2020-21	Lime Stone	15.10.2020	Royalty	6244	2,00,00,000	200000	MT	-	-	36,00,000
						17,65,92,214					2,28,42,465

Green Valliey Industries Limited  
Annexure-3

Amount in Rs.					
FY	Date of Payment	Challan No.	Royalty Paid	Qty (MT)	GST Paid
2014-15	01.07.2019	6271	12,96,824	28,818	-
2015-16	01.07.2019	6270	11,76,357	26,142	-
2016-17	01.07.2019	6269	5,55,020	12,334	-
2017-18	05.07.2019	6781	5,92,335	13,163	-
2017-18	05.07.2019	6781	12,00,150	26,670	2,16,030
2018-19	05.07.2019	6782	20,15,113	44,780	3,62,720
2018-19	05.07.2019	6782	10,44,543	10,445	1,88,018
			78,80,342	1,62,353	7,66,768

## Details of LS

Month	Opening			Purchase			Consumption	Closing		
	Book	Mines-1	Self-1	Challan	Mines-1	Self-1		Book	Mines-1	Self-1
16-17	76,205.17	6,23,055.58	11,74,152.00	1,20,818.26	3,57,457.16	-	3,97,950.42	1,56,530.17	2,65,598.42	11,74,152.00
17-18	1,56,530.17	2,65,598.42	11,74,152.00	25,588.63	2,65,598.01	4,36,643.79	4,76,282.02	4,08,078.57	-	7,37,508.21
				1,46,406.89	6,23,055.17	4,36,643.79	8,74,232.44			

RTY – Ch. No. 8143 Dated 08.08.16 Rs. 8,00,000  
 VAT – Ch. No. 8142 40,000  
 8,40,000

Assam Schedule L (Part I) Form No. 19  
 P 194/42

DUPLICATE  
 FOREST DEPARTMENT MEGHALAYA  
 \_\_\_\_\_ Division

Book No. 2172 Receipt No. 44

Cash Book Dr. item No. \_\_\_\_\_ dated \_\_\_\_\_ 20

Received from Shri J.K. Rymbai

The sum of Rs. Rs. 8,40,000 (Eight Lakh Forty Thousand Only)

On Account of Royalty and Vat for 10,000 mt of L/Stone  
 Office In charge

Dated: Jowai

The 09.08.2016 Range / Depot

SEAL OF SIGNED  
 DIVISIONL FOREST OFFICER (T)  
 JALTIA HILLS DIVISION  
 JOWAI

RTY – Ch. No. 8143 Dated 08.08.16 Rs. 8,00,000  
 VAT – Ch. No. 8142 40,000  
 8,40,000

Assam Schedule L (Part I) Form No. 19  
 P 194/42

TRIPLICATE  
 FOREST DEPARTMENT MEGHALAYA  
 \_\_\_\_\_ Division

Book No. 2172 Receipt No. 44

Cash Book Dr. item No. \_\_\_\_\_ dated \_\_\_\_\_ 20

Received from Shri J.K. Rymbai

The sum of Rs. Rs. 8,40,000 (Eight Lakh Forty Thousand Only)

On Account of Royalty and Vat for 10,000 mt of L/Stone  
 Office In charge

Dated: Jowai

The 09.08.2016 Range / Depot

SEAL OF SIGNED  
 DIVISIONL FOREST OFFICER (T)  
 JALTIA HILLS DIVISION  
 JOWAI

sd/  
 TRUE COPY

6438 Annexure R17 /23 (Colly)  
**Green Valliey Industries Limited**

CIN NO.: U26942ML2007PLC008273

338

No. GVIL/DMO/2/2020/09

7<sup>th</sup> December, 2020

To,  
The Divisional Mining Officer  
Jowai, Meghalaya - 793210

Sub: Submission of Monthly Data for September 2020.

Dear Sir,

We would like to submit our monthly statement for the month of September - 2020. You are requested to kindly accept and acknowledge the same.

Thanking you,

Yours faithfully  
For **Green Valliey Industries Limited**

Signature



Receive  
DMO's Office Jowai



**Guwahati Office:** 4th Floor, LB Plaza, G.S. Road, Bhangagarh, Guwahati-781 005, T +91 361 2465481 / 82 / 83 / 84  
**Regd. Office & Plant:** Vill. Nongsning, P.O. Chiehruphi, PS. Khliehriat, Dist. Jaintia Hills, Meghalaya-793 200  
**Group Corporate Office:** 602 'LORDS' 7/1, Lord Sinha Road, Kolkata-700 071, T +91 33 22827367 / 7368 F +91 33 22828307  
E : info@greenvalliey.com

**A GNG GROUP COMPANY**

**Point a**

Monthly Statement of Clinker produced and Power Produced from Cement Plant and Thermal Plant for the Month of Sep-2020

Name of the Company: Green Valliey Industries Ltd

Month	Clinker Produced in Mt	Power produced in Mw
Sep-20	37,358.87	NA

*Handwritten signature*

*Handwritten signature*



## Point b

Data on Quantity of Coal consumed and purchased by cement plants and Thermal Plants for the Month of Sep - 2020

Name of the Company: Green Valliey Industries Limited

Month	Coal consumed in MT	Coal Purchase in MT		
		From With in the state	From outside the state	Total Purchased in Mt
Sep-20	4,209.09	-	1,301.63	1,301.63

note ; need to verify the legal source of source of coal procured by cement plants

*Handwritten signature*



**Point d**

Statement of cement produced and power generated and quantity of coal used  
For the Month Of Sep- 2020

Name of the Company: Green Valliey Industries Ltd

Month	Cement Produced in Mt	Clinker Produced in Mt	Quantity of coal Used in clinker produced Mt	Power generated in Mw	Quantity of coal Used in power generation in Mt	Alternate fuel in Mt
Sep-20	38,728.05	37,358.87	4,209.09	NA	NA	407.39

note ; need to verify the legal source of source of coal procured by cement plants

*Received*  
*H*



sd/  
TRUE COPY

6442  
**Green Valliey Industries Limited**

CIN NO.: U26942ML2007PLC008273

342 *etc*

No. GVIL/DMO/2/2020/10

7<sup>th</sup> December, 2020

To,  
The Divisional Mining Officer  
Jowai, Meghalaya - 793210

Sub: Submission of Monthly Data for October 2020.

Dear Sir,

We would like to submit our monthly statement for the month of October - 2020. You are requested to kindly accept and acknowledge the same.

Thanking you,

Yours faithfully  
For **Green Valliey Industries Limited**

*[Handwritten Signature]*  
Signature



*[Handwritten Signature]*  
Received DMO's Office Jowai



**Guwahati Office:** 4th Floor, LB Plaza, G.S. Road, Bhangagarh, Guwahati-781 005, T +91 361 2465481 / 82 / 83 / 84  
**Regd. Office & Plant:** Vill. Nongsning, P.O. Chiehruphi, PS. Khliehriat, Dist. Jaintia Hills, Meghalaya-793 200  
**Group Corporate Office:** 602 'LORDS' 7/1, Lord Sinha Road, Kolkata-700 071, T +91 33 22827367 / 7368 F +91 33 22828307  
E : info@greenvalliey.com

**A GNG GROUP COMPANY**

**Point a**

Monthly Statement of Clinker produced and Power Produced from Cement Plant and Thermal Plant for the Month of Oct-2020

Name of the Company: Green Valliey Industries Ltd

Month	Clinker Produced in Mt	Power produced in Mw
Oct-20	42,203.36	NA



*Handwritten signature in blue ink.*

## Point b

Data on Quantity of Coal consumed and purchased by cement plants and Thermal Plants for the Month of Oct - 2020

Name of the Company: Green Valliey Industries Limited

Month	Coal consumed in MT	Coal Purchase in MT		
		From With in the state	From outside the state	Total Purchased in Mt
Oct-20	4,897.91	-	9,236.95	9,236.95

note ; need to verify the legal source of source of coal procured by cement

*Report*



## Point d

Statement of cement produced and power generated and quantity of coal used  
For the Month Of Oct 2020

Name of the Company: Green Valliey Industries Ltd

Month	Cement Produced in Mt	Clinker Produced in Mt	Quantity of coal Used in clinker produced Mt	Power generated in Mw	Quantity of coal Used in power generation in Mt	Alternate fuel in Mt
Oct-20	44,876.75	42,203.36	4,897.91	NA	NA	-

note ; need to verify the legal source of source of coal procured by cement plants

*Handwritten signature*



sd/  
TRUE COPY

6446  
**Green Valliey Industries Limited**

CIN NO.: U26942ML2007PLC008273

346 o/c

No. GVIL/DMO/2/2020/11

7<sup>th</sup> December, 2020

To,  
The Divisional Mining Officer  
Jowai, Meghalaya - 793210

Sub: Submission of Monthly Data for November 2020.

Dear Sir,

We would like to submit our monthly statement for the month of November - 2020. You are requested to kindly accept and acknowledge the same.

Thanking you,

Yours faithfully  
For **Green Valliey Industries Limited**

Signature



Received DMO's Office Jowai  
Divisional Mining Officer  
Directorate of Mineral Resources  
Meghalaya, Jowai.



**Guwahati Office:** 4th Floor, LB Plaza, G.S. Road, Bhangagarh, Guwahati-781 005, T +91 361 2465481 / 82 / 83 / 84  
**Regd. Office & Plant:** Vill. Nongsning, P.O. Chiehruphi, PS. Khliehriat, Dist. Jaintia Hills, Meghalaya-793 200  
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E : info@greenvalliey.com

**A GNG GROUP COMPANY**

**Point a**

Monthly Statement of Clinker produced and Power Produced from Cement Plant and Thermal Plant for the Month of Nov-2020

Name of the Company: Green Valliey Industries Ltd

Month	Clinker Produced in Mt	Power produced in Mw
Nov-20	13,718.05	NA



*Permit*  
*[Signature]*

Divisional Mining Office  
Directorate of Mineral Resources  
Meghalaya, Jowai.

## Point b

Data on Quantity of Coal consumed and purchased by cement plants and Thermal Plants for the Month of Nov - 2020

Name of the Company: Green Valliey Industries Limited

Month	Coal consumed in MT	Coal Purchase in MT		
		From With in the state	From outside the state	Total Purchased in Mt
Nov-20	1,622.80	-	-	-

note ; need to verify the legal source of source of coal procurec



*Handwritten signature*

Regional Mining Officer  
Directorate of Mineral Resources  
Meghalaya, Jorhat.

## Point d

Statement of cement produced and power generated and quantity of coal used  
For the Month Of Nov 2020

Name of the Company: Green Valliey Industries Ltd

Month	Cement Produced in Mt	Clinker Produced in Mt	Quantity of coal Used in clinker produced Mt	Power generated in Mw	Quantity of coal Used in power generation in Mt	Alternate fuel in Mt
Nov-20	30,610.20	13,718.05	1,622.80	NA	NA	-

note ; need to verify the legal source of source of coal procured by cement plants



*[Signature]*  
Divisional Engineer, Mines  
Directorate of Mineral Resources,  
Meghalaya, Jorhat.

sd/  
TRUE COPY

**ORIGINAL**

Meghalaya Schedule III (Sec. I) Form No. 65  
[Revised 1939]

DMR Chalan No.

Treasury/Sub-Treasury MEGHALAYA



Chalan of cash paid into the ..... at .....  
State Bank of India

*Royalty on State*

To be filled in by the remitter			To be filled in by the Departmental Officer Head of Account Mineral Resources		
By whom tendered  Name	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Order to the Bank
			Rs.	P.	
GREEN VALLIEY INDUSTRIES LTD. Nongning Elaka Sutnga, P.O. Chichruphi Khliehriat, East Jaintia Hills-793200 - Meghalaya.		PAYMENT OF ROYALTY ON STATE FOR 24814.80 MS @100/-  Total	24,81,480/-		0853-Non-Ferrous Mining and Metallurgy 00 - Null 800 - Other Receipts (04) - Royalties / Dead Rent on Date _____ Correct, Receive and grant receipt (Signature) Full designation of the Officer ordering the money to be paid)

\*(In words) Rupees *Twenty four lakh eighty one thousand four hundred eighty p.*

Signature *[Signature]*  
Date *09/09/2019*  
Stamp: PAY CASH/TRANSFER, Jowai, Chq No-171803, Date: 22.12.2020, DEC 2020

To be used only the case of remittances to Bank through an officer of the Government

Signature *[Signature]*  
DIVISIONAL MINING OFFICER  
DIRECTORATE OF MINERAL RESOURCES  
MEGHALAYA, JOWAI  
Office

Received Payment Date \_\_\_\_\_  
Treasurer *[Signature]*  
Senior Manager  
United Bank of India  
Accountant  
*22/12/2020*

Treasury Officer *[Signature]*  
Asst. *[Signature]*

GOVERNMENT OF MEGHALAYA  
DIRECTORATE OF MINERAL RESOURCES  
SHILLONG

15/12/2021

NO.DMR/MM/845/2020/ 33

Dated Shillong, the 08-02, 2021.

To,

M/s Green Valley Industries Ltd,  
Nongsning, East Jaintia Hills District,  
Meghalaya 793200.

**Sub: Show Cause Notice**

Sir/ Madam,

As decided during the meeting of the Committee constituted to review the quantity of clinker and/or power produced by the Cement Manufacturing Plants and Thermal Power Plants and to verify the legal source of coal purchased, chaired by the Chief Secretary to the Government of Meghalaya held on the 19<sup>th</sup> October, 2020, you were directed vide Memo No. MG.48/2020/195-A dated 30<sup>th</sup> November, 2020, to furnish an explanation for the gap in quantity of coal required to produce clinker/ power and quantity of coal purchased/ used by you during the period February, 2020 to July, 2020. However, no response or documents have been received from you since the date of issue of the minutes.

You are hereby directed to submit a written explanation for not furnishing an explanation within 1 (one) week from the date of issue of this letter, failing of which action will be initiated for violation of Section 4(1A) of the Mines and Minerals (Development and Regulation) Act, 1957.

Director of Mineral Resources  
Meghalaya, Shillong

Memo No.DMR/MM/845/2020/

Dated Shillong, the , 2021.

Copy forwarded for information:

1. The Secretary to the Govt. of Meghalaya, Mining & Geology Department.
2. The Divisional Mining Officer, Jowai.

Director of Mineral Resources  
Meghalaya, Shillong

sd/  
TRUE COPY

Received by Hand from  
DMO by Jogi Agawak  
on 15/2/2021 352

GOVERNMENT OF MEGHALAYA  
DIRECTORATE OF MINERAL RESOURCES  
SHILLONG

*[Signature]*  
15/2/2021

NO.DMR/MM/845/2020/34

Dated Shillong, the 08-02, 2021.

To.

M/s Green Valley Industries Ltd,  
Nongsning, East Jaintia Hills District,  
Meghalaya 793200.

**Sub: Show Cause Notice**

Sir/ Madam,

As decided during the meeting of the Committee constituted to review the quantity of clinker and/or power produced by the Cement Manufacturing Plants and Thermal Power Plants and to verify the legal source of coal purchased, chaired by the Chief Secretary to the Government of Meghalaya held on the 19<sup>th</sup> October, 2020, you were directed vide Memo No. MG.48/2020/195-A dated 30<sup>th</sup> November, 2020, to furnish Transport Challans issued by the Mining Department of the origin State or documents of Coal India Ltd. as proof of coal procured during the period of February 2020 to July 2020 within one week from the date of issue of the minutes of meeting. However, no response or documents have been received from you since the date of issue of the minutes.

You are hereby directed to submit a written explanation for not furnishing the Transport Challans within I (one) week from the date of issue of this letter, failing of which action will be initiated for violation of Section 4(1A) of the Mines and Minerals (Development and Regulation) Act, 1957.

*[Signature]*  
Director of Mineral Resources  
Meghalaya, Shillong

Dated Shillong, the , 2021.

Memo No.DMR/MM/845/2020/  
Copy forwarded for information:

1. The Secretary to the Govt. of Meghalaya, Mining & Geology Department.
2. The Divisional Mining Officer, Jowai.

*[Signature]*  
Director of Mineral Resources  
Meghalaya, Shillong

sd/  
TRUE COPY

Received by Hand  
From BMD 353 Jogi  
Agreed on 15/2/2021.

GOVERNMENT OF MEGHALAYA  
DIRECTORATE OF MINERAL RESOURCES  
SHILLONG

15/2/2021

NO.DMR/MM/845/2020/35

Dated Shillong, the 08.02, 2021.

To,

M/s Green Valley Industries Ltd,  
Nongsning, East Jaintia Hills District,  
Meghalaya 793200.

**Sub: Show Cause Notice**

Sir/ Madam,

As decided during the meeting of the Committee constituted to review the quantity of clinker and/or power produced by the Cement Manufacturing Plants and Thermal Power Plants and to verify the legal source of coal purchased, chaired by the Chief Secretary to the Government of Meghalaya held on the 19<sup>th</sup> October, 2020, you were directed vide Memo No. MG.48/2020/195-A dated 30<sup>th</sup> November, 2020, to furnish details of clinker/power production and coal procured for the months of August and September 2020 within one week from the date of issue of the minutes of meeting. However, no response or documents have been received from you since the date of issue of the minutes.

You are hereby directed to submit a written explanation for not furnishing the details of clinker/power production and coal procured for the months of August and September 2020 within 1 (one) week from the date of issue of this letter, failing of which action will be initiated for violation of Section 4(1A) of the Mines and Minerals (Development and Regulation) Act, 1957.

It is also noted that the details of clinker/power production and coal procured for the months of October 2020, November 2020 and December 2020 have also not been furnished. The same shall also be furnished within 1 (one) week from the date of issue of this letter.

  
Director of Mineral Resources  
Meghalaya, Shillong

Memo No.DMR/MM/845/2020/

Dated Shillong, the , 2021.

Copy forwarded for information:

1. The Secretary to the Govt. of Meghalaya, Mining & Geology Department.
2. The Divisional Mining Officer, Jowai.

  
Director of Mineral Resources  
Meghalaya, Shillong

sd/  
TRUE COPY

Green Valliey Industries Limited  
CIN NO.: U26942ML2007PLC008273

Date: 01.03 2021

To,  
The Director of Mineral Resources  
Government of Meghalaya  
Directorate of Mineral Resources  
Risa Colony, Malki, Shillong,  
Meghalaya - 793014

Sub: Reply to three Show Cause Notices bearing NO.  
DMR/MM/845/2020/33, 34 & 35 all dated 08.02.2021 received by  
us on 15.02.2021

Respected Sir,

We, M/s Green Valliey Industries Ltd. ("The Company / GVIL") are writing in response to the captioned three Show-Cause Notices dated 08.02.2021 ("SCNs") issued by Directorate of Mineral Resources, Government of Meghalaya asking us to submit written explanation for alleged non submission of certain data / documents asked vide Memo No. MG.48/2020/195-A dated 30.11.2020.

In this regard we would like to say that the GVIL is an law-abiding entity and has been operating with all the relevant consents and clearances. The

Company has also been submitting its compliance reports regularly to the concerned authorities.

We would like to further draw your kind attention to the order of the Hon'ble NGT dated 17.01.2020 in O.A. No. 110 (THC) of 2012 by which the Fifth Interim Report of the Committee dated 02.12.2019 was accepted. As you would know, this order of the Hon'ble NGT has been challenged before the Hon'ble Supreme Court of India and therefore the matter is sub-judice. Therefore, any action taken in light of the instant SCNs by your good office may cause unjust hardship and grave injustice to the Company during the pendency of the matter and before the issue is resolved by the Hon'ble Supreme Court.

Further, as we understand, abovesaid SCNs are based on the minutes of the meeting held on 19.10.2020 by the Committee chaired by the Chief Secretary to the Government of Meghalaya. The Committee based on the order dated 17 01.2020 of the Hon'ble NGT came to a conclusion that there is a gap in coal purchased / used by the Company. However, no working / calculation / justification has been provided by the committee to us till date regarding the estimation made to calculate such gap.

It is pertinent to mention that vide order dated 17.01.2020, Hon'ble NGT had accepted the erroneous findings of the independent Committee's Fifth Interim Report that various cement manufacturing and power plants have used illegally sourced coal GVIL had filed detailed reply dated 28.10.2020 to the demand notice issued by your office based on the findings of the independent Committee's Fifth Interim Report pointing out the infirmities in the said Fifth Interim Report. For the sake of brevity, contents of our

said reply are not reiterated herein and the same are being incorporated herein by reference. Copy of the said reply letter dated 28.10.2020 are attached herewith marked Annexure – ‘A’.

We would also like to inform that the requisite data asked vide DMR/MM/845/2020/35 dated 08.02.2021 i.e, clinker / power production and coal procured for the month of August and September 2020 were submitted to the office of Divisional Mining Officer, Jowai vide our letters dated 11.09.2020 & 07.12.2020 respectively i.e., well before the date of issue of relevant SCN. Copies of our said letters dated 11.09.2020 & 07.12.2020 are attached herewith collectively marked Annexure – ‘B’.

In view of all of above, we request your good office to kindly withdraw abovesaid three Show Cause Notices, for the aforesaid reasons and not initiate any coercive steps against the Company.

Thanking You,  
Yours Sincerely,  
For Green Valliey Industries Limited.

Sd/-

(Authorised Signatory)

Encl: Annexure A & B a above.

Copy to:

1. The Secretary to the Govt. of Meghalaya, Mining & Geology Department
2. The Divisional Mining Officer, Jowai

Green Valliey Industries Limited  
CIN NO.: U26942ML2007PLC008273

No.: GVIL/DMO/02/2020/06

11<sup>th</sup> September 2020

To,  
The Divisional Mining Officer  
Jowai, Meghalaya – 793210

Sub: Submission of Monthly Data August 2020

Dear Sir,

We would like to submit our monthly statement for the month of August 2020. You are requested to kindly accept and acknowledge the same.

Thanking you,

Yours faithfully  
For Green Valliey Industries Limited  
Sd/-  
Pawan Kumar Joshi  
(AVP – Commercial)

**Point A**

Monthly Statement of Clinker produced and Power Produced from Cement Plant and Thermal Plant for the month of August – 2020

Name of the Company: Green Valliey Industries Ltd.

Month	Clinker Produced in Mt	Power produced in MW
Aug-20	36,039.30	NA

**Point B**

Data on Quantity of Coal consumed and purchased by cement plants and Thermal Plants for the Month of Aug-2020

Name of the Company: Green Valliey Industries Limited

Month	Coal consumed in MT	Coal Purchase in MT		
		From within the state	From outside the state	Total Purchased in MT
Aug-20	3,530.18	-	3,724.75	3,724.75

Note: need to verify the legal source of source of coal procured by cement plants

**Point D**

Statement of cement produced and power generated and quantity of coal used for the Month of Aug 2020

Name of the Company: Green Valliey Industries Ltd.

Month	Cement Produced in MT	Clinker Produced in MT	Quantity of coal used in clinker produced in MT	Power generated in MW	Quantity of coal used in power generation in MT	Alternate fuel in MT
Aug-20	32,602.00	36,039.30	3,530.18	NA	NA	1,337.81

Note: need to verify the legal source of source of coal procured by cement plants

Green Valliey Industries Limited  
CIN NO.: U26942ML2007PLC008273

No.: GVIL/DMO/02/2020/09

7<sup>th</sup> December, 2020

To,  
The Divisional Mining Officer  
Jowai, Meghalaya – 793210

Sub: Submission of Monthly Data September 2020

Dear Sir,

We would like to submit our monthly statement for the month of September 2020. You are requested to kindly accept and acknowledge the same.

Thanking you,

Yours faithfully  
For Green Valliey Industries Limited

Sd/-

Signature

**Point A**

Monthly Statement of Clinker produced and Power Produced from Cement Plant and Thermal Plant for the month of Sep-2020

Name of the Company: Green Valliey Industries Ltd.

Month	Clinker Produced in Mt	Power produced in MW
Sep-20	37,358.87	NA

**Point B**

Data on Quantity of Coal consumed and purchased by cement plants and Thermal Plants for the Month of Sep-2020

Name of the Company: Green Valliey Industries Limited

Month	Coal consumed in MT	Coal Purchase in MT		
		From within the state	From outside the state	Total Purchased in MT
Sep-20	4,209.09	-	1,301.63	1,301.63

Note: need to verify the legal source of source of coal procured by cement plants

**Point D**

Statement of cement produced and power generated and quantity of coal used for the Month of Sep - 2020

Name of the Company: Green Valliey Industries Ltd.

Month	Cement Produced in MT	Clinker Produced in MT	Quantity of coal used in clinker produced in MT	Power generated in MW	Quantity of coal used in power generation in MT	Alternate fuel in MT
Sep-20	38,728.05	37,358.87	4,209.09	NA	NA	407.39

Note: need to verify the legal source of source of coal procured by cement plants

Green Valliey Industries Limited  
CIN NO.: U26942ML2007PLC008273

Date: 28.10.2020

The Director of Mineral Resources  
Government of Meghalaya  
Directorate of Mineral Resources  
Risa Colony, Maiki, Shillong  
Meghalaya – 793014

Sub: Payment of royalty and contribution to MEPRF on alleged illegality sourced coal

Ref.: Letter No. DMR/MM/768/2018/Pt-II/Vol-IV/192 dated 19.02.2020 and letter No. DMR/MM/768/Pt-II/Vol-IV/269 dated 16.07.2020

Respected Sir,

M/s Green Valliey Industries Ltd. (“the Company”) is in receipt of your letter dated 19.02.2020 and the related letter dated 16.07.2020 referenced hereinabove with respect to the payment of royalty and contribution to Meghalaya Environment Protection and Restoration Fund (“MEPRF”) on illegally sourced coal.

At the outset, kindly permit us to most sincerely reiterate that the Company has not undertaken any illegal mining activity. The Company has been regularly paying the royalty on all the coal muslate (also referred to as ‘slate’) that it has used over the years.

The Company would therefore like to submit that it is not able to make payment of the demand for the following reasons:

- a. The Company has never been involved in any legal mining of coal or muslate and the same has been clearly recorded in the fifth interim report of the Independent Committee on Resource (Coal) Audit of Cement Industries and Thermal Power Plants in Meghalaya (“the Committee”) dated 02.12.2019 at point 2.2.18 (ix) wherein the Central Pollution Control Board (“CPCB”) has stated that the cement industry are not involved in illegal mining of coal or slate. Documentary evidence was furnished before the Committee wrongly concluded that the Company has undertaken illegal mining of 77,536 MT of coal holding the Company liable for payment of Rs. 12.096 crore.
- b. Further the company has been paying the royalty in terms of Rule 29 of the Meghalaya minor Mineral Concession Rules 2016 (“MMMCR 2016”) before which the royalty was being collected in the autonomous district under the powers granted through the Executive Order no. TAD/FR/22/55. The same has also been recorded in the fifth interim report of the committee dated 02.12.2019. A copy of the challans highlighting the amount of royalty paid by the Company under the MMMCR 2016 is annexed herewith and marked as ANNEXURE A.
- c. It is pertinent to note that the Company has primarily been using coal as a fuel and therefore the use of muslates / late as an alternative fuel

resource is very less. The fuel consumption of the Company for the duration between 2014-15 and 2018-19 is Coal – 2,23,507 MT & Alternate Fuel – 1,47,748 MT respectively.

It is pertinent to note that the Hon'ble Supreme Court has held in the case of State of Meghalaya v. All Dimasa Students Union Dima-Hasao District Committee & Ors. (Civil Appeal No. 10720/2018 vide judgment dated 03.07.2019) that the coal produced in the State except for the coal seized in illegal transportation is vested with the concerned land owner. Therefore, coal obtained cannot be treated as illegal on the ground of the non grant of mining lease for the same.

- d. The Company is an environmentally conscious, law-abiding entity and has been operating with all the relevant consents and clearances. The Company, has also been submitting its compliance reports regularly to the concerned authorities.

We would like to further draw your kind attention to the order of NGT dated 09.01.2020 (which was uploaded on 17.01.2020) in O.A. No. 110 (THC) of 2012 by which the Fifth Interim Report of the Committee dated 02.12.2019 was accepted. As you would know, this order of the Hon'ble NGT has been challenged before the Hon'ble Supreme court of India and therefore the matter is sub-judice.

We would therefore request your office to kindly withdraw letter no. DMR/MM/768/2018/Pt-II/Vol-IV/192 dated 19.02.2020 and letter No. DMR/MM/768/Pt-II/Vol-IV/269 dated 16.07.2020, which was a reminder to the letter dated 19.02.2020 for the aforesaid reasons and not initiate any

coercive steps against the Company. As stated above, the Company has never undertaken any illegal mining activity and is therefore not able to pay any further royalty over and above what has already been paid as royalty by the Company.

Thanking you,

Yours faithfully

For Green Valliey Industries Limited

Sd/-

(Authorized Signatory)

Encl: As above

Copy to:

1. Government of Meghalaya, Office of the Superintendent of Taxes, East Jaintia Hills, Khliehriat, Khliehriat West (Moolyngkut), East Jaintia Hills District – 793200
2. Chief Secretary to the Govt. of Meghalaya, Mining & Geology Department
3. The Secretary to the Govt. of Meghalaya, Mining & Geology Department

Meghalaya Schedule III (Sec.I) Form No. 65  
(Revised 1939)

DMR, Meghalaya  
Treasury/Sub-Treasury

Chalan No. 6269 Dated 01.07.19

Chalan of cash paid into the ..... at .....UBI, Jowai.....  
State Bank of India

To be filled in by the remitter			To be filled in by the Department Officer Or the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order No.
			Rs.	P.		
Green Valliey Industries Ltd. Nogsning Elaka Sutnga P.O. Chichruphi Khaleheriat East Jaintia Hills – 793200, Meghalaya		Payment of Royalty on Slate on 12333.77 MT FY 2016-17	5,55,020		08533 – Non-Ferrous Mining and Metallurgical Industries 00-Null 800- Other Receipts (04) Royalties / Dead Rend Minor Minerlas	Date ..... Correct, Receipt and Grant Receipt  (Signature) Full designation of the officer ordering the money to be paid
*(in words) Rupees Five Lakh Fifty Five Thousand Twenty Only Signature Date: 28.06.2019			SEAL OF: PAY CASH/TRANSFER 29 Jun 2019 SENIOR MANAGER UNITED BANK OF INDIA JOWAI BRANCH		To be used only the case of remittances to Bank through an officer of the Government Sd/- Signature of Departmental Officer	

Payment Date \_\_\_\_\_  
Treasurer

sd/-  
Treasury officer, Jaintia Hills District

Assam Schedule III (Sec.I) Form No. 65  
(Revised 1939)

DMR, Meghalaya  
Treasury/Sub-Treasury

Chalan No. 6270 Dated 01.07.19

Chalan of cash paid into the ..... at .....UBI, Jowai.....  
State Bank of India

To be filled in by the remitter			To be filled in by the Department Officer Or the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order No.
			Rs.	P.		
Green Valliey Industries Ltd. Nogsning Elaka Sutnga P.O. Chichruphi Khaleheriat East Jaintia Hills – 793200, Meghalaya		Payment of Royalty on Slate on 26141.27 MT FY 2015-16	11,76,357		08533 – Non-Ferrous Mining and Metallurgical Industries 00-Null 800- Other Receipts (04) Royalties / Dead Rend Minor Minerlas	Date ..... Correct, Receipt and Grant Receipt  (Signature) Full designation of the officer ordering the money to be paid
*(in words) Rupees Eleven Lakh Seventy Six Thousand Three Hundred Fifty Seven Signature Date: 28.06.2019			SEAL OF: PAY CASH/TRANSFER 29 Jun 2019 SENIOR MANAGER UNITED BANK OF INDIA JOWAI BRANCH		To be used only the case of remittances to Bank through an officer of the Government  Sd/- Signature of Departmental Officer	

Payment Date \_\_\_\_\_  
Treasurer

sd/-  
Treasury officer, Jaintia Hills District

Assam Schedule III (Sec.I) Form No. 65  
(Revised 1939)

DMR, Meghalaya  
Treasury/Sub-Treasury

Chalan No. 6271 Dated 01.07.19

Chalan of cash paid into the ..... at .....UBI, Jowai.....  
State Bank of India

To be filled in by the remitter			To be filled in by the Department Officer Or the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order No.
			Rs.	P.		
Green Valliey Industries Ltd. Nogsning Elaka Sutnga P.O. Chichruphi Khaleheriat East Jaintia Hills – 793200, Meghalaya		Payment of Royalty on Slate on 28818.3 MT FY 2014-15	12,96,824		08533 – Non-Ferrous Mining and Metallurgical Industries 00-Null 800- Other Receipts (04) Royalties / Dead Rend Minor Minerlas	Date ..... Correct, Receipt and Grant Receipt  (Signature) Full designation of the officer ordering the money to be paid
*(in words) Rupees Twelve Lakh Ninety Six Thousand Eight Hundred Twenty Four Signature Date: 28.06.2019			SEAL OF: PAY CASH/TRANSFER 29 Jun 2019 SENIOR MANAGER UNITED BANK OF INDIA JOWAI BRANCH		To be used only the case of remittances to Bank through an officer of the Government  Sd/- Signature of Departmental Officer	

Payment Date \_\_\_\_\_  
Treasurer

sd/-  
Treasury officer, Jaintia District

Meghalaya Schedule III (Sec.I) Form No. 65  
(Revised 1939)

DMR, Meghalaya  
Treasury/Sub-Treasury

Chalan No. 6781 Dated 05.07.19

Chalan of cash paid into the ..... at .....UBI, Jowai.....  
State Bank of India

To be filled in by the remitter			To be filled in by the Department Officer Or the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order No.
			Rs.	P.		
Green Valliey Industries Ltd. Nogsning Elaka Sutnga P.O. Chichruphi Khaleheriat East Jaintia Hills – 793200, Meghalaya		Payment of Royalty on Slate on 39833.15 MT FY 2017-18	17,92,492		08533 – Non-Ferrous Mining and Metallurgical Industries 00-Null 800- Other Receipts (04) Royalties / Dead Rend Minor Minerlas	Date ..... Correct, Receipt and Grant Receipt  (Signature) Full designation of the officer ordering the money to be paid
*(in words) Rupees Seventeen Lakh Ninety Two Thousand Four Hundred Ninety Two Only Signature Date: 28.06.2019			SEAL OF: PAY CASH/TRANSFER 05.07.2019 SENIOR MANAGER UNITED BANK OF INDIA JOWAI BRANCH		To be used only the case of remittances to Bank through an officer of the Government  Sd/- Signature of Departmental Officer	

Payment Date \_\_\_\_\_  
Treasurer

sd/-  
Treasury officer, Jaintia Hills District

Assam Schedule III (Sec.I) Form No. 65  
(Revised 1939)

DMR, Meghalaya  
Treasury/Sub-Treasury

Chalan No. 6782 Dated 05.07.19

Chalan of cash paid into the ..... at .....UBI, Jowai.....  
State Bank of India

To be filled in by the remitter			To be filled in by the Department Officer Or the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order No.
			Rs.	P.		
Green Valliey Industries Ltd. Nogsning Elaka Sutnga P.O. Chichruphi Khaleheriat East Jaintia Hills – 793200, Meghalaya		Payment of Royalty on Slate on 44780.25 MT FY 2018-19  From 01.04.2018 to 23.01.2019	20,15,113		08533 – Non-Ferrous Mining and Metallurgical Industries 00-Null 800- Other Receipts (04) Royalties / Dead Rend Minor Minerlas	Date ..... Correct, Receipt and Grant Receipt  (Signature) Full designation of the officer ordering the money to be paid
*(in words) Rupees Twenty Lakh Fifteen Thousand One Hundred Thirteen Only Signature Date: 28.06.2019			SEAL OF: PAY CASH/TRANSFER 05.07.2019 SENIOR MANAGER UNITED BANK OF INDIA JOWAI BRANCH		To be used only the case of remittances to Bank through an officer of the Government Sd/- Signature of Departmental Officer	

Payment Date \_\_\_\_\_  
Treasurer

sd/-  
Treasury officer, Jaintia Hills District

Assam Schedule III (Sec.I) Form No. 65  
(Revised 1939)

DMR, Meghalaya  
Treasury/Sub-Treasury

Chalan No. 6783 Dated 05.07.19

Chalan of cash paid into the ..... at .....UBI, Jowai.....  
State Bank of India

To be filled in by the remitter			To be filled in by the Department Officer Or the Treasury			
By whom tendered	Name (or designation) and address of the person on whose behalf money is paid	Full particulars of the remittance and of authority (if any)	Amount		Head of Account	Order No.
			Rs.	P.		
Green Valliey Industries Ltd. Nogsning Elaka Sutnga P.O. Chichruphi Khaleheriat East Jaintia Hills – 793200, Meghalaya		Payment of Royalty on Slate on 10445.43 MT FY 2018-19 From 24.01.19 to 31.03.19	10,44,543		08533 – Non-Ferrous Mining and Metallurgical Industries 00-Null 800- Other Receipts (04) Royalties / Dead Rend Minor Minerlas	Date ..... Correct, Receipt and Grant Receipt  (Signature) Full designation of the officer ordering the money to be paid
*(in words) Rupees Ten Lakh Forty Four Thousand Five Hundred Forty Three Only Signature Date: 28.06.2019			SEAL OF: PAY CASH/TRANSFER 05.07.2019 SENIOR MANAGER UNITED BANK OF INDIA JOWAI BRANCH		To be used only the case of remittances to Bank through an officer of the Government  Sd/- Signature of Departmental Officer	

Payment Date \_\_\_\_\_  
Treasurer

sd/-  
Treasury officer, Jaintia Hills District

sd/  
TRUE COPY

Received by Hand from  
 DMO Jowai by M. Rajib  
 Saha (Driver) on 4/3/2021.

*[Handwritten signature]*  
 4/3/2021

Minutes of the meeting of the Committee constituted to review of the quantity of clinker and/or power produced by the Cement Manufacturing Plants and Thermal Power Plants and to verify the legal source of coal chaired by the Chief Secretary to the Government of Meghalaya on 11<sup>th</sup> February, 2021.

**Members present: As per Annexure**

The meeting was chaired by Shri. M.S. Rao, IAS, the Chief Secretary to the Government of Meghalaya. The Chairman requested the Secretary, Mining and Geology Department to proceed as per the agenda.

**1. Agenda: Action taken on minutes of the meeting held on 19<sup>th</sup> October, 2020.**

1.1 The Shri. David D Sangma MCS, Director of Mineral Resources(DMR) informed that show cause notices have been issued during the first week of February, 2020 to cement plants to explain the reason for gap in quantity required to produce clinker/power and quantity used by the respective cement plants as per the table given in the minutes.

1.2 The Chief Secretary recorded his displeasure on the delay in issuing the show cause notices by DMR.

1.3 The DMR informed that show cause notices have been issued to respective cement plants to explain the reason for non-submission of Transport challans to verify the legal source of coal procured during the period of February to July, 2020.

1.4 The Divisional Mining Officer, Jowai informed that only M/s Star Cement Meghalaya Ltd, M/s Meghalaya Power Ltd. and M/s Goldstone Cement Ltd. have submitted details of clinker/power production and coal procured for the months of August and September, 2020.

1.5 The DMR informed that show cause notices have been issued to defaulting cement plants for non-submission of details for the months of August and September, 2020.

1.6 The Mining Engineer informed that M/s Shakambari Ferro Alloys have not furnished the transport challans to verify the old stock of coal existed as on January, 2020. The DMR informed that show cause notice also issued to M/s Shakambari Ferro Alloys to explain reason for non-submission of Transport Challans.

1.7 The Mining Officer, DMR informed that M/s Maithon Alloys Ltd. and M/s Shyam Century Ferrous Ltd. have not been operating their captive power plants and he further placed before the Committee the electricity bills for the months of October to December, 2020.

1.8 The Committee directed the District Level Committee to conduct physical inspection to ascertain that the thermal power plants are not functioning.

1.9 The Committee directed DMR to submit report on verification of Transport Challan furnished by M/s Amrit Cement Ltd.

**Agenda 2: Verification of clinker/power production and source of coal for the period of August to December, 2020.**

2.1 The Divisional Mining Officer, Joawi placed before the Committee the details of clinker/power produced and coal procured by respective cement plants, as under:-

**Table 1: M/s STAR CEMENT LTD.**

Month	Clinker produced in MT	Estimated Coal requirement (14% of weight of clinker produced) in MT (A)	Coal used by Cement Plant in MT (B)	Difference (A-B)	Remarks
August, 20	Nil				
September, 20	Nil				
October 20	26345	3688	3912	-224	Submitted Tax Invoice and E-Way bills of Eastern Coalfield India of CIL.
November 20	67283	9419	10321	-902	
December 20	58486	8188	8847	-659	

**Table 2: M/S STAR CEMENT MEGHALAYA LTD.**

Month	Clinker produced in MT	Estimated Coal requirement (14% of weight of clinker produced) in MT (A)	Coal used by Cement Plant in MT (B)	Difference (A-B)	Remarks
August	136198	19067	14461	4605	Submitted tax invoice E-way bill and Transport challans of North eastern coal fields
September	111335	15586	15677	91	
October 20	135344	18948	18434	513	Submitted Tax Invoice and E-Way bills of Eastern Coalfield India of CIL
November 20	149925	20989	21754	-764	
December 20	151750	21245	21800	-555	

**Table 3: M/S MEGHALAYA POWER LTD.**

Month	Power produced in MW	Estimated Coal requirement (0.70Kg/kwh of power produced) in MT (A)	Coal used by Power Plant in MT (B)	Difference (A-B)	Remarks
August, 20	14979	10485	8458	2026	Transport Challan not submitted.
September, 20	5509	3856	3008	848	
October, 20	7760	5432	4141	1090	Submitted Tax

November, 20	14419	10093.3	7900.98	2192	Invoice, E-Way bill and Indian Custom Certificate. The coal is purchased from Awani Resources PTE Ltd. and SAROGI UDYOG Pvt. Ltd. and Swiss Singapore India Limited.
December, 20	14553	10187	8052.79	2134	

**Table 4: M/S MEGHALAYA CEMENT LTD.**

Month	Clinker produced in MT	Estimated Coal requirement (15% of weight of clinker produced) in MT (A)	Coal used by Cement Plant in MT (B)	Difference (A-B)	Remarks
August,20	Not submitted				Not transport challan not submitted
September,20	34304	5145	5969	-823	
October, 20	80355	12053.25	6695.592	5357	The firm has submitted the Tax Invoice, E-way bills of Eastern Coalfield.
December,20	Not submitted				

**Table 5: CAPTIVE THERMAL POWER PLANT(M/S MEGHALAYA CEMENT LTD.)**

Month	Power produced in MW	Estimated Coal requirement (0.85Kg/kwh of power produced) in MT (A)	Coal used by Power Plant in MT (B)	Difference (A-B)	Remarks
August, 20	Not submitted				Transport challan not submitted.
September,20	2432	2067	1449	618	
October, 20	6589	4612.3	3969.18	643.12	The firm has submitted the Tax Invoice, E-way bills of Eastern Coalfield of CIL
December, 20	Not submitted				
The firm did not submit detail of clinker, cement and power generation for the month of November 2020 and December 202					

**Table 6: M/S GOLDSTONE CEMENT LTD.**

Month	Clinker produced in MT	Estimated Coal requirement (15% of weight of clinker produced) in MT (A)	Coal used by Cement Plant in MT (B)	Difference (A-B)	Remarks
August,20	35844	5357	4703	673	Transport challan not submitted.
September, 20	48144	7221	6214	1007	
October, 20	32981	4947	4263	684	Submitted Tax Invoice and E-Way Bill of Eastern Coalfield
November, 20	26553	3982	3437	545	
December, 20	43763	6564	5641	923	

**Table 7: CAPTIVE THERMAL POWER PLANT(M/S GOLDSTONE CEMENT LTD.)**

Month	Power produced in MW	Estimated Coal requirement (0.850Kg/kwh of power produced) in MT (A)	Coal used by Power Plant in MT (B)	Difference (A-B)	Remarks
August	5586	4748	3033	1715	Transport challan not submitted.
September	7675	6523	4107	2416	
October 20	6288	5344	3371	1973	Submitted Tax Invoice and E-Way Bill of Eastern Coalfield of CIL
November 20	4705	3999	2526	1473	
December 20	7377	6270	3941	2329	

**Table 8: M/S DALMIA CEMENT LTD.**

Month	Clinker produced in MT	Estimated Coal requirement (15% of weight of clinker produced) in MT (A)	Coal used by Cement Plant in MT (B)	Difference (A-B)	Remarks
August	77331	11599	6147	5452	Transport challan not submitted
September, 20	71432	10714.8	6002	4712	The firm has imported coal from outside country and Tax Invoice and E-Way Bill from Anand Carbo Pvt. Ltd. submitted. However, custom clearance not furnished.
October, 20	78677	11801.55	6607	5194	
November, 20	75855	11378.25	5778	5600	

**Table 9: CAPTIVE THERMAL POWER PLANT(M/S DALMIA CEMENT LTD.)**

Month	Power produced in MW	Estimated Coal requirement (0.850 Kg/kwh of power produced) in MT (A)	Coal used by Power Plant in MT (B)	Difference (A-B)	Remarks
August	8177	6950	2162	4788	Transport challan not submitted
September,20	6275	5333.75	1667	3666.75	The firm has imported coal from outside country and Tax Invoice and E-Way Bill from Anand Carbo Pvt. Ltd. submitted. However, custom clearance not furnished.
October ,20	8222	6988.7	2904	4084.7	
November 20	8426	7162.1	3114	4048.1	

2.2 The Divisional Mining Officer, Jowai informed that the following cement plants/thermal power plants have not furnished data of clinker/power production and coal procured and source for the months of August to December, 2020 as under:-

**a) Amrit Cements Ltd. b) Green Valley Industries c)Hills Cements Ltd iv. and d) JUD Cements Ltd.**

2.3 The Committee directed the cement plants who fail to furnish Transport challans to submit the same within one week from the date of receipt of the minutes.

2.4 The Committee directed the DMR to serve show cause notice to defaulting cement plants who have failed to furnish monthly details for verification.

2.5 The Committee directed the DMR to ask explanation from respective cement plants for differences between estimated quantity of coal required to produce clinker/power and actual quantity of coal used during the corresponding period as given in the tables above.

2.6 The Committee also directed that the DMR shall issue show cause notices to cement plants who fails to furnish monthly detailson or before 10<sup>th</sup> of every month, without waiting for the approval of the Committee .

The meeting ended with vote of thanks from the Chair.

**Sd/-**  
(M.S. Rao, IAS)  
Chief Secretary  
Government of Meghalaya

Memo No. MG.48/2020/238-A.

Dated Shillong the 1<sup>st</sup> March, 2021

1. P.S to the Chief Secretary to the Government of Meghalaya for kind information of the Chief Secretary.
2. P.S to the Commissioner & Secretary to the Govt. of Meghalaya, Law Department for kind information of the Commissioner & Secretary.
3. P.S to the Commissioner & Secretary to the Govt. of Meghalaya, Commerce and Industries Department for kind information of the Commissioner & Secretary
4. The Director of Mineral Resources, Meghalaya, Shillong for kind information and necessary action.
5. The Mining Engineer, Directorate of Mineral resources Meghalaya Shillong for necessary action.
6. The Divisional Mining Officer, Jowai/Williamnagar for necessary action
7. The Mining Officer, Directorate of Mineral resources Meghalaya Shillong for necessary action.
8. All the Cement Plants/Captive Thermal Power Plants in the State for information and necessary compliances.

By order etc.,

(Dr Manjunatha C, IFS)  
Secretary to the Govt. of Meghalaya  
Mining and Geology Department



GOVERNMENT OF INDIA  
DIRECTORATE OF MINERAL RESOURCES  
SHILLONG

NO.DMR /M M/759 /2013/Vol-II/294 Dated, Shillong the 24.02.2021

To,  
Green valley Industries Ltd.  
Nongsning Village,  
East Jaintia Hills District  
Pincode- 793200

Sub: Demand Notice

Sir/ Madam,

Please find enclosed herewith the Minutes of the Meeting chaired by the Chief Secretary to the Govt. of Meghalaya on 25<sup>th</sup> September, 2020 to review the Compliance of Hon'ble National Green Tribunal order dated 17-01-2020 in O.A. No. 110(THC)/2012 which is self explanatory.

In this connection, I am directed to inform you to make a payment of Rs. 400 per Metric Tonne (MT) for quantity of 77,536 MT for consumption or utilization of illegally mined coal by your Cement company as reflected in the fifth interim report of Hon'ble NGT Committee, after the ban imposed by Hon'ble NGT Court, failing which necessary action will be initiated against you under the relevant Acts and Rules.

Enclo: As above.

Yours faithfully,

Sd/-

(Shri David D. Sangma, MCS)

Director of Mineral Resources

Meghalaya:::Shillong

Memo. NO.DMR/MM/759/2013/Vol-II Dated Shillong, the 2021.

Copy forwarded for information:

1. The Secretary to the Govt. of Meghalaya, Mining & Geology Department.
2. The Divisional Mining Officer, Jowai.

Sd/-

Director of Mineral Resources

Meghalalya: Shillong

<p>[Protection] Act 1986 and the rules regulations &amp; guidelines framed thereunder against each of the Cement Manufacturing Plants and the Thermal Power Plants who has used illegally mined local coal after a ban on the rat-hole coal mining in the State of Meghalaya was imposed by this Tribunal in the month of April, 2014</p>	<p>was imposed by Hon'ble NGT in the month of April, 2014.</p> <p>2. The Chief Secretary directed the Meghalaya State Pollution Control Board to take necessary action in compliance of Hon'ble NGT direction</p>
<p>18.3.2.3. The State of Meghalaya shall realise royalty, GST/VAT, contribution to the MEPR Fund and any other statutory tax and/levy payable on the illegally mined coal utilized by these Cement Manufacturing Plants and the Thermal Power Plants in the State of Meghalaya after the ban on illegal rat-hole mining in the State of Meghalaya was imposed by This Tribunal in April 2014.</p>	<p>1. The Secretary, Mining and Geology Department informed that demand notices have been issued to the Cement Manufacturing Plants and the Thermal Power Plants in the State to pay royalty, GST, MEPRF on the illegally mined coal utilized by respective companies. However, no response received from the cement plants and thermal power plants. Reminder has been sent to defaulters to make payment, No response received.</p> <p>2. With regard to realization of GST, the Commissioner and Secretary, ERTS informed that the matter will be examined as per the</p>

	provisions of the Rules and action will be taken accordingly.
<p>18.3.2.4 To restore the damage caused to the flora, fauna, rivers streams, water bodies and the environment in general by illegal rat-hole mining of coal and also to mitigate the suffering caused to the local tribal residents by the illegal rat-hole coal mining the State of Meghalaya shall realise from each of the aforementioned Cement Manufacturing Plants and Thermal Power Plants who have used illegally mined local coal after a ban on illegal rat-hole coal mining was imposed by this Tribunal in the month of April 2014 an amount of Rs. 400 per tonne of coal to be utilized by each such</p>	<p>It was decided that the DMR shall issue demand notice for payment of 400 per tonne of illegally mined coal utilized by the cement plants and thermal power plants after the ban imposed by Hon'ble NGT in April, 2014.</p>

sd/  
TRUE COPY

**Annexure R17/ 29**

Item No. 01

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**Original Application No. 110(T<sub>HC</sub>)/2012Threat to life arising out of coal  
mining in south garo hills district

Applicant

Versus

State of Meghalaya &amp; Ors.

Respondent

Date of hearing: 01.03.2021

Date of uploading of order on website: 15.03.2021

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE SHEO KUMAR SINGH, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER****INDEX**

<b>S. No.</b>	<b>CONTENT</b>	<b>PARA No.</b>
I	Background: unscientific Rat Hole mining in the State of Meghalaya – directions for preventive and remedial action	1-2
II	Constitution of Monitoring Committee for restoration of environment and rehabilitation of victims and other connected and incidental issues.	3
III	Orders of this Tribunal dated 04.01.2019, 11.04.2019 22.08.2019 on consideration of first three reports from the Committee.	4-7
IV	Judgement of the Hon'ble Supreme Court dated 03.07.2019 (2019) 8 SCC 177 in Appeals arising out of orders of this Tribunal	8
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VI	Order dated 27.07.2020 on seventh report of the Committee	12
VII	Eighth report of the Committee dated 14.01.2021	13
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VIII	Consideration of the eighth report dated 14.1.2021 and final order	17 - 24

## ORDER

### **Background of the matter leading to prohibiting rat hole mining**

1. The matter pertains to remedial action against unscientific 'Rat Hole' Mining of coal in the State of Meghalaya. Proceedings commenced on the basis of a news item to the effect that **on 06.07.2012, thirty coal labourers were trapped in a coal mine and fifteen of them died.** After due consideration of the matter, on 17.04.2014, this Tribunal directed the State of Meghalaya to ensure **that rat hole mining is stopped forthwith throughout the State and any illegal transport of coal shall not take place until further orders.**

2. On 09.06.2014, to give effect to order dated 17.04.2014, a Committee was formed **to quantify the extracted coal and its location, assess its value and also to prescribe mode of its transportation.** In the light of the report this Tribunal, **on 07.10.2017, noted that 6.3 million tonnes of illegally mined coal valued at Rs. 307 Crores was lying in the State on which royalty of Rs. 400 Crores was assessed.** Direction was issued for videography in the operation of the weigh bridges. The issue of quantum of coal to be permitted to be transported was to be gone into with the assistance of the Committee. Further, direction was issued to **credit the amount of royalty in a separate account with 10% of the value of coal to be credited to Environment Protection Fund.** On 31.03.2016, the Tribunal directed that except the coal already transported, **the remaining will vest in the State.**

### **Constitution of Monitoring Committee**

3. Finally, **on 31.08.2018, after reviewing the earlier proceedings, this Tribunal directed that rat hole mining will remain prohibited and**

**so also the transportation of the mined material.** The State will be the custodian of the available coal for which necessary inventory will be prepared. The Tribunal also directed constitution of a Committee to be headed by a former High Court Judge of the Guwahati High Court **for restoration of the environment and rehabilitation of the victims.** The Committee was at liberty to take up incidental issues. **The Committee was also to supervise issues arising out of receivership/custodianship of already extracted coal, including environmental issues arising out storage and remedial steps.** Other Members of the Committee were to be representatives of CPCB and Indian School of Mines, Dhanbad. The State of Meghalaya was to provide records, logistics and facilities to the Committee. The Committee was free to requisition services of technical experts from the State and to carry out field visits. The Committee was also free to set up its website for receiving and giving information and to involve educational institutions for awareness and feedback. The Committee was to meet twice in a month to review the progress and to fix further targets and send reports to this Tribunal every two months.

#### **Reports of the Committee and further orders**

4. The Committee gave its report on 02.01.2019 which was considered vide order dated 04.01.2019 with regard to the following questions framed by the Committee:-

- “(A) Whether coal mining activities, including extraction of coal and the transportation of the same, are going on despite the order passed by the Hon’ble NGT imposing ban on coal mining and transportation?”*
- (B) Quantity of extracted coal as on the date on which the ban was imposed by the Hon’ble NGT and left to be transported?*
- (C) Quantity of un-inventoried coal which has been extracted before imposition of ban by the Hon’ble NGT?*
- (D) Whether coal mining activities as well as dumping of coal results in adverse environmental effect, if so, the nature and extent thereof?*

- (E) *What are the steps required to be taken by the Committee for restoration of the environment and rehabilitation of victims of coal mining?*
- (F) *The extent of execution of the Action Plan prepared by the Committee?”*

**Incident of 13.12.2018 – 15 workers trapped**

5. The Tribunal noted that a **further tragic incident took place on 13.12.2018 where 15 workers were trapped.** The report was that the illegal mining was still continuing. **The assessed quantity of such coal was 23,25,663.54 MT.** The mining was resulting in adverse impact on the environment for which a study was required to be undertaken. Action plan was proposed for restoration of the environment. In view of the consistent failure of the State in enforcing the law, this Tribunal held the State to be liable to deposit a sum of Rs. 100 Crores with the Central Pollution Control Board (CPCB) to be spent for restoration of the environment. The Tribunal also observed that the Committee may consider seizure of equipments used for illegal mining or transportation, to be released only after payment of 50% of the showroom price of such equipments. The Tribunal suggested that the Committee may consider the following:

*“36. The Committee may also consider the following:-*

- 1. Any cranes and trucks found to be involved in illegal mining or transportation which have not yet been seized may also be seized. The seized vehicles or equipments be released by the concerned District Magistrates only after recovering damages to the extent of 50% of the showroom price of the vehicles or equipments. The said amount may also be credited to the restoration fund.*
- 2. Efforts be expedited to identify victims who have suffered at least since 01.07.2012 and to assess loss to the environment and the manner of restoration.*
- 3. Disaster Management Plan for the whole of the area ‘on site’ as well as ‘off site’ needs to be prepared and put into operation.*
- 4. Appropriate technology to replace rat hole mining.*

5. *Resource (coal) audit of Meghalaya Power Limited and Star Cement Limited to ascertain the legitimate procurement of coal and its source.*
6. *The Committee may take services of NEERI Nagpur, Indian School of Mine, Dhanbad, FRI Dehradun, CPCB apart from any other agency for making assessment of the damages.*
7. *Survey of health of the habitants may also be considered.*
8. *Skill Development Programmes to provide alternative means of employment to the workers involved in rat hole mining may be considered.*
9. *Mitigation/restoration of impacted areas due to AMD.”*

6. Further report was considered on 11.04.2019. The Tribunal approved the recommendations including those for **installation of digital display boards in respect of quality of water of the concerned areas and evolving mechanism for effective action against transportation of illegally mined coal such as electronic manifest system, audit of source of coal acquired by the power generation and cement plants.**

7. The matter was further considered on 22.08.2019 in the light of report dated 02.08.2019 received from the Committee as follows:-

“1 to 6 xxx

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8. *Further report dated 02.08.2019 has been received from the Committee to be considered today. We may note that the Hon’ble Supreme Court, vide judgement dated 03.07.2019, in Civil Appeal No. 10720 of 2018 (State of Meghalaya v. All Dimasa Students Union, Dima Hasao District Committee and Ors) and other connected decided Appeals arising from orders of this Tribunal, directing, inter alia, as follows:*

**“Conclusions:-**

191. *From the foregoing discussions we arrived at following conclusions:-*

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- 9) *As per statutory regime brought in force by notification dated 15.01.2016 issued under Environment (Protection) Act, 1986, environmental clearance is required for a project of coal for mining of any extent of area. While implementing statutory regime for carrying mining operations in the Hills Districts of the State of Meghalaya, the*

State of Meghalaya has to ensure compliance of not only MMDR Act, 1957 but Mines Act, 1952 as well as Environment (Protection) Act, 1986.

10) *In Hill District of State of Meghalaya **for carrying coal mining operations in privately owned/community owned land it is not the State Government which shall grant the mining lease under Chapter V of Rules, 1960, but it is the private owner/community owner of the land, who is also the owner of the mineral, who shall grant lease for mining of coal as per provisions of Chapter V of Rules, 1960 after obtaining previous approval of the Central Government through the State Government.***

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13) *In event the mining is carried out by a mining lease holder as per the provisions of Act, 1957 and Rules, 1960 with **an approved mining plan there can be no objections in carrying of such mining operations under the regulation and control of the State of Meghalaya. We clarify that in event mining operations are undertaken in privately owned/community owned land in Hills Districts of Meghalaya in accordance with mining lease with approved mining plan as per Act, 1957 and Mineral Concessions Rule, 1960, the ban order dated 17.04.2014 of the tribunal of the NGT shall not come in way of carrying mining operations.***

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20) *The coal extracted and lying in open after 15.05.2016 does not automatically vest in the State of Meghalaya and **the owner of the coal or the person who has mined the coal shall have the proprietary right in the mineral which shall not be lost.***

21) *The suggestion of learned Amicus Curiae that **entire extracted coal lying at various places in hills districts of Meghalaya be directed to be taken over by Coal India Ltd. is accepted. The Coal India Ltd. may dispose of the same as per its normal method of disposal and proceeds be dealt with as per directions issued.***

22) *The State having carried out the assessment of the coal lying in the aforesaid four districts including the details of the quantities and the details of owners being available with it, **it may ensure that entire coal is handed over to the Coal India Ltd., as per the mode and manner to be formulated by Katakey Committee in consultation with officers of the Coal India Ltd. and the State of Meghalaya.***

23) *It is for Coal India Ltd. to decide as to venue, where they shall receive the coal, i.e., either at any of its depot or any other place in the State of Meghalaya and it is for the Coal India Ltd. to finalise the process of disposal and auction of the coal. It shall be the duty of the State of Meghalaya and its officers especially Deputy Commissioner of the area concerned to enter details of quantity of the coal, name of the owner and place from where it is collected. All concerned shall take steps*

**to ensure weighment of the coal when it is received by Coal India Ltd.**

24) **The expenses of transportation shall be borne by the State of Meghalaya, Coal India Ltd. or by both, which expenses shall be deductible from the price received of the coal. The State of Meghalaya shall be entitled to royalty and payment towards MERP Fund as well as taxes out of the price of the coal. After deducting its expenses for transportation with 10% of price of the coal, the Coal India Ltd. shall remit the balance amount to the State and it is for the State after deducting the royalty and payment to the MERP Fund and taxes to pay back balance the amount to the owner.**

25) **The coal which has been seized by the State in illegal transportation and illegal mining for which different cases have been registered by the State, is not to be dealt with as directed above. The seized coal shall be dealt by the State in accordance with Section 21 of the Act, 1957 and on being satisfied, the State can take a decision to recover the entire quantity of coal so illegally raised without lawful authority.**

192 *In view of the foregoing discussions and conclusions, all these appeals are decided in the following manner: -*

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4) *All IAs. seeking direction for transportation of coal are disposed of directing: -*

- i) *All extracted coal as assessed by State of Meghalaya lying in different districts of State of Meghalaya which as per order of NGT is in custody of State of Meghalaya shall be handed over to Coal India Ltd. for proper disposal.*
- ii) *The Katakey Committee after discussion with Coal India Ltd. and State of Meghalaya shall formulate a mechanism for transport, weighment of all assessed coal.*
- iii) *The Coal India Ltd. shall auction the coal so received by it as per its best judgment and remit the proceed to State to the extent as directed above.*
- iv) *All coal seized by the State for which cases have already been registered shall be dealt by the State in accordance with Section 21 of 1957 Act.”*

8. *We may now deal with the report of the Committee which is, inter alia, as follows:*

**“It is, therefore, evident that though the learned counsel appearing for the State of Meghalaya submitted before the Hon'ble Tribunal that the compliance report in that regard shall be submitted to this committee within two weeks, the direction to install Digital Display Boards has not been fully implemented till date. As stated above, such Boards have been installed in the State Capital,**

***i.e., in Shillong only. The same have not been installed in the coal mining affected districts and Sub-Divisions so far.***

***The Committee directs the aforementioned 4(four) Cement Plants, namely, Green Valley Industries Ltd, Gold Stone Cement Ltd, Hills Cement Ltd and Virgo Cement Ltd and one Thermal Power Plant, namely, CMJ Breweries Ltd to depute their representatives to attend the next sitting of the Committee scheduled to be held on 14.08.2019 along with all required information and documents without fail.***

***The Secretary to the Govt. of Meghalaya, Mining and Geology Department, during the Proceeding No. 16-B held on 23.07.2019 has produced before the Committee a letter dated 22.07.2019 seeking a month's time to formulate a comprehensive plan and proper policy of transportation and handing over of coal to the Coal India Limited for disposal/auction as per rules of the Coal India Limited. The Committee has also been informed that after finalisation, the same shall be placed before the Committee for deliberation.***

*Based on the said communication, one month time has been granted to the Mining and Geology Department, Govt. of Meghalaya. The second special sitting scheduled to be held in Guwahati on 26.07.2019 with the representatives of the Coal India Limited and the concerned departments of the Govt. of Meghalaya to discuss about the formulation of a policy for transportation and handing over of the coal to the Coal India Limited, has, therefore, been postponed and the next date was decided to be fixed in its Proceeding to be held on 14.08.2019.*

*The Committee in the said Proceeding has recorded that the majority of the directions issued by it in the Proceeding No.12 dated 25.04.2019 have not been implemented so far and hence the Commissioner & Secretary to the Govt. of Meghalaya, Mining and Geology Department has been directed to submit a report on the status of implementation of each of these directions in the sitting scheduled to be held on 14.08.2019.*

***From the aforesaid position, it is, therefore, evident that the directions issued by the Committee in its Proceeding No.12 dated 25.04.2019 have not been fully complied with till date.***

**(C) CONSIDERATION OF THE RECOMMENDATIONS OF THE COMMITTEE MADE IN ITS PROCEEDING Nos. 13, 14 AND 15 DATED 03.05.2019, 03.06.2019 AND 28.06.2019, COPIES OF WHICH HAVE BEEN SENT BY MAIL IN [ngp.filing@gmail.com](mailto:ngp.filing@gmail.com) ON 08.07.2019.**

- (1) *The Committee in the Proceeding No.13 dated 03.05.2019 recommended for consideration for release of an amount of*

Rs.40,36,500/- from the MEPR Fund to implement **the pilot project for afforestation and reclamation of coal mining affected land and organisation of festival-cum-mass awareness programme submitted by the Principal Chief Conservator of Forest (Climate Change Research and Training), Govt. of Meghalaya and North Eastern Regional Office of the Central Pollution Control Board.**

- (2) The Committee also in the Proceeding No. 14 dated 03.06.2019 has recommended for consideration by the Hon'ble Tribunal for passing necessary order for deployment of CAPFs to assist the State Police in checking the transportation and mining of coal in the State for the purpose of enforcement of the direction issued from time to time to ban illegal mining and transportation of coal.
- (3) The Committee in the said Proceeding had also recommended for consideration by the Hon'ble Tribunal to release a number of rupees one Crore from MEPR fund to facilitate the Forest & Environment Department for afforestation of the coal mine affected areas and to ensure availability of adequate number of good quality plants.
- (4) The Committee in the Proceeding No.15 dated 25.06.2019 has also recommended for consideration by the Hon'ble Tribunal for release of Rs.19,19,500/- from the MEPR Fund towards the cost to be incurred in **the Pilot Project of Micro Algae Treatment of the acidic water in the identified stream in the coal mining affected areas to be implemented by M/S Trinity Impex International.**

The Hon'ble Tribunal may consider the aforesaid recommendations of the Committee.

The Committee, on 31.08.2019 shall submit the further report relating to the status of implementation of the Action Plan prepared by it, directions issued by it from time to time and also the directions issued by the Hon'ble Supreme Court in Civil Appeal No. 10720 of 2018 (State of Meghalaya v. All Dimasa Students Union, Dima Hasao District Committee and Ors.) and other analogous matters passed In Judgment & Order dated 03.07.2019.”

9. Learned Counsel for State of Meghalaya submitted that with regard to display boards, further steps have been taken and a report dated 03.08.2019 has been filed before this Tribunal and a report will also be filed before the Committee. The Committee may look into the same.
10. As regards effective action against illegal transportation, the Committee has suggested deployment of Central Armed Forces and the State Police. The Committee has also suggested release of certain funds. Learned counsel for the State submitted that the recommendations of the Committee be accepted.

11. **We accept the recommendations of the Committee for release of the amount as presented in para (3) & (4) of recommendations as noted above.** As regards deployment of Central Armed Police Forces (CAPF), our attention has been drawn to earlier proceedings before this Tribunal in order dated 25.03.2015 as follows:
- “1. The Additional Secretary, North East in the Ministry of Home, Central Government shall, within a period of two weeks from today, hold a meeting with the Chief Secretary of the State of Meghalaya and other concerned Authorities and consider the proposal of the State of Meghalaya for deployment of appropriate force to ensure compliance of orders of the Tribunal and protection of the Environment and Ecology, particularly water bodies as recorded in various orders of the Tribunal. We are hopeful, that the decision will be taken objectively and in the interest of public at large.”*
12. We are informed that in pursuance thereof, the Central Government did provide the requisite Forces at that time. In the light thereof, the State of Meghalaya to follow the same course of approaching the Central Government. The Central Government may give due consideration to such proposal expeditiously.
13. Only other issue which survives for consideration is the enforcement of directions of the Hon'ble Supreme Court **for handing over coal already mined and lying at various places in Meghalaya to the Coal India Ltd. As per directions of the Hon'ble Supreme Court, in the judgement dated 03.07.2019 the same may be looked into by the Committee in consultation with the officers of Coal India and the State of Meghalaya. We suggest that the Committee may fix specific timeline for the purpose.**
14. Our attention in this regard has been drawn to a Challan dated 13.08.2019 issued by the Divisional Mining Officer, Jowai with regard to transportation of the 'auctioned' mineral. Learned Counsel for the State may ascertain whether the transportation is in terms of the scheme prepared by the Committee in accordance with the directions of the Hon'ble Supreme Court and if not, remedial action may be taken. The Committee may look into this aspect and applicability of online electronic manifest system for regulating movements of vehicles and issuance of challans as per the Tribunal's order dated 11.04.2019.
15. The companies in question are directed to furnish the requisite information to the Committee, failing which this Tribunal may have to take coercive measures against the Chief Executive Officers of the companies. This aspect will be considered in the light of further report of the Committee. The Committee may also make its recommendations about the conduct of officers

*not cooperating in compliance of orders of the Hon'ble Supreme Court and this Tribunal so that the State may take appropriate action and inform this Tribunal.*

16. *The Committee has proposed to send its further report by 31.08.2019. Thereafter, a further report be sent after three months by 30.11.2019.*
17. *List again on 10.12.2019 or as and when the occasion arises."*

### **Supreme Court judgement in appeal from NGT orders**

8. We have perused the judgement of the Hon'ble Supreme Court in (2019) 8 SCC 177 in Appeals arising out of orders of this Tribunal. The Hon'ble Supreme has upheld the jurisdiction of this Tribunal in dealing with the matter and constituting the Monitoring Committee. Though the private owners of the land had right in the minerals after deducting handling charges, royalty and Environment Protection Fund, no unregulated and unscientific mining could be carried out. The Mining Policy of the State was required to be consistent with the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act) and mining, even by owner, is required to be regulated under the statutory scheme. The Environmental Clearance (EC) is required in terms of the relevant Notification. Compliance of MMDR Act, Mines Act, 1952 as well as Environment (Protection) Act, 1986 (EP Act) is necessary. The Mineral Concession Rules 1960 are also required to be followed. **Schedule VI to the Constitution does not affect the said laws.** Order of the Tribunal dated 17.04.2014 was upheld banning Rat Hole mining, as the manner of such mining is not consistent with the statutory scheme. However, the said ban will not bar legal and scientific mining as per statutory scheme. Order of the Tribunal constituting MEPR fund was also upheld. Order dated 04.01.2019 requiring deposit of Rs. 100 Crores with CPCB for restoration of environment was also upheld but the same could be paid

out of the Meghalaya Environment Protection and Restoration Fund' (MEPR Fund). The extracted coal laying at various places was directed to be taken over by Coal India Limited. The coal is to be handed over to Coal India Limited by the State in the manner formulated by the Committee. The State of Meghalaya and Coal India Limited are to deliberate with the Committee to finalize plan for transportation and handling over of the coal for disposal as per Rules which may be beneficial for the owners of the mine as well as the State. The Coal India Limited is also to take steps for payment of the coal and the State of Meghalaya is entitled to royalty and taxes. After deducting cost of transportation/royalty and payment to MEPR fund and taxes plus 10% of the value of the coal, the balance is to be disbursed to the owner. The disbursement is to be made by the State. The coal seized in illegal transportation of illegal mining is to be dealt by the State under Section 21 of the MMDR Act separately.

**17.1.2020 order of NGT on 4<sup>th</sup> to 6<sup>th</sup> report and change of Chairperson of the Committee**

9. The matter was thereafter dealt with on 17.01.2020 in the light of 04<sup>th</sup>, 05<sup>th</sup> and 06<sup>th</sup> Reports of the Committee dated 31.08.2019, 02.12.2019 and 03.12.2019. Before referring the same, we may first refer to the extracts from the first 3 reports dated 02.01.2019, 31.03.2019 and 02.08.2019 which also consider the earlier orders of the Tribunal dated 04.01.2019, 11.04.2019 and 22.08.2019 as follows:-

***“Reports***

***“3.1 First Interim Report***

*3.1.1 The Committee submitted its First Interim Report dated 31.12.2018 to the Hon'ble NGT on 02.01.2019. The said First Interim report contains findings of the Committee on the following questions framed by the Committee:-*

- A. *Whether coal mining activities, including extraction of coal and the transportation of the same, are going on despite the order passed by the Hon'ble NGT imposing ban on coal mining and transportation?*
- B. *Quantity of extracted coal as on the date on which the ban was imposed by the Hon'ble NGT and left to be transported?*
- C. *Quantity of un-inventoried coal which has been extracted before imposition of ban by the Hon'ble NGT?*
- D. *Whether coal mining activities as well as dumping of coal results in adverse environmental effect, if so, the nature and extent thereof?*
- E. *What are the steps required to be taken by the Committee for restoration of the environment and rehabilitation of victims of coal mining?*
- F. *The extent of execution of the Action Plan prepared by the Committee?*

### 3.2 **Second Interim Report**

3.2.1 *The Committee submitted its Second Interim Report dated 30.03.2019 to the Hon'ble NGT. In the said Report, the Committee placed before the Hon'ble NGT the current status of the following issues:*

- (i) *Availability and investment of amounts available in the MEPR Fund.*
- (ii) *Monitoring of quality of water in the rivers and streams of the areas affected by coal mining.*
- (iii) *Steps taken for neutralisation of Acid Mine Drainage (AMD) contaminated water in the rivers & streams of the areas affected by coal mining activities.*
- (iv) *Status of the ongoing water supply schemes in coal mining affected areas in East Jaintia Hills District, under the Public Health Engineering Department.*
- (v) *Seizure of cranes, trucks etc. involved in illegal mining or transportation and release of such vehicles and equipment.*
- (vi) *Skill Development Schemes*
- (vii) *Survey of health of the habitants of the areas affected by coal mining.*
- (viii) *Framing of Disaster Management Plan, both "on site" and "off site".*
- (ix) *Verification of un-inventorised coal.*
- (x) *Procurement of coal by the Cement Companies from the local market in the State of Meghalaya.*
- (xi) *Pilot Projects to be undertaken by CIMFR-CISR, Dhanbad*
- (xii) *Awareness Camps/ Programme.*

- (xiii) *Applications for compensation to the next of kin of the persons who died during illegal mining and to the persons who suffered injuries during due to illegal coal mining.*
- (xiv) *Preparation of Geospatial Database inputs of Planning and Restoration of areas affected by coal mining in the State of Meghalaya.*
- (xv) *Coal mining activities including transpiration of coal.*

3.2.2 *The Committee in the said Report also recommended that the Hon'ble NGT may permit release of an amount of Rs.96.59 lakh for procurement of 6(six) numbers of vehicles mounted with Water Tankers to be used for supplying potable waters to the villagers of the villages in the district of East Jaintia Hills affected by coal mining activities and where the potable water has not so far been supplied.*

### 3.3 **Third Interim Report**

3.3.1 *The Committee submitted its Third Interim Report dated 02.08.2019 to the Hon'ble NGT on 02.08.2019. In the said Report, the Committee placed before the Hon'ble NGT the current status of the following directions issued by the Hon'ble NGT in the Order dated 11.04.2019:*

- (i) *Release and utilisation of an amount of Rs.96.59 lakh from the MEPR Fund in favour of the Deputy Commissioner, East Jaintia Hills District for purchase of the six vehicles mounted with water tankers.*
- (ii) *Installation of Digital Display Boards at the Headquarters of coal mining affected Districts and Sub-Divisions and display thereon quality of water in ten worst polluted rivers/streams in the District/Sub-Division.*
- (iii) *Audit of the source of coal acquired by the power generation and cement plants in the State of Meghalaya.*
- (iv) *Mechanism to be adopted for effective action against illegal transportation of coal such as electronic manifest system for regulating movement of vehicles and issuance of challans.”*

#### **Order dated 04.01.2019:**

*“4.1.2 In view of the consistent failure of the State in enforcing the law, the Hon'ble NGT held the State to be liable to deposit a sum of Rs. 100 Crores with the Central Pollution Control Board (CPCB) to be spent for restoration of the environment. The Hon'ble NGT also observed that the Committee may consider seizure of equipment used for illegal mining or transportation, to be released only after payment of 50% of the showroom price of such equipment.*

4.1.3. *The Hon'ble NGT in the said order dated 04.01.2019 also suggested that the Committee may consider the following:*

- (i) *Any cranes and trucks found to be involved in illegal mining or transportation which have not yet been seized may also be seized. The seized vehicles or equipment be released by the 4*

concerned District Magistrates only after recovering damages to the extent of 50% of the showroom price of the vehicles or equipment. The said amount may also be credited to the restoration fund.

(ii) Efforts be expedited to identify victims who have suffered at least since 01.07.2012 and to assess loss to the environment and the manner of restoration.

(iii) Disaster Management Plan for the whole of the area 'on site' as well as 'off site' needs to be prepared and put into operation.

(iv) Appropriate technology to replace rat hole mining.

(v) Resource (coal) audit of Meghalaya Power Limited and Star Cement Limited to ascertain the legitimate procurement of coal and its source.

**Order dated 11.04.2019:**

4.2.2 The Hon'ble NGT in the said order dated 11.04.2019 also noted the finding of the Committee that despite the order passed by the Hon'ble Supreme Court prohibiting transportation of coal, the same has not been stopped by the authorities for the reasons best known to them as well as another finding relating to non-installation of Digital Display Boards in the Sub-Division, Districts and the State Headquarters/Capital, displaying the quality of water in the respective areas for information of general public. The Hon'ble NGT, having regard to the submission of the learned counsel appearing for the State of Meghalaya directed that the aforesaid issues will be duly dealt with and a compliance report shall be filed before the committee within two weeks, directed the Committee to consider the same on its next sitting, i.e., on 25.04.2019. The committee was also given liberty to consider the matter and pass further orders/recommendations.

4.2.3 The Hon'ble NGT vide the said Order also directed that the Committee may consider requirement of foolproof mechanism to be adopted for effective action against transportation of illegally mined coal such as electronic manifest system for regulating movement of vehicles and issuance of challans and also may consider audit of resource of coal acquired by the Power Generation and Cement Plants in the State of Meghalaya.

**Order dated 22.08.2019:**

4.3.2 The Hon'ble NGT in the said Order dated 22.08.2019 also directed as below:

(i) For making available Central Armed Police Force (CAPF) the State of Meghalaya shall follow the same course of approaching the Central Government as has been done by them in the past in compliance of directions issued by the Hon'ble NGT vide order dated 25.03.2015. The Central Government may give due consideration to such proposal expeditiously.

(ii) *As per directions of the Hon'ble Supreme Court, in the judgement dated 03.07.2019 the enforcement of directions of the Hon'ble Supreme Court for handing over coal already mined and lying at various places in Meghalaya to the Coal India Ltd may be looked into by the Committee in consultation with the officers of Coal India and the State of Meghalaya. The Committee may fix specific timeline for the purpose.*

(iii) *Learned Counsel for the State may ascertain whether the transportation under a Challan dated 13.08.2019 issued by the Divisional Mining Officer, Jowai with regard to transportation of the 'auctioned' mineral is in terms of the scheme prepared by the Committee in accordance with the directions of the Hon'ble Supreme Court and if not, remedial action may be taken. The Committee may look into this aspect and applicability of online electronic manifest system for regulating movements of vehicles and issuance of challans as per the Tribunal's order dated 11.04.2019.*

(iv) *The cement companies in question are directed to furnish the requisite information to the Committee, failing which this Tribunal may have to take coercive measures against the Chief Executive Officers of the companies. This aspect will be considered in the light of further report of the Committee.*

(v) *The Committee may also make its recommendations about the conduct of officers not cooperating in compliance of orders of the Hon'ble Supreme Court and this Tribunal so that the State may take appropriate action and inform this Tribunal.”*

10. Thereafter 04<sup>th</sup>, 05<sup>th</sup> and 06<sup>th</sup> reports were dealt with which are extracted below:-

**“4<sup>th</sup> Interim Report dated 31.08.2019**

In the 4<sup>th</sup> Interim Report the Committee considered the mechanism to deal with the complaints under Section 21 of the MMDR Act of illegal raising and transportation of coal, procedure for exercise of powers under Section 21 (5) of the MMDR Act, action to be taken in new cases of illegal mining/storage and transportation, action for preventing illegal mining and storage, recovery of fresh stock of coal extracted prior to ban, action for violation of Water (Prevention and Control of Pollution) Act, 1974 and EP Act apart from action under MMDR Act, steps for mitigating environment pollution caused by acidic water and emitting from the coal depots/dumps, mechanism in term of EIA Notification of 2006, video recording of consignments for illegal transportation of coal, scheme to reward informers giving information about illegal mining/transportation, establishing coal mine surveillance system and SOP to deduct illegal mining or dumping of coal, disposal of coal confiscated under Section 21(5) of MMDR Act, preparation of geological and feasibility report for scientific coal mining, execution of pilot project for treatment of acidic water and for afforestation and reclamation of coal mining affected land, preparation of draft

guidelines for utilization of amounts of MEPR fund including amount of Rs. 100 Crore transfer to CPCB, continuation of Prof. (retired) A.K. Singh, from Indian School of Mines, Dhanbad as Member of the Committee, recording of coal depots where coal is to be handed over to Coal India Limited by joint Committee. After due consideration the Committee has suggested the following directions:-

*“The Hon'ble NGT may consider to pass the following directions:*

*1. The State of Meghalaya shall constitute a Monitoring Committee under Chairmanship of the Chief Secretary to undertake monthly review of actions taken by various 'Authorized Officers' to file complaints before concerned Courts of Law under Section 21 of the MMDR Act against the persons involved in illegal raising and transportation of coal. (para 5.1.2.12 (i))*

*2. The State of Meghalaya shall formulate guidelines stipulating therein a detailed procedure for exercise of the powers conferred on the State under sub-section (5) of section 21 of the MMDR Act to recover mineral raised unlawfully from such person or where such mineral has already been disposed to recover price thereof (para 5.1.2.12 (ii))*

*3. The State of Meghalaya shall mandatorily invoke provisions of sub-section (5) of section 21 of the MMDR Act in all new cases where illegal raising or storage or transportation of coal is detected in the State of Meghalaya. (para 5.1.2.12 (iii))*

*4. The State of Meghalaya shall in exercise of powers conferred by Section 23 (C) of the MMDR Act formulate rules for preventing illegal mining, transportation and storage of minerals and shall notify the same in the official Gazette within one month. (para 5.1.2.12 (iv))*

*5. In the cases where any person declares any fresh stock of coal purported to be extracted prior to imposition of the ban by the Hon'ble NGT, apart from other punitive actions, actions under sub-section (5) to section 21 of the MMDR Act to recover such coal shall mandatorily be initiated by the State of Meghalaya (para 5.1.2.12 (v)).*

*6. Subject to provisions of the Law of Limitation, the MSPCB and CPCB shall initiate necessary action to file complaints under relevant sections of the Water Act against persons involved in raising, storage and transportation of the coal reportedly extracted prior to imposition of ban on rat hole coal mining in the State of Meghalaya by the Hon'ble NGT in April 2014, transportation of which has been allowed by the Hon'ble NGT and the Hon'ble Supreme Court. (para 5.1.3.6 (i))*

*7. In case any fresh illegal mining, storage or transportation of coal in the State of Meghalaya is detected by the Police or District Administration or the Mining and Geology*

*Department, apart from initiation of proceedings under relevant provisions of the MMDR Act against the persons involved in such mining, storage and transportation of the coal, the same shall also be intimated to the MSPCB and CPCB for initiation of necessary actions to file complaint against relevant section(s) of the Water Act against such person. Details of all such cases detected after imposition of ban on illegal rat hole coal mining in April, 2017 shall also be communicated to the MSPCB and CPCB for similar actions. (para 5.1.3.6 (ii)).*

*8. In case any fresh raising of coal in the State of Meghalaya is detected by the Police or District Administration or the Mining and Geology Department, apart from initiation of proceedings under relevant provisions of the MMDR Act against the persons involved in such illegal raising of the coal, the same shall be intimated to the North Eastern Regional Office of the Ministry of Environment, Forest and Climate Change, Government of India for initiation of necessary actions to file complaint against relevant section of the EP Act against such persons. Details of all such cases detected on or after 15.01.2016 shall also be communicated to the North Eastern Regional Office of the Ministry of Environment, Forest and Climate Change, Government of India for similar actions. (para 5.1.4.3(i))*

*9. The CPCB and the MSPCB shall critically examine the regulatory regime presently in force to govern establishment and operation of coal depots/dumps in the State of Meghalaya and take necessary actions to fill gaps, if any, in such regime to prevent, minimize and mitigate environment pollution caused by acidic water emanating from such depots (para 5.2.3).*

*10. The State of Meghalaya shall within one month put in place a mechanism stipulated in Appendix XII of the EIA Notification 2006 to regulate transportation of coal in the State. No transportation of coal in the State of Meghalaya shall, after a period of one month, be allowed till such system containing all the features stipulated in the said Notifications is fully operationalized. (para 5.3.7 (i))*

*11. The State of Meghalaya shall operationalize a system to video record consignment of each truck passing through all probable routes likely to be used for illegal transportation of coal. The State of Meghalaya shall identify suitable locations which may cause least disturbance to non truck traffic and install a system of Close Circuit Cameras to ensure video recording of registration number and consignment of each truck passing through each such routes. To minimize inconvenience to non-truck traffic, feasibility of installation of such system at existing toll gates, checkpoints, parking lanes/ bays etc. may be explored. In case no such toll gates, check points, parking lanes/ bays etc. exist at the required locations, the State of Meghalaya in consultation with and/or assistance of the National Highways and Infrastructure Development Corporation*

*(NHIDCL) and/or National Highways Authority of India (NHAI) shall construct additional lanes to facilitate checking of trucks without causing inconvenience to other traffic. Temper proof continuous video recordings made at the check points shall be retained at least for a period of one year and shall periodically be reviewed / checked by the authorities in the Police, Civil Administration and Mining & Geology Department from time to time. (para 5.3.7 (ii))*

*12. State of Meghalaya shall within a month frame a scheme to suitable reward the informers in case the information on illegal mining and/or transportation of coal provided by such informers is found to be true. Confidentiality of the persons furnishing the information, shall at all cost be maintained so that such informer is not threatened by anyone who are interested in continuing coal mining activities. (para 5.3.7 (iii)).*

*13. The State of Meghalaya with the assistance of North Eastern Space Applications Centre (NESAC), Department of Space, Government of India, shall within a period of three months put in place a Coal Mine Surveillance System (CMSS) in the State of Meghalaya and also develop a Standard Operating Procedure (SoP) providing for effective follow up action, in case any illegal mining or dumping of coal is detected by the MSS. The CMSS to be developed may be similar to one which has already been developed by the Ministry of Mines and Indian Bureau of Mines (IBM) with assistance from the Bhaskaracharya Institute for Space Application and Geo-Informatics (BISAG), Gandhinagar and Ministry of Electronics and Information Technology (MEITY). {para 5.3.7 (iv)}.*

*14. The coal which has either been recovered by the State in exercise of powers conferred under sub-section (5) of Section 21 of the MMDR Act or has been confiscated in favour of the State of Meghalaya by an order of a Court of Law and the coal which has been seized by the Officers Authorised by the State Government in this behalf disposal of which has been permitted by the concerned Competent Court of Law, shall be disposed of only through e-auction conducted by the Coal India Limited {para 5.3.7 (v)}.*

*15. The State of Meghalaya shall expedite drilling of requisite number of bore-holes in 1 sq. km. area in Khliehriat-Sutnga area in East Jaintia Hills District and complete preparation of Geological Report and Feasibility Report for scientific coal mining in the said area within two months. {para 5.4.2.2 (i)}.*

*16. The State of Meghalaya is allowed to use an amount of Rs. 4,15,000 (rupees four lakh fifteen thousand) only plus GST at the applicable rates for execution of a Pilot Project on treatment of acidic water at a Water Supply Scheme (WSS) under the Public Health Engineering (PHE) Department at Lelad village in East Jaintia Hills District by using micro-algae consortia as an alternative to lime solution by M/s.*

*Trinity Impex International & Phycospectrum Environmental Research Centre. {para 5.5.6.6 (i)}.*

*17. The State of Meghalaya and the CPCB are allowed to utilize an amount of Rs.40,36,500/- from the MEPR Fund to implement a pilot project for afforestation and reclamation of coal mining affected land and organization of a festival-cum-mass awareness programme submitted by the Principal Chief Conservator of Forest (Climate Change Research and Training), Govt. of Meghalaya and North Eastern Regional Directorate of the CPCB. (para 5.5.8.2 (i)).*

*18. The State of Meghalaya shall within one month formulate draft guidelines, strictly in conformity with the broad parameters suggested by the Justice Katakey Committee in its fourteenth Sitting held on 03.06.2019, for utilization of amounts available in the MEPR Fund in an expeditious and transparent manner and submit the same to the Committee. The Committee shall examine the draft guidelines and place the same along with its comments thereon before this Tribunal within one month of receipt of the guidelines. (para 5.5.9.8 (i)).*

*19. The amount available in the MFPR Fund including an amount of Rs. 100 Crores transferred to the CPCB in compliance of direction issued by the Hon'ble Supreme Court in paragraph 179 of Judgment dated 03.07.2019 in the Civil Appeal No. 10720 of 2018 in the matter of State of Meghalaya versus All Dimasa Student Union, Dima-Hasao District Committee and Ors. and other connected matters and the interest accrued thereon shall be used exclusively for implementation of Action Plan prepared by the Committee for restoration of environment in areas affected by coal mining in the State of Meghalaya. The Committee based on inputs received from various stakeholders or on its own motion may periodically review, revise and update the Action Plan. (para 5.5.9.8 (ii)).*

*20. Even after expiry of the term of his engagement as a Chair Professor at Indian School of Mines (IIT-ISM), Dhanbad, Professor (Retd.) A.K. Singh shall continue to be a member of the Committee as a representative of the Director, IIT-ISM, Dhanbad. (para 5.7.1.3 (i)).*

*21. Video recording of all the coal depots where the coal to be handed over to the Coal India Limited is presently lying, to be recorded by joint teams consisting of a representative from the Mining and Geology Department, Meghalaya State Pollution Control Board and the Coal India Limited, in the manner as directed by the Committee in its First Special Sitting held at Shillong on 12.07.2019 and use of high resolution satellite imageries for different time-intervals since the imposition of ban on coal mining by the Hon'ble NGT to ascertain continuous existence of all such coal dumps since imposition of ban on coal mining by this Hon'ble Tribunal in April 2014, shall be essential components of the Policy being formulated by the State*

*of Meghalaya for handing over of the coal to the Coal India Limited for disposal through e-auction. (para 5.7.4.7 (i)).*

*The Committee in this report dated 31.08.2019 has highlighted the various orders passed by the Hon'ble NGT, gist of various earlier reports submitted by it, the directions issued by the Hon'ble NGT on the said reports, relevant order passed by the Hon'ble Supreme Court and the issues examined by the Committee after submission of the second interim report, together with summary of recommendations for consideration of the Hon'ble NGT, as the Committee has completed one year from the date of its constitution by the Hon'ble NGT vide its order dated 31.08.2018.”*

### **5<sup>th</sup> Interim Report dated 02.12.2019**

The 5<sup>th</sup> Interim Report mere the back ground of earlier proceedings, sums up the minutes of the meetings and analysis the information given by the industries and regulatory authorities at length and thereafter records findings and recommendations. The report has been uploaded on the website of the National Green Tribunal. The questions considered in the said report in para 2.2.6 are:-

1. Whether the specific coal requirement of aforementioned Cement Manufacturing Plants and a Thermal Power Plant of the Star Cement Limited and its subsidiaries is substantially lower than specific coal requirement stated in the respective TEFRs?
2. What is the actual specific coal requirement for the aforementioned Cement Manufacturing Plants and a Thermal Power Plant of the Star Cement Limited?
3. Whether it is technically feasible to use huge quantity of slate in lieu of coal without making any modification in design of these Plants?
4. Whether the afore-mentioned Plants of Star Cement Limited and its subsidiaries have actually used huge quantity of alternate fuel (*i.e.* Slate) in lieu of coal?
5. Whether slate, if used, has been used after obtaining all requisite regulatory approvals?

After analyzing the entire data the findings recorded are:-

### **“CHAPTER 3: FINDINGS AND RECOMMENDATIONS**

#### **1.1.1 FINDINGS**

- 1.1.2 3.1.1 *Except for the clinker manufacturing plant of the Mawmluh Cherra Cement Limited (A State PSU) and Captive Power Plants of the Maithan Alloy Limited and the CMJ Breweries Private Limited, there is a huge gap in quantity of coal required to produce reported quantity of clinker and/or power and the coal reported to be purchased from legal sources during the Audit Period by all other*

*Cement Manufacturing Plants and Thermal Power plants in the State of Meghalaya for which resource (coal) audit could be completed by the Committee. Year-wise quantities of the coal required to produce reported quantities of clinker and/or power, the coal actually purchased from legal sources and the gap between the two for each of these Plants are as below:*

*(metric tonnes)*

Plant	Items	Year					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	2	3	4	5	6	7	
Star Cement Limited and its two subsidiaries	Coal required *	4,24,636	4,73,806	4,93,365	4,70,145	4,50,096	<b>23,12,048</b>
	Coal procured **	97,047	2,64,674	61,830	1,29,020	1,13,201	<b>6,65,772</b>
	Gap	3,27,589	2,09,132	4,31,535	3,41,125	3,36,895	<b>16,46,276</b>
Amrit Cement Limited and its captive TPP	Coal required *	84,323	1,06,548	1,05,745	1,00,155	1,46,919	<b>5,43,690</b>
	Coal procured **	3,861	88,165	38,785	74,978	31,833	<b>2,37,622</b>
	Gap	80,462	18,383	66,960	25,177	1,15,086	<b>3,06,068</b>
Dalmia Cement (Bharat) Limited and its Captive TPP	Coal required*	2,00,028	2,01,797	1,94,234	2,22,215	2,56,324	<b>10,74,598</b>
	Coal procured **	17,433	98,296	56,208	1,07,092	54,478	<b>3,33,507</b>
	Gap	1,82,595	1,03,501	1,38,026	1,15,123	2,01,846	<b>7,41,091</b>
Goldstone Cement Limited and its Captive TPP	Coal required*	0	0	39,652	1,15,104	1,47,919	<b>3,02,675</b>
	Coal procured **	0	0	5,918	21,295	4,946	<b>32,159</b>
	Gap	0	0	33,734	93,809	1,42,973	<b>2,70,516</b>
Green Valley Industries Limited	Coal required *	58,205	55,262	57,505	64,673	65,398	<b>3,01,043</b>
	Coal procured **	44,844	50,555	46,762	51,068	30,278	<b>2,23,507</b>
	Gap	13,361	4,707	10,743	13,605	35,120	<b>77,536</b>
Hill Cement Company Limited	Coal required *	18,397	32,158	38,548	30,600	35,085	<b>1,54,788</b>
	Coal procured **	0	11,989	9,797	2,248	13,347	<b>37,381</b>
	Gap	18,397	20,169	28,751	28,352	21,738	<b>1,17,407</b>

<i>JUD Cements Limited</i>	<i>Coal required *</i>	29,761	38,604	23,994	28,249	20,576	<b>1,41,184</b>
	<i>Coal procured **</i>	0	16,348	2,099	377	370	<b>19,194</b>
	<i>Gap</i>	29,761	22,256	21,895	27,872	20,206	<b>1,21,990</b>
<i>Meghalaya Cements Limited and its Captive TPP</i>	<i>Coal required *</i>	1,43,334	1,72,873	1,53,873	1,84,291	1,85,140	<b>8,39,511</b>
	<i>Coal procured **</i>	96,533	44,686	45,968	54,012	53,987	<b>2,95,186</b>
	<i>Gap</i>	46,801	1,28,187	1,07,905	1,30,279	1,31,153	<b>5,44,325</b>
<i>Captive TPP of Shyam Century</i>	<i>Coal required *</i>	54,499	46,959	88,743	58,563	29,497	<b>2,78,261</b>
	<i>Coal procured **</i>	43,576	32,461	72,086	13,704	4,960	<b>1,66,787</b>
	<i>Gap</i>	10,923	14,498	16,657	44,859	24,537	<b>1,11,474</b>
<i>Ferrous Limited</i>	<i>Coal required *</i>	10,13,18 3	11,28,007	11,95,65 9	12,73,99 5	13,36,95 4	<b>59,47,798</b>
	<i>Coal procured **</i>	3,03,294	6,07,174	3,39,453	4,53,794	3,07,400	<b>20,11,115</b>
	<i>Gap</i>	7,09,889	5,20,833	8,56,206	8,20,201	10,29,55 4	<b>39,36,683</b>

\*: Coal required to produce reported quantities of clinker and/or power

\*\* : Coal reported to be procured from legal sources.

3.1.2 The Committee is of the view that the entire gap of 39.37 lakh MT between the quantity of the coal required to produce reported quantity of the clinker and the electrical power and the coal purchased from legal sources by these Plants during the Audit Period constituting about two-third of the coal requirement of these plants during the Audit Period has been met from the illegally mined local coal. Demand for a huge quantity of illegally mined coal from these plants has sustained and supported a wide scale illegal rat-hole coal mining in the State of Meghalaya in flagrant violation of a ban imposed by the Hon'ble NGT.

3.1.3 Continuance of illegal rat-hole coal mining in the State of Meghalaya to meet the huge requirement of coal for these Cement Manufacturing Plants and the Thermal Power Plants have caused huge damage to flora, fauna, rivers, streams, water bodies and the environment in general in the State of Meghalaya. It has also made

*the ban imposed by the Hon'ble NGT on illegal rat-hole coal mining virtually inoperative.*

**3.1.4** *No royalty, taxes and any other statutory levies has been paid to the State of Meghalaya on the illegally mined coal utilised by these Cement Manufacturing Plants and Thermal Power Plants during the Audit Period resulting in a huge loss to the State exchequer. In fact ban on the illegal rat-hole coal mining in the State of Meghalaya came as a boon to these Cement Manufacturing Plants and Thermal Power Plants in the State of Meghalaya as it virtually exempted them from the requirement of payment of royalty, taxes and other statutory levies payable on more than two-third of the coal consumed by them. The amounts of royalty (@ Rs. 675 per MT), contribution to Meghalaya Environment Protection and Restoration Fund (MEPR Fund) at the rate of Rs. 485 per MT and GST/VAT @ 5 % of the sale value of approx. Rs. 8,000 per MT amounting to Rs 400 per MT) payable on the illegally mined coal utilised by each of these Cement Manufacturing Plants and Thermal Power Plants during the Audit Period are as below:*

<b>S. No.</b>	<b>Plant</b>	<b>Qt. of illegal coal used (MT)</b>	<b>Royalty</b>	<b>MEPRF</b>	<b>GST/VAT</b>	<b>Total</b>
1.	2.	3.	4.	5.	6.	7
1.	Star Cement Limited and its two subsidiaries	16,46,276	111.124	79.844	65.851	<b>256.819</b>
2.	Amrit Cement	3,06,068	20.660	14.844	12.243	<b>47.747</b>
3.	Dalmia Bharat Cement Ltd	7,41,092	50.024	35.943	29.644	<b>115.610</b>
4.	Goldstone Cement Ltd.	2,70,516	18.260	13.120	10.821	<b>42.200</b>
5.	Green Valley Industries Ltd.	77,536	5.234	3.760	3.101	<b>12.096</b>
6.	Hill Cement Ltd.	1,17,407	7.925	5.694	4.696	<b>18.315</b>

7.	JUD Cement Ltd.	1,21,990	8.234	5.917	4.880	<b>19.030</b>
8.	Meghalaya Cement Ltd.	5,44,325	36.742	26.400	21.773	<b>84.915</b>
9.	Shyam Century Ferrous Ltd.	1,11,474	7.524	5.406	4.459	<b>17.390</b>
	Total	<b>39,36,684</b>	<b>265.726</b>	<b>190.929</b>	<b>157.467</b>	<b>614.123</b>

3.1.5 The royalty and VAT/GST amounting to Rs. 423.194 Crore payable on illegally mined coal utilised by the Cement Manufacturing Plants and Thermal Power Plants, if realised and properly utilised, can significantly enhance living standard of the tribal residents, especially those residing in the areas affected by such illegal coal mining, of the State. Similarly, an amount of Rs. 190.929 Crore payable to MEPR Fund for the said illegally mined coal utilised by these Plants, if properly utilised, may greatly help in restoration of flora, fauna, rivers, streams, water bodies and the environment in general damaged by illegal rat-hole coal mining in the State of Meghalaya.

3.1.6 Claim of these Cement Manufacturing Plants and Thermal Power Plants that about two-third of their coal requirement have been met by a non-fuel mineral (i.e. slate) without making any change in the design of these plants is not tenable. The Committee, based on a detailed analysis given in para 2.2.26 to 2.2.52, is of the view that it is neither technically feasible nor legally permissible for these plants to replace more than two-third of their coal requirement by a non-fuel mineral such as slate.

3.1.7 These Plants have purchased illegally mined local coal in the name of slate to circumvent the ban imposed by the Hon'ble NGT on illegal rat-hole coal mining in the State of Meghalaya and also to evade payment of royalty, GST/VAT and other statutory levies and contribution to MEPR Fund on the coal utilised by them.

3.1.8 Even for the sake of an argument it is assumed that the claim of these plants that more than two-third of their coal requirement during the Audit Period has been met by a non-fuel mineral (viz. slate) without making any change/modification in the design of these plants is true, it would have caused equal, if not more, damage to the flora, fauna, rivers, streams, water bodies and the environment in general in the State of Meghalaya as all such slate has admittedly been mined in an unscientific and haphazard

*manner without any mitigative measures and without obtaining mandatory mining lease, consent to establish, consent to operate, environmental clearance and authorisation/no-objection certificate from the State Pollution Control Board in a flagrant violation of the existing mining, environmental, pollution control and labour safety laws.*

*3.1.9 Transportation and use of a huge quantity of illegally mined coal by these plants could not have escaped notice of regulatory authorities, both in the State of Meghalaya and the Union of India. It could not have escaped notice to the District and police administration. Instead of taking actions to prevent use of illegally mined coal by these plants and to initiate appropriate proceedings under relevant provisions of the Mines and Minerals (Development and Regulation) Act, 1957; the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986 against these Plants for use of illegally mined local coal, the regulatory authorities have tried to regularise/justify the use of illegally mined coal by accepting royalty on slate claimed to be used by these plants and by supporting the claim of these Plants that it is technically and legally feasible to replace two-third of the coal requirement of these plants by a non-fuel mineral such as slate and the slate can be used by these plants as a waste without obtaining any clearance under the Mines and Minerals (Development and Regulation) Act, 1957; the Water (Prevention and Control of Pollution) Act, 1974; the Air (Prevention and Control of Pollution) Act, 1981; the Environment (Protection) Act, 1986 and the rules, regulations & guidelines framed thereunder.*

*3.1.10 As per information provided to the Committee by the Mining and Geology Department in the State of Meghalaya, none of these plants participated in a public auction conducted by the State of Meghalaya to sell more than 38,000 MT of seized coal available at locations in close vicinity of majority of these plants. The Committee therefore is of the view that a major part of the coal requirement of these plants is still being met from illegally mined local coal.*

### **3.2 RECOMMENDATIONS**

*3.2.1 To put a stop to the illegal rat-hole mining of the coal being undertaken in the State of Meghalaya in flagrant violation of the mining, environmental and labour safety laws as well as the orders issued by the Hon'ble Supreme Court and the Hon'ble NGT to meet the requirement of the coal for the Cement Manufacturing Plants and Thermal Power Plants in the State of Meghalaya and also to restore damage caused the flora, fauna, rivers, streams, water bodies and environment in general by illegal rat-hole coal mining, the Committee recommends that the Hon'ble NGT may consider to issue the following directions:-*

1. *The Chief Secretary of the State of Meghalaya shall undertake monthly review the quantity of clinker and/or power produced by each Cement Manufacturing Plants and Thermal Power Plant in the State of Meghalaya and the quantity of coal purchased by each such plant from legal sources to produce such reported quantities of clinker and/or power. Such review for a month shall be undertaken on or before tenth day of the next month. A quarterly report stating therein the month-wise quantities of clinker and/or power produced, quantity of coal consumed to produce such quantities of clinker and/or power by each such plant and action(s), if any, taken against any such plant in case of any anomaly observed during the review shall be submitted to this Tribunal by the Chief Secretary, Meghalaya. Such report for a quarter shall be submitted to this Tribunal on or before fifteenth day of the next quarter.*

2. *The State of Meghalaya; the Ministry of Environment, Forest and Climate Change, Government of India and the Meghalaya State Pollution Control Board shall initiate proceedings in accordance with the provisions of the Mines and Minerals (Development and Regulation) Act, 1957; the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986 and the rules, regulations & guidelines framed thereunder against each of the Cement Manufacturing Plants and the Thermal Power Plants who has used illegally mined local coal after a ban on the rat-hole coal mining in the State of Meghalaya was imposed by this Tribunal in the month of April, 2014.*

3. *The State of Meghalaya shall realise royalty, GST/VAT, contribution to the MEPR Fund and any other statutory tax and/levy payable on the illegally mined coal utilised by these Cement Manufacturing Plants and the Thermal Power Plants in the State of Meghalaya after the ban on illegal rat-hole mining in the State of Meghalaya was imposed by this Tribunal in April 2014.*

4. *To restore the damage caused to the flora, fauna, rivers, streams, water bodies and the environment in general by illegal rat-hole mining of coal and also to mitigate the suffering caused to the local tribal residents by the illegal rat-hole coal mining, the State of Meghalaya shall realise from each of the aforementioned Cement Manufacturing Plants and Thermal Power Plants who have used illegally mined local coal after a ban on illegal rat-hole coal mining was imposed by this Tribunal in the month of April 2014, an amount of Rs. 400 per tonne of coal to be utilised by each such plants on or after the date of this order and deposit the same in the MEPR Fund. Such amount for coal utilised during a month shall be realised on or before fifteenth day of the next month. Not less than fifty percent of these amounts shall be utilised for restoration of damage caused to the flora, fauna, rivers,*

*streams, water bodies and the environment in general by illegal rat-hole mining of the coal in the State of Meghalaya. The balance amounts shall be utilised for socio-economic development of the tribal residents in areas affected by the coal mining in the State of Meghalaya. It is clarified that the afore-mentioned amount of Rs. 400 per MT of coal shall be in addition the contribution to MEPRF at the rate of Rs. 485 per MT of coal already being realised by the State in compliance of earlier orders of this Tribunal. The Chief Secretary, Meghalaya shall formulate draft guidelines for utilisation of these amounts and place the same before the Committee constituted by this Tribunal under Chairmanship of Mr. Justice B.P. Katakey, former Judge, Guwahati High Court. The Committee shall within one month from the date of receipt, examine the draft guidelines and place the same along with the comments/observation before this Tribunal for approval.*

*5. The North Eastern Regional Directorate of the CPCB shall complete audit of coke claimed to be utilised by the Jaintia Cement Limited and the Virgo Cement Limited and submit a report to the Committee constituted by this Tribunal under Chairmanship of the Mr. Justice B.P. Katakey, former Judge, Guwahati High Court. The North Eastern Regional Directorate of the CPCB shall also submit the report sought by the said Committee in respect of the Captive Thermal Power Plant of Shree Shakambari Ferro Alloys Pvt. Ltd.”*

### **6<sup>th</sup> Interim Report dated 3.12.2019**

The 6<sup>th</sup> Interim Report deal with the objections raised by the State of Meghalaya before the Committee on the ground that the same is in violation of directions of the Hon'ble Supreme Court. After elaborate discussion of each and every objections raised by the State. The Committee summarized its recommendations as follows:-

#### **“CHAPTER- 6: SUMMARY OF RECOMMENDATIONS**

*6.1 The Committee recommends that the Hon'ble NGT may consider to pass the following directions:*

*1. The State of Meghalaya shall, immediately, provide to the North Eastern Space Application Centre (NESAC), Department of Space, Government of India, Umiam, the location (latitude and longitude) and other details of each dump where coal to be auctioned is located. The NEASC, shall within one week from the date of receipt of these details prepare a geo-referenced map depicting the*

*location of each of these dumps and provide a copy of the same to the Secretary to the Government of Meghalaya, Mining and Geology Department and the Coal India limited for placing a copy thereof along with a list containing name and address of the owner and quantity of coal available at each such dump on their respective websites. (Para 2.20 WI*

2. *The Secretary to the Government of Meghalaya, Mining and Geology Department shall, immediately, place on website of the Department a copy of the additional affidavit containing details of 32,56,715 MT coal stated to be available at various depots filed before the Hon'ble Supreme Court on 10.04.2019 by the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department . (Para 2.20 (ii))*
3. *The North Eastern Space Application Centre (NESAC), Department of Space, Government of India, Umiam shall undertake land-use land-cover analysis of areas where coal to be handed over to the Coal India Limited is located by using high resolution satellite imageries for the following period:*
  - (a) *Immediately before the illegal rat-hole mining of coal was banned by this Tribunal by an order dated 17.04.2014; (Para 2.20 (iii) (a))*
  - (b) *Immediately before the additional affidavit dated 10.04.2019 containing details of 32,56,715 MT coal stated to be available at various depot was filed before the Hon'ble Supreme Court by the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department; and (Para 2.20 (iii) (b)).*
  - (c) *Once in the year 2015, 2016, 2017 and 2018, preferable in the month of April. (Para 2.20 (iii) (c))*
4. *Based on the said land-use land-cover analysis, the NESAC shall divide the coal available at each of the depot where the 32,56,715 MT coal is stated to be available into three categories namely:*
  - (a) *The coal continuously existing at the depot since the ban on the illegal rat-hole mining was imposed by this Tribunal on 17.04.2014; (Para 2.20 (iv) (a))*
  - (b) *The coal dumped at the depot after the filing of additional affidavit before the Hon'ble Supreme Court on 10.04.2019; and (Para 2.20 (iv) (b))*
  - (c) *The coal dumped at the depot on any day between 17.04.2014 and 10.04.2019. (Para 2.20 (iv) (c)).*
5. *The finalisation of the mode and manner for handing over of the coal to the Coal India Limited and the disposal of the coal by the Coal India Limited through e-auction shall*

*not wait completion of the afore-mentioned study by the NESAC the amount realised from sale of such coal will however not be disbursed to the respective owner till the said study in respect of such coal is completed by the NESAC. (Para 2.20 (v))*

6. *The amount realised from auction of the coal shall be disbursed in the following manner:*

(a) *The State of Meghalaya shall exercise the powers vested on it under subsection (5) of section 21 of the Mines and Mineral (Development and Regulation) Act, 1957 and recover the amounts realised from the auction of the coal which was dumped at the depot after 10.04.2019 and transfer all such amounts along with taxes/royalty/levies realized thereon to the Consolidated Fund of the State of Meghalaya. Contribution to the MEPR Fund realised for such coal shall be transferred to the MEPR Fund. (Para 2.20 (vi) (a))*

(b) *Amounts realised from the sale of the coal which is continuously available in at the Depot shall be transferred to the respective owner. Taxes/royalty/levies realised on such coal shall be transferred to the Consolidated Fund of the State of Meghalaya. Contribution to the MEPR Fund realised for such coal shall be transferred to the MEPR Fund. (Para 2.20 (vi) (b))*

(c) *Details of all such coal which was dumped at a depot between 17.04.2014 and 10.04.2019 shall be placed before the Hon'ble Supreme Court. Disbursal of amounts realised from the sale/auction of such coal shall be done in the manner the Hon'ble Supreme Court may stipulate. (Para 2.20 (vi) (c))*

7. *The State of Meghalaya and the Coal India Limited shall provide all the information and documents sought by the Katakey Committee for finalization of mode and manner of handing over of the coal available at various Depots to the Coal India Limited. The Committee shall finalize the mode and manner for handing over of the coal available at various depots to the Coal India Limited strictly in conformity with the directions issued by the Hon'ble Supreme Court. The State of Meghalaya and the Coal India Limited shall abide by the mode and manners finalised by the said Committee. (Para 2.20 (vii)).*

8. *To resolve disputes involving adulteration of coal quality in a lot between the day it is notified for auction and the day on which entire coal available in such lot is lifted*

*by the successful bidder the collection and maintenance of reference samples by the Coal India Limited in the manner and for a period provided for collection and maintenance of such samples in the normal process of disposal of coal through e-auction by the Coal India Limited shall be an integral component of the mode and manners for handing over of the coal to the Coal India Limited. (Para 2.20 (viii)).*

9. *The mode and manner for handing over of the coal to the Coal India Limited shall contain time-lines for each step involved in handing over of the assessed coal to the CIL and its subsequent auction by the CIL. (Para 2.20 (ix))*

10. *Nature of records to be maintained and the authorities responsible to maintain each such record shall be specified in the mode and manner for handing over of the coal to the Coal India Limited. (Para 2.20 (x)).*

11. *Number of officers of different ranks to be deployed by the Coal India Limited to plan, execute and monitor disposal of the coal through e-auction shall be specified in the mode and manner to be finalised by the Katakey Committee. (Para 2.20 (xi))*

12. *Reserve Price of the coal to be auctioned shall be fixed by the Coal India Limited as per its existing rules and policies for disposal of the coal through e-auction. (Para 2.20 (xii))*

13. *The Coal India Limited, the State of Meghalaya, the owner of the coal and their officers/employees shall be responsible for their respective acts of omission and commission in any dispute which may arise relating to quality and quantity of the coal stated to be available at various depots. (Para 2.20 (xiii)).*

14. *The mode of manner for handing over of the coal to the Coal India Limited shall provide for a legally tenable and practically feasible dispute resolution framework. (Para 2.20 (xiv)).*

15. *The State of Meghalaya shall install and make fully functional, within a month, a system involving establishment of a centralised server, uploading of transport permit/challans and tracking of coal loaded trucks through GPS and RFID tags as stipulated in the said Appendix-X[1 to the EIA Notification, 2016 to prevent and detect multiple use of transport permit/challans. Transportation of the coal in the State of Meghalaya shall not be permitted till the said system is made fully operational. (Para 2.20 (xv)).*

16. *The State of Meghalaya and the Meghalaya State Pollution Control Board shall initiate necessary actions to file compliant under relevant sections of the Mines and Mineral (Development and Regulation) Act, 1957, the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, and the Environment (Protection) Act, 1986 against the persons responsible for raising of transportation of all such coal which was dumped at any such depot on or after 10.04.2019. (Para 2.20 (xxvi)).*

17. *An agency not under superintendence and control of the State of Meghalaya shall enquire into the matter of export of illegally mined coal to Bangladesh, in the guise of coal permitted to be transported by various orders passed by the Hon'ble NGT and the Hon'ble Supreme from time-to-time, identify the person(s) responsible for such export and file complaint before the concerned competent Courts of Law under relevant provisions of the Law against all such persons. (Para 3.20 (i))*

18. *The State of Meghalaya shall place before this Tribunal the periodical details (viz. name & full address) of the exporter for each consignment of coal originating from the Meghalaya which was allowed by the Mining and Geology Department in the Government of Meghalaya for export to the Bangladesh from each of the seven LCS in Meghalaya since the ban on rat hole coal mining in Meghalaya was imposed by the Hon'ble NGT in April, 2014. (Para 3.20 (ii))*

19. *The State of Meghalaya shall initiate necessary actions in accordance with provisions of Section 21 of the Mines and Minerals (Development and Regulation) Act, 1957 against the persons responsible for export of the illegally raised coal to the Bangladesh from each of the seven LCSs in the State of Meghalaya in the guise of the coal permitted to be transported by the Hon'ble NGT and the Hon'ble Supreme Court by order passed from time-to-time. The actions to be initiated against such persons shall include actions under sub-section (5) of Section 21 of the said Act to recover price of such illegally raised coal along with rent, royalty or tax, as the case may be, payable to the Government in respect of such coal. (Para 3.20 (iii))*

20. *In case the coal reported to be available at several location between the DMR Checkgate/ weighbridge and the Custom exit point at Gasuapara and such other Custom exit points in the State of Meghalaya is not a part of the 32,56,715 MT assessed coal to be handed over to the Coal India Limited for disposal through e-auction the Mining and Geology Department in the State of Meghalaya initiate necessary actions in accordance with provisions of Section 21 of the Mines and Minerals (Development and Regulation) Act, 1957 against the persons responsible for raising and transportation of such coal and submit a report to this Tribunal. Such action shall include actions under sub-section (5) of section 21 of the said Act to recover all such illegally raised coal. (Para 3.20 (iv)).*

21. *The State of Meghalaya shall within three months, establish integrated check post and temper-proof weigh-in-motion weighbridge at each of the seven LCSs in the State of Meghalaya. Each such integrated check-post and weigh-in-motion weighbridge shall jointly be manned by the representative, one each from the Mining and Geology Department and the Forests & Environment Department in the State of Meghalaya and the Border Security Force (BSF) and the Customs Department in the Union of India. Each such integrated check-post and weigh-in-motion*

*weighbridge shall be provided with an adequate number of CCTV cameras to ensure video recording of the registration number and the consignment loaded in each truck passing through such integrated check-post and the weighbridge. The network of CCTV cameras to be installed at the weighbridge shall also ensure video recording of the display panel indicating weight of each truck passing through such weighbridge. The footage of each CCTV camera installed at each integrated check-post and the weighbridge shall be retained for a minimum period of one year. (Para 3.21 (i))*

*22. Vigilance wing in the Customs and the BSF in the Union of India and the Home (Police) Department in the State of Meghalaya shall undertake regular inspection of the integrated check-posts and weigh-in-motion weighbridge and submit a quarterly report on such inspections to the Chief Secretary, Meghalaya and their respective Departmental Heads. (Para 3.21 (ii)).*

*23. The Director General of Police, Meghalaya shall ensure that all the person and vehicles, equipment, tools and machineries involved in raising and transportation of about 80,000 MT seized by the Meghalaya Police are identified and necessary action as per the provisions of the Mines and Minerals (Development and Regulation) Act, 1957 and all other relevant Statutes and the rules framed thereunder are taken against all such persons and vehicles, equipment, tools and machineries. The similar actions shall also be taken for the coal, if any, to be seized in future. A monthly report on all the cases where the persons and vehicles, equipment, tools and machineries involved in raising and transportation of the seized coal could not be identified shall be submitted. (Para 4.19. (i))*

*24. The Director General of Police shall provide to the Meghalaya State Pollution Control Board details of persons involved in illegal mining and transportation of the coal. The Meghalaya State Pollution Control Board shall file complaint before the concerned competent Court of Law under relevant sections of the Water (Prevention and Control of Pollution) Act, 1974; the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the rules, guidelines and notifications issued thereunder against such persons. (Para 4.19 (ii)).*

*25. The State of Meghalaya shall formulate a comprehensive policy for auction of the seized coal and place a copy of the same before this Tribunal within a month. The policy shall provide, among others, establishment of a centralised depot in each coal mining affected district for safe and scientific storage of the seized coal and disposal of the seized coal in a fair and transparent manner after giving wide publicity. The Policy shall specifically provide that no coal shall be disposed of without giving a prior notice of atleast thirty (30) days. The copy of each such notice shall be published in atleast two prominent dailies having wide circulation. (Para 4.19 (iii)).*

26. The State of Meghalaya shall, within a month, formulate a simple procedure for verification of the claims for receipt of ex-gratia from the labourers who received injuries while working in illegal rat-hole coal mines in the State of the Meghalaya and also from the next-of kin of laborers who were killed while working in such mines. Such procedure may contain adequate safeguards to detect, deter and reject false claims. (Para 5.4 (1)).

27. State of Meghalaya shall disburse an amount of rupees five lakh to next of kin of each of the labourers who were killed while working in any illegal rat-hole coal mining in the State of Meghalaya including the labourers which were killed in a tragic accident in an illegal rat-hole mine in Ksan village in East Jaintia Hill district in December 2018. {Para 5.4 (ii)}.

28. State of Meghalaya shall disburse an amount of rupees five lakh to next of kin of each of the labourers who were killed and rupees two lakh to each of the labourers who received serious injuries while working in any illegal rat-hole coal mining in the State of Meghalaya including the labourers which were killed or received serious injuries in a tragic accident in an illegal rat-hole mine in Ksan village in East Jaintia Hill district in December 2018 and in South Garo Hills District in the year 2012.

29. State of Meghalaya, Meghalaya State Pollution Control Board and Central Pollution Control Board, shall implement the Action Plan prepared by the Committee, with modification wherever required and submit periodical report.

Before parting with the report, the Committee expresses its sincere gratitude to the Hon'ble National Green Tribunal in giving the opportunity to work on the subject.”

11. The said three reports were considered as follows:-

“1to19...xxx.....xxx.....xxx

20. We have perused objections to the reports of the Committee dated 31.08.2019, 02.12.2019 and 03.12.2019 filed by the State of Meghalaya. During the hearing, we confronted learned senior counsel for the State of Meghalaya with the fact that since work of the Committee has been commended by the Hon'ble Supreme Court as well as by this Tribunal earlier, the nature of objections is not appreciable. Learned senior counsel fairly stated that he will not press the objections. In the response to the report, he merely handed over a note to submit that some of the recommendations were not feasible. We quote the relevant part of the note to consider the said objections:-

S. N.	Recommendation	Not feasible	Reasons for being non-feasible
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“

1	<p>i. The State of Meghalaya shall provide NESAC the Longitudes &amp; Latitudes of each dump where coal is to be auctioned.</p> <p>ii. NESAC to prepare geo-reference mapping for location of each dump and give it to State and CIL.</p> <p>iii. State and CIL will put it on their website.</p>	√	<ul style="list-style-type: none"> <li>• Duplication of exercise of identification of sale-points.</li> <li>• Geo-referencing details already there in affidavit filed by State which has been provided to CIL and the same will be put up on website.</li> <li>• In terms of para 48 and 187-192 of the judgment of Supreme Court this exercise is not required.</li> </ul>
2	NESAC to conduct annual land-use land cover analysis to determine continuous existence of coal on the sale point.	√	<ul style="list-style-type: none"> <li>• Unnecessary exercise.</li> <li>• Supreme Court observed in Para 189 that All this 32,56,715 coal is illegally mined.</li> <li>• Yet directed its disposal thorough CIL and disbursal of funds to owners in paras 192-192.</li> </ul>
3.	NESAC shall then divide each sale-point into 3 categories, viz. (i) Coal continuously existing (ii) Dumped after 17.04.2014 (iii) Dumped after filing of affidavit		Same as in respect of 2 above
4.	Money realized from auction of coal shall not be disbursed till NESAC study is completed		Same as in respect of 2 above
5.	Amount realized shall be disbursed in following manner: (i) For Coal existing prior to 17.04.14-immediately. (ii) For coal dumped between 17.4.14 and filing of affidavit to be placed before SC for further direction. (iii) For coal dumped thereafter – All money to be transferred to State funds.	√	<ul style="list-style-type: none"> <li>• Contrary to Supreme Court judgment. Even after observing in Para 189 that <b>ALL</b> this 32,56,715 Coal is illegally mined, SC directed its disposal thorough CIL and disbursal of funds to owners in Para 192.</li> <li>• In para 186 the Supreme Court has affirmed ownership of private miners on all this 32,56,715 MT Coal and held that their proprietary rights are not extinguished.</li> </ul>
6.	Collection and maintenance of samples from each lot for purpose of future dispute resolution.	√	<ul style="list-style-type: none"> <li>• There are more than 20,000 sale points.</li> <li>• Further, the auction is on '<u>As is where is</u>' basis and <u>prospective bidders are being given 14 days' time to physically verify the quantity and quality of coal lying at the dump.</u></li> <li>• <u>Owners are also mandated to submit NABL accredited lab certificate as to grade and sulfur content of Coal before their dump is notified for auction and the same shall be part of auction notice.</u></li> </ul>
7.	Reserve Price of Coal to be auctioned shall be fixed by CIL as per their existing policy.	√	<ul style="list-style-type: none"> <li>• CIL has refused to do so in meeting dated 14.10.2019 and again on 02.12.2019 on the ground that it is not practically possible or technically and financially feasible for CIL to physically verify the quality of each lot of Coal located at 20,000 sale points for fixation of reserve price which is also dependent upon the cost of transportation of the same.</li> <li>• CIL submitted that it has no experience of coal mining in</li> </ul>

			<p>conditions like Meghalaya and has no experience of lifting and transportation of coal in such terrain where most of the stocks can be assed only through smaller four-wheel trucks and the hilly roads also cannot bear the load of huge quantity of coal being transported simultaneously.</p> <ul style="list-style-type: none"> <li>• These factors substantially affect the reserve price fixation of Coal.</li> <li>• The State of Meghalaya is having more experience of the coal mining and coal trading practices in the State of Meghalaya and having such domain knowledge of marketability of such Coal, is better suited to fixe reserve price.</li> </ul>
8.	<i>CIL / State of Meghalaya/ owner/employee/ officer shall be liable for disputes relating to quality and quantity</i>	√	<ul style="list-style-type: none"> <li>• The question of providing a Dispute Resolution Process in the plan does not arise because Auction is on 'as is where is' basis and Prospective bidders are allowed to inspect the lot before bidding. Hence, no liability of CIL and State of Meghalaya thereafter.</li> <li>• However, in case of a dispute between the seller and the buyer the remedy under ordinary law of the land is always available to them.</li> </ul>
9.	<i>To provide legally tenable and practically feasible Dispute Resolution Mechanism</i>	√	<ul style="list-style-type: none"> <li>• Same as in respect of 8 above.</li> </ul>
10.	<i>Enquiry by an outside Agency into compliants of alleged export of illegally mined coal to Bangladesh and prosecution of persons involved in such alleged illegality</i>	√	<ul style="list-style-type: none"> <li>• It will be an encroachment on executive powers of the State.</li> <li>• As submitted before the Committee, enquiry has already been initiated by the State and appropriate action in accordance with law shall be taken.</li> </ul>
11.	<i>State of Meghalaya to disburse an amount of 5 lakh to each labourer deceased in Ksan mine incident of Dec. 2018</i>	√	<ul style="list-style-type: none"> <li>• PIL being W.P. (C) No. 3 of 2019 has been filed in Hon'ble Supreme Court on that incident.</li> <li>• The Hon'ble Supreme Court observed that compensation is required to be paid to kin of victims in order dated 25.02.2019.</li> <li>• State filed I.A. No. 77028/19 on 06.05.2019, inter-alia informing the Court that 3 lakh ex-gratia payments has already been made qua each victim.</li> <li>• The Hon'ble Supreme Court closed all the issues except formulation of Standard Operating Procedure to deal with such mining incidents vide order dated 12.07.2019.</li> </ul>
12.	<i>State of Meghalaya to pay 5 lakh for each death and 2 lakh for each injury in above incident as well as for the incident reported in South Garo Hills District in 2012.</i>	√	<ul style="list-style-type: none"> <li>• For 2012 incident, ex-gratia payment has already been made to those who came forward to make claims and whose claims were found to be genuine.</li> </ul>

”

21. We have considered the above objections. We are unable to appreciate the reasons for the stand that the recommendations are not feasible. Even if the exercise is considered by the State to be unnecessary, no serious difficulty is shown in doing so. We are unable to hold that any of the direction is against the order of the Hon'ble Supreme Court or not feasible. The dispute resolution process recommended is certainly conducive to the handling of the long pending issues and is necessary for facilitating compliance of the directions for disposal of illegal mined material and the mandate of law. We, thus, reject the objections of the State of Meghalaya. It is a matter of regret that State of Meghalaya, has by uncalled for objections, created a situation to hamper a credible mechanism set up by this Tribunal and approved by the Hon'ble Supreme Court by practically compelling the Chairman of the Committee to seek recusal.

### **Directions**

22. Under the circumstances, while accepting all the recommendations of the Committee in its 04<sup>th</sup> Interim Report dated 31.08.2019, 05<sup>th</sup> Interim Report dated 02.12.2019 and 06<sup>th</sup> Interim Report dated 03.12.2019, we also accept the request of Justice B.P. Katakey, former Judge, Guwahati High Court to be relieved.

23. Without in any manner meaning to dilute the exhaustive recommendations of the Committee, the substance of the recommendations of the Committee can be summed up to include monitoring of illegal raising and transportation of coal by the Chief Secretary of the State; steps for punitive measures for illegal mining – filling up gaps in the regulatory regime; action for preventing minimizing and mitigating environment pollution by acidic water from coal depots; electronic recording of movement of coal including by way of GPS and RFID Tags and having a central server for the purpose; inspection of wings of BSF and vigilance department; establishing and supervising check posts and weigh bridges; utilization of the compensation amount for legitimate purposes in terms of the recommendations in the report; continuing Prof. A.K. Singh, nominee, IIT-ISM, Dhanbad as member of the Committee; monitoring of sourcing of illegally mined coal by cement manufacturing/thermal power plants for enforcement of mining law, including punitive and remedial actions for sourcing of illegally mined material, as found by the Committee; conducting necessary audit; study of land use and land cover analysis; drilling of bore holes in Khlihirt-Sutnga area in East Jaintia Hill District; preparation of geological report and feasibility report for scientific coal mining; compiling information about location of dumps of coal; finalizing mode and manner of handling of coal and its disposal including e-auction; transfer of coal to Coal India Limited; monitoring of illegal export of coal to Bangladesh by an independent agency; adopting satellite surveillance systems; action by the State PCB for enforcement of environmental norms; verification of

*claims of victims and disbursement of payments to them in the manner suggested by the Committee; implementing action plan prepared by the Committee by the State PCB etc. Compliance of all the recommendations may need to be closely monitored by the Committee.*

**24. On suggestion of State of Meghalaya, we substitute Justice B.D. Agarwal, former Judge, Guwahati High Court as Chairman of the Committee. We are informed that Justice B.D. Agarwal is Judicial Member of Lokayukt of Manipur State but is willing to undertake the present assignment subject to the State of Manipur relieving him or otherwise permitting him to do so. The State of Manipur may consider this aspect in consultation with Justice B.D. Agarwal. Subject to there being no objection, Justice B.D. Agarwal may take up the assignment at the earliest. The Committee may furnish its further action taken report after three months preferably by 30.04.2020 by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in).”**

#### **Consideration of 7<sup>th</sup> report - NGT order dated 27.07.2020**

12. The matter was last considered on 27.07.2020 in the light of 7<sup>th</sup> report of the Committee filed on 30.04.2020 as follows:-

“1to7..xxx.....xxx.....xxx

8. We have gone through the report with the assistance of the learned Counsel appearing today. The report substantially deals with finalization of comprehensive plan prepared by the Government of Meghalaya for handing over of extracted coal to CIL for auction and measures for restoration of the environment.

9. With regard to handing over of extracted coal to CIL for auction, the recommendations of the Committee are:

“1.The Committee approved the suggestion of the Mining and Geology Department officials for permitting transport and auction of 2 (two) lakhs MT of coal which is distributed over four coal bearing Districts in Meghalaya viz. East Jaintia Hills, West Khasi Hills, South Garo Hills and South West Khasi Hills. in the first phase. The transport and auction of the aforesaid quantity of coal has been approved by the Committee on an experimental or pilot basis. In Phase — I the Committee allows the Government of Meghalaya to hand over to Coal India Limited for auction the following quantities of coal in respect of each of the four coal bearing districts of Meghalaya:

- (i) East Jaintia Hills - 75.000 MT
- (ii) West Khasi Hills - 50.000 MT
- (iii) South Garo Hills - 50.000 MT
- (iv) South West Khasi Hills - 25 000 MT.

3. *The Comprehensive Plan along with the Annexures shall be uploaded by Mining and Geology Department in the websites of Mining and Geology Department and the Forests & Environment Department respectively. A copy of the said Comprehensive Plan should be circulated by the Mining and Geology Department to all concerned Departments, Offices and agencies including Coal India Limited.*

**4. *The Mining and Geology Department shall allow the coal owners to transport their coal to the designated depots in their respective Districts within a period of fifteen days from the date of issuance of Transit Pass to the coal owners of the designated coal depots.***

**5. *The Mining and Geology Department will select the coal owners on the basis of draw of lots. However, the maximum quantity a coal owner will be entitled to bid shall be restricted to 5000 MT in the first phase of auction.***

6. *The Mining and Geology Department will intimate the commencement of auction of coal in two prominent newspapers in Meghalaya.*

7. *The guidelines prepared by the Meghalaya State Pollution Control Board in respect of pollution control norms to be observed by coal depot owners was perused and approved by the Committee.*

8. *In respect of the buyers of auctioned coal who intend to transport or sell the same within Meghalaya. A list of such buyers shall be furnished by the Mining and Geology Department to the Meghalaya State Pollution Control Board.”*

10. *With regard to restoration of the environment, the commendations of the Committee are:*

*“1. Clause A of the Action Plan which relates to prevention of human and animal deaths by accidental falling in coal mine shafts comprises various subcomponents. With respect to clause A.1 - identification and delineation of coal fields as well as each coal mine coal shaft coal dump etc. in continuation with the earlier similar exercise initiated by NESAC they are requested to furnish a detailed cost estimate for preparation of such maps for the remaining districts viz., West Khasi Hills. South Garo Hills and South West Khasi Hills and submit a report to this Committee before the date of next sitting of the Committee.*

*2. Education Department may furnish a status report on the progress of implementation of A2 of the Action Plan which relates to creation of awareness about ill effects of illegal coal mining and also furnish information on the status of submission of APOs to the Committee notified in the guidelines for utilization of MEPR fund for their further processing of the same.*

3. A.3 of the Action Plan which relates to installation of sign boards in areas having presence of coal mines was reported to have been implemented by the Mining & Geology Department.

4. With respect to A4 of the action plan- Erection of physical barriers at periphery of shafts of mines where coal reserve has not been exhausted-the Deputy Commissioners of all Districts shall submit a report on progress on erection of physical barriers at periphery of shafts of mines where coal reserves have not been exhausted by the mine owners and steps taken by the District Administration to obtain such proposals from the mine owners who have not embarked on any such activity.

5. With respect to A5 of the action plan — Closure of shafts of mines where coal reserve has already been exhausted - Mining & Geology Department shall submit through an appropriate APO the further fund requirement for the purpose of installation of sign boards in areas having presence of coal mines to the concerned Committee notified in the guidelines for utilisation of MEPR fund. The Department shall also submit APOs incorporating other requirements to the Committee notified in the guidelines for utilisation of MEPRF. The Deputy Commissioners shall take steps to create awareness on erection of physical barriers around the coal shafts where the reserves are exhausted.

6. In respect of item A.5.1 of the Action Plan- Controlled blast to secure closure of shafts of mines where coal reserve has already been exhausted- the Member Secretary of Meghalaya State Pollution Control Board (MSPCB) is requested to intimate CIMFR —CSIR to give a power-point presentation on the matter to the Committee on the next date of its sitting. The Deputy Commissioners of the districts affected by coal mining shall furnish an appropriate report to the Committee on this matter before actually proceeding with controlled blasting. The Member Secretary, Meghalaya State Pollution Control Board is requested to submit a status report on development of safe and cost effective control blasting techniques in Meghalaya and the progress made by CIMGR-CSIR in this regard. The presentation of the CIMFR-CSIR during the next sitting of the Committee as referred above shall cover the techniques which could be applied in Meghalaya to secure controlled blasting. The Director DMR is requested to identify at least one abandoned coal mine where a pilot project can be undertaken by CIMFR-CSIR in respect of the safe and cost effective technique of control blasting and intimate the Committee on its next date of sitting.

7. Component B of the action plan relates to prevention of Acid Mine Drainage (AMD) through various devices. B.1 refers to coal dumps of cement factories and their captive power plants. The components B.1.1 to B.1.3 are as follows:

- i. Covering of dumps by permanent sheds/ water proof tarpaulin
- ii. Construction of garland drains along with acid mine drain storage tanks
- iii. Treatment of acid mine drain collected in storage tanks

*The Deputy Commissioners of East Khliehriat and Ri Bhoi Districts where cement factories and captive power plants are set up shall direct the cement factories and captive power plant owners to develop such devices and obtain a road map from each of them in this regard and submit the same to the Committee within two months.*

*8. With respect to item B.1.4 relating to amendment of Environmental Clearance (EC) already granted to the above mentioned cement plants and captive power plants to stipulate additional conditions in such ECs to provide for above measures incase such measures have not been stipulated. a status report on the implementation in this regard shall be furnished by the Member Secretary SEIAA and the Regional Office for North East region of MoEF&CC, Shillong.*

*9. With respect to item B.1.5 — Revocation/withdrawal of EC and launch of prosecution in case of non-implementation of aforementioned measures-it was reported that action has already been concluded by the MPSCB. A report in this regard may be submitted by MSPCB to the Committee before the next date of sitting of the Committee.*

*10. With respect to item B 1.6 — Revocation/withdrawal of CTE and launch of prosecution in case of non-implementation of afore-mentioned measures - it was stated by the Member Secretary MSPCB that there was no instance of withdrawal of CTE since all units which were directed by the MSPCB for compliance have complied.*

*11. Item B.2 relates to dumps of assessed coal. The sub-items are as follows:*

- i. Covering of dumps by water-proof tarpaulin/ permanent sheds*
- ii. Construction of garland drains along with acid mine drain storage tanks*
- iii. Treatment of acid mine drain collected in storage tanks*
- iv. Promulgation of order under section 144 or any other relevant Section(s) of Cr. P.C. to prohibit open/uncovered dumping of assessed coal*

*Sub items (i) to (iii) are to be implemented by the plant owners. The Deputy Commissioners of all Districts where occurrence of coal mining is noticed are requested to furnish status report within one month on the implementation of item B.2 to the Director of Mineral resources who in turn shall in turn submit a report to the Committee in this regard within two months.*

*12. With respect to item B.3 —Dumps of seized coal- the Director of Mineral Resources is requested to submit APOs within two weeks to the Committee notified under MEPR detailing the fund requirement to secure implementation of the sub-items listed under this item. The sub-items of B.3 are as below:*

- i. Construction of permanent depots for seized coal*
- ii. Covering of dumps by tarpaulin/ permanent sheds*

- iii. Construction of garland drains along with acid mine drain storage tanks
- iv. Treatment of acid mine drain collected in storage tanks

13. B.5 relates to insulating coal while in transit. The sub-items are:

- i. Covering of coal by waterproof tarpaulin while its transportation by road
- ii. Seizure of trucks carrying coal without covering it with waterproof tarpaulin
- iii. Promulgation of order under section 144 or any other relevant section(s) of Cr PC to prohibit open/uncovered dumping of assessed coal

The Deputy Commissioners of all coal mine affected districts are requested to furnish status report within one month on the implementation of item B.2 to the Director of Mineral resources who in turn shall in turn submit a consolidated report to the Committee in this regard.

14. With respect to item B.6- Rat hole coal mine openings- deliberation is postponed till CIMFR-CSIR make presentation in this regard to the Committee.

15. With respect to item B.7- Coal mine shafts located in river/ stream bed- deliberation is postponed till CIMFR-CSIR make presentation in this regard to the Committee.

16. With respect to item C which deals with restoration of water quality in rivers/ streams affected by Acid Mine Drains (AMD) the Chief Engineer, PHE is requested to submit status report on implementation of item C.1- Identification and prioritisation of rivers/ streams to be restored- and a road map for full implementation of the same to the Committee before its next date of sitting.

17. With respect to item C.2- Development refinement and transfer of AMD treatment technology- Professor O. P. Singh, NEHU is requested to make a presentation to the Committee on the day of its next sitting along with a report on the pilot project run by his team in this regard. The Mining & Geology Department suggested that an independent monitoring agency, in respect of which MSPCB is currently suitable, be requested to monitor the progress and success of the three pilot projects currently underway in respect of item C .2 and submit the same to the Committee within two months.”

11. We proceed to deal with the above recommendations. We find that recommendation of permitting **‘coal owners’** to transport the coal and for **such coal owners to be identified by the State by draw of lots** is contrary to the judgment of the Hon’ble Supreme Court. Under the said judgment, it was observed that coal owners had already been identified as per record and that process of handing over coal was to be undertaken by the State. The quantum of coal unscientifically mined was mentioned to be 23,25,663.54 MT (para 188). It was held that the said coal be handed over to CIL for disposal by the State in the manner laid down by the Committee. Out of the

*sale price, an amount could be paid to the owners, as already mentioned above (para 192 of the judgement). The suggestion of the Committee that **the coal owners may transport the coal and coal owners are yet to be identified by draw of lots** is against the judgment of the Hon'ble Supreme Court wherein it is mentioned that coal owners were already identified and that it was the State which was to hand over the coal to the CIL. Further, as per "Sixth Report" of the Committee quoted in para 19 of the last order dated 17.01.2020, the State was to provide the location of the places where coal was located to NESAC. NESAC was to prepare a geo-reference map and provide the same to CIL. NESAC was also to undertake analysis of the area where coal was to be handed over to CIL, using high resolution satellite imageries for the period in question.*

12. *As against the above, the Committee has now observed that the recommendations in the Sixth Report are unworkable for certain period. We are of the view that the said issue having already attained finality, there is no reason to reconsider the requirement of such exercise. However, if NESAC is not able to undertake the said exercise, the same may be entrusted to National Remote Sensing Centre (NRSC), Hyderabad. The CPCB may coordinate with the NRSC for the purpose.*

13. *The recommendation that the transportation may not be done by the State but by the 'coal owners' who are yet to be identified being against judgment of the Hon'ble Supreme Court cannot be approved. The State must transport the coal and give the locations in terms of the Sixth report. New exercise for identifying landowners beyond the judgement of the Hon'ble Supreme Court is not permissible. The Committee may revise its report accordingly.*

14. *As regards restoration plan, the remediation plan may be duly executed which may be supervised by the Committee. The steps suggested by the Committee may be taken. With regard to item no.10 relating to withdrawal of CTE, it is not clear whether any CTE had ever been granted. If no CTE had been granted, question of withdrawal did not arise.*

15. *The Committee may continue its functions including that of overseeing the remediation plan and furnish its report of status as on 31.12.2020 by 15.01.2021 by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in) preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF."*

### **8<sup>th</sup> report of the Committee, stand of the State and the Applicant**

13. Accordingly, the Committee has filed its 8<sup>th</sup> report dated 14.01.2021

as follows:-

#### **"PROGRESS ACHIEVED BY THE COMMITTEE AFTER FILING OF THE REPORT DATED 30.04.2020**

*The progress achieved by the Committee since filing of the last report on 30<sup>th</sup> April 2020 is substantially compliance of the*

directions of the Hon'ble NGT issued vide their order dated 27<sup>th</sup> July 2020 in OA No.110(THC)/2012 and IA NO 244/2020 in OA NO. 110(THC)/2012:

- (i) *The first direction of the Hon'ble NGT is contained in para 12 of their order which is extracted below again for the purpose of quick reference:*

*"12. As against the above the Committee has now observed that the recommendations in the Sixth Report are unworkable for certain period. We are of the view that the said issue having already attained finality there is no reason to reconsider the requirement of such exercise. However, if NESAC is not able to undertake the said exercise the same may be entrusted to National Remote Sensing Centre (NRSC). Hyderabad. The CPCB may coordinate with the NRSC for the purpose.*

*In compliance of the above direction the Committee deliberated over the matter in the 24<sup>th</sup> sitting of the Committee on 03.08.2020. A copy of the minutes of the sitting of the Committee on 03.08.2020 is annexed herewith as **Annexure 1**.*

*To recapitulate the background of the matter, attention of the Hon'ble Tribunal is invited again to the portion pertaining to recommendations of the Committee in its e Report submitted by the Committee to the Hon'ble Tribunal pertaining to GIS and remote sensing studies to be conducted by NESAC. The same has been dealt-with in a very detailed manner in the 7<sup>th</sup> Report of the Committee (Chapter 3 page 27-31). Reference of the Hon'ble Tribunal is invited to recommendations at SI No. 1, 3-5 of the r Report, which primarily pertain to application of GIS technique to map the coal dumps in Meghalaya. Estimation of quantity of coal in the dumps through GIS technique, and land use analysis of these coal dump sites through geospatial techniques etc. These recommendations are again extracted below for easy reference.*

*"1. The State of Meghalaya shall. immediately, provide to the North Eastern Space Application Centre (NESAC). Department of Space, Government of India. Umiam, the location (latitude and longitude) and other details of each dump where coal to be auctioned is located. The NEASC, shall within one week from the date of receipt of these details prepare a geo-referenced map depicting the location of each of these dumps and provide a copy of the same to the Secretary to the Government of Meghalaya. Mining and Geology Department and the Coal India limited for placing a copy thereof along with a list containing name and address of the owner and quantity of coal available at each such dump on their respective websites.*

*2. The Secretary to the Government of Meghalaya. Mining and Geology Department shall, immediately place*

on website of the Department a copy of the additional affidavit containing details of 32,56,715 MT coal stated to be available at various depots filed before the Hon'ble Supreme Court on 10.04.2019 by the Commissioner and Secretary to the Government of Meghalaya. Mining and Geology Department.

3. The North Eastern Space Application Centre (NESAC), Department of Space, Government of India. Umiam shall undertake land-use land-cover analysis of areas where coal to be handed over to the Coal India Limited is located by using high resolution satellite imageries for the following period:

- (a) Immediately before the illegal rat-hole mining of coal was banned by the Tribunal by an order dated 17.04.2014:
- (b) Immediately before the additional affidavit dated 10.04.2019 containing details of 32,56,715 MT Coal stated to be available at various depots was filed before the Hon'ble Supreme Court by the Commissioner and Secretary to the Government of Meghalaya, Mining and Geology Department:
- (c) Once in the year 2015, 2016, 2017 and 2018, preferably in the month of April

4. Based on the said land-use land-cover analysis the NESAC shall divide the coal available at each of the depot where the 32,56,715 MT coal is stated to be available into three categories namely:

- (a) The coal continuously existing at the depot since the ban on the illegal rat-hole mining was imposed by this Tribunal on 17.04.2014:
- (b) The coal dumped at the depot after the filing of additional affidavit before the Hon'ble Supreme Court on 10.04.2019:
- (c) The coal dumped at the depot on any day between 17.04.2014 and 10.04.2019.

5. The finalization of the mode and manner for handing over of the coal to the Coal India Limited and the disposal of the coal by the Coal India Limited through e-auction shall not wait completion of the afore-mentioned study by the NESAC. The amount released from sale of such coal will however not be disbursed to the respective owner till the said study in respect of such coal is completed by the NESAC."

The recommendation at SI 1, which has substantial nexus with the objective of preparation of a proper plan for handing over coal to Coal India Limited. its auction and transport thereafter, has been complied with by the North Eastern Space Application Centre (NESAC). Shillong.

*The recommendation at SI 2 too has been complied with by the Mining & Geology Department.*

*With reference to recommendation at SI 3 and 4, the Committee in its meeting on 14 02.2020 requested the NESAC to respond to the same with regard to cost estimate for carrying out this task, time required for the purpose, feasibility to undertake the study as would be evident from the minutes of the meeting on the said date annexed to the 7th report as Annexure 2 therein.*

*In response, the NESAC submitted a report (comprising slides of power point presentation) with regard to the cost estimate for carrying out land use analysis in some of the coal bearing districts of Meghalaya pertaining to different years as suggested in the aforementioned recommendation. The NESAC Officials led by the Director of NESAC submitted during the course of meeting on 02.03.2020 that the requisite high resolution satellite imageries corresponding to the past years viz., 2014, 15, 16 and 17 in relation to the coal bearing areas may not be available entirely since there are very few satellite passes (technically called as paths and rows) corresponding to the said geographic co-ordinates by satellites equipped with cameras (IKONOS, QUICKBIRD) which can record high resolution imageries. The Director also submitted that in view of the exorbitant cost factor involved unless a vendor orders for high resolution satellite imageries corresponding to a particular location in advance the corresponding foreign based companies rarely align their cameras to such sites resulting in their non-availability. In view of this constraint, he said he would explore availability of high resolution satellite imageries only for the years 2018-19 and respond. The presentation made by NESAC thereafter on 12 03.2020 (enclosed as Annexure 7 to the 7<sup>th</sup> Report) centered on satellite data availability for major coal bearing districts of Meghalaya viz., East Jaintia Hills, South Garo Hills, West Khasi Hills and South West Khasi Hills districts. Data availability was absent for some portions of East Jaintia Hills even considering satellite imageries of 1.5 m resolution (which would enable capture of coal dumps larger than 1.5 m diameter). Gap area for South Garo Hills for 2018 was 1384 sq km which is substantial. Similar picture was presented for other two districts as well (West Khasi hills presented gap of 1340 sq km for 2019 in respect of 1.5 m resolution satellite imageries).*

*However in spite of gaps in availability of satellite data in each of the districts NESAC has been asked to undertake land use and land cover study in the aforesaid four districts of Meghalaya where rat hole coal mining has been practiced since such a study would help in planning the environment restoration in these areas. For this study the final estimate of fund requirement for a total sum of Rs 90.80.445/-, which has been placed by NESAC with the Committee, has been considered and*

*approved by the Committee in the 28<sup>th</sup> sitting of the Committee on 8<sup>th</sup> December 2020. Further details of the study to be undertaken by NESAC, which the Committee has agreed in principle, are available in the minutes of the 23<sup>rd</sup> sitting of the Committee held on 1<sup>st</sup> July 2020 (para 1 under Agenda I of the minutes), and minutes of the 26<sup>th</sup> sitting of the Committee held on 18<sup>th</sup> November 2020 (para A.1 under Agenda II of the minutes) both of which would be again adverted to in the subsequent paras of this Chapter.*

*Insofar as recommendation at sl 4 is concerned the NESAC Director submitted orally on 02.03.2020 that it is not technically feasible to estimate quantity of coal remotely since they do not present a uniform surface. The report of the Director NESAC stating that it is not technically feasible to undertake such a study requiring quantitative estimation of coal is at last para of his report dated 21<sup>st</sup> April 2020 (which has already been enclosed as Annexure 8 to the 7<sup>th</sup> Report of the Committee)*

*It is in this background that the Committee in its 7<sup>th</sup> Report had suggested that it is not technically feasible to carry out recommendation No. 4 in view of express submission of NESAC in this regard and recommendation at SI No.5 being connected with recommendation No. 4 is unworkable too.*

*However, the Honble NGT in consideration of the 7<sup>th</sup> Report vide their order dated 27<sup>th</sup> July 2020, as already detailed in the preceding pages, directed that the said study may be entrusted to NRSC, Hyderabad, if NESAC expresses inability to undertake the same.*

*Pursuant to the aforesaid direction the matter was deliberated by the Committee in its 24<sup>th</sup> sitting. The issue pertaining to assessing the quantity of the coal at various coal dump sites provided by the Mining & Geology Department, Govt of Meghalaya to NESAC through remote sensing technique has been dealt under agenda III of the minutes of the 24<sup>th</sup> sitting of the Committee on 03.08.2020. A copy of the minutes of the sitting of the Committee on 03.08.2020 has already been annexed as Annexure 1.*

*In view of the direction of the Honble NGT to entrust the said study to National Remote Sensing Centre, Hyderabad (NRSC) to be duly co-ordinated by CPCB the Committee decided to write to NRSC to take up the said study. Pursuant to the decision of the Committee the letter in this regard addressed by the Committee to the Director, NRSC is annexed herewith as **Annexure 2**.*

*On receipt of the aforesaid letter, the reply of the NRSC is annexed herewith as **Annexure 3**. The NRSC too have stated that it is not technically feasible to undertake this study and approved the stand of NESAC that it is not*

*technically feasible to undertake study of this nature for the reasons stated in their letter dated 21<sup>st</sup> April 2020 (Annexure 8 of the 7<sup>th</sup> Report).*

*The Honble NGT is requested to kindly consider the reply of NRSC dated 31<sup>st</sup> August 2020 and approve the same or give any further advice/direction in the matter as deemed fit and appropriate by them.*

*From the foregoing it appears to the Committee that though estimation of the quantity of coal in the coal dumps is not technically feasible as elaborately explained in the preceding paras it is technically feasible and also useful to have the land use and land cover map prepared for the coal mining areas in Meghalaya to help plan restoration of environment in those coal bearing districts. The Committee has held several rounds of discussion with NESAC in this regard who have finally submitted an estimate for a total sum of Rs 90,80.445/-, which has been considered and approved by the Committee in its 28<sup>th</sup> sitting on 8<sup>th</sup> December 2020. At clause (v) of this report this remote sensing - GIS study to be undertaken by NESAC is being further elaborated in a detailed manner for consideration of the Hon'ble NGT.*

- (ii) *The second direction of the Honble NGT is contained in para 13 of their order which is extracted below again for the purpose of ready reference:*

*'13. The recommendation that the transportation may not be done by the State but by the 'coal owners' who are yet to be identified being against judgment of the Hon'ble Supreme Court cannot be approved. The State must transport the coal and give the locations in terms of the Sixth report. New exercise for identifying landowners beyond the judgment of the Honble Supreme Court is not permissible. The Committee may revise its report accordingly.'*

*In compliance of the above direction the Committee deliberated over the matter in the 24<sup>th</sup> sitting of the Committee on 03.08.2020. A copy of the minutes of the sitting of the Committee on 03.08 2020 is already annexed as Annexure 1. The matter pertaining to revising the comprehensive plan for auction and transportation of coal is dealt under agenda II of the minutes. In compliance of the decisions of the Committee in accordance with the directions of the Hon'ble NGT, the revised comprehensive plan prepared by the Mining & Geology Department in consultation with Coal India Limited and duly approved by the Committee is annexed herewith as **Annexure 4**, which has been duly uploaded in the website of the Mining & Geology Department of the Government of Meghalaya.*

*The Mining & Geology Department is likely to commence auction of coal through e-auction portal shortly after due fulfilment of all requirements in this regard.*

- (iii) *The third direction of the Honble NGT is contained in para 14 of their order which is extracted below again for the purpose of ready reference:*

*"14. As regards restoration plan the remediation plan may be duly executed which may be supervised by the Committee. The steps suggested by the Committee may be taken. With regard to item no.10 relating to withdrawal of CTE it is not clear whether any CTE had ever been granted. If no CTE had been granted, question of withdrawal did not arise."*

*The matter pertaining to execution of the action plan prepared by the Committee for restoration of the environment damaged on account of rat hole coal mining in Meghalaya has been considered in 23<sup>rd</sup>, 25<sup>th</sup> and 26<sup>th</sup> and 27<sup>th</sup> sittings of the Committee held on 01<sup>st</sup> July, 01<sup>st</sup> September, 01<sup>st</sup> October and 18<sup>th</sup> November 2020 respectively. A copy of the minutes of the aforesaid sittings of the Committee on 01<sup>st</sup> September and 01<sup>st</sup> October 2020 respectively are annexed herewith as **Annexure 5, Annexure 6, and Annexure land Annexure 8 respectively**. The matter pertaining to execution of the action plan prepared by the Committee for restoration of the environment damaged on account of rat hole coal mining is dealt under agenda I, agenda II and III of the minutes dated 01<sup>st</sup> July, 01<sup>st</sup> September 2020 respectively under agenda II of the minutes dated 01<sup>st</sup> October 2020 and Agenda I of the minutes dated 18<sup>th</sup> November 2020.*

*Insofar as CTE is concerned it is clarified that the same pertains to cement and thermal power plants in Meghalaya which use coal and does not pertain to coal mines. These cement and thermal power plants have been granted environmental clearance and also CTE by the Meghalaya State Pollution Control.*

- (iv) *Availability of fund is a vital requirement for execution of the Action Plan which is to be sourced from MEPR fund collected from transporters of coal as per earlier direction of the Hon'ble NGT. The Committee vide its 4<sup>th</sup> report dated 31<sup>st</sup> August 2019, at SI. No. 18 of their recommendations, which is extracted below. had recommended preparation of guidelines for utilization of MEPR Fund:*

*"18. The State of Meghalaya shall within one month formulate draft guidelines, strictly in conformity with the broad parameters suggested by the Justice Katakey*

*Committee in its fourteenth sitting held on 03.06.2019. for utilization of amounts available in the MEPR Fund in an expeditious and transparent manner and submit the same to the Committee. The Committee shall examine the draft guidelines and place the same along with its comments thereon before this Tribunal within one month of receipt of the guidelines. (para 5. 5. 9. 8 (i).*

*Accordingly, the Mining & Geology Department, Govt of Meghalaya, had submitted the draft guidelines for utilization of MEPR Fund which has been carefully considered by the Committee in their 22<sup>nd</sup> sitting on 19<sup>th</sup> June 2020.*

*Several components of the guidelines have been duly edited by the Committee and the final approved version of the guidelines which have been notified by the Govt of Meghalaya is annexed herein as **Annexure 9**. The Hon'ble NGT is requested to kindly consider and approve the same to facilitate expeditious utilization of the MEPR Fund which would eventually pave the way for effective implementation of the Action Plan for restoration of the environment in Meghalaya.*

- (v) *Another vital component of the Action Plan is preparation of land use and land cover map of the rat hole coal mining affected areas in several districts of Meghalaya by NESAC (North Eastern Space Application Centre), Umiam, Meghalaya. The said issue has been considered in several sittings of the Committee as would be evident from the aforesaid minutes of various sittings of the Committee. The final estimate of fund requirement for a total sum of Rs 90,80,445/- which has been placed by NESAC with the Committee, has been considered and approved by the Committee in the 28<sup>th</sup> sitting of the Committee on 8<sup>th</sup> December 2020. A copy of the minutes of the said sitting is annexed herein as **Annexure 10**.*

*The Hon'ble NGT is requested to kindly approve release of the aforesaid sum of Rs 90.80,4451- to Director, NEAC from MEPR fund to facilitate execution of the aforesaid study by NESAC, Umiam, Meghalaya.*

- (vi) *The Hon'ble NGT had also considered IA No 244/2020 in OA No. 110(THC)/2012 filed by applicant Pawan Sharma. The direction passed by the Hon'ble NGT on the said IA vide their order dated 27<sup>th</sup> July 2020 is extracted below:*

*“We also take notice of the application filed by one Shri Pawan Sharma. G. S. Road, Shillong, East Khasi Hills District, Meghalaya on 30.06.2020 to bring on record non-compliance of the directions of this Tribunal dated 17.01.2020. The application may be forwarded to the*

*Committee headed by Justice B.D. Agatwal. former judge of the Gauhati High Court, for being looked into and taking such further action as may be found necessary.*

*In compliance of the above direction of the Hon'ble NGT the aforesaid IA was considered by the Committee in its 24<sup>th</sup> sitting on 03.08.2020. A copy of the minutes of the sitting of the Committee on 03.08.2020 is already annexed as Annexure 1. The Govt of Meghalaya was directed to file their counter to the averments contained in the IA of Shri Pawan Sharma. Accordingly, the counter affidavit in the matter was submitted to the Committee by the Mining & Geology Department, Govt of Meghalaya which was replied to by Pawan Sharma. A copy of the counter affidavit of Govt of Meghalaya and reply filed by the applicant are annexed herewith as **Annexure 11** and **Annexure 12** respectively. The pleadings of the parties having been completed the said matter was considered by the Committee in its 28<sup>th</sup> sitting on 8<sup>th</sup> December 2020.*

*The complaint of Shri Pawan Sharma was finally disposed-of vide Order dated 08.12.2020. The relevant directions given to the Chief Secretary and DGP, Meghalaya are reproduced below for ready reference:*

*"8. Hence, the Committee directs the Government and, more particularly to the DGP, Meghalaya to take the following actions immediately to arrest the offence of transportation of illegally mined coal:-*

- (i) File Charge-sheets in all the cases. registered u/s 21 of the MMDR Act within a period of 2 (two) months from the date of registration of the case. This will deter the coal smugglers from violating the ban order of the Honble NGT.*
- (ii) The Chief Secretary and DGP, Meghalaya are also directed to issue necessary instructions to the investigating officers and other concerned officers to sell the seized coal within a period of 3 (three) months. This step will also discourage the owners of coal from transporting it illegally without payment of royalty and taxes. In case there is any delay in giving orders for auction of the seized coal and equipments by the courts/magistrates the Government should approach the Honble Meghalaya High Court for appropriate directions to the concerned magistrates. Till now the seized coal are lying in open causing environment hazardous. Hence, disposal of seized coal at the earliest is also imperative on this count.*
- (iii) The Chief Secretary and DGP, Meghalaya are also directed to issue necessary instructions to the investigating officers and other concerned officers to confiscate and sell the seized trucks, dumpers, conveyances and equipments in accordance with law*

*within a period of 3 (three) months. This step will also discourage the owners of coal and trucks from transporting it illegally without payment of royalty and taxes.*

*(iv) As per resolutions taken by this Committee in various meetings and recommendations to the Hon'ble NGT (subsequently approved by the Hon'ble NGT by its Order dated 17.01.2020) the Govt. of Meghalaya is directed to install centralized server, uploading of transport permits/challans and tracking of coal laden trucks through GPS and RFID tags. as stipulated in Appendix XII to the E1A Notification. 2016 and also introduce high security mineral challans to prevent and detect multiple use of transport challans within a period of four weeks. It is further ordered that no new challan for coal transportation shall be issued by the Director of Mineral Resources, Meghalaya till the aforesaid system is put in place.*

*(v) Take legal action against the officials who fail to detect and detain the trucks and other conveyances from their respective check points.*

*(vi) To increase the Police patrolling in the coal bearing areas to prevent illegal coal mining, if any. “*

*The order of the Committee in the matter disposing of the IA of the applicant is annexed herewith as **Annexure 13**. The Hon'ble NGT is requested to kindly peruse the same and pass further orders as they deem fit and appropriate in the matter.*

*(vii) The Hon'ble National Green Tribunal had considered the earlier reports filed by the Committee and vide judgment dated 17.01.2020 had issued further directions in OA 110 (THC)/2012 for compliance of all concerned as already stated earlier in Chapter I of this report. The direction pertaining to the Committee is at para 23 of the judgment (page 45) wherein the Committee has been entrusted with the responsibility to monitor the compliance of recommendation furnished by the Committee to the Hon'ble NGT in its 4<sup>th</sup> 5<sup>th</sup> and 6<sup>th</sup> Reports submitted to the Hon'ble NGT. Accordingly the Committee has taken stock of the progress in implementation of its recommendations furnished to the NGT as aforesaid in its 23<sup>rd</sup> sitting on 15<sup>th</sup> July 2020 a copy of which has been already annexed as Annexure 5. The action taken in the matter has been discussed under Agenda II of the minutes. The Mining & Geology Department was instructed to submit report of compliance of the directions pertaining to them who have submitted the same. Copies of the compliance reports dated 24<sup>th</sup> July 2020 and 30<sup>th</sup> September 2020 submitted by the Mining & Geology Department are annexed herein as*

**Annexure 14** and **Annexure 15** respectively. Similarly, the Meghalaya Police too were directed to submit report of crime statistics pertaining to coal in Meghalaya. The latest report submitted by the Police in this regard furnishing details of cases registered cases charge-sheeted quantity of contraband coal seized etc is enclosed herewith as **Annexure 16**.

(viii) During the 28<sup>th</sup> sitting held on 8<sup>th</sup> December 2020 the Committee deliberated over scientific mining of coal in Meghalaya. A copy of the minutes of 28<sup>th</sup> sitting held on 8<sup>th</sup> December 2020 has already been annexed herein as **Annexure 10**. The Hon'ble Supreme Court vide order dated 03.07.2019 in Civil Appeal No. 10720/2018 State of Meghalaya Vrs All Dimasa Student Union Dima-Hasao District Committee, directed that mining of coal could be allowed in Meghalaya only in compliance with Mines and Minerals (Development and Regulation) Act 1958. Mines Act 1952, the Environment Protection Act 1985 which would necessitate mining in accordance with approved mining plan. The mining plan for mining coal in Meghalaya needs to be scientific, environment friendly and least hazardous and suggest the mining method best suitable to Meghalaya. The aforesaid mining plan would also require the approval of the Ministry of Coal. The Committee agreed to request the Indian School of Mines Dhanbad and the Central Mine Planning and Design Institute (CMPDI) to suggest mining methods best suitable for Meghalaya in the manner indicated above to help the State undertake coal mining in the State in a scientific and environment friendly manner. The Hon'ble NGT may kindly approve the decision of the Committee in this regard.

(ix) The Committee has also been in receipt of a report filed by the CPCB pursuant to the directions of the Committee in its 18<sup>th</sup> sitting on 15<sup>th</sup> September 2019 in relation to the coke oven plants operating in Meghalaya suggesting that they have been using illegally mined coal of Meghalaya. The Committee has considered the said report in its various sittings viz., 24<sup>th</sup> sitting held on 3<sup>rd</sup> August 2020. 26<sup>th</sup> sitting held on 1<sup>st</sup> October 2020. 27<sup>th</sup> sitting held on 18<sup>th</sup> November 2020 and 28<sup>th</sup> sitting held on 8<sup>th</sup> December 2020. A copy of the minutes of 28<sup>th</sup> sitting held on 8<sup>th</sup> December 2020 has already been annexed herein as **Annexure 10**. Copies of the minutes of the remaining sittings of the Committee have already been annexed in this report. The issue continues to be under active consideration of the Committee.

#### **CHAPTER IV**

#### **RECOMMENDATIONS OF THE COMMITTEE**

*The recommendations of the Committee on various issues under consideration of the Committee for acceptance of the Hon'ble NGT are as below:*

1. *The Hon'ble NGT may kindly approve the guidelines for operating Meghalaya Environment Protection and Restoration Fund (MEPRF) notified by the State Government (**Annexure 9**), which has been duly approved by the Committee in its 22<sup>nd</sup> sitting held on 1<sup>st</sup> June 2020.*
2. *The Hon'ble NGT may kindly approve for release of a sum of Rs 90.80.445/- from MEPR fund to NESAC, Umiam, Meghalaya, being the estimate of fund requirement of NESAC for preparation of land use and land cover map of the districts in Meghalaya affected adversely on account of illegal coal mining, which has been approved by the Committee in its 28<sup>th</sup> sitting held on 8<sup>th</sup> December 2020.*
3. *The Hon'ble NGT may kindly approve the directions of this Committee to the Indian School of Mines, Dhanbad and Central Mine Planning and Design Institute (CMPDI), Dhanbad, to advise the Govt of Meghalaya on the method of coal mining, suitable for Meghalaya, for the purpose of preparation of mining plan to enable scientific coal mining in Meghalaya with minimum impact on the environment.*
4. *The Hon'ble NGT may kindly ratify the approval granted by the Committee to the revised comprehensive plan prepared by the Mining & Geology Department, Govt of Meghalaya in consultation with Coal India Limited for the purpose of transport and auction of coal (**Annexure 4**).*
5. *The Hon'ble NGT may kindly approve the directions given to the Chief Secretary and the DGP of Meghalaya while disposing-of the complaint of Shri Pawan Sharma (**Annexure 13**).*

*The Hon'ble NGT may kindly approve the final order passed by the Committee disposing of the application filed by the applicant in IA No 244/2020 transferred by the Hon'ble NGT to the Committee (Annexure 13).”*

#### **Stand of the State**

14. Before filing the above report, the State of Meghalaya has filed its additional affidavit dated 24.09.2020 explaining its position with regard to the suggestion of draw of lots to select the owner for transportation of the coal, which aspect has already been mentioned in the report of the Committee already quoted above.

### **Stand of the Applicant**

15. The applicant has filed a rejoinder to the reply affidavit filed on behalf of the State of Meghalaya on 24.09.2020 to the effect that illegal mining and transportation was still continuing. Reference has been made to the media report as follows:-

“

**(i) The Shillong Times dated 12.03.2020**

*East Jaintia Hills Police seized 23 coal laden trucks illegally transporting coal which include 12 (twelve) trucks on 10.03.2020 at Kuliang; 9 (nine) trucks on 11.03.2020 at Sonapur Umkiang and accordingly several cases were registered by the Police at Lumshnong Police Station.*

**(ii) The Shillong Times dated 19.03.2020**

*Illegal coal transportation on March 16 around 4.30 p.m Police detected two containers transport vehicles, transporting coal in violation of N.G.T. order at Lumshnong Eat Khasi Hills. However, driver of the truck managed to escape.*

*On March 15, around 3 a.m. Police detected one truck transporting coal in violation of N.G.T. order at Mukhep, Lad Longkaluh East Khasi Hills*

**(iii) The Shillong Times dated 29.03.2020**

*Despite curfew and lockdown illegal transportation of coal continues. According to Police on March, 26 around 1.30 p.m. 10 ten coal laden trucks were detected and seized from Umbir Village in Ri-Bhoi District for violation of N.G.T. order.*

*On 24.03.2020 around 7.30 p.m. Police detected 2 (two) trucks while transporting coal in violation of the N.G.T. ORDER OF Umkiang check gate, East Jaintia Hills.*

**(iv) The Shillong Times dated 07.04.2020**

*Despite the curfew and lockdown in the State, illegal transportation of coal trucks in violation of the N.G.T. orders, continues in the State.*

*Only recently 5 (five) coal laden trucks at Nongsning and Mynkre Village from East Jaintia Hills District were seized. At Mynkre Village, however the members of the Village Defence Party VDP were ones to seize 4 (four) trucks for flouting the lockdown and N.G.T. order.*

**(v) The Shillong Times dated 10.04.2020**

*Illegal coal transportation on April, 3 around 7.30 p.m. Police seized 3 (three) coal laden trucks at Mawlien Mawkhoon village in Ri-Bhoi District.*

**(vi) The Shillong Times dated 13.04.2020**

*In violation of the N.G.T. Order as well as lockdown imposed in the State along with the rest of the Nation, Police on April, 7 around 2.05 A.M. detected one stationary coal laden dumper truck MH-12-TRDK-2796 without driver at Rymbai Road, East Jaintia Hills.*

**(vii) The Shillong Times dated 14.04.2020**

*Shri S. Marwein, E.A.C. Khliehriat lodged a complaint that on April, 11 around 11.30 A.M. while conducting mine raids along with the Police at Moopynien, Khliehriat East, 6 to 8 labourers were seen mining in 2 (two) coal mines, however they managed to escaped. 2 (two) mining equipments were seized from the spot.*

**(viii) The Shillong Times dated 09.05.2020**

*Coal truck seized - A.Nongdhar, Mines and Royalty Inspector, D.M.R. Umkiang, East Jaitia Hills lodged a complaint that on May, 6 around 4 A.M. 1 (one) truck was detected at Umkiang check gate while illegally transporting coal in violation of the N.G.T. order.*

**(ix) The Shillong Times dated 21.05.2020**

*Workers unload freshly mined coal at Moolang village in East Jaintia Hills on Wednesday. Earlier on May 13 the Police seized 22 trucks carrying coal illegally which were parked at Ratacherra and Malidor in East Jaintia Hills.*

**(x) The Shillong Times Dated 26.05.2020**

*Despite the ongoing lockdown and restrictions there seems to be no end to illegal coal mining in the State. The Ri-Bhoi District Police in the last one week have detected as many as 4 (four) trucks laden with unauthorized coals.*

**(xi) The Shillong Times Dated 16.07.2020**

*On July 11, around 5 p.m., the Police detected and seized 1 (one) truck while illegally transporting coal under Shillong Police Station in West Garo Hills.*

**(xii) The Shillong Times Dated 06.10.2020**

*On 1 October around 9.30 A.M. Police detected transporting coal in violation of N.G.T. order at Sohiong petrol pump East Khasi Hills.*

**(xiii) The Shillong Times Dated 07.10.2020**

*According to media report in Assam , 150 trucks entered Assam on the night of October 5 and only 2 were detained in Beltolla in Guwahati, while on the morning of October 6 as many as 650 trucks entered Assam. There is no way anyone can check the veracity of the numbers quoted but it is an incontrovertible fact that is being clandestinely sold in Assam Shri Lakhmen Rymbui was entrusted with the Home Portfolio in controversial circumstances when his predecessor James Sangma's name figured in smuggling of coal — a lucrative trade for the coal rich State. Informed sources claimed that the State Police are like a caged parrot unable to function freely i.e. **they sometimes intercept coal laden lorries as an eyewash***

*It may be mentioned that the issue pertaining to the illegal transportation of coal even forced a group of Cabinet Ministers to take it up with the Chief Minister, Conrad Sangma. Although the Home Portfolio got shifted from one minister to another, not much change seems to have occurred and the coal seems to be finding their way out of the State, inspite of the N.G.T. ban.*

**(xiv) The Shillong Times Dated 08.10.2020**

*While the M.D.A. Government continues to be on denial mode on the allegation of syndicated supply of coal to Assam led to James Sangma being stripped from his portfolio earlier this year*

**(xv) The Shillong Times Dated 10.10.2020**

*The clamour for action against coal racketeering in the State is apparently getting louder. For its part, the N.P.P. led M.D.A. Government seems to be getting concerned with unremitting allegations over illegal transportation of coal from several quarters.*

*Soon after B.J.P., an ally in the M.D.A., demanded arrest of Power Minister James Sangma over the matter, civil society groups in the State are now demanding a C.B.I. inquiry into the alleged coal syndicate.*

**(xvi) The Shillong Times Dated 12.10.2020**

*Meghalaya B.J.P. which has been demanding arrest of Power Minister James Sangma for his alleged involvement in illegal transportation of coal has asserted that they would approach the Prime Minister's Office, P.M.O., on the matter.*

**(xvii) The Shillong Times Dated 13.10.2020**

*Sangma further said that the Government was serious about dealing with the illegal transportation of coal and hence the Government has also prepared selling up of integrated check gates which will have live C. C. T. V. cameras along with other technological solutions to check all the trucks.”*

16. It is further stated that:

*“4. That the Applicant has set up a case for the failure of the State to comply with the direction of this Hon'ble Tribunal. In para 3 of the*

*Application the Applicant has specifically mentioned about the 19 directions of this Hon'ble Tribunal which has not been complied been with.*

*For instance no steps have been taken:—*

- a) For electronic recording of movement of coal including by way of G.P.S and R.F.LD. Tags and having Central Server for the purpose.*
- b) Monitoring of sourcing of illegally mined coal by Cement Manufacturing / Thermal Power Plant for enforcement of Mining Law including punitive and remedial action for*

*sourcing of illegally mined materials as found by the Committee.*

- c) Building of Board's home in Khliehriat and Sutnga area in East Jaintia Hills District, Meghalaya for preparation of Geological Report and Feasibility Report for scientific coal mining.*
- d) Compiling information about locations of dumps of coal.*
- e) Finalizing mode and manner of handling of coal and its disposal including e-auction;*
- f) Transfer of coal to Coal India Limited;*
- g) Adopting Satellite Surveillance systems;*

*5. That had the aforementioned directions of this Hon'ble Tribunal been complied with the illegal extractions of coal by way of rat-hole mining and transportation would have stopped but as would transpire from the above media reporting that thousands of illegally mined coal laden trucks would not have been moving out of Meghalaya.*

*6. That it took almost 9(nine) months for the Chief Minister of the State to declare that it was serious about the dealing with the illegal transportation of coal and hence, the government is proposing to setup integrated check gates which will have live CCTV cameras along with other technical solutions to check all the trucks as published\* in The Shillong Times dated 13.10.2020 (Annexure XVII) and that to mere lip service to cover up the inaction in complying with the Hon'ble Tribunal's direction.*

*7. That as stated in the above media report i.e. the Shillong Times dated 07.10.2020 (Annexure - XVII) the police as an eyewitness has been detecting merely one or two trucks while leaving hundreds of trucks to pass through unchecked, which speaks volume of the conspiracy of the coal syndicate causing immense loss to the public exchequer.”*

### **Consideration of the Eighth Report and directions**

17. We have given due consideration to the report and heard learned Senior Counsel Shri Panjwani for the applicant and other appearing Counsel. We have also considered the written submissions filed on 10.03.2021 by Shri Panjwani, Senior Advocate.

18. It is patent that the problem of rat hole mining in Meghalaya continues and progress of restoration of environment and disposal of illegally mined material is inadequate. The Tribunal has already recorded its findings which have been substantially affirmed by the Hon'ble

Supreme Court. Proceedings commenced on the basis of media reports on 6.7.2012 that 30 persons were trapped in illegal mining and 15 died. The Tribunal vide order dated 17.4.2014 directed stopping of rat hole mining and also sought information about the quantity of illegally mined material. On 31.3.2016, illegally mined material was directed to vest in the State. The mined material was as per order dated 7.10.2017 found to be of value of Rs. 307 crore and loss of royalty was found to be 400 crore. 10% amount was directed to be credited to Environment Protection Fund. Transportation of illegally mined material was required to be stopped vide order dated 31.8.2018. Further incident of illegal mining came to light on 13.12.2018 when 15 workers engaged in illegal mining were trapped resulting in casualties. There does not appear to be any explanation as to why if the quantity of mined coal was found to be 6.3 million tonne as per order of this Tribunal dated 07.10.2017 (referred to in Para 2 above), the said quantity was found to be 2.3 million tonne (was actually available) in the report of the Committee dated 02.01.2019 as noted in Para 4 above. There is a possibility of large amount of mined coal having been pilfered or illegally disposed of even though the same was to be custody of the State. This aspect may be looked into by the State of Meghalaya.

19. As per Supreme Court judgment dated 3.7.2019, it was held that mining can be done only after EC as per mining plan and owner's share will be the residue of sale proceeds after deducting charges payable to Coal India, Royalty amount for environmental protection and for illegally extracted coal, action under section 21 of the MMDR Act was to be taken by the State. The Committee has done substantial work in the form of eight reports details of which have already been mentioned. As already noted, the Committee formed on 31.08.2018. The Committee filed its first report on 02.01.2019 which was considered on 04.01.2019. The said report is

that illegal mining is going on and deals with the quantity of extracted coal, uninventorised coal, impact on environment and steps for restoration. The 2<sup>nd</sup> report inter-alia recommended installing digital display boards in respect of water quality, evolving mechanism for transportation of illegally mined coal, audit of sources of acquisition of coal by the power generation and cement companies. The same was considered on 11.04.2019, as already mentioned. The 3<sup>rd</sup> report dated 02.08.2019 inter-alia dealt with the remedial measures in the form of afforestation, reclamation of affected area, organizing awareness programs, protection of the mined coal, treatment of acidic water in identified streams. The same was considered on 22.08.2019. The 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> reports were considered on 17.01.2020. The 4<sup>th</sup> report dated 31.08.2019 is with regard to illegal raising and transportation of coal and action under Section 21(5) of the MMDR Act, Water and EP Act establishing coal mine surveillance system and considers mechanism for disposal of coal. The 5<sup>th</sup> report dated 02.12.2019 is inter-alia with regard to sources of coal used by the power and cement plants in the State. The 6<sup>th</sup> report dated 03.12.2019 is with regard to use of satellite to verify the details of the coal to be auctioned and to verify details of the location of the coal to be auctioned. The 7<sup>th</sup> report dated 30.04.2020 further considered the issue of transportation of the mined coal to designated place. Thus, the reports have deliberated in detail about the strategies for preventing illegal mining, taking action against violators, creating awareness, restoration of water quality, water supply to affected areas, compensation to the victims, scientific mining, handing over the mined material to Coal India for disposal and all related issues. However, disturbing fact is that even after 1 year and 8 months of the judgment of the Hon'ble Supreme Court, directing disposal of mined coal, the issue is still hanging fire. There is a possibility of such material being stolen or

pilfered and its value diminishing unless timebound action is taken for its disposal. Similarly, steps for restoration of environment need to be taken on war footing.

20. The newspaper reports filed on behalf of the applicant clearly show that illegal mining is still continuing. Restoration of environment, particularly water quality and rehabilitation of affected victims in terms of health, water supply, skill development, protection against illegal mining as well as steps to handle the illegally mined material remain a challenge which requires constant planning and action. Since sufficient deliberations have taken place and **to an extent road-map for further action has been laid out, it is now the implementation which needs to be expedited.** We propose to conclude the proceedings before this Tribunal and before the Committee so that the designated authorities now proceed further in the matter subject to the oversight of a joint Committee of Officers of the Central and the State Government, as follows.

21. We may however deal with the recommendations of the Committee in the 8<sup>th</sup> Report. We approve the release of sum of Rs. 90,80,445/- in favour of NESAC. The recommendations for handling the MEPRF is approved with the modification that the steering Committee will comprise of the Oversight Committee which we are hereby constituting. The recommendations with regard to method of coal mining and for preparation of mining plan for scientific coal mining consistent with the concern for the environment is accepted, subject to the modification that the final view in the matter may be taken by the Oversight Committee which we are hereby constituting. Same is our direction with regard to recommendation for revised comprehensive plan prepared by the Mining & Geology Department, Govt. of Meghalaya in consultation

with Coal India Limited for the purpose of transport and auction of coal. We also approve the directions given to the Chief Secretary and DGP, Meghalaya on complaint of Shri Pawan Sharma. We also approve the final order passed by the Committee disposing of the application i.e. IA No. 244/2020 filed by the applicant and transferred by the Hon'ble NGT to the Committee.

22. **While placing on record our appreciation for the onerous task undertaken by the Committee, we are of the view that since the Monitoring by the Tribunal or Tribunal appointed Committee cannot continue forever, consistent with the orders passed so far and taking into account the deliberations by the Committee, further task needs to be taken over by the Executive Authorities in the manner we are hereby directing. Needless to say, under the public trust doctrine, the State authorities are bound to work for protection of scarce natural resources, the environment and public health. There is need in change of attitude towards the subject after the Hon'ble Supreme Court has pronounced in the matter.**

23. Accordingly, we dispose of these proceedings with a direction that ownership of the task of compliance of the Judgment of the Hon'ble Supreme Court with regard to preventing unscientific and unregulated mining, restoring the environment, rehabilitating the victims and handling of illegally mined coal should be taken over by the State Authorities, to be overseen by an **Oversight Committee of 12 members, headed by Additional Secretary, MoEF&CC (dealing with the environment and abatement of pollution issues) and comprising Chairman of the EAC, MoEF&CC, dealing with EIA of coal mining, Chairman Coal India, Joint Secretary, Ministry of Mining, Government of India, Director**

**General of Mines Safety, Senior Scientist, Indian School of Mines/ IIT, Dhanbad, Regional Officers MoEF&CC and CPCB, Chairman, State PCB, Additional Chief Secretary dealing with the subject of mining in the Government of Meghalaya, PCCF (HoFF) Meghalaya and Additional DGP, nominated by the DGP, Meghalaya.** The Regional Officer, MoEF&CC, Shillong will be the Member Secretary of the Committee to coordinate the working of the Committee and to deal with day-to-day issues as per decisions of the Committee. The Committee may meet within one month, take stock of situation and plan future course of action. **Its task will be to take forward compliance of judgment of the Hon'ble Supreme Court and further orders of this Tribunal for preventing unscientific and unregulated mining, handling the already mined material and all other incidental issues.** At the cost of repetition, we direct that the Committee may inter alia ensure that no illegal/unauthorized mining takes place, keeping combat plan and mining mishap management plan ready to avoid eventualities. Further, the Committee may take necessary measures for rejuvenating contaminated streams and rivers. The Committee will be at liberty to take assistance of any other institution/individual. The Chief Secretary Meghalaya will provide necessary logistics for functioning of the Committee. All concerned will be bound by the directions of the Committee, subject to any objection being considered by this Tribunal.

24. We further direct that compliance reports dated 24.07.2020 and 30.09.2020 and latest report submitted by Meghalaya Police with regard to crime statistics (Annexures -14, 15 and 16) may now be looked into by the Oversight Committee. All other surviving issues which may emerge from the report or otherwise will be finally looked into by the Oversight Committee. The Oversight Committee will give its periodical reports to the

Secretaries, Mines, Coal and MoEF&CC, GoI and also place the same on the website of the State of Meghalaya and the MoEF&CC. The said Secretaries may issue such directions as may be necessary in relation to their respective subjects, subject to any unresolved issue being raised before this Tribunal. The Regional Officer, MoEF&CC may take over the records from the Committee for further proceedings as per decisions of the newly constituted Committee.

25. We place on record our appreciation for the valuable assistance rendered by learned Amicus Curiae in dealing with the matter.

A copy of this order be forwarded to the Secretaries, Ministries of MoEF&CC, Coal and Mines, GoI, the Director General of Mines Safety, GoI, Indian School of Mines/ IIT, Dhanbad, CPCB, State PCB, Additional Chief Secretary dealing with the subject in the Government of Meghalaya, PCCF (HoFF) Meghalaya and DGP, Meghalaya by e-mail for compliance.

A copy of this order be also forwarded to Justice B.D. Aggarwal, former judge of Gauhati High Court.

Adarsh Kumar Goel, CP

S.K. Singh, JM

Dr. Nagin Nanda, EM

March 15, 2021  
Original Application No. 110(T<sub>HC</sub>)/2012  
A

**S/d**  
**True Copy**

Date 16 03 2021

The Director of Mineral Resources  
Government of Meghalaya  
Directorate of Mineral Resources  
Risa Colony, Malki, Shillong,  
Meghalaya - 793014



**Sub: Demand Notice**

**Ref: Letter No. DMR/MM/759/2013/Vol-II/294 dated 24.02.2021**

Respected Sir

M/s Green Valliey Industries Ltd ("the Company") is in receipt of your demand notice dated 24.02.2020 (received on 10.03.2021) referenced hereinabove asking us to make a payment of Rs. 400 per MT for quantity of 77,536 MT for consumption or utilization of alleged illegally mined coal by the Company as reflected in the fifth interim Report of the Hon'ble NGT Committee. This has been done with reference to the minutes of the meeting chaired by the Chief Secretary to the Govt. of Meghalaya on 25.09.2020 to review the compliance of Hon'ble National Green Tribunal order dated 17.01.2020 in O.A. No. 110(THC)/2012.

It is pertinent to mention that vide order dated 17.01.2020, Hon'ble NGT had accepted the erroneous findings of the independent Committee's Fifth Interim Report that various cement manufacturing and power plants have used illegally sourced coal. As you would know, this order of the Hon'ble NGT has been challenged before the Hon'ble Supreme Court of India and the matter is sub-judice. Therefore, any action taken in light of the instant Demand Notice by your good office may cause unjust hardship and grave injustice to the Company during the pendency of the matter and before the issue is resolved by the Hon'ble Supreme Court.

Further, as we understand, the Committee came to an arbitrary conclusion that there is a gap in coal purchased / used by the Company. This arbitrary conclusion was based on some assumptions which were without considering the ground realities of each plant and without any technical backup. Further, no calculation / justification has been provided by the committee to us till date regarding the estimation made to calculate such gap. Even in the minutes of the meeting dated 11.02.2021 recently provided to us, we find that the estimated coal requirement in case of different parties is different and has been done without providing any basis for the same by the committee. No logical reasoning has



**Guwahati Office:** 4th Floor, LB Plaza, G.S. Road, Bhangagarh, Guwahati-781 005, T +91 361 246548 / 82 / 83 / 84

**Regd. Office & Plant:** Vill. Nongsning, P.O. Chiehruphi, PS. Khliehriat, Dist. Jaintia Hills, Meghalaya-793 200

**Group Corporate Office:** 602 'LORDS' 7/1, Lord Sinha Road, Kolkata-700 071, T +91 33 22827367 / 7368 F +91 33 22828307  
E : info@greenvalliey.com

6551  
**Green Valliey Industries Limited**

CIN NO : U26942ML2007PLC008273

451

been provided to justify the difference in such assumptions for different companies, as mentioned in the minutes. In the absence of cogent grounds and reasonable basis, based on which the assumptions / conclusions have been made, it is only fair to seek some clarity on this.

The Company has already submitted a detailed reply dated 28.10.2020 in response to Letter No. DMR/MM/768/2018/Pt-II/Vol-IV/192 dated 19.02.2020 and Letter No. DMR/MM/768/2018/Pt-II/Vol-IV/269 dated 16.07.2020 received by your office on 29.10.2020. For the sake of brevity, contents of our said reply are not reiterated herein and the same are being incorporated herein by reference. Copy of the said reply letter dated 28.10.2020 is attached herewith marked **Annexure – 'A'**.

Further, the Company has also submitted a detailed reply dated 23.11.2020 in response to Letter No. DMR/MM/768/2018/Pt-II/Vol-IV/427 dated 03.11.2020 received by your office on 26.11.2020. For the sake of brevity, contents of our said reply are not reiterated herein and the same are being incorporated herein by reference. Copy of the said reply letter dated 23.10.2020 is attached herewith marked **Annexure – 'B'**.

We would therefore request your office to kindly withdraw Letter No. DMR/MM/759/2013/Vol-II/294 dated 24.02.2021, for the aforesaid reasons and not initiate any coercive steps against the Company.

Thanking You,  
Yours Sincerely,

For **Green Valliey Industries Limited**

(Authorized Signatory)



Encl: As above

Copy to:-

1. The Secretary to the Govt. of Meghalaya, Mining & Geology Department
2. The Divisional Mining Officer, Jowai

Received DMO's Office Jowai  
18/3/2021

Received  
19/03/2021  
Received by the Secretary to the Government of Meghalaya, Mining & Geology Department, Jowai

sd/  
TRUE COPY



Annexure R17/31  
6552  
**Green Valliey Industries Limited**

CIN NO.: U26942ML2007PLC008273

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No. GVIL/DMO/2/2021/03

9<sup>th</sup> April, 2021

To,  
The Divisional Mining Officer  
Jowai, Meghalaya

Subject: Submission of Production Details.

Letter Ref no. DMO-J/R/77/2020/1003 Dated 16.02.2021.

Dear Sir,

We would like to inform you that as per above cited subject, please find enclosed herewith Data for the Month of March 2021.

This is for your information & necessary record.

Thanking You

For Green Valliey Industries Limited

Pawan Kumar Joshi

(AVP - Commercial)



**Guwahati Office:** 4th Floor, LB Plaza, G.S. Road, Bhangagarh, Guwahati-781 005, T +91 361 2465481 / 82 / 83 / 84  
**Regd. Office & Plant:** Vill. Nongsning, P.O. Chiehruphi, PS. Khliehriat, Dist. Jaintia Hills, Meghalaya-793 200  
**Group Corporate Office:** 602 'LORDS' 7/1, Lord Sinha Road, Kolkata-700 071, T +91 33 22827367 / 7368 F +91 33 22828307  
E : info@greenvalliey.com

**A GNG GROUP COMPANY**

## CLINKER PRODUCED / COAL USED / TAX INVOICE / E.WAY BILL

Name Of The Cement Plant / Thermal Plant : M/S. Green Valliey Industries Ltd, Nongsning, East Jaintia Hills District.

For the Month of March 2021

Month	Clinker Produced (MT)	Coal Requirement (MT) A	Coal Used by Cement Plant (MT) B	Difference (A-B)	Consignor			Consignee Name & Address	Mineral transport Challan of the Origin State
					Name & Address	Tax Invoice No. & Date	E.Way Bill		
Mar-21	50,172.00		5,846.61		--	--	--	--	

\*\* Coal used from old stock

sd/  
TRUE COPY

From: **Department of Mining and Geology Govt. Of Meghalaya**  
<[mining.meghalaya@gmail.com](mailto:mining.meghalaya@gmail.com)>  
Date: Tue, 20 Apr 2021, 13:26  
Subject: 9.4.2021 Minutes of the meeting of the Committee constituted to review of the quantity of clinker and/or power produced by Cement Manufacturing Plants and Thermal Power Plants and to verify legal source of coal  
To: A Sharma <[arjunsharma.975@rediffmail.com](mailto:arjunsharma.975@rediffmail.com)>, Arun Kejriwal <[akejriwal@topcem.in](mailto:akejriwal@topcem.in)>, Dalmia Cement <[mishra.loknath@dalmiacement.com](mailto:mishra.loknath@dalmiacement.com)>, Goldstone <[sikandarprasad@gscl.co.in](mailto:sikandarprasad@gscl.co.in)>, Joining Pde <[jaintiacementsltd@gmail.com](mailto:jaintiacementsltd@gmail.com)>, Kommorah <[klmclimestone@gmail.com](mailto:klmclimestone@gmail.com)>, M K Jain <[mines@hccl.in](mailto:mines@hccl.in)>, Mawmluh Cherra Cement Ltd <[mcclone@rediffmail.com](mailto:mcclone@rediffmail.com)>, Meghalaya Cements Ltd. <[rpareek@topcem.in](mailto:rpareek@topcem.in)>, Meghalaya Mines and Minerals Ltd. <[mmml2001@gmail.com](mailto:mmml2001@gmail.com)>, MK Rai <[mkchamling13@gmail.com](mailto:mkchamling13@gmail.com)>, MP Sharma <[mpsharma@amrit.co.in](mailto:mpsharma@amrit.co.in)>, Pawan Joshi <[pawan.joshi@greenvalliey.com](mailto:pawan.joshi@greenvalliey.com)>, Sanjay Kumar <[kumar.sanjay@dalmiacement.com](mailto:kumar.sanjay@dalmiacement.com)>, Star Cement <[lumshnong@starcement.co.in](mailto:lumshnong@starcement.co.in)>, Suresh <[sureshshovasaria@gmail.com](mailto:sureshshovasaria@gmail.com)>  
Cc: Manjunatha C <[manju2020@gmail.com](mailto:manju2020@gmail.com)>, [dmrdirector@gmail.com](mailto:dmrdirector@gmail.com) <[dmrdirector@gmail.com](mailto:dmrdirector@gmail.com)>

Sir,

With reference to the above-mentioned subject please find the enclosed Minutes of the Meeting for your information and necessary action.

Yours faithfully,  
Dr. Manjunatha C, IFS  
Secretary to the Govt. of Meghalaya  
Mining & Geology Department

**Minutes of the Meeting of the Committee under chairmanship of the Chief Secretary to the Government of Meghalaya held on the 9<sup>th</sup> of April 2021 to review the quantity of clinker and/or power produced by the Cement Manufacturing Plants and Thermal Power Plants and to verify the legal source of coal.**

**Members present:** As enclosed.

The meeting was chaired by Shri. M. S Rao, IAS, the Chief Secretary to the Govt. of Meghalaya. The Chairman requested the Secretary to the Govt. of Meghalaya, Mining and Geology to proceed as per the agenda.

**Agenda 1: Action taken on minutes of the meeting held on 11<sup>th</sup> February, 2021.**

- 1.1 The Secretary to the Govt. of Meghalaya, Mining and Geology gave a brief report on the action taken by the concerned Officers.
- 1.2 As per the directions given in para 1.8 of the preceding minutes of the meeting, the Mining Officer cum Chairman, DLC East Khasi Hills, had visited the M/s Maithan Alloys Ltd. and M/s Shyam Century Ferrous Ltd. on the 24<sup>th</sup> of March 2021. The captive power plants of both the companies were found to be not operational and it is also reported that the plants are sourcing the power required to run the plant from MeECL.
- 1.3 Regarding the directions given in para 1.9 of the preceding minutes of the meeting, a report has been submitted by DMO, Jowai cum Chairman, DLC East Jaintia Hills. The report states that the Mineral Transport Challan (MTC) submitted by M/s Amrit Cement were issued from the Head Quarter, Shillong for South Garo Hills District for transportation of coal to either Assam/Bangladesh. As per records the said MTC have passed through Dainadubi DMR Checkgate. Hence, the MTC submitted against the coal transported to the Company in Meghalaya is not accepted by the Committee. The Committee decided that the DMR shall issue Show Cause Notice as to why action should not be taken under provisions of the MMDR Act, 1957 for failure to produce valid MTC for 23,009 MT coal used during the period February 2020 to July, 2020.
- 1.4 The Committee during the last meeting directed Meghalaya Power Ltd., Meghalaya Cement Ltd. and its thermal power plant, Gold Stone Cement Ltd and its thermal power plant, Dalmia Cements Ltd. and its thermal power plant, to furnish MTC for the corresponding quantity utilized as mentioned in the minutes of the meeting. However, none of the cement plants have submitted MTC for verification. The Committee decided that DMR shall issue Show Cause Notice explaining why actions under provisions of the MMDR Act should not be initiated.
- 1.5 As per the directions given in para 2.4 of the preceding minutes of the meeting, the Director of Mineral Resources has issued Notices to Amrit Cements Ltd., Green Valliey Industries Ltd., Hills Cements Ltd. and JUD Cements Ltd. seeking explanation for failing to furnish monthly statements for verification. In compliance to the Notices, all defaulting cement plants have furnished monthly statements.
- 1.6 As per the directions given in para 2.5 of the preceding minutes of the meeting, the Director of Mineral Resources has issued letters to all the companies seeking explanation for difference in coal requirement and coal used by them during the period given in the minutes. Reply awaited.
- 1.7 Against Show Cause Notice served on 8<sup>th</sup> Feb 2021 to 9 (nine) cement plants and their captive thermal power plants, for explanation for gap in coal purchased and used by

the companies during Feb 2020 to July 2020, all cement plants have furnished replies except Hills Cements and Amrit Cements. Summary of the replies furnished by the cement plants is given below:-

- a) *The Show Cause Notices are based on the erroneous findings of the Independent Committee through the Fifth Interim Report of the Hon'ble NGT Committee which was accepted by the Hon'ble NGT vide Order dated 17.01.2020.*
- b) *Calculations for coal requirement are based on assumptions and not based on verifiable facts.*
- c) *Independent Committee failed to consider the use of alternate fuel such as slate in place of coal.*
- d) *There cannot be any standard measurement or fixed percentage of quantum of fuel requirement as it is dependent on individual plant design, operational efficiency, coal quality, etc.*
- e) *The companies sought suspension on the matter as the said NGT Order dated 17.01.2020 has been challenged before the Hon'ble Supreme Court of India by M/s Star Cement Ltd and its two subsidiaries as well as by M/s Shyam Century Ferrous Ltd. and the matter is sub judice.*

**1.8** The Committee did not accept the explanation for gap in coal required and coal utilized furnished by the respective companies. The Committee noted that only 4 (four) companies have appealed to Hon'ble Supreme Court against Hon'ble NGT Order dated 17.01.2020. The Committee has decided that the actions in this matter in respect of M/s Star Cement Ltd. and its two subsidiaries as well as for M/s Shyam Century Ferrous Ltd. shall be kept on hold till the case is disposed off.

**1.9** The Committee directed that the remaining cement plants/companies may appeal against the Hon'ble NGT Order dated 17.01.2020 within 15 days, failing of which, it will be deemed that the cement plants have accepted the findings of Hon'ble NGT Committee as per the Order of Hon'ble NGT and actions under the provisions of the MMDR Act will be initiated and penalty (Royalty, MEPRF, Cess, GST, etc.) for quantity shown as gap will be imposed.

**1.10** The Committee directed DMR to recover penalties as per Hon'ble NGT Order dated 17.01.2020 from M/s Hills Cement (for quantity of 22,071 MT) and M/s Amrit Cement Ltd (for quantity of 20,126 MT) who failed to furnish reply to Show Cause Notices. The Committee also directed Mining and Geology Department to initiate action against M/s Hills Cement and M/s Amrit Cement Ltd for violation of Section 4(1A) of the MMDR Act, 1957.

**1.11** The DMR had issued the Show Cause Notice on 8<sup>th</sup> Feb 2021 to 9 (nine) cement plants and their captive power plants, for not furnishing Transport Challans or documents of CIL as proof of coal procured during Feb 2020 to July 2020. M/s Star Cement Ltd., M/s Goldstone Cement Ltd. and M/s Dalmia Bharat Cement Ltd. have given written replies to the Show Cause Notice, as under:-

- a) *M/s Star Cement Ltd. submitted that coal has been procured from Coal India Limited or procured directly from importers outside the State of Meghalaya where no transport challans are issued. They further submitted that coal was imported from outside the state through rail or road for which tax invoices/railway receipts and e-way bills are being submitted regularly along with monthly statements. However, no Transport Challan have been enclosed for the 56,448 MT of coal utilized by M/s Star Cement Ltd and its two subsidiaries for this period. The Committee directed DMR to seek explanation and direct the Cement Plants to furnish MTC for 56,448 MT for Star Cement and its two subsidiaries.*
- b) *M/s Goldstone Cement Ltd. submitted that coal has been procured from Eastern Coalfields Ltd., North Eastern Coalfield and Mahalaxmi Continental Ltd. They have submitted Invoices and E-way Bills. The DMR informed that verification of the Invoices and E-way Bills is in progress.*
- c) *M/s Dalmia Bharat Cement Ltd. submitted Tax Invoice from North Eastern Coalfield Ltd. Verification of Invoices and E-way Bills by the Directorate of Mineral Resources is in progress.*

**1.12** Against the Show Cause Notice served to M/s Meghalaya Power Ltd. on 8<sup>th</sup> Feb 2021 to furnish Custom Clearance for import of 7614 MT of Coal, the company has replied and submitted that Coal was imported by M/s Swiss Singapore India Pvt. Ltd and that the Tax Invoices issued by the importer, railway receipt and e-way bill have been submitted earlier. They further cited that since coal was not imported by M/s Meghalaya Power Ltd directly, the custom document is not in their name. The Committee directed that any purchase or imported coal from other countries shall have custom clearance as proof of import from outside the country.

**1.13** The DMR had issued Show Cause Notice to M/s Shree Shakambari Ferro Alloys Pvt. regarding transport challans for 1467 MT indicating Assam as destination. The company replied that at that point of time, the Checkgate at Mawpung was not functional and therefore drivers/owners/suppliers of the said coal had to personally go and get the challans passed from the checkgates at Dainadubi and Porlakait and thereafter delivered coal to their plant. The Committee did not accept the MTC for 1467 MT since the destination mentioned in the MTC is Assam. The Committee directed the DMR to issue Show Cause Notice as to why action should not be taken under provisions of MMDR Act, 1957 for failure to produce valid MTC for 1467 MT of coal.

**Agenda 2: To review the quantity of clinker/power produced by Cement plants and Thermal power plants and legal sources of coal.**

**2.1** The Secretary to the Govt. of Meghalaya, Mining and Geology Dept. placed before the Committee the reports submitted by the Chairman, DLC East Jaintia Hills district, Chairman, DLC Ri Bhoi district and Chairman, DLC West Khasi Hills district, as under:-

## a) M/S STAR CEMENT LTD

Month	Clinker produced in MT	Estimated Coal requirement* (MT) (A)	Coal used by cement plant in MT (B)	Gap (A-B) in MT	Purchased from: Company	Quantity (MT)	Documents
JAN 21	61390	9208.5	9023.05	185.45	Eastern Coalfield Ltd, West Bengal	9023.05	Tax invoice & E-way Bills
FEB 21	47968	7195.2	7344.789	-149.589	Eastern Coalfield Ltd, West Bengal	7344.789	

\*15% of clinker produced.

## b) M/S STAR CEMENT MEGHALAYA LTD.

Month	Clinker produced ( MT)	Estimated Coal requirement* ( MT) (A)	Coal used by cement plant MT (B)	Gap (A-B) in MT	Purchased from: Company	Quantity (MT)	Documents
JAN 21	160375	24056.25	22549.329	1506.921	Eastern Coal Fields Ltd, West Bengal	14912.02	Tax invoice & E-way Bills
					Avani Resources Pvt Ltd, Singapore (Imported)	5757.79	Tax invoice & E-way Bills with no Custom Clearance
					Narayani Resources Pvt Ltd, Kolkata (Imported)	1879.52	
FEB 21	134313	20146.95	18865.685	1281.265	Eastern Coalfield Ltd, West Bengal	15199.39	Tax invoice & E-way Bills
					Adani Enterprises Pvt Ltd, Andhra Pradesh (Imported)	1752.5	Tax invoice & E-way Bills with no Custom Clearance
					Avani Resources Pvt Ltd, Singapore (Imported)	1913.8	

\*15% of clinker produced.

## c) M/S MEGHALAYA POWER LTD.

Month	Power produced in MW	Estimated Coal requirement* in MT(A)	Coal used by power plant in MT (B)	Gap (A-B) in MT	Purchased from: Company	Quantity (MT)	Documents
JAN 21	13604.7	11563.995	7285.86	4278.135	Avani Resources Pvt Ltd, Singapore (Imported)	4031.56	Tax invoice & E-way Bills with no Custom Clearance
					Adani Enterprises Pvt Ltd, Andhra Pradesh (Imported)	3254.3	
FEB 21	14298.18	12153.453	8339.48	3813.973	Adani Enterprises Pvt Ltd, Andhra Pradesh (Imported)	2953.2	
					Swiss Singapore India Pvt Ltd, Andhra Pradesh (Imported)	5386.28	

\*0.850 kg / kwh of power produced.

## d) M/S MEGHALAYA CEMENT LTD.

Month	Clinker produced in MT	Estimated Coal requirement* in MT (A)	Coal used by cement plant in MT (B)	Gap (A-B) in MT	Purchased from: Company	Quantity (MT)	Documents
NOV 20	64225	9633.75	5414.51	4219.24	Eastern Coalfield Ltd, West Bengal	5414.51	Tax invoice & E-way Bills
DEC 20	68362	10254.3	5751.93	4502.37		5751.93	
JAN 21	78622	11793.3	6685.81	5107.49		6685.81	
FEB 21	67009	10051.35	5629.09	4422.26	Eastern Coalfield Ltd, West Bengal	1263.13	Tax invoice & E-way Bills
					Madanlal Garg & Sons Beltola (Imported)	4365.96	Tax invoice & E-way Bills with no Custom Clearance

\*15% of clinker produced.

## e) M/S MEGHALAYA CEMENT LTD. THERMAL POWER PLANT

Month	Power produced in MW	Estimated Coal requirement* in MT(A)	Coal used by power plant in MT (B)	Gap (A-B) in MT	Purchased from: Company	Quantity (MT)	Documents
NOV 20	4209.81	3578.339	2317.62	1260.72	Eastern Coalfield Ltd, West Bengal	2317.62	Tax invoice & E-way Bills
DEC 20	4397.82	3738.147	2595.853	1142.29		2595.853	
JAN 21	5234.99	4449.74	2844.405	1605.34		2844.405	
FEB 21	2820.322	2397.27	1550.58	846.69	Eastern Coalfield Ltd, West Bengal	1085.406	Tax invoice & E-way Bills
					Madanlal Garg & Sons Beltola (Imported Coal)	467.174	Tax invoice & E-way Bills with no Custom Clearance

\*0.850 kg / kwh of power produced.

## f) M/S GOLDSTONE CEMENT LTD.

Month	Clinker produced in MT	Estimated Coal requirement* in MT (A)	Coal used by cement plant in MT (B)	Gap (A-B) in MT	Purchased from: Company	Quantity (MT)	Documents
JAN 21	51804	9324.72	6695	2629.72	Shantidham Marketing Pvt Ltd Silchar (Domestic)	6695	Tax invoice & E-way Bills with no Mineral Transport Challan
FEB 21	34342	6181.56	4439	1742.56	Easten Coalfield Ltd, West Bengal	2005	Tax invoice & E-way Bills
					Shantidham Marketing Pvt Ltd Silchar (Domestic)	2434	Tax invoice & E-way Bills with no Mineral Transport Challan

\*18% of clinker produced.

**g) M/S GOLDSTONE CEMENT LTD. THERMAL POWER PLANT**

Month	Power produced in MW	Estimated Coal requirement* in MT(A)	Coal used by power plant in MT (B)	Gap (A-B) in MT	Purchased from: Company	Quantity (MT)	Documents
JAN 21	8525	7246.25	4562	2684.25	Shantidham Marketing Pvt Ltd Silchar (Domestic)	4562	Tax invoice & E-way Bills with no Mineral Transport Challan
FEB 21	6875	5843.75	3679	2164.75	Easten Coalfield Ltd, West Bengal	1502.5	Tax invoice & E-way Bills
					Shantidham Marketing Pvt Ltd Silchar (Domestic)	2176.5	Tax invoice & E-way Bills with no Mineral Transport Challan

\*0.850 kg / kwh of power produced.

**h) M/S DALMIA CEMENT (BHARAT) LTD.**

Month	Clinker produced in MT	Estimated Coal requirement* in MT (A)	Coal used by cement plant in MT (B)	Gap (A-B) in MT	Purchased from: Company	Quantity (MT)	Documents
DEC 20	20607	3091.05	2065	1026.05	Anand Carbo Pvt Ltd, Vishakapatnam (Imported Coal)	1039.7	Tax invoice & E-way Bills with no Custom Clearance
					Maruti Traders, Assam (Domestic)	1025.3	Tax invoice & E-way Bills with no Mineral Transport Challan
JAN 21	89444	13416.6	8089	5327.6	Maruti Traders, Assam (Domestic)	8089	Tax invoice & E-way Bills with no Mineral Transport Challan
FEB 21	91263	13689.45	8319	5370.45		8319	

\*15% of clinker produced.

## i) M/S DALMIA CEMENT (BHARAT) LTD. THERMAL POWER PLANT

Month	Power produced in MW	Estimated Coal requirement* in MT(A)	Coal used by power plant in MT (B)	Gap (A-B) in MT	Purchased from: Company	Quantity (MT)	Documents
DEC 20	3489	2965.65	1640	1325.65	Anand Carbo Pvt Ltd, Vishakapatnam (Imported Coal)	1640	Tax invoice & E-way Bills with no Custom Clearance
JAN 21	9043	7686.55	3721	3965.55	Maruti Traders, Assam (Domestic)	3721	Tax invoice & E-way Bills with no Mineral Transport Challan
JAN 21	8858	7529.3	3817	3712.3		3817	

\*0.850 kg / kwh of power produced

## j) M/S AMRIT CEMENT LTD.

Month	Clinker produced in MT	Estimated Coal requirement* in MT (A)	Coal used by cement plant in MT (B)	Gap (A-B) in MT	REMARKS	DOCUMENT SUBMITTED
AUG 20	50578.76	7586.814	4086.26	3500.554	Met from coal purchased on 01.08.2020 (Qty:1,13,699.07 MT). The unit declared that the utilized coal is from the old stock.	No documents submitted to support the purchase of coal from any party.
SEPT 20	47409.52	7111.428	3829.74	3281.688		
OCT 20	36854.14	5528.12	2975.97	2552.15		
NOV 20	38750.78	5812.62	3128.74	2683.87		
DEC 20	49451.54	7417.73	3994.20	34023.53		
JAN 21	54200.25	8130.03	4377.21	3752.82		
FEB 21	41949.89	6292.48	1715.73	4576.75		

\*15% of clinker produced.

**k) M/S AMRIT CEMENT LTD. THERMAL POWER PLANT**

Month	Power produced in MW	Estimated Coal requirement* in MT(A)	Coal used by power plant in MT (B)	Gap (A-B) in MT	REMARKS	DOCUMENT SUBMITTED
AUG 20	5484.63	4661.9355	2045.35	2616.5855	Utilized from coal purchased on 01.08.2020 (Qty:1,13,699.07 MT). The unit declared that the utilized coal is from the old stock.	No documents submitted to support the purchase of coal from any party.
SEPT 20	4902.45	4167.0825	1828.25	2338.8325		
OCT 20	4956.49	4213.02	1848.40	2364.62		
NOV 20	4501.60	3826.36	1678.76	2147.6		
DEC 20	5638.66	4792.86	2102.80	2690.06		
JAN 21	5936.97	5046.42	2214.04	2832.38		
FEB 21	3258.83	2770.00	1008.61	1761.39		

\*0.850 kg / kwh of power produced.

**l) M/S JUD CEMENT LTD.**

Month	Clinker produced in MT	Estimated Coal requirement* in MT (A)	Coal used by cement plant in MT (B)	Gap (A-B) in MT	Purchased from: Company	Quantity (MT)	Documents
AUG 20 TO FEB 21	NIL	-	-	-	-	-	-

\*16.5% of clinker produced.

**m) M/S GREEN VALLEY INDUSTRIES LTD.**

Month	Clinker produced in MT	Estimated Coal requirement* in MT (A)	Coal used by cement plant in MT (B)	Gap (A-B) in MT	Purchased from: Company	Documents
AUG 20	36039.9	5405.9	3530.18	1875.72	-	No documents/papers submitted of purchasing coal.
SEPT 20	37358.87	5603.83	4209.09	1394.74		
OCT 20	42203.36	6330.5	4897.91	1432.59		
NOV 20	13718.05	2057.7	1622.8	434.91		
DEC 20	43957.38	6593.61	5263.83	1329.78		
JAN 21	38549.83	5782.47	4603.97	1178.5		
FEB 21	46247.38	6937.11	5570.24	1366.87	Madanlal Garg & Sons, Guwahati	Tax invoice and E-Way Bills with no Mineral Transport Challan

\*15% of clinker produced.

## n) M/S HILLS CEMENT COMPANY LTD.

Month	Clinker produced in MT	Estimated Coal requirement* in MT (A)	Coal used by cement plant in MT (B)	Gap (A-B) in MT	Purchased from: Company	QTY (MT)	Documents
AUG 20	37900	5685	1137	4548	Taj Corporation Shivam Complex Guwahati (Dom)	1137	Tax invoice & E-way Bills with no Mineral Transport Challan
SEPT 20	34680	5202	1040.4	4161.6	Taj Corporation Shivam Complex Guwahati (Dom)	714.8	Tax invoice & E-way Bills with no Mineral Transport Challan
					BL Minerals Pvt Ltd, Guwahati (Imported Coal)	325.6	Tax invoice & E-way Bills with no Custom Clearance
OCT 20	30630	4294.5	918.9	3675.6	M. D. Hasija Pvt Ltd, Guwahati (Imported Coal)	918.9	Tax invoice & E-way Bills with no Custom Clearance
NOV 20	34600	5190	1038	4152	BL Minerals Pvt Ltd, Guwahati (Imported Coal)	526	Tax invoice & E-way Bills with no Custom Clearance
					M. D. Hasija Pvt Ltd, Guwahati (Imported Coal)	512	Tax invoice & E-way Bills with no Custom Clearance
DEC 20	28455	4268.25	853.65	3414.6	BL Minerals Pvt Ltd, Guwahati (Imported Coal)	568.35	Tax invoice & E-way Bills with no Custom Clearance
					M. D. Hasija Pvt Ltd, Guwahati (Imported Coal)	285.3	
JAN 21	43215	6482.25	4321.5	2160.75	BL Minerals Pvt Ltd, Guwahati (Imported Coal)	3281	
					M. D. Hasija Pvt Ltd, Guwahati (Imported Coal)	1040.5	
FEB 21	17525	2628.75	1752.5	876.25	BL Minerals Pvt Ltd, Guwahati (Imported Coal)	825.4	
					M. D. Hasija Pvt Ltd, Guwahati (Imported Coal)	927.1	

\*15% of clinker produced.

## o) RNB Cements

Month	Clinker produced in MT	Estimated Coal requirement* in MT (A)	Coal used by cement plant in MT (B)	Gap (A-B) in MT	Purchased from: Company	QTY (MT)	Documents
DEC-2020	0	0	0	-	-	0	-
JAN-2021	0	0	0	-	-	0	-
FEB-2021	4445	850	850	-	Yogesh Traders B.G. Enterprises Goyal Coal Depot	300.84 200.49 1499.14	Invoice and E-Way Bills for 2000.47 MT, with no Mineral Transport Challan

\*19% of clinker produced.

## p) Shree Shakambari Ferrous Alloy Pvt. Ltd.

Month	Power produced in MWH	Estimated Coal requirement* (A) (in MT)	Coal used by cement plant in MT (B)	Gap (A-B) in MT	Purchased from: Company	QTY (MT)	Documents
OCT 20	4308.174	3661.9479	2901.9	751.05	M/s Ganesh Enterprises	900	E-way Bills and Invoice with no Mineral Transport Challan
NOV 20	1884.480	1601.808	3018.14	(-)1416.33	-	-	
DEC 20	3474.342	2953.1907	2206.2	746.9907	Meghalaya coal M/s Ganesh Enterprise	2220 660	DMR Mineral Transport Challan submitted E-way Bills and Invoice with no Mineral Transport Challan
JAN 21	3181.676	2704.4246	2022.5	681.9246	Meghalaya coal M/s Ganesh Enterprise	3426 864	DMR Mineral Transport Challan submitted E-way Bills and Invoice with no Mineral Transport Challan
FEB 21	3638.998	3093.1483	2315.7	777.4483	Meghalaya coal	216	DMR Mineral Transport Challan submitted

\*0.850 kg / kwh of power produced.

- q) **CMJ Breweries Pvt. Ltd.** is under shut down and not generating any power.
- r) **M/s Malthan Alloys Ltd.** and **M/s Shyam Century Ferrous Ltd.** are not operational and electricity bills for the months of January 2021 and February 2021 have been furnished.
- s) **M/s Virgo Cements Limited** is reported to have no Clinker or Cement production during January 2021, February 2021 and March 2021. Electricity Bill for Jan 2021 has not been received by the company and Power supply has been discontinued by MePDCL w.e.f Feb 2021 till date.
- 2.2** The Committee directed DMR to issue direction to the companies who have not submitted Mineral Transport Challans, for domestic coal purchased from Private dealers, to furnish the Mineral Transport Challans for the corresponding period given in these minutes.
- 2.3** The Committee directed DMR to issue Show Cause Notice to the companies who have not submitted Custom Clearances for imported coal purchased from Private dealers and to furnish the Custom Clearances for the corresponding period given in these minutes.
- 2.4** The DMR has been further directed to seek explanation from the companies for gap between coal required and coal utilized by them for production of clinker and/or power production for the corresponding period given in these minutes.
- 2.5** The Committee has directed the Director of Mineral Resources to take necessary steps to ensure receipt of Show Cause Notices by the defaulting Companies.
- 2.6** Regarding M/s Shree Shakambari Ferrous Alloy Pvt. Ltd, the Committee has directed that the MTCs having Assam/Bangladesh as destination shall be rejected and the Director of Mineral Resources shall issue Show Cause Notice as to why action should not be taken under provisions of MMDR Act, 1957 for failure to produce valid MTC.
- 2.7** Regarding M/s Amrit Cement Ltd., the Committee has directed the Director of Mineral Resources to issue Show Cause Notice for non-submission of Mineral Transport Challans of the old stock of coal purchased on 01.08.2020 for 1,13,699.07 MT of coal.
- 2.8** Regarding M/s Green Valley Industries Ltd., the Committee has directed the Director of Mineral Resources to issue Show Cause Notice for non-submission of MTC/CIL Invoice and E-way bills for proof of legal coal purchased for the months of August 2020 to January 2021.

**Agenda 3: Action taken on recovery of penalties imposed by the Hon'ble NGT, vide NGT Order dated 17-01-2020, on Cement Manufacturing Plants and Thermal Power Plants in Meghalaya which is payable on the illegally mined coal utilised by them:**

- 3.1** The Secretary to the Govt. of Meghalaya, Mining and Geology Dept. placed before the Committee the penalties imposed by the Hon'ble NGT, vide NGT Order dated 17-01-2020, viz.,

Sl. No.	Name of Plant	Qt. of illegal coal used (in MT)	Amount (Rs. In Crores.)			
			Royalty	MEPRF	GST/VAT	Total
1	M/s Star Cement Limited and its two subsidiaries	16,46,276	111.124	79.844	65.851	256.819
2	M/s Amrit Cement Ltd.	3,06,068	20.660	14.844	12.243	47.747
3	M/s Dalmia Bharat Cement Ltd.	7,41,092	50.024	35.943	29.644	115.610
4	M/s Goldstone Cement Ltd.	2,70,516	18.260	13.120	10.821	42.200

Sl. No.	Name of Plant	Qt. of illegal coal used (in MT)	Amount (Rs. In Crores.)			
			Royalty	MEPRF	GST/VAT	Total
5	M/s Green Valliey Industries Ltd.	77,536	5.234	3.760	3.101	12.096
6	M/s Hills Cement Ltd.	1,17,407	7.925	5.694	4.696	18.315
7	M/s JUD Cement Ltd.	1,21,990	8.234	5.917	4.880	19.030
8	M/s Meghalaya Cement Ltd.	5,44,325	36.742	26.400	21.773	84.915
9	M/s Shyam Century Ferrous Ltd.	1,11,474	7.524	5.406	4.459	17.390
<b>TOTAL</b>		<b>39,36,684</b>	<b>265.726</b>	<b>190.929</b>	<b>157.467</b>	<b>614.123</b>

- 3.2** In addition to the above penalties, an additional contribution to MEPRF @400 per MT by the defaulting Cement Plants and Thermal Power plants has also been directed to be collected by the Hon'ble NGT *vide* NGT Order dated 17-01-2020.
- 3.3** The Secretary to the Govt. of Meghalaya, Mining and Geology Dept. reported that several Show Cause Notices and Demand Notices have been issued from the Directorate of Mineral Resources for recovery of the above penalties from the Cement Plants and Thermal Power Plants.
- 3.4** Summary of replies received from the companies is given below:
- The contents of the Notices are factually and legally untenable and no evidence were given regarding illegal mining/transportation/storage of coal.*
  - They have not used any illegally sourced coal.*
  - They have not undertaken illegal mining activity or violated the provisions of the MMDR Act to attract penalties under Section 21 (1) of the MMDR Act.*
  - They are not liable to pay royalty and other dues over and above what has already been paid.*
  - The findings of the Fifth Interim Report are erroneous, based on assumptions and no opportunity was given to raise objections.*
  - M/s Shyam Century Ferrous Ltd submitted that they have filed Appeal before the Supreme Court against the NGT Order dated 17.01.2020.*
- 3.5** Regarding the appeal of M/s Start Cement Ltd. (and its two subsidiaries) and M/s Shyam Century Ferrous Ltd. to the Hon'ble Supreme Court against NGT Order dated 17<sup>th</sup> January 2020, and the references made by other companies to these appeals in their replies to the Show Cause Notices, the Chairman has reiterated that, actions in this matter in respect of M/s Star Cement Ltd. and its two subsidiaries as well as for M/s Shyam Century Ferrous Ltd. shall be kept on hold till the case is disposed off. Furthermore, the remaining cement plants may appeal against the Hon'ble NGT Order dated 17.01.2020 within 15 days, failing of which, it will be deemed that the cement plants/companies have accepted the findings of Hon'ble NGT Committee as per the Order of Hon'ble NGT and actions under the provisions of the MMDR Act will be initiated and penalty (Royalty, MEPRF, Cess, GST, etc.) for quantity shown as gap will be imposed.

The meeting ended with vote of thanks from the chair.

**Sd/-**  
(M.S. Rao, IAS)  
Chief Secretary  
Government of Meghalaya

**Memo No. MG.48/2020/380-A**

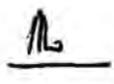
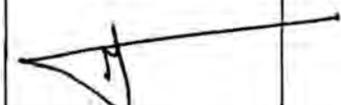
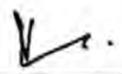
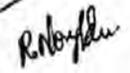
**dated 16<sup>th</sup> April 2021**

1. P.S. to the Chief Secretary to the Government of Meghalaya for kind information of the Chief secretary
2. P.S to the Commissioner and Secretary to the Government of Meghalaya, Law Department for kind information of the Commissioner and Secretary.
3. P.S to the Commissioner and Secretary to the Government of Meghalaya, Commerce & Industries Department for kind information of the Commissioner and Secretary.
4. P.S to the Commissioner & Secretary to the Govt. of Meghalaya, Mining & Geology Department for kind information of the Commissioner & Secretary.
5. The Director of Mineral Resources, Meghalaya, Shillong for kind information and necessary action.
6. The Mining Engineer, Directorate of Mineral resources Meghalaya Shillong for information and necessary action.
7. The Divisional Mining Officer, Jowai/Williamnagar for information and necessary action.
8. The Mining Officer, Directorate of Mineral Resources Meghalaya Shillong for information and necessary action.
9. All the Cement Plants/Captive Power Plants in the State for information and necessary compliances.
10. Project Assistants, Directorate of Mineral Resources, Meghalaya, Shillong

By Order Etc.,

(Dr. Manjunatha C, IFS)  
Secretary to the Govt. of Meghalaya  
Mining and Geology Department

Members present during the meeting chaired by the Chief Secretary of Meghalaya to review on the quantity of clinker and / or power produced by each Cement Manufacturing Plants and Thermal Power Plants and quantity of coal purchased by each plant from legal sources, held on the 9<sup>th</sup> April, 2021 in Committee Room IV, Main Secretariat Building, Shillong at 4.00 PM. 469

Sl.No.	Name & Designation	Signature
(1)	(2)	(3)
1.	Shri, M.S. Rao, IAS Chief Secretary. Government of Meghalaya	
2.	Dr. Manjivanta. C Carebang Mining & Geology Dept	
3.	W. Khyllip. CPS Law Deptt.	
4.	D. D. Sangma Director of Mineral Resources	
5.	B. Mawlong, MCS, Jt. Secy, Commerce & Industries	
6.	MR. F. SUTNGA, i/c DIRECTOR OF COMMERCE & INDUSTRIES	
7.		
8.	Shri. P. Ch. Marak. Minig Egg. DMR.	
9.	Shri. Y. Lyndah Mining Officer, DMR	
10.	Shri. Ribhameba Nongdu Project Assistant, (DMR)	
11.	Miss Gba Rynjah Project Assistant, DMR	

GOVERNMENT OF MEGHALAYA  
DIRECTORATE OF MINERAL RESOURCES  
SHILLONG

NO.DMR/MM/845/2020/377

Dated Shillong, the 30-04 ; 2021.

To,

1. M/s Star Cement Ltd, Lumshnong, East Jaintia Hills District, Meghalaya 793200
2. M/s Star Cement Meghalaya Ltd, Lumshnong, East Jaintia Hills District, Meghalaya 793200
3. M/s Meghalaya Power Ltd, Lumshnong, East Jaintia Hills District, Meghalaya 793200
4. M/s Meghalaya Cement Ltd & Captive Power Plant, Thangskai, East Jaintia Hills District, Meghalaya 793200.
5. M/s Amrit Cement Ltd & Power Plant, Umlaper, East Jaintia Hills District, Meghalaya 793200.
6. M/s Green Valliey Industries Ltd, Nongsning, East Jaintia Hills District, Meghalaya 793200.
7. M/s Hills Cement Ltd, Mynkre, East Jaintia Hills District, Meghalaya 793200.
8. M/s Goldstone Cement Ltd & Captive Power Plant, Old Musiang, East Jaintia Hills District, Meghalaya 793200.
9. M/s Dalmia Bharat Cement Ltd & Power Plant, Thangskai, East Jaintia Hills District, Meghalaya 793200.
10. M/s Shree Shakambari Ferro Alloys Pvt. Ltd, Riwiang, West Khasi Hills District, Meghalaya 793119

**Sub: Explanation Call.**

Sir/ Madam,

Please find enclosed herewith the minutes of the meeting of the Committee constituted to review the quantity of clinker and/or power produced by the Cement Manufacturing Plants and Thermal Power Plants and to verify the legal source of coal purchased chaired by the Chief Secretary to the Government of Meghalaya held on the 9<sup>th</sup> April, 2021 which is self explanatory. In reference to Para2.1 of Agenda 2 of the above minutes, you are hereby directed to furnish an explanation for the gap in quantity of coal required to produce clinker/ power and quantity of coal purchased/ used by you for the corresponding period given in the minutes within 1 (one) week from the date of issue of this letter, failing of which action will be initiated for violation of Section 4(1A) of the Mines and Minerals (Development and Regulation) Act, 1957.

  
Director of Mineral Resources  
Meghalaya, Shillong

Memo No.DMR/MM/845/2020/377-A

Dated Shillong, the 30-04., 2021.

Copy forwarded for information:

1. The Secretary to the Govt. of Meghalaya, Mining & Geology Department.
2. The Divisional Mining Officer, Jowai.

  
Director of Mineral Resources  
Meghalaya, Shillong



sd/  
TRUE COPY

**GOVERNMENT OF MEGHALAYA  
DIRECTORATE OF MINERAL RESOURCES  
SHILLONG**

NO.DMR/MM/845/2020/379

Dated Shillong, the 30 04 , 2021.

To

M/s Green Valliey Industries Ltd,  
Nongsning, East Jaintia Hills District  
Meghalaya, 793200

Sub: Show Cause Notice.

Sir/ Madam,

Whereas you have failed to submit Mineral Transport Challans/ CIL Invoice and e-way bills for proof of legal coal procured for the month of August, 2020 to January, 2021 as reflected in the report submitted by the Chairman, DLC East Jaintia Hills District. You are hereby directed to provide written explanation as to why you failed to submit the MTCs/ CIL Invoice and e-way bills for the said period within 1(one) week from the issue of this letter failing which action would be initiated against you.

Encl: As above.

  
Director of Mineral Resources  
Meghalaya, Shillong

Memo No.DMR/MM/845/2020/

Dated Shillong, the , 2021.

Copy forwarded for information:

1. The Secretary to the Govt. of Meghalaya, Mining & Geology Department.
2. The Divisional Mining Officer, Jowai.

  
Director of Mineral Resources  
Meghalaya, Shillong

sd/  
TRUE COPY

**GOVERNMENT OF MEGHALAYA  
DIRECTORATE OF MINERAL RESOURCES  
SHILLONG**

NO.DMR/MM/845/2020/374

Dated Shillong, the 30.04, 2021.

To,

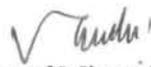
1. M/S Goldstone Cement Limited & Thermal Power Plant, Musiang Lamare, East Jaintia Hills District, Meghalaya, 793200
2. M/S Dalmia Bharat Cement Limited & Thermal Power Plant, Thangskai, East Jaintia Hills District, Meghalaya, 793200
3. M/S Green Valliey Industries Ltd, Nongsning, East Jaintia Hills District, Meghalaya, 793200
4. M/S Hills Cement Company Ltd, Mynkre, East Jaintia Hills District, Meghalaya, 793200
5. M/s RNB Cements (P) Ltd, Umiam Industrial Area, Umiam, Ri-Bhoi District, Meghalaya 793101.
6. M/s Shree Shakambari Ferro Alloys Pvt. Ltd, Riwiang, West Khasi Hills District, Meghalaya 793119

Sub: Submission of Mineral Transport Challans.

Sir/ Madam,

Please find enclosed herewith minutes of the meeting of the Committee under the chairmanship of Chief secretary to the Government of Meghalaya held on 9<sup>th</sup> April, 2021 to review the quantity of clinker and / power produced by the Cement Manufacturing Plants and Thermal Power Plants and to verify the legal source of coal. In reference to Para 2.1 of Agenda 2 of the above minutes, you are hereby directed to submit Mineral Transport Challan of coal purchased from domestic/ private dealers for the corresponding periods given in the minutes to the office of the undersigned within 1(one) week from the issue of this letter without fail.

Encl: As above.

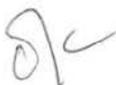
  
Director of Mineral Resources  
Meghalaya, Shillong

Memo No.DMR/MM/845/2020/374-A

Dated Shillong, the 30.04, 2021.

Copy forwarded for information:

1. The Secretary to the Govt. of Meghalaya, Mining & Geology Department.
2. The Divisional Mining Officer, Jowai.



sd/

TRUE COPY

  
Director of Mineral Resources  
Meghalaya, Shillong

Reminder

**GOVERNMENT OF MEGHALAYA  
DIRECTORATE OF MINERAL RESOURCES  
SHILLONG.**

No.DMR/MM/845/2020/383

Dated Shillong, the 30.04. 2021.

To. ✓

M/s Green Valley Industries Ltd.  
Nongsning, P.O-Chiehruphi  
East Jaintia Hills District

Sub:- **Show cause notice**

Sir/Madam,

Resource (coal) audit of Cement industries and Thermal Power Plants in Meghalaya was conducted for the period 2014-15 to 2018-19 by Independent committee constituted by Hon'ble National Green Tribunal vide order dated 31.08.2018 in OA No. 110(THC)/2012. The Fifth Interim Report containing the findings of the committee was submitted by independent committee to the Hon'ble National Green Tribunal. The Hon'ble National Green Tribunal vide order dated 17.01.2020 in OA No. 110(THC)/2012 accepted the recommendation of the Independent Committee and held that Green Valley Industries Ltd has utilized **77,536 MT** of illegal coal during the period of 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19. You have violated the provisions of sub-section (1) and sub-section (1A) Section 4 of the Mines and Minerals (Development & Regulation) Act, 1957.

Therefore, you are directed to provide explanation as to why the case should not be registered against you under the sub-section (1) of Section 21 of the Mines and Minerals (Development & Regulation) Act, 1957.

Your explanation shall reach to the office of the undersigned within one week from the date of receipt of this notice.

Yours faithfully

  
(David D. Sangma, MCS)  
Director of Mineral Resources  
Meghalaya :: Shillong.

Memo. No.DMR/MM/845/2020/  
Copy to:-

Dated Shillong, the 2021.

1. The Secretary to the Govt. of Meghalaya, Mining & Geology Department for kind information.
2. The Divisional Mining Officer, Jowai for information and necessary action.

sd/  
TRUE COPY

  
Director of Mineral Resources  
Meghalaya :: Shillong.

**GOVERNMENT OF MEGHALAYA  
DIRECTORATE OF MINERAL RESOURCES  
SHILLONG**

NO.DMR/MM/845/2020/367

Dated Shillong, the 30.04, 2021.

To,

1. M/s Meghalaya Cement Ltd & Captive Power Plant, Thangskai, East Jaintia Hills District, Meghalaya 793200
2. M/s Amrit Cement Industries Ltd. & Captive Thermal Power Plant, Umlaper, East Jaintia Hills District, Meghalaya 793200
3. M/s Goldstone Cement Ltd & Captive Thermal Power Plant, Old Musiang, East Jaintia Hills District, Meghalaya 793200
4. M/s Green Valliey Industries Ltd, Nongsning, East Jaintia Hills District, Meghalaya 793200.
5. M/s Dalmia Bharat Cement Ltd & Captive Thermal Power Plant, Thangskai, East Jaintia Hills District, Meghalaya 793200.
6. M/s Star Cement Ltd, Lumshnong, East Jaintia Hills District, Meghalaya 793200
7. M/s Star Cement Meghalaya Ltd, Lumshnong, East Jaintia Hills District, Meghalaya, 793200
8. M/s Meghalaya Power Ltd, Lumshnong, East Jaintia Hills District, Meghalaya 793200
9. M/s JUD Cement Ltd, Wahiajer, Narpuh Elaka, East Jaintia Hills District, Meghalaya 793200.
10. M/s Hills Cement Ltd, Mynkre, East Jaintia Hills District, Meghalaya 793200.
11. M/s Shree Shakambari Ferrous Alloy Pvt. Ltd, Riwiang, West Khasi Hills District.
12. M/s RNB Cements (P) Ltd, Umiam Industrial Area, Umiam, Ri-Bhoi District, Meghalaya 793101.

**Sub: Notice for filing Monthly Statements>Returns**

Sir/ Madam,

Whereas you have not furnished the monthly clinker/ power production and coal consumption by your cement plant and Thermal Power Plants as per the revised format (copy enclosed) and whereby you were directed to furnished the monthly Statement in the prescribed format on 5<sup>th</sup> or 6<sup>th</sup> day of each month for proceeding month. You are hereby directed to submit a written explanation as to why you failed to submit the same for the month of March, 2021 within 1 (one) week from the date of issue of this letter.

Encl: As above.



Director of Mineral Resources  
Meghalaya, Shillong

Memo No.DMR/MM/845/2020/367

Dated Shillong the 30.04. 2021.

Copy forwarded for information &amp; necessary action:

1. The Secretary to the Govt. of Meghalaya, Mining & Geology Department.
2. The Divisional Mining Officer, Jowai.



Director of Mineral Resources  
Meghalaya, Shillong



## ANNEXURE-1

**Verification of Clinker/Power production as well as Coal Consumption by the Cement Plants and Thermal Power Plants in the State**

**Name of the Cement Plant/Thermal Power Plant:-**

Month	Clinker/ Power Produced	Coal Requirement (MT)*  A	Coal used by Cement Plant/ Thermal Power Plant (MT)** B	Difference (A-B)	Consigner			Consignee Name & Address	Mineral Transport Challan of the Origin State***
					Name & Address	Tax Invoice No. & Date	E-Way Bill		

\*to be filled by the Committee

\*\* Documents such as Mineral Transport Challans, E-Way Bill and Tax Invoice to prove legal source of coal procured to be enclosed for verification.

\*\*\* CIL or State Mining Department who have issued MTC should be specified.

sd/  
TRUE COPY

Dated the Shillong 7<sup>th</sup> May 2021

To,  
The Director of Mineral Resources  
Government of Meghalaya  
Directorate of Mineral Resources  
Risa Colony, Malki, Shillong,  
Meghalaya – 793014

Sub: Your Letters bearing Reference No. DMR/MM/845/2020/367,  
DMR/MM/845/2020/374, DMR/MM/845/2020/377, DMR/MM/845/2020/379 &  
DMR/MM/845/2020/383 all dated 30.04.2021

Respected Sir,

We, M/s Green Valliey Industries Ltd. ("the Company / GVIL") are in receipt of your abovesaid letters over individual e-mails and noted the content therein.

In this regard we would like to say that the GVIL is a law-abiding entity and has been operating with all the relevant consents and clearances. The Company has also been submitting its compliance reports to the concerned authorities time to time.

As you are aware, in view of the sharp rise in of Covid-19 cases in the state of Meghalaya, Government of Meghalaya has already closed all Central Government establishments other than certain specified activities in Shillong urban agglomeration area w.e.f. 6<sup>th</sup> May, 2021. Government has also imposed various restriction in the movement of manpower in the state of Meghalaya.

Due to ongoing Covid-19 pandemic we are also taking all precautionary measures as per the guidelines prescribed by the Government and working with limited number of employees.

In view of above, we hereby request you to please grant us time to file replies to your abovesaid letters by this month end.

Thanking You,  
Yours Sincerely,  
For **Green Valliey Industries Ltd.**



(Authorised Signatory)



sd/  
TRUE COPY

Copy to: The Divisional Mining Officer, Jowai.

## Green Valliey Industries Limited

CIN - U26942ML2007PLC008273

Regd Office and Plant : Village Nongsning, PO Chiehruphi, PS Khlehriat, Dist Jaintia Hills, Meghalaya 793200

Corporate Office : 209 & 211, 2nd Floor 'LORDS', 7/1, Lord Sinha Road, Kolkata-700 071. T+91 33 22827367 / 7368 F +91 33 2282830

Guwahati Office : 4th Floor, LB Plaza, GS Road, Bhangagarh, Guwahati 781005. T + 91 361 2465481/82/83/84

Email : info@greenvalliey.com Site : www.maxcement.co.in

# GREEN VALLEY INDUSTRIES LIMITED

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## STUDY FOR SYSTEM COMPATIBILITY & OPTIMISATION OF THE USAGE OF MUSLATE AS AN ALTERNATIVE FUEL



March 2024



**Holtec Consulting Private Limited**

**CONFIDENTIAL**

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**DINESH SATIJA**  
**SR. GENERAL MANAGER: CONSULTING**

## **ACKNOWLEDGEMENT**

**WE EXPRESS OUR SINCERE GRATITUDE TO THE MANAGEMENT AND STAFF OF GREEN VALLIEY INDUSTRIES LIMITED, FOR THE ASSISTANCE AND CO-OPERATION EXTENDED DURING OUR VISIT, BUT FOR WHICH THIS REPORT COULD NOT HAVE BEEN SUCCESSFULLY PREPARED.**

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CHAPTER NO	DESCRIPTION	PAGES
1	PREAMBLE	1.1 - 1.2
2	STUDY FOR SYSTEM COMPATIBILITY & OPTIMIZATION OF THE USAGE OF MUSLATE AS AN ALTERNATIVE FUEL	2.1- 2.16

**LIST OF DRAWINGS**

CHAPTER NO.	DRAWING NO.	DESCRIPTION
2	DRG NO -500.01-FL-01	Plant Flow sheet

## LIST OF ABBREVIATIONS

ABBREVIATION	DESCRIPTION
dia, $\Phi$	Diameter
m <sup>2</sup>	Square Meter
$\mu$ , mic	Micron
deg. C	Degree Celsius
a	Annum
%	Percent
t	Tonnes
AM	Alumina Modulus
AP	Action Plan
Atm	Atmosphere
Avg.	Average
BC	Belt Conveyor
C	Carbon
C <sub>2</sub> S	Di Calcium Silicate
C <sub>3</sub> S	Tri Calcium Silicate
CCR	Central Control Room
CF	Conversion Factor
Cl	Chlorine
C & I	Control & Instrumentation
CO	Carbon Mono Oxide
cm	Centi Meter
Contd.	Continued

ABBREVIATION	DESCRIPTION
DC	Direct Current
DCS	Distributed Control System
dpa	Days per Annum
DPC	Deep Pan Conveyor
Elec	Electrical
ESP, EP	Electro Static Precipitator
G, gm	Gram
Gcal	Giga Calories
GCV	Gross Calorific Value
<b>GVIL</b>	<b>Green Valliey Industries Limited</b>
H	Hydrogen
h, hr	Hour
hpd	Hour Per Day
<b>HOLTEC</b>	<b>Holtec Consulting Private Limited, Gurgaon - India</b>
HT	High Tension
HV	High Voltage
hpa	Hours per annum
hpd	Hours per day
ID	Induced Draught
HG	High Grade
IR	Insoluble Residue
kcal	Kilo Calorie
KF	Kiln Feed
Kg	Kilo Gram

ABBREVIATION	DESCRIPTION
km	Kilo Meter
kV	Kilo Volt
kVA	Kilo Volt Ampere
kW	Kilo Watt
kWh	Kilo Watt Hour
LOI	Loss On Ignition
LP	Low Pressure
LS	Limestone
LT	Low Tension
LV	Low Voltage
m	Meter
Max.	Maximum
Mech	Mechanical
mg	Milli Gram
min	Minute
Mio. mio.	Million
mm	Milli Meter
mmWG	Millimeter Water Gauge
mps	Meter Per Second
MV	Medium Voltage
MW	Mega Watt
Nm <sup>3</sup>	Normal cubic meter
NA	Not Applicable
NCV	Net Calorific Value

ABBREVIATION	DESCRIPTION
Nm <sup>3</sup>	Normal Meter Cube
No., no.	Number
O <sub>2</sub>	Oxygen
PA	Primary Air
p a	Per Annum
PC	Precalciner
pf	Power Factor
PH	Preheater
RM	Raw Mill
Rpm/ RPM	Revolution Per Minute
S, sec	Second
S	Sulphur
Sn	Serial Number
SA	Secondary Air
SD	Standard Deviation
SLM	Straight Line Method
SM	Silica modulus
SO <sub>3</sub>	Sulphur Tri Oxide
Sp.	Specific
Std.	Standard
t	Tonnes
TAD	Tertiary Air Duct
Tech.	Technical
Temp.	Temperature

ABBREVIATION	DESCRIPTION
tpa	Tonnes Per Annum
tpd	Tonnes Per Day
tph	Tonnes Per Hour
V	Volt
VFD	Variable Frequency Drive
W	Watt
°C	Degree Centigrade
SiO <sub>2</sub>	Silicon Di-Oxide
Al <sub>2</sub> O <sub>3</sub>	Aluminium Oxide
Fe <sub>2</sub> O <sub>3</sub>	Iron Oxide / Ferric Oxide
CaO	Calcium Oxide
MgO	Magnesium Oxide
SO <sub>3</sub>	Sulphur Trioxide
K <sub>2</sub> O	Potassium Oxide
Na <sub>2</sub> O	Sodium Oxide

## CHAPTER 1: PREAMBLE

### 1.1 INTRODUCTION

---

Green Valliey Industries Limited (**GVIL**), known under the brand name of Max Cement, is having an integrated cement plant of rated capacity 1,000 tpd, located in Village Nongsning, East Jaintia Hills, Meghalaya. **GVIL**, is a dry process technology-based plant, equipped with a 5 stage PH & RSP calciner. The plant was gradually upgraded to 1,800 tpd clinker.

Max Cement is one of the key player in the cement manufacturing sector in Northeast.

**GVIL** produces different kinds of products namely Max PPC, Max OPC (Grade 53 and 43) and Max Power Plus.

The objective of the study is to provide an independent assessment of compatibility of the existing facilities at GVIL plant, which has partially substituted coal with Muslate as an alternative fuel and also to assess the optimum utilization of Muslate while maintaining the desired clinker quality as per applicable standards.

This Study includes assessment of existing raw materials at **GVIL** cement plant for their suitability with the present use of Muslate as an alternate fuel in their existing fuel mix and verification of technological suitability of existing facilities, by evaluating the need of any modification/replacement in existing systems to the usage of Muslate as an alternative fuel for cement plant.

### 1.2 HOLTEC'S BACKGROUND

---

This report has been prepared by:

HOLTEC Consulting Private Limited,  
HOLTEC Centre,  
A Block, Sushant Lok – I,  
Gurgaon – 122 001, Haryana, INDIA.

Incorporated in 1967, **Holtec Consulting Private Limited (HOLTEC)** is an ISO 9001 certified advisory company, primarily positioned to service the entire gamut of multi-functional, consulting needs of the global cement industry.

**HOLTEC**'s ensemble of 1000+ strong client base, in over 90+ countries, includes cement producers, equipment & service providers, EPC & construction firms, investing & funding bodies and all other relevant stakeholders. Since its inception, **HOLTEC** has delivered significant value to its clientele through 4,500+ consulting assignments.

### 1.3 REPORT

**HOLTEC**'s specialist team undertook a field mission to the plant site in Village Nongsning, Meghalaya between 13<sup>th</sup> March to 16<sup>th</sup> March 2024.

The activities carried out during the visit included:

- Interaction with the **GVIL** plant team.
- Visit to the fuel unloading, storage & handling sections.
- Visual inspection of fuel grinding, firing & pyro-processing section of the plant.
- Monitoring current plant operation from CCR.
- Data collection.

This report has been formulated based upon the data/ information provided by **GVIL**, interaction with plant operation & maintenance team during the site visit, firsthand data verification & assessment and secondary research. This study draws extensively from **HOLTEC**'s database on Raw Mix designs, plant designs, operating parameters etc.

## CHAPTER 2:

# STUDY FOR SYSTEM COMPATIBILITY & OPTIMISATION OF THE USAGE OF MUSLATE AS AN ALTERNATIVE FUEL

## 2.1 INTRODUCTION

This chapter covers the system compatibility assessment of **Green Valliey Industries Limited**, namely **GVIL** located at Nongsning, Khliehriat, East Jaintia Hills, Meghalaya-793210 for usage of Muslate as an alternate fuel. Muslate is an overburden of coal mines, locally available to the cement plants in Meghalaya, for use as an alternative fuel. It has low Net Calorific Value of ~ 1950-2,050 kcal/kg and high Ash percentage (~45 - 65%), as compared to traditional fuel (Coal). However, it has almost similar physiochemical properties as that of coal.

The compatibility is assessed based on the following:

- Establishing the suitability of existing raw materials and coal to manufacture the desired quality of clinker/ cement with existing usage of alternative fuels. **HOLTEC's** proprietary Raw Mix Design Software, is used to cross-verify the current operating raw mix and establishing the most optimum raw mix.

The raw mix suitability analysis is carried at **HOLTEC** facility, based on the quality test results of input materials, provided by **GVIL** Laboratory at site.

- Establishing the compatibility of existing systems with Alternate fuel usage and identify the requirement of any modification/ addition in the system to Optimize it further.

**GVIL** is reported to have been using muslate as an alternate fuel and wants to further Optimize the same. A field mission was carried out by a two member specialist team from **HOLTEC** to go through the plant operation and for walk through visual inspection of available facility at site.

The following sections cover methodology adopted for the study and area wise assessment of plant operations.

## 2.2 METHODOLOGY

Following methodology was adopted for formulation of the report.

- Interaction with the plant team to apprehend operation using muslate as alternative fuel.
- Assessment of operating raw mix with muslate.
- Review of plant operations with respect to technological need.

## 2.3 RAW MATERIAL SUITABILITY

To assess the raw material suitability the operating raw mix is cross-verified with **HOLTEC's** proprietary Raw Mix Design Software. And further Analysis were carried out under the following three scenarios of using Muslate as Alternate Fuel.

**Scenario 1:** 90% Coal mix with 10% Muslate.

**Scenario 2:** 70% Coal mix with 30% Muslate.

**Scenario 3:** 50% Coal mix with 50% Muslate.

### 2.3.1 Raw Materials & Fuel

#### Raw Materials

**GVIL** is using 4 components as raw material to make the raw mix for clinker production. The chemical compositions of used materials viz. Limestone, Red clay, Black clay & Laterite were collected during the site visit is given below in **Table No.2.1:**

Component Name	LOI	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO
Limestone	41.5	2.5	1.1	0.7	50.4	1.9
Red clay Clay	8.0	69.0	9.0	10.5	1.3	0.32
Black Clay	8.0	58.0	22.0	8.0	2.0	0.60
Laterite	6.2	43.0	11.0	36.0	1.60	0.32

**Table 2.1: Raw Material chemical Analysis.**

#### Fuel

**GVIL** has been using coal as main fuel and Muslate as an Alternative Fuel. Their analysis is as indicated below:

### Ultimate Analysis

Fuel	Carbon (%)	Hydrogen (%)	Nitrogen (%)	Sulphur (%)	Oxygen (%)	Ash Content (%)
Coal	55.15	4.5	0.54	3.86	10.54	28
Muslate	33.0	3.5	0.35	3.85	12.0	44

### Chemical Analysis of Fuel Ash

Component Name	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O	SO <sub>3</sub>	Cl
Coal	53.0	25.0	14.0	3.6	0.4	-	-	1.97	-
Muslate	62.42	25.3	6.6	3.22	0.6	-	-	1.2	-

### Proximate Analysis

Fuel	Inherent Moisture (%)	Total Moisture (%)	Volatile Matter (%)	NCV (kcal/ kg)
Coal	1.5	10.5	35	6900
Muslate	1.2	10.0	18	1950 - 2,050

### Raw Mix

The raw mix proportion of 100% coal mix is given below **Table No.2.2:**

Sn	Components	100% Coal Mix
1.	Limestone	85-88
2.	Red clay	4-6
3.	Black Clay	10-11
4.	Laterite	1-1.2

**Table 2.2: Rawmaterial Composition.**

The clinker quality assessment has been performed based on the above mix

### Clinker Analysis

Based on the above quality analysis the resultant clinker quality is cross-verified using

HOLTEC's Raw Mix Design software. Chemical composition along with clinker moduli values are analyzed, compared and has been summarized below:

Clinker composition with 100% Coal Mix - GVIL Plant											
Composition %	Free CaO	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O	SO <sub>3</sub>	Ti <sub>2</sub> O	% Liquid
GVIL analysis	2.76	20.93	5.28	4.59	63.88	1.87	-	-	2.31	-	28.26
HOLTEC assessment	2.50	20.93	5.28	4.59	63.89	1.87	-	-	1.16	-	28.28

Clinker Phases & Moduli Values are as follow:

Source	Clinker Phases				Moduli Values		
	C <sub>3</sub> S	C <sub>2</sub> S	C <sub>3</sub> A	C <sub>4</sub> AF	AM	SM	LSF
GVIL analysis	41.06	29.10	6.24	13.96	1.15	2.12	0.92
HOLTEC assessment	45.44	25.72	6.23	13.98	1.15	2.12	0.93

#### HOLTEC's Observation

- ✓ The analysis of produced clinker, with 100% coal, is observed to be aligned with the results obtained from **HOLTEC's** Raw Mix Design Software.
- ✓ The minor variations observed in clinker phases (mainly C<sub>3</sub>S and C<sub>2</sub>S) pertain to the actual burning and quenching conditions during the clinkering process and are very common as per **HOLTEC's** experience.

#### 2.3.2 Muslate as an Alternative fuel

Compatibility of Muslate as an alternative Fuel is assessed, using **HOLTEC's** proprietary RawMix Design Software. The exercise was carried out with **3 Scenarios** i.e **90 % Coal Mix + 10% Muslate, 70 % Coal Mix + 30% Muslate & 50 % Coal Mix + 50% Muslate**. The goal of the exercise was to Optimize the usage of Muslate as an alternative fuel while maintaining the desired clinker quality as per applicable standards. The results obtained are summarized below.

## Raw Mix

The raw mix Compositions for different proportions of Muslate are worked out by the **Holtec** is given below: **Table No.2.3:**

Raw Mix Proportions				
Sn	Components	Scenerio-1: 90 % Coal Mix + 10% Muslate	Scenerio-2: 70 % Coal Mix + 30% Muslate	Scenerio-3: 50 % Coal Mix + 50% Muslate
1	Limestone	85.41	86.12	87.07
2	Red Clay	5.46	5.69	5.89
3	Black Clay	8.25	7.22	5.90
4	Laterite	0.90	0.98	1.15

**Table 2.3: Rawmix Proportions.**

The clinker quality assessment has been performed based on the above mix.

**Holtec Designed the Raw Mix proportions while using Muslate to compensate the additional silica input from high % ash of Muslate. Higher proportion of Limestone is being used by reducing the Clay/Laterite percentage.**

## Clinker conversion factor

Based on the operating raw mix design, the average raw material to clinker conversion as well as kiln feed to clinker factors are furnished below:

Detail	GVIL
Raw Meal to Clinker factor*	1.55
Kiln Feed to Clinker factor *	1.68

\*As reported by **GVIL**

## Clinker Analysis

Based on the above quality analysis By using **HOLTEC's** Raw Mix Design software. Chemical composition along with clinker moduli values are analyzed and has been summarized below:

**Scenario - 01: 90 % Coal Mix + 10% Muslate.**

Clinker composition with Fuel Mix – With (90 % Coal mix + 10% Muslate)											
Composition %	Free CaO	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O	SO <sub>3</sub>	Ti <sub>2</sub> O	Liquid
HOLTEC assessment	2.76	21.01	5.02	4.57	63.99	1.87	-	-	1.23	-	27.45

Clinker Phases & Moduli are as follow:

Source	Clinker Phases				Moduli		
	C <sub>3</sub> S	C <sub>2</sub> S	C <sub>3</sub> A	C <sub>4</sub> AF	AM	SM	LSF
HOLTEC assessment	45	26.57	5.58	13.91	1.1	2.20	0.93

**Scenario - 02 : 70 % Coal Mix + 30% Muslate.**

Clinker composition with Fuel Mix – with (70 % Coal mix + 30% Muslate)											
Composition %	Free CaO	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O	SO <sub>3</sub>	Ti <sub>2</sub> O	Liquid
HOLTEC assessment	2.76	21.06	4.98	4.59	63.94	1.86	-	-	1.39	-	27.36

Clinker Phases & Moduli are as follow:

Source	Clinker Phases				Moduli		
	C <sub>3</sub> S	C <sub>2</sub> S	C <sub>3</sub> A	C <sub>4</sub> AF	AM	SM	LSF
HOLTEC assessment	45.01	26.42	5.43	13.97	1.08	2.2	0.93

Further, the maximum possible usage of Muslate has been assessed, maintaining the existing clinker quality, using **HOLTEC's** Raw Mix Design software and the resultant Chemical composition along with clinker moduli values are summarized below:

**Scenario – 03 : 50 % Coal Mix + 50% Muslate**

Clinker composition with Fuel Mix – With (50 % Coal mix + 50% Muslate)											
Composition %	Free CaO	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O	SO <sub>3</sub>	Ti <sub>2</sub> O	Liquid
HOLTEC assessment	2.76	20.99	4.93	4.61	63.88	1.86	-	-	1.60	-	27.24

Clinker Phases & Moduli are as follow:

Source	Clinker Phases				Moduli		
	C <sub>3</sub> S	C <sub>2</sub> S	C <sub>3</sub> A	C <sub>4</sub> AF	AM	SM	LSF
HOLTEC assessment	45.0	26.22	5.26	14.03	1.07	2.20	0.93

**HOLTEC's Observations on Process and Quality (Scenarios 1,2 &3):**
**Process:**

- 1.0 There is an estimated increase in Heat consumption by ~0.5% with 10% muslate usage, by ~ 0.8 % with 30% muslate usage & by ~ 1.50% with 50% muslate usage.
- 2.0 Estimated increase in limestone consumption by 0.48%, 1.32 % and 2.43 % respectively with use of muslate @ 10 %, 30 % and 50 %.

**Quality:**

The analysis of expected quality of clinker for the following Fuel mixes using the **HOLTEC's** Raw Mix Design Software has also been assessed with alterations in the Raw mix proportion as shown above.

- Fuel mix of 90% Coal with 10% Muslate.
- Fuel mix of 70% Coal with 30% Muslate.
- Fuel mix of 50% Coal with 50% Muslate.

- The minor variations observed in clinker phases pertain to the actual burning and quenching conditions during the clinkering process and are very common and acceptable as per HOLTEC's experience.
- The raw mix works out to be normal burning with adequate Liquid content for the proposed mix. The kiln operation needs to be closely monitored with the proposed mix as critical parameters like liquid content, sulphur and MgO are on higher side. An Industrial trial is required to establish the suitability of proposed alternate raw mix for further improvement in clinker quality.
- **The clinker produced using the above raw mix & fuel mix with ~50% Muslate is suitable for cement production as per the applicable standards.**

## 2.4 PROCESS TECHNOLOGY

This section provides details of major equipment and machinery installed at **Green Valliey Industries limited** at Nongsning in East Jaintia Hill District, Meghalaya to meet the technological requirement with respect to usage of alternative fuels.

The list of major equipment installed in the plant, is shared below:

### 2.4.1 Green Valliey Industries Limited (GVIL).

Sn	Equipment	Qty	Capacity
1	Coal Crusher	1	50 tph
2	Coal Mill (Ball Mill)	1	18.5 tph at 12% on 90 mic (Design) 14 tph at 12% on 90 mic (Operating)
3	Kiln, 3.2 m dia x 48 m length Max speed 5 rpm, Inclination 3.5°	1	1,000 tpd (Design), Upgraded to 1800 tpd 1,700 tpd (Operating)
4	Kiln Main drive	1	160 kW (Design) 120-160 kW (Operating)
5	Kiln Burner (Multichannel)	1	5 tph
6	Calcliner Burner	1	11.5 tph

Sn	Equipment	Qty	Capacity
7	Preheater - ILC (5 Stage, Single string)	1	1,000 tpd (Design) 1,700 tpd (Operating)
8	Grate Cooler Active Grate - Area 37 m <sup>2</sup>	1	1,000 tpd (Design) 1,700 tpd (Operating)

Table: Plant Equipment Specification (GVIL)

**HOLTEC's Observation:**

- ✓ Kiln Main Drive Operating kW is varying ~ 120-160 kw, Design kW is 160. with usage of Muslate (High ash content Fuel) there is a tendency of formation of ASH RING which internally increases the torque on kiln Main drive hence a close observation on Kiln main drive is recommended at high Muslate usage of ~50%. Upgrade of kiln main motor to 280 kW ( 75% Margin on Current Operating) may be necessitated, if kiln load tends to cross the design value.
- ✓ However from time to time GVIL has upgraded/modified design and capacities of different sections such as Coal Mill, Rawmill, Cooler and Preheater to optimize fuel consumption and to increase process efficiency resulting in supporting the alternative fuel optimization.
- ✓ The type of technology used by GVIL to meet fuel handling, storage, grinding and firing requirement are suitable for both Coal and Muslate.

## 2.5 SYSTEM COMPATIBILITY FOR HANDLING AND USAGE OF ALTERNATE FUEL

As observed in section 2.4 above, suitable technology is available for using Muslate as Alternate fuel at **GVIL**. The facilities and equipment used for Coal are also used suitably for use of Muslate.

This section covers the assessment of system compatibility of the existing facilities and equipment used by **GVIL** as observed & demonstrated during site visit.

### 2.5.1 Fuel unloading & handling

Different type of Coals are brought to site by trucks and are unloaded in dedicated open yard. Coal, holding the major portion among the fuel mix are mixed in desired proportion in storage sheds by front loader. The mixed materials are fed to the discharge hopper with loader arrangement and fed directly to the mill. The plant is not equipped with mechanized stacking and reclaiming arrangement for homogeneous mixing.



**Different type of Coal stored in Open Yard**



**Mixed Fuel Storage Yard**

### 2.5.2 Fuel Stacking & Conveying.

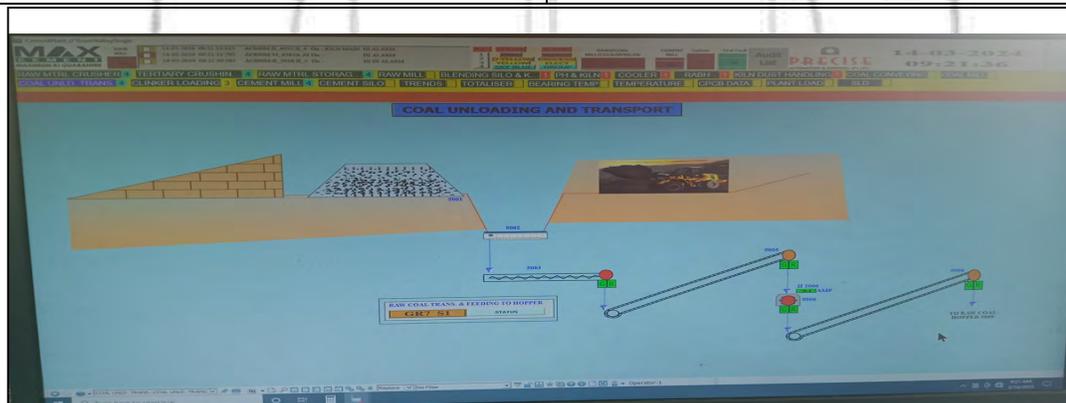
The unloaded Coal is transported to dump hopper in the storage yard through tippler and fuel mix is done through loader as per the Quality requirement.



Coal Dump hopper



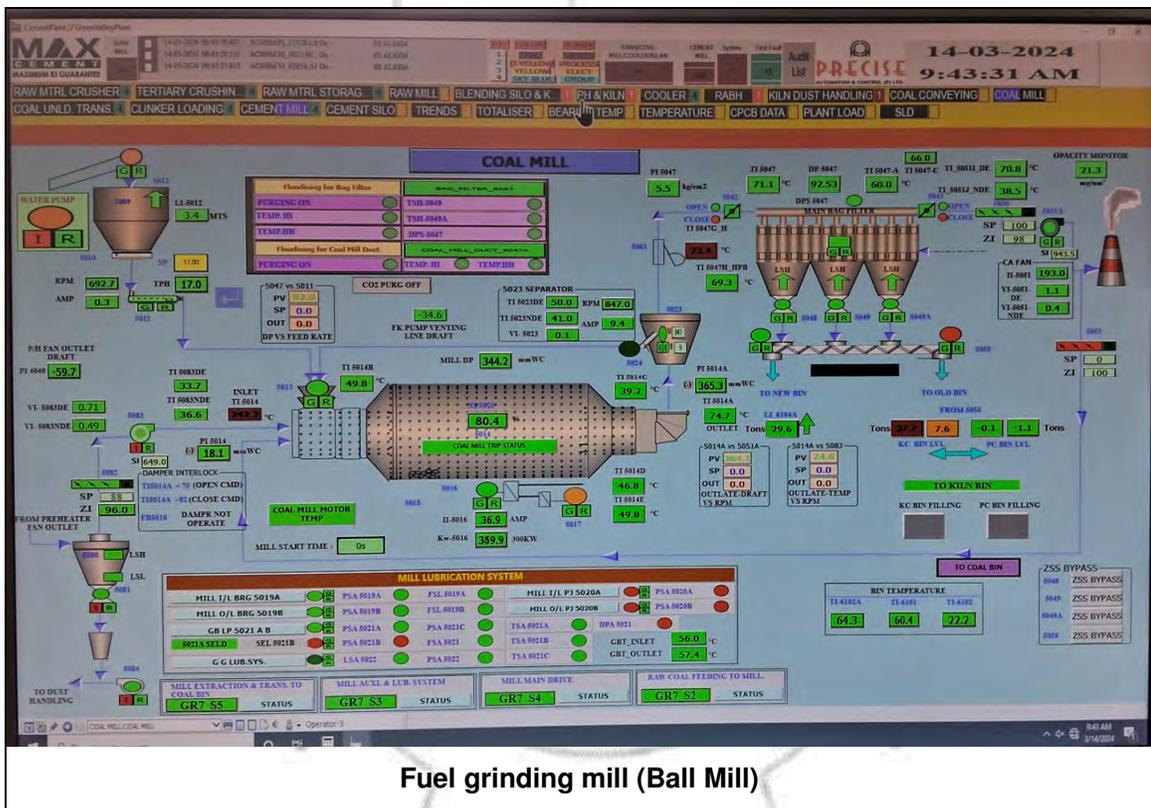
Coal Transportation System



CCR Screen mimic of Coal unloading and transport system

### 2.5.3 Grinding & Conveying

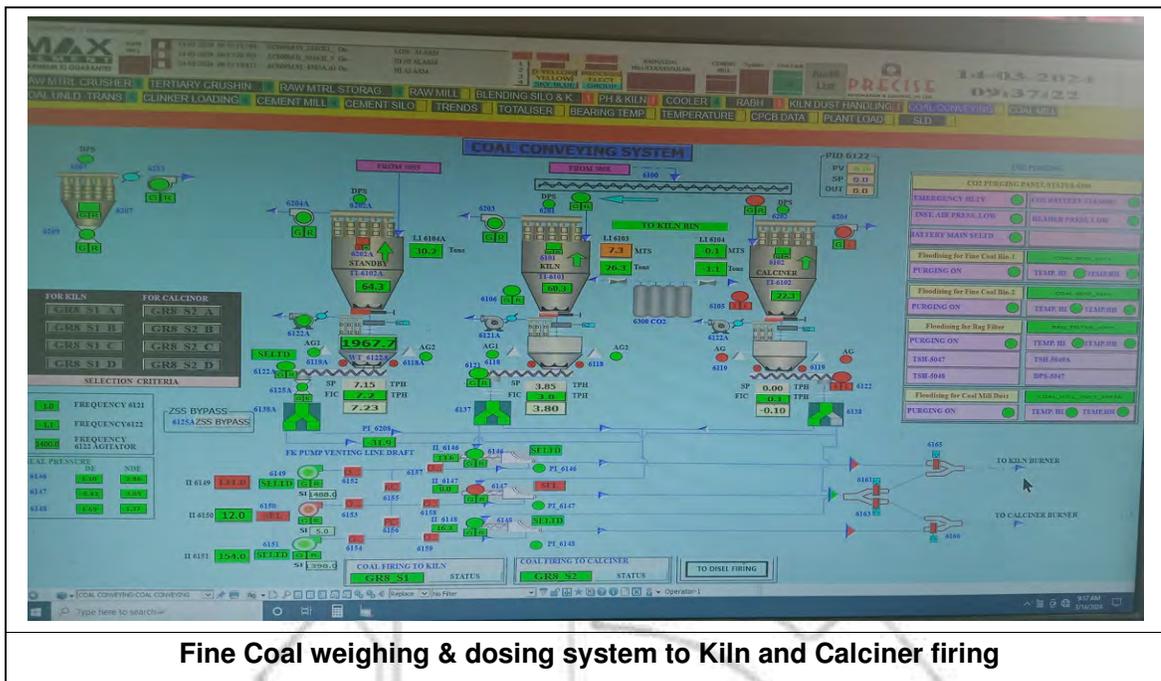
All the fuel mix is transferred to Raw Coal hopper. From the hoppers the fuel is extracted for the grinding in Ball Mill. Product will be collected in fine coal bins and then fed to kiln and calciner firing.



### 2.5.4 Fine Coal Conveying

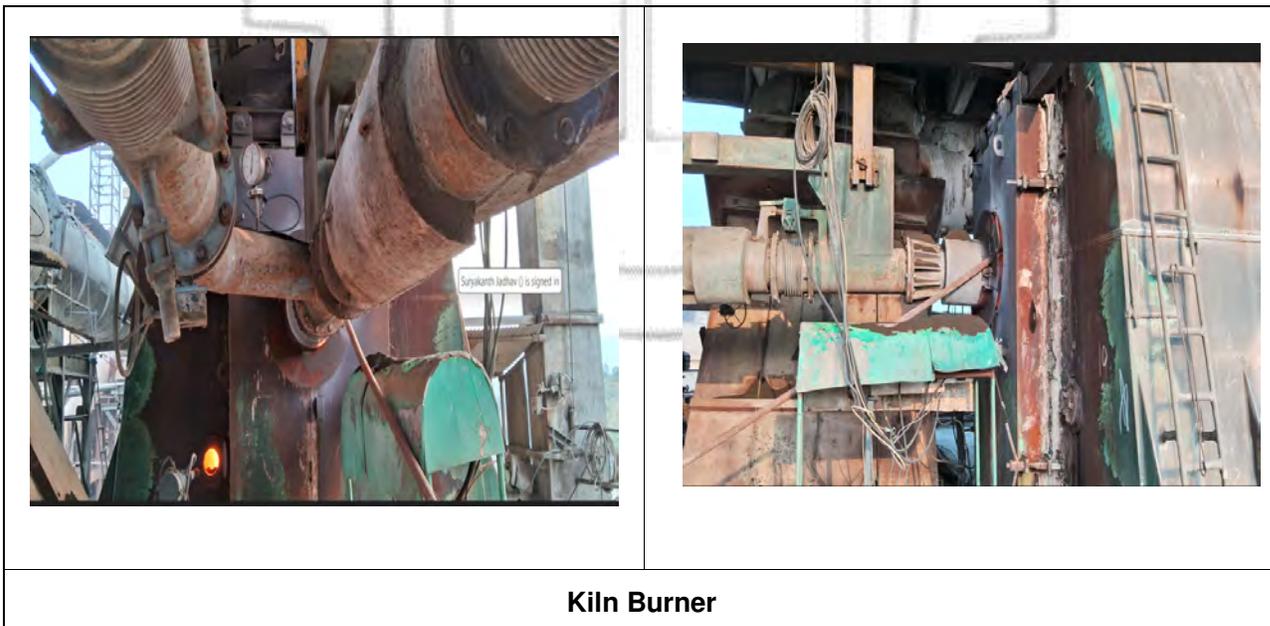
Fuel mix are extracted to Kiln and Calciner firing as per requirement in continuous operation of Kiln. The extraction and fine coal conveying systems are with screw feeder for both kiln and calciner along with the provision of a common stand by for both the requirement.

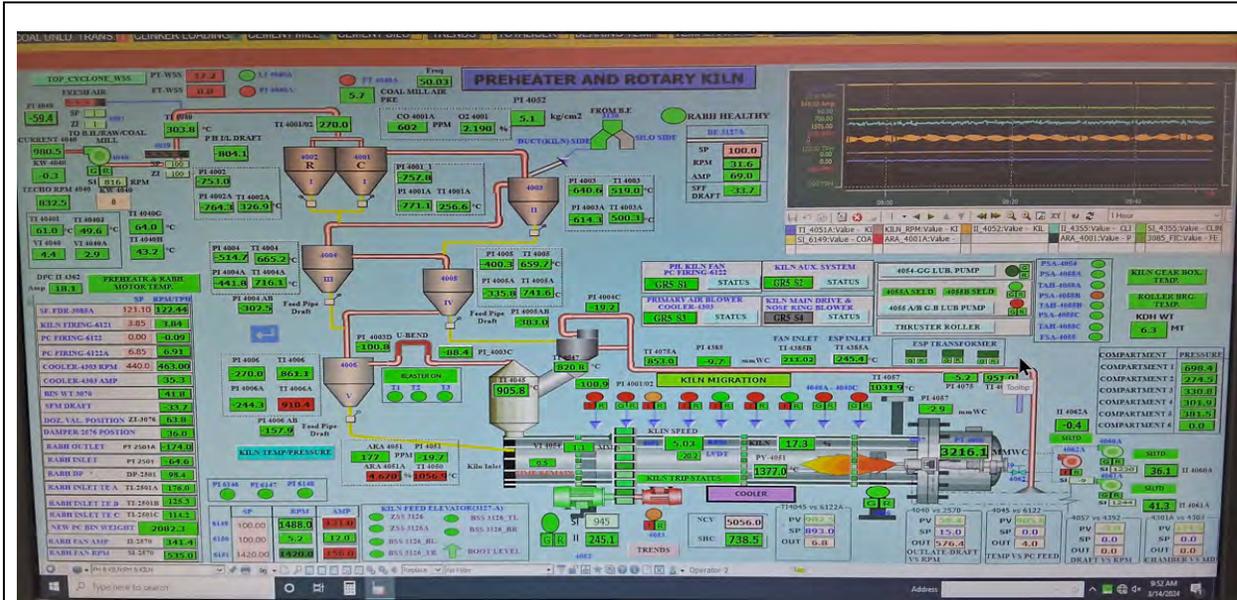
The CCR mimics for the fine coal transport system using the fuel mix in operation is as below:



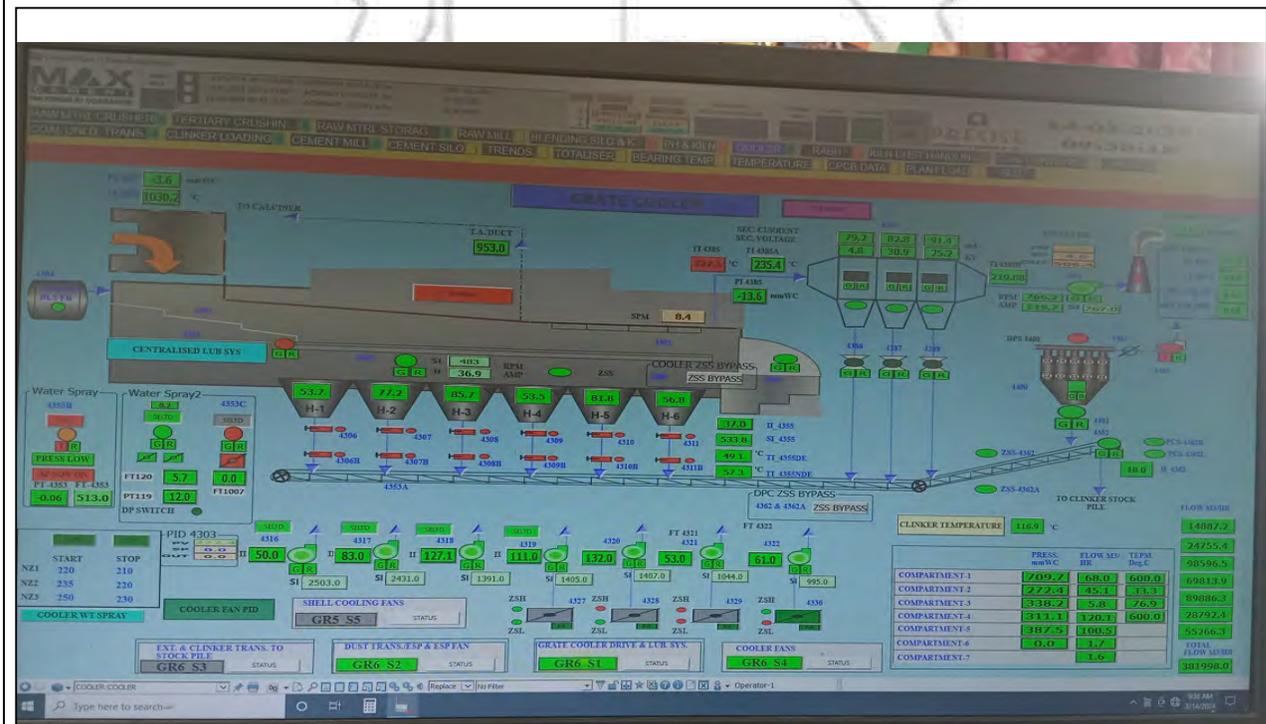
### 2.5.5 Fuel Firing in Kiln

Fine fuel mix is fired using the multichannel burner. It has been provided with PA fan for the formation of required flame length and width with proper mixing of fuel & primary air.





The CCR mimic of Kiln operation



Clinker Cooler in Operation

## 2.6 FLOW SHEET & LAYOUT

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The plant layout & Fuel handling, grinding and conveying flow sheets for **GVIL**, is attached as Drawing No. **DRG No. 500-01-FL-01** for reference.

## 2.7 CONCLUSION

---

From the above followings can be concluded:

- ✓ Introduction of **Muslate** as a low grade alternative fuel will generate the additional volume handling requirement, due to reduced calorific value and high Ash content.
- ✓ Kiln Main Drive Operating kW is varying ~ 120-160 kw, Design kW is 160. with usage of Muslate (High ash content Fuel) there is a tendency of formation of ASH RING which internally increases the torque on kiln Main drive hence a close observation on Kiln main drive is recommended at high Muslate usage of ~50%. Upgrade of kiln main motor to 280 kW ( 75% Margin on Current Operating) may be necessitated, if kiln load tends to cross the design value.
- ✓ It is observed that **GVIL** has adequate facilities for handling, storage and processing of Muslate at their cement manufacturing plant.
- ✓ Low heat value and high ash percentage of Muslate, would require/ stipulate the enhanced consumption of limestone in Raw mix vis-à-vis with that of Coal. This calls for modification in raw mix design. However, based on the assessment carried out by **HOLTEC**, it can be concluded that, for the usage of Muslate replacing coal up to ~50 % (wt.%) in fuel mix to maintain quality of product, **GVIL** has to go for necessary changes in Raw mix design and ensure that the quality of clinker produced are as per applicable standards. The proposed raw mix has been verified to be suitable to meet the product requirement.

**The assessment concludes that Muslate is having almost similar physiochemical properties as that of coal.**

**The plant has done modifications in different sections to optimize production and usage of fuel to support usage of alternate fuels.**

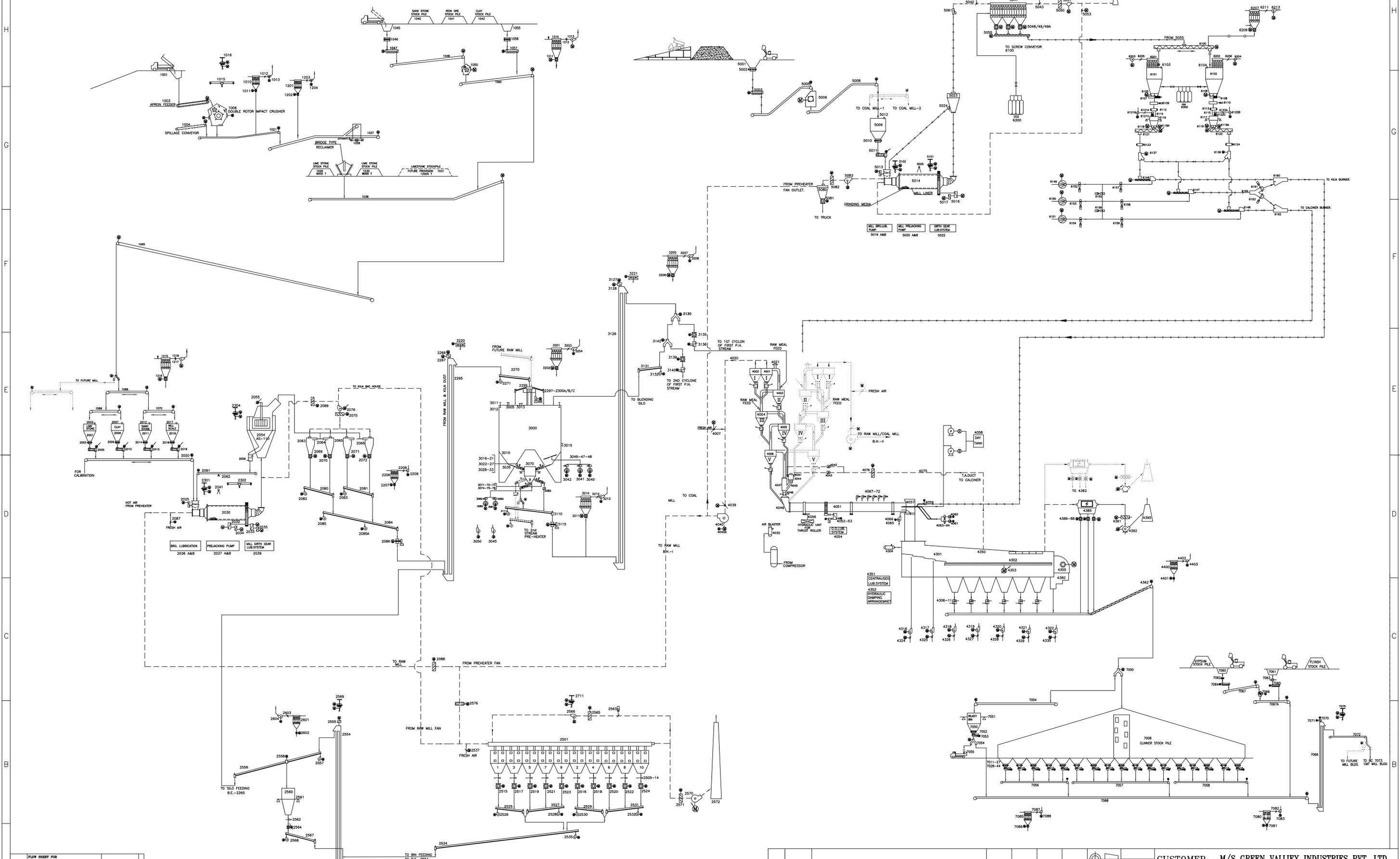
**The Modifications carried out are :**

- Raw Mill Capacity enhancement by Addition of tertiary crusher, modification in drying Chamber, New Raw Mill Fan and New Raw mill Separator,
- Replacement of Old Preheater fan with Higher capacity fan
- Increase in Kiln Main drive RPM
- Coal Mill Capacity enhancement By converting drying chamber to grinding chamber, adding of new Drying chamber, New Coal Mill fan, New Coal Mill Separator,

**Existing cement manufacturing facilities at GVIL Plant are suitably equipped to operate with upto 50% Muslate as an alternative fuel in their fuel mix, with suitable changes in raw mix design, without any further need of major alteration/addition of their existing equipment and facilities**

**Adequate design margins are available for Muslate unloading, storage, grinding, dozing and firing.**

**From the above, it is concluded that GVIL plant is suitably equipped to handle, operate up to 50%, Muslate in their fuel mix, with suitable change in raw mix design, within the existing system.**



FLOW SHEET FOR	NO.	DATE	BY	CHKD.	APPD.
RAW MATERIAL CRUSHER & TRANSPORT	100-10-03-7818	D			
STACKER & RECLAIMER SYSTEM	100-10-03-7850	C			
RAW MATERIAL GRINDING SECTION	100-20-03-7819	D			
BLENDED SLO & MEAN FEED SYSTEM	100-30-03-7822	D			
PREHEATER & ROTARY KILN	100-40-03-7823	C			
BAG HOUSE AND RAW MEAL DUST	100-25-03-7820	C			
COOLER	100-25-03-7821	A			
COAL UNLOADING & TRANSPORT	100-50-03-7825	A			
COAL GRINDING	100-50-03-7826	B			
CLINKER, CRYSTAL, LOADING & TRANSPORT	100-70-03-7827	F			

- - - - - MATERIAL FLOW  
 - - - - - FUTURE  
 - - - - - GAS DUCTS

REV. NO.	ZONE	REVISION	DATE	BY	CHKD.	APPD.

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 WALCHANDNAGAR INDUSTRIES LTD. WALCHANDNAGAR INDIA 413114  
 DRN. F.D.D. CHD. F.D.D. APPD.



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**S/d**  
**True Copy**

6607  
**Annexure R17/36**

*TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya,  
Green Valliey Industries Private Limited*

507



**HOLTEC**

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## **ACKNOWLEDGEMENT**

**WE EXPRESS OUR SINCERE GRATITUDE TO THE REPRESENTATIVES OF GREEN VALLIEY INDUSTRIES PRIVATE LIMITED, FOR THE ASSISTANCE AND CO-OPERATION EXTENDED DURING OUR VISIT, BUT FOR WHICH THIS REPORT COULD NOT HAVE BEEN SUCCESSFULLY PREPARED.**

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## LIST OF ANNEXURES

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## LIST OF DRAWINGS

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07127-I1-03-01	Control system configuration	

**LIST OF ABBREVIATIONS**

## LIST OF ABBREVIATIONS

ABBREVIATION	DESCRIPTION
%	Percent
a	Annum
Avg.	Average
°C	Degrees Centigrade
BE	Bucket Elevator
BH	Bag House
CA	Competitive Advantage
CAGR	Cumulative Average Growth Rate
CCBM	Closed Circuit Ball Mill
CCR	Central Control Room
CCTV	Closed Circuit Television
cm	Centimeters
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
CPU	Central Processing Unit
DC	Direct Current
DCS	Distributed Control System
DG	Diesel Generating Set
Dia.	Diameter
DMR	Director of Mineral Resources
DNA	Data Not Available
dpa	Days Per Annum
DPC	Deep Pan Conveyor

ABBREVIATION	DESCRIPTION
EDP	Electronic Data Processing
E & I	Electrical & Instrumentation
ESP	Electrostatic Precipitator
FY	Financial Year
GA	General Arrangement
GDP	Gross Domestic Product
<b>GVIPL</b>	<b>Green Valliey Industries Private Limited</b>
GSI	Geological Survey of India
HAG	Hot Air Generator
HEME	Heavy Earth Moving Equipment
<b>HOLTEC</b>	<b>Holtec Consulting Private Limited, Gurgaon</b>
hpd	Hours per day
HT	High Tension
ILC	Inline Calciner
IRR	Internal Rate of Return
K cal	Kilo Calories
Kg	Kilograms
Km	Kilometers
kV	Kilo Volts
kVA	Kilovolt Amperes
kW	Kilo Watts
kWh	Kilo Watt Hours
LMV	Light Motor Vehicle
LT	Low Tension
LV	Low Voltage



ABBREVIATION	DESCRIPTION
m	Meters
MA	Market Attractiveness
Max.	Maximum
MCCs	Motor Control Centres
mg	Milligrams
mio	Million
mm	Millimeters
mmWG	Millimeter Water Gauge
Min.	Minimum
MIS	Management Information System
ML	Mining Lease
MSL	Mean Sea Level
MVA	Megavolt Ampere
MW	Mega Watts
NCR	Net Cement Realization
NCV	Net Calorific Value
NH	National Highway
No./ nos.	Numbers
NO <sub>2</sub>	Nitrogen Dioxide
NPV	Net Present Value
NSDP	Net State Domestic Product
O <sub>2</sub>	Oxygen
OH	Overhead
PC	Pre Calciner
PH	Preheater

ABBREVIATION	DESCRIPTION
PL	Prospecting Lease
PLC	Programmable Logic Control
p.m.	Per Month
PVC	Poly Vinyl Chloride
RM	Raw Mill
Rs.	Rupees
s	Seconds
SBC	Safe Bearing Capacity
Sn	Serial Number
SOx	Sulphur Oxides
t	Tonnes
TAD	Tertiary Air Duct
TEFR	Techno Economic Feasibility Report
tpa	Tonnes Per Annum
tpd	Tonnes Per Day
tph	Tonnes Per Hour
UPS	Uninterrupted Power Supply
V	Volts
VRM	Vertical Roller Mill
XLPE	Cross Linked Poly Ethylene
XRF	X-ray Fluorescence

**CHAPTER - 0**  
**PROJECT AT A GLANCE**

## CHAPTER 0: PROJECT AT A GLANCE

PROMOTERS	:	<b>Green Valliey Industries Private Limited</b>
Project	:	Techno Economic Feasibility Report (TEFR) for a greenfield integrated cement plant of capacity 1,300 tpd cement expandable to 2,600 tpd, with reduced cost in village Nongsning (Korhati), Jaintia Hills District, Meghalaya.
Plant location	:	<p>The land of village Nongsning (Korhati), district Jaintia Hills, Meghalaya has been prima facie considered suitable for locating the proposed cement project.</p> <p>The location for the proposed cement project is at an approximate distance of 1.5 Km from the limestone deposit. The co-ordinates of the proposed plant location are:</p> <p>Latitude : N 25° 14' 30.2"</p> <p>Longitude : E 92° 23' 34"</p> <p>Altitude : 585 m to 695 m above MSL</p>
Markets	:	<p>The primary markets of interest for <b>GVIPL</b> are essentially Assam, North West Bengal, and North East States.</p> <p>It is estimated that <b>GVIPL</b> would be able to sell 0.300 mio t in it's first year of operation.</p>
Plant capacity recommended	:	0.429 mio tpa cement
Expected geological reserves of limestone	:	22.5 mio t as Inferred Reserves as per UNFC 334 .
Deposit life	:	46 Years estimated for 1300 tpd plant
Suggested raw mix	:	<ul style="list-style-type: none"> <li>• Limestone : 84.78 %</li> <li>• Shale/Clay : 7.78 %</li> <li>• Sandstone : 6.759 %</li> <li>• Mill scale : 0.679 %</li> </ul>
Fuel	:	Meghalaya Coal is to be used as a fuel. Coal is being exploited locally by private parties in the areas around Bapung and Sutanga, which are located at a distance of about 20 - 30 Km from the proposed plant site and is easily available.

Water requirement	<p>The water requirement for 1300 tpd cement plant and colony has been estimated as about 500m<sup>3</sup>/ day and 200m<sup>3</sup>/ day. Water demand can be met from perennial river near plant site.</p> <p>Water is required for equipment cooling, drinking, sanitation, horticulture, etc. A suitably designed water treatment and chlorination plant shall be installed. Water shall be stored in an underground tank for the plant and in an overhead (OH) tank for drinking purpose. For plant equipment, water shall be recirculated after cooling to avoid any wastage and only losses shall be made up from fresh water.</p>																																																	
Raw material sources	<table border="1"> <thead> <tr> <th>Material</th> <th>Source</th> <th>Locality</th> <th>Distance from plant, Km</th> <th>Landed cost Rs/t</th> </tr> <tr> <td colspan="3"></td> <th>Road-Plane</th> <td></td> </tr> </thead> <tbody> <tr> <td>Limestone</td> <td>Captive</td> <td>Nongsning (Korhati), Jaintia Hills District</td> <td>1</td> <td>107.81</td> </tr> <tr> <td>Sandstone</td> <td>Captive</td> <td>Nongsning (Korhati), Jaintia Hills District</td> <td>1</td> <td>71.02</td> </tr> <tr> <td>Shale/Clay</td> <td>Captive</td> <td>Lad Umstain, Jaintia Hills District</td> <td>25</td> <td>155</td> </tr> <tr> <td>Mill Scale</td> <td>Purchase</td> <td>Guwahati, Assam</td> <td>220</td> <td>1550</td> </tr> <tr> <td>Gypsum</td> <td>Purchase</td> <td>Kothakpa, Bhutan</td> <td>450</td> <td>2500</td> </tr> <tr> <td>Coal</td> <td>Purchase</td> <td>Khlieriat, Jaintia Hills District</td> <td>20</td> <td>1600</td> </tr> <tr> <td>Flyash</td> <td>Purchase</td> <td>Farakka, West Bengal</td> <td>780</td> <td>1600</td> </tr> </tbody> </table>					Material	Source	Locality	Distance from plant, Km	Landed cost Rs/t				Road-Plane		Limestone	Captive	Nongsning (Korhati), Jaintia Hills District	1	107.81	Sandstone	Captive	Nongsning (Korhati), Jaintia Hills District	1	71.02	Shale/Clay	Captive	Lad Umstain, Jaintia Hills District	25	155	Mill Scale	Purchase	Guwahati, Assam	220	1550	Gypsum	Purchase	Kothakpa, Bhutan	450	2500	Coal	Purchase	Khlieriat, Jaintia Hills District	20	1600	Flyash	Purchase	Farakka, West Bengal	780	1600
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Basis for assessment	:	<ul style="list-style-type: none"> <li>• Clinkerisation factor: 1.57 (Raw meal to clinker)</li> <li>• Specific heat consumption: 780 Kcal/ kg clinker</li> <li>• Kiln operation: 330 dpa</li> </ul>													
		Product mix:	<table border="1"> <thead> <tr> <th></th> <th>OPC</th> <th>PPC</th> </tr> </thead> <tbody> <tr> <td>Clinker %</td> <td>95</td> <td>65</td> </tr> <tr> <td>Gypsum %</td> <td>5</td> <td>5</td> </tr> <tr> <td>Flyash %</td> <td>-</td> <td>30</td> </tr> </tbody> </table>		OPC	PPC	Clinker %	95	65	Gypsum %	5	5	Flyash %	-	30
		OPC	PPC												
	Clinker %	95	65												
	Gypsum %	5	5												
Flyash %	-	30													
Maximum power demand	:	6 MW for 1300 tpd													
Main machinery	:	<b>Item</b>	<b>Capacity</b>												
		Limestone/ Corrective crushing	400 tph												
		Raw material grinding (CCBM)	90 tph												
		Pyroprocessing	1,000 tpd												
		Coal crushing	30 tph												
		Coal grinding (CCBM)	8 tph												
		Gypsum crushing	15 tph												
		Cement grinding (Closed circuit ball mill)	70 tph												
		Packing machine	120 tph												
Main storages	:	Limestone (Longitudinal stockpiles)	2 x 10,000 t												
		Shale/Clay	1,000 t												
		Sandstone	800 t												
		Mill scale	175 t												
		Raw meal	4,000 t												
		Coal	1,000 t												
		Clinker (Stockpile)	14,000 t												
		Gypsum	1,000 t												
		Cement (RCC silo)	1 x 6,000 t												
Pollution Control Measures	:	Bag house for raw mill and PH exit gases													
		Cooler ESP for cooler vent gases													
		Bag Filter for Coal mill													
		Cement mill bag house													

		Bag filters for dedusting of storages and auxiliaries in different departments	
		On line Gas analyser for O <sub>2</sub> , CO emission at Kiln inlet, and PH outlet	
		Provision for Green belt	
Social Initiatives	:	Dispensary	
		Rest House	
		Vendor shop	
Suggested manpower	:	<b>General shift</b>	<b>Shifts</b>
Implementation Phase		-	-
Operation Phase		111	142
			<b>Total</b>
			131
			253
Summary of Investment Cost (in Rs Lakhs)	:	Land and Site Development	
		1,014	
		Building and other civil structure	
		4,407	
		Plant and Machinery	
		8,436	
		Pollution control equipment, Green Belt & Social amenities	
		1,250	
		Miscellaneous. Fixed Assets	
		2,755	
		Provision for contingency	
		447	
		Margin Money for Working capital	
		263	
Project implementation period	:	24 months for project activities from the main machinery order placement till commissioning	
Total Investment	:	<b>Rs 185.71 Crores</b>	
Financial Returns			
IRR	:	22.7 % (On total investment)	
NPV	:	Rs 110,13 Lakhs (at a discount rate of 12 %)	
Payback	:	3 Years 11 months	
<b>Conclusion</b>			
The project is technically feasible. It also exhibits a good IRR on Total Investment around 22.7 %. The IRR on equity is around 37 %. Various sensitivity analyses indicate reasonable project and cash break-even percentages. In view of the acceptable level of returns, the project is technically feasible and financially viable.			

**CHAPTER - 1**  
**PREAMBLE**

## CHAPTER 1: PREAMBLE

### 1.0 INTRODUCTION

**Green Valliey Industries Private Limited (GVIPL)** is a new venture being promoted by GNG Group. GNG Group has proposed setting up a greenfield cement plant in District Jaintia Hills.

**GVIPL** is proposing to set up a 1,300 tpd cement plant expandable to 2,600 tpd cement. The location for proposed Plant is at village Nongsning, District Jaintia Hills, Meghalaya.

**GVIPL** appointed Holtec Consulting Private Limited, Gurgaon (**HOLTEC**), one of the leading consultants in the Cement Industry, to carry out a Techno Economic Feasibility Report (TEFR) for setting up the first stage of the project.

### 2.0 PROMOTER'S BACKGROUND

GNG Group of Companies is a diversified group having interest in international trading, mining, power projects, and real estate and has sufficient financial, technical and managerial strength to execute cement project.

The address of the company is as follows:

Green Valliey Industries Private Limited

'Lords'

Suit No. 202, 2nd Floor

7/1, Lord Sinha Road

Kolkata – 700071

Mr. G.N.Agrawal is the Founder of GNG Group of Companies.

M/s. GNG Exports, the flagship company of GNG Group is an export house having turnover of more than Rs. 150 Crores. The company is rapidly growing in mining and international trading of various commodities. He is also the Founder and Managing Director of Nortech Power Projects Ltd, a company which is engaged in engineering, procurement and execution of various power and other infrastructure projects in the North Eastern part of the country. He has executed many turnkey projects successfully over 30 years and efficiently managed the disturbances and other local problems of the remote regions. He is a very successful entrepreneur and visionary. He has wide experience of managing finance, movement of materials, manpower etc. particularly in northeastern states along with in-depth managerial skills.

He is actively involved in the following companies presently:

**FOUNDER AND MANAGING PARTNER - GNG EXPORTS.** Flagship company of GNG GROUP, operating in the field of international trading of various products and mining.

**FOUNDER AND MANAGING DIRECTOR** – Nortech Power Projects Ltd., another company of GNG Group, involved execution of various power and other infrastructure projects in North Eastern part of the country. The company has already executed various projects successfully in the region and has a growing order book.

**DIRECTOR - Serene Estates Pvt. Ltd.**, The paid up capital of the company is Rs 14 crore. The Company is setting up an integrated township on 20 acres of land on prominent IT Corridor of Chennai. The total project cost is 246.85 crores. A term loan of Rs. 50 crores has been sanctioned to the company.

### 3.0 **HOLTEC'S BACKGROUND**

This study has been carried out by:

Holtec Consulting Private Limited  
 Holtec Centre, A Block, Sushant Lok  
 Gurgaon - 122001, Haryana  
 INDIA

Founded in collaboration with the Holcim Group of Switzerland, **HOLTEC** today, is an independent, ISO 9001 certified, Indian company, catering primarily to cement & mineral based industries in India and Abroad.

- Commencing operations in 1967 as an engineering consultant, the company has over the ensuing period, grown to become a full-service, engineering & management consulting firm.
- Employing over 500+ professionals, **HOLTEC** has delivered over 2,500 multi-functional consulting services to its 600 strong client base in India and 73 other countries.
- Besides catering to smaller capacities, **HOLTEC** is the first company in India to engineer state of art plants like the first 3,000 tpd and 5,500 tpd dry process cement plants in 1982 and 1993, respectively. It is currently engaged in engineering of two 10,000 tpd plants. **HOLTEC** is highly competent in preparation of Techno economic Feasibility report for cement projects, turnkey project engineering, engineering for material handling systems, civil engineering & architecture, electrical and instrumentation engineering, project management, infrastructure sector in the areas of roads, bridges, and power.
- **HOLTEC** also has a strong presence in the management consulting area covering Strategic planning, Marketing, Human resources, Information system planning, Investment appraisals, etc. Our strong client list has been built up through execution of over 1900 domestic and 600 international consulting assignments.

### 4.0 **METHODOLOGY**

**HOLTEC** constituted a multi functional study team, principally comprising of the following:

- 
1. Project Director (Mr. K. Kumar)
  2. Project Coordinator and Process (Mr. A. Chaudhary)
  3. Cement Marketing & Financial Services (Ms. S. C. Negi)
  4. Raw Materials (Mr. K.V.Kher)
  5. Civil Engineering (Mr. P. Sood)
  6. Mechanical Engineering (Mr. N. Azam)

Mr. Naiyar Azam and Mr. Kapil V. Kher undertook a field mission between June 25 - 28, 2007 and visited the plant and raw material sites. This report has been formulated based on the data collected during the visit, an interactive exchange of views with **GVIPL** personnel, first hand data verification & assessment and secondary research. This study also draws extensively from **HOLTEC's** database on plant designs, markets, investment costs, operating costs, etc.

#### 5.0 SCOPE OF WORK

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The scope of work is given in **Annexure 1.1**

**ANNEXURES**



## SCOPE OF WORK

### Data Analysis/Project Formulation

Analyse the data for formulation of the most suitable project concept and study of the Techno-economic feasibility of the project under the following broad heads.

#### Raw Material

- Study the available data on limestone deposits including the results of tests/analysis of surface samples collected during the visit, if found necessary, followed by qualitative and quantitative evaluation of the reserve for sustaining the proposed cement plant.
- Study the availability, quality and requirements of correctives / additives and fuel.
- Recommend a preliminary raw mix keeping in view the quality of limestone and correctives.
- Indicate broad concepts of mineability of limestone for estimating the likely capital and raising cost
- Study and recommend the most suitable mode of transport for limestone from mines to plant.
- Recommend further prospecting required in case the geological data available are found inadequate/incomplete.

#### Location and Infrastructure

- Study the availability of the necessary infrastructural facilities for the Cement Plant such as:
  - Land
  - Utilities
  - Manpower
  - Transport
  - Social amenities
- Study the local site conditions such as climate, terrain, topography, and seismology; for the proposed cement plant.
- Select the most suitable site for the cement project keeping in view the Techno-economic viability of the following:
  - Availability of raw materials
  - Availability of infrastructural facilities as discussed above
  - Availability of financial incentives
  - Minimum Environmental Impact on the surroundings
  - Local regulations, if any etc.

### Industry Scenario and Market Strategies

- Estimate the total production of cement over the next 10 years, based on past trend of capacity utilization and new projects, which are likely to mature, both on national and state basis.
- Estimate the likely demand for the next 10 years on the national basis as well as for the areas of interest.
- Estimate the likely shortfall/surplus on the national basis as well as for the areas of interest.
- Identify the possible market areas and device optimal Marketing Strategy for the proposed cement plant in terms of geographic allocation on the basis of its Competitive Advantage vis-à-vis competitors.

### Project Technical Concept

- Recommend an optimum unit size/plant size based on raw materials, infrastructure and marketing considerations.
- Recommend broad sizing of the major equipment and storages.
- Recommend requisite energy conservation and pollution control measures.
- Prepare a general layout of the plants and preliminary flow sheet based on the technical concept outlined above.
- Recommend the basic electrical and instrumentation engineering concepts.
- Enumerate the broad features of the major electrical and instrumentation items involved.
- Suggest a broad scheme for power distribution.
- Estimate the requirement of captive power, Recommend Optimum size Captive Power plant for the proposed cement plant.
- Suggest suitable concepts for civil engineering designs based on the factors such as topography, climatology, seismology, etc.

### Human Resources

- Assess the requirement of staff and workers at various levels for efficient running of the plant.
- Suggest a suitable organizational structure for the proposed project.

### Implementation Planning

- Prepare a bar chart for the project implementation.
- Enumerate the critical activities, which would have a bearing on the realization of the schedule described above.

### Financial Appraisal

- Assess the total capital cost for the project through block estimates and based on the technical concept discussed above.

- 
- Work out a suitable financing pattern in consultation with GNG
  - Prepare an estimate of the working capital requirements
  - Identify the possible incentives, which may be available to such a project.
  
  - Assess the total cost of production based on inputs provided by GNG to the extent feasible:
    - Cost of raw materials and consumables
    - Cost of utilities
    - Cost of wages/salaries and plant overheads
    - Financial charges
    - Depreciation
    - Duties and taxes etc.
  
  - Ascertain the project profitability for the project based on the cost of production as arrived at earlier and the sales realization accruing from the project for 15 years of operation.
  - Assess the financial viability of the project based on the internal rate of return on investment/equity, payback period, break-even point and liquidity limit. Assess the Debt-Service Coverage Ratio, projected cash flow and balance sheet for the project.
  - Conduct a sensitivity analysis on the break-even point with respect to changes in the capital cost, variable costs and the sale price.

**CHAPTER - 2**  
**THE CEMENT MARKET**

## CHAPTER 2: THE CEMENT MARKETS

### 2.1 PREAMBLE

This chapter looks at the marketing scenario for the proposed cement plant. It estimates the future demand and supply at the national and regional level and examines the market position of the proposed plant. The sale volumes and the net sale realizations that could be achieved have also been assessed.

### 2.2 NATIONAL SCENARIO

#### 2.2.1 Demand

The cement consumption in India in FY07 was 155.1 mio t including the supply from the mini-cement plants. Cement consumption for past 10 years is given in the table below:

Year	Consumption from Large Cement Plants	Consumption from Mini Cement Plants	Total Consumption	Growth Rate%
FY98	73.9	6.2	80.1	8.4
FY99	79.8	6.2	86.0	7.3
FY00	92.0	6.2	98.2	14.3
FY01	90.3	6.1	96.4	(1.9)
FY02	99.0	6.1	105.1	9.1
FY03	107.6	6.1	113.7	8.2
FY04	113.8	6.1	119.9	5.5
FY05	123.1	6.1	129.2	7.7
FY06	135.6	6.1	141.7	9.7
FY07	149.0	6.1	155.1	9.5

**Table 2.1: National Cement Consumption in past 10 years**

Cement consumption in past 10 years has grown at a Cumulative Average Growth Rate (CAGR) of 7.6%.

#### 2.2.2 Present Capacities and Exports

The total rated capacity of all large cement plants at end of March 2007 as reported by the Cement Manufacturers Association (CMA) was around 166 mio t. However, the cement production from some of these plants in previous years has been much higher than rated capacity. Reckoning actual cement producing capability and the capacity addition during the year, the effective capacity of all plants (including mini cement plants) at the end of March 2007 is estimated as 188 mio t.

Domestic dispatches by Indian cement plants (including that from mini cement plants) were 155 mio t in FY07. Apart from this, India exported 5.9 mio t of cement and 3.1 mio t of clinker in FY07. In cement equivalent terms, export amounts to 9.0 mio t.

Currently there is no import of cement in India.

### 2.2.3 Future Demand

Growth in cement consumption in India over the last decade has exhibited a strong correlation to the GDP. An examination of the past growth in cement consumption and GDP growth shows a high correlation of 0.995. This is understandable, since an increase in National Income leads to higher investment in both housing and infrastructure, which consume cement.

The following statistical tools have been used to assess the future growth rate of cement demand.

- **Time Series Analysis**
- **Regression with Gross Domestic Product**

In quantitative forecasting of cement demand, a causal relationship in the form of a mathematical equation is established between a selected independent variable and cement demand. For this purpose, past data of the independent variable (time and GDP in this case) and cement demand is used and an attempt is made to fit various types of equations to this data.

The results are analysed for extent of fit and the best fitting curves are selected. The Theil's coefficient is a commonly used measure of the extent of fit of a mathematical equation to a data series. A Theil's coefficient of zero denotes a perfect fit, but any value less than 1 is acceptable.

Future estimates of the independent variables are then used in the best-fit equations to forecast future values of cement consumption and CAGR's are worked out accordingly. The growth rates obtained by Curve fit using GDP and Time Series Analysis were given a weightage based on their accuracy of occurrence in real situation. The weighted average growth rate was considered as the future cement consumption growth rate.

The results for National Demand Forecast are given below:

S. No.	Technique	Growth Rate (%)	Weightage
1	Time Series	9.3	0.3
2	Regression with GDP	9.5	0.7
<b>Growth Rate</b>		<b>9.4%</b>	
Growth Rate Considered		10.0%	

*\*India's cement demand has grown at rate of 7.6% in last 10years but has shown a steady increase in growth and for last 2 years it has grown at a rate of more than 9%. Taking into account various future developments future growth rate is envisaged to be 10.0%.*

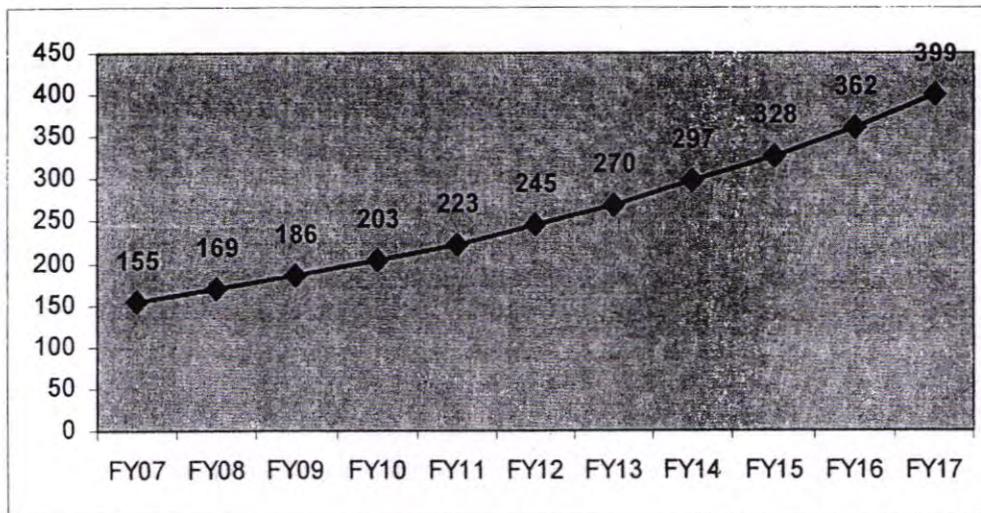
**Table 2.2: Cement Growth Rate in India**

The cement demand for the next 10 years is given in Table 2.3 and Chart 2.1.

Year	Demand in mio t
FY08	169.5
FY09	185.6
FY10	203.4
FY11	223.3
FY12	245.4
FY13	270.0
FY14	297.4
FY15	327.8
FY16	361.7
FY17	399.4

**Table 2.3: National Cement Demand Forecast**

(figures in mio t)



**Chart 2.1: National Cement Demand Forecast**

#### 2.2.4 Future Domestic Capacities

Future capacity is derived, by adding planned capacity additions to the present existing cement capacity. The estimation of expected capacity additions has been made based on HOLTEC's awareness of developments in the Cement Industry. This includes direct contact with several cement companies, constant interaction with equipment suppliers, feasibility studies being done by Hóltec, press reports/ published information.

Expected future capacity (including mini-cement plants) has been derived considering capacity additions through green-field, brown-field or up gradation/ de-bottlenecking projects and the possibility of higher capacity utilization in the plants supplying to the region. These figures do not include the project under consideration.

(figures in mio tpa)

Year	Additions	Capacity at end of year
FY08	11.1	198.6
FY09	53.0	251.6
FY10	36.8	288.4
FY11	70.0	358.4
FY12	2.6	361.0

**Table 2.4: Estimated Future Capacity at National Level**

### 2.2.5 Demand – Supply Gap

National future supply capability is estimated after making following adjustments:

- A retirement factor of 1.5 % is assumed towards closure of capacity of old plants.
- Plants are estimated to work at an average capacity utilisation 95%. This is based on the past performance of plants
- In the year of commissioning, capacity from a new plant is reckoned at 50%.

Estimated future supply capability (including mini cement plants) is given in the table below:

Year	Supply Capability in mio tpa
FY08	181.1
FY09	212.0
FY10	255.2
FY11	306.3
FY12	341.2

**Table 2.5: Estimated Future Supply Capability at National Level**

Based on expected demand and supply figures worked out in previous sections, the demand supply gap is shown in Table 2.7.

(figures in mio t)

Item \ Year	FY08	FY09	FY10	FY11	FY12
Supply	181.1	212.0	255.2	306.3	341.2
Less Estimated Exports	6.0	5.0	4.0	4.0	4.0
Domestic Supply	175.1	207.0	251.2	302.3	337.2
Demand	169.5	185.6	203.4	223.3	245.4
<b>Surplus/ (Deficit)</b>	<b>5.6</b>	<b>21.5</b>	<b>47.7</b>	<b>79.0</b>	<b>91.8</b>

Table 2.6: Future Demand-Supply Gap

### 2.3 REGIONAL SCENARIO

Assam, Rest of North East and West Bengal are markets of interest for the project.

#### 2.3.1 Assam

Assam has been divided into 5 regions. The regions and districts under each region are as follows:

- **Lower Assam:** Kokrajhar, Dhuburi, Goalpara, Bongaigaon, Barpeta, Nalbar
- **Guwahati:** Kamrup
- **Central Assam:** Sonitpur, Nagaon, Marigaon, Darrang, Jorhat, Golaghat
- **Upper Assam:** Dibrugarh, Tinsukia, Sibsagar, Lakhimpur, Dhemaji
- **Southern Assam:** Karbi Anglong, North Chachar Hills, Chachar, Karimgarh, Hailakandi

##### 2.3.1.1 Past and Present Scenario

#### Past Consumption

Cement consumption for Assam is given in the table below:

Year	Consumption from Major Plants	Consumption from Local Players*	Total Consumption	Growth Rate %
FY98	0.55	0.38	0.93	21
FY99	0.63	0.38	1.01	9
FY00	0.85	0.38	1.23	22
FY01	0.93	0.38	1.31	7
FY02	0.83	0.38	1.21	(8)
FY03	1.12	0.38	1.50	24

TEFR for a 1,300tpd Expandable to 2,600tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



HOLTEC

Year	Consumption from Major Plants	Consumption from Local Players*	Total Consumption	Growth Rate %
FY04	1.27	0.38	1.65	10
FY05	1.36	0.43	1.78	8
FY06	1.14	0.72	1.86	4
FY07	1.21	0.86	2.07	11

\*Players like Vinay, Virgo, etc

**Table 2.7: Past Cement Consumption of Assam**

Cement consumption has grown at a CAGR of 9.3 % pa in past 10years (FY98-FY07). Past Assam has seen a drop in cement consumption because of instability in the region. But situation is improving now as both the Central and State governments are focusing on the improvement of the state.

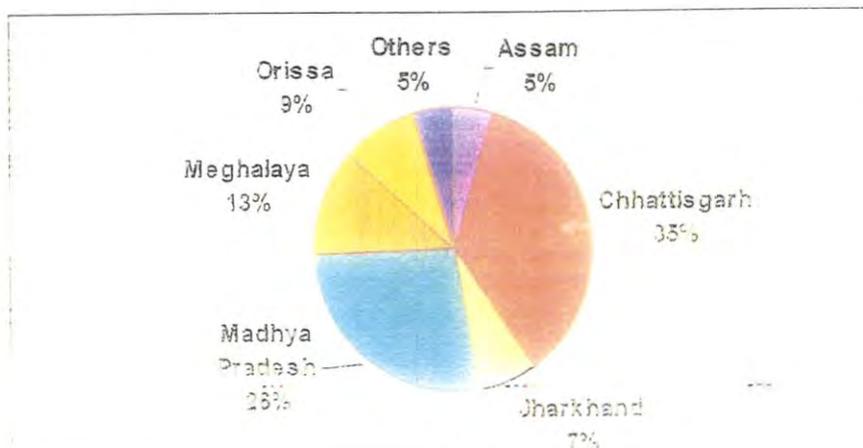
#### Present Capacities

Presently Assam has a capacity of 0.80 mio tpa. List of main plants is given in the table below:

Plant	Capacity in mio tpa
CCI, Bokajan	0.20
Vinay Cement, Umarganshu	0.40
Barak Valley, Karimgunj	0.20
<b>Total</b>	<b>0.80</b>

**Table 2.8: List of Plants in Assam**

The supply pattern of cement into Assam for FY07 based on CMA data, is depicted in the chart below:



**Chart 2.2: Pattern of Cement Supply into Assam**

### 2.3.1.2 Future Scenario

#### Future Demand

As explained in **Section 2.2.3** above, various statistical tools have been used to find the future growth rate of cement.

Time series analysis shows a future growth rate of 4.4%. As the cement demand in the state has not been growing at a uniform rate (as can be seen from the table 2.6 above). State has grown at a CAGR 8.0% in last 10years. There has been a dip in cement demand in past but this does not show any trend and therefore results obtained using the statistical tools are not very accurate and based on the developments envisaged to take place in the state, we expect the cement demand to grow at a CAGR of 9% pa.

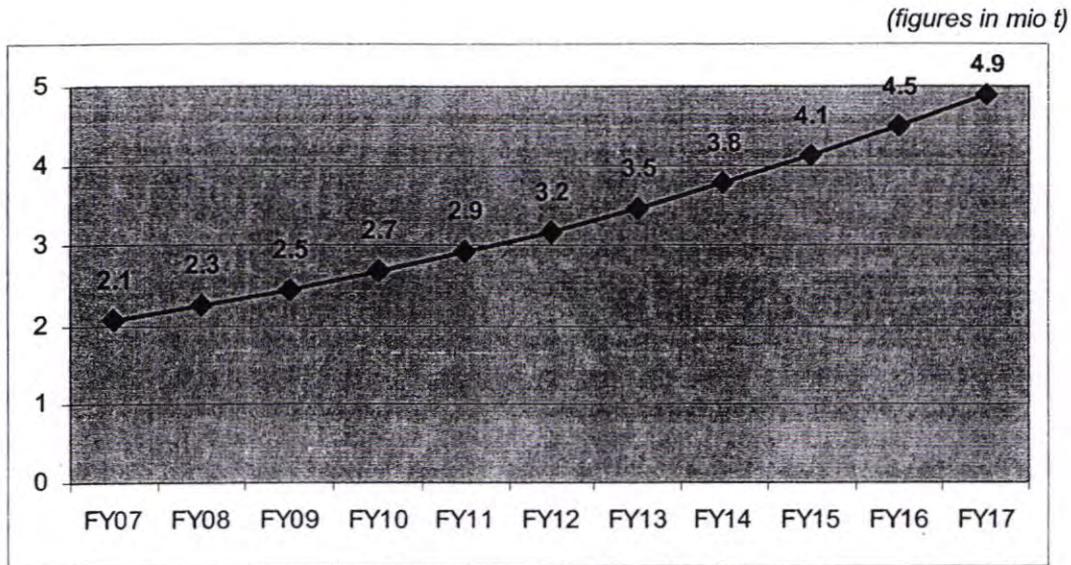
The growth in cement consumption can be attributed to the improved security in the region. Both the Central and State governments are focusing on the improvement of the basic infrastructure in the state. Investment is being done to improve the road network, especially by NHAI, in the entire North East. Large projects are being undertaken by government agencies like NHPC, NEEPCO, NTPC, etc. which are contributing to the overall growth in cement consumption.

Even the private sector investment, especially in the field of real estate development is on a high due to encouragement from the state government, which is very much evident from the construction of number a of big and small shopping malls and arcades, in the big cities like Guwahati. There has been a recent spurt in the housing sector as well with a number of housing projects being undertaken, especially by private builders.

Estimates of future demand are given in table and chart below:

Year	Demand in mio t
FY08	2.25
FY09	2.45
FY10	2.67
FY11	2.92
FY12	3.18
FY13	3.46
FY14	3.78
FY15	4.12
FY16	4.49
FY17	4.89

**Table 2.9: Future Cement Consumption in Assam**



**Chart 2.3: Future Cement Consumption Trend in Assam**

#### Future Capacity

Assam is expected have a capacity of 1.3 mio tpa by FY12. Future capacity additions are given in table below:

Plant	Location	Year of Addition	Additional Capacity in mio tpa
Local Players	-	FY10	0.50

**Table 2.10: Future Capacity Additions in Assam**

Expected future supply capability for next 5 years is given in table below, it has been assumed that in the year of commissioning plant supplies only 50% of it's installed capacity and works on 100% capacity utilization from next year onwards:

Year	Capacity in mio tpa
FY08	0.80
FY09	0.80
FY10	1.05
FY11	1.30
FY12	1.30

**Table 2.11: Future Supply Capability of Assam**

### Demand Supply Gap

The likely demand supply gap has been calculated based on the estimated future demand as well as the expected growth of cement capacity in the State. The demand supply gap is given in table below:

*(figures in mio t)*

Year	Demand	Supply	Surplus/ (Deficit)
FY08	2.25	0.80	(1.45)
FY09	2.45	0.80	(1.65)
FY10	2.67	1.05	(1.62)
FY11	2.92	1.30	(1.62)
FY12	3.18	1.30	(1.88)

**Table 2.12: Future Demand Supply Gap in Assam**

### 2.3.2 Rest of North East

All NE states except Assam are covered under this viz. Meghalaya (Shillong and Rest of Meghalaya), Tripura, Mizoram, Manipur, Nagaland and Arunachal Pradesh

#### 2.3.2.1 Past and Present Scenario

##### Past Consumption

Cement consumption of states in Rest of North East is given in the table below:

*(figures for FY07)*

Markets	Market Size in mio t	% Share
Meghalaya	0.27	20
Tripura	0.33	24
Mizoram	0.22	16
Manipur	0.16	12
Nagaland	0.16	12
Arunachal Pradesh	0.22	16
<b>Total</b>	<b>1.36</b>	<b>100</b>

**Table 2.13: Market Size for Rest of North East**

Cement consumption for Rest of North East is given in the table below:

*(figures in mio t)*

Year	Consumption from Major Plants	Consumption from Local Players	Total Consumption	Growth Rate %
FY98	0.30	0.13	0.43	10
FY99	0.27	0.13	0.40	(7)

Year	Consumption from Major Plants	Consumption from Local Players*	Total Consumption	Growth Rate %
FY00	0.37	0.13	0.50	25
FY01	0.52	0.13	0.65	30
FY02	0.45	0.13	0.58	(11)
FY03	0.42	0.13	0.55	(4)
FY04	0.47	0.27	0.74	35
FY05	0.71	0.22	0.94	26
FY06	0.72	0.49	1.21	29
FY07	0.77	0.59	1.36	13

\*Players like CMCL, HMCL, etc

**Table 2.14: Past Cement Consumption of Rest of North East**

Cement consumption has grown at a CAGR of 13.8% pa in past 10years (FY98-FY07).

#### Present Capacities

Presently Rest of North East has a capacity of 1.20 mio tpa. List of main plants is given in the table below:

Plant	Capacity in mio tpa
Mawmuluh Cherra Cement Limited (MCCL)	0.20
Meghalaya Cement Limited (MCL)	0.44
Cement Manufacturing Company Limited (CMCL)	0.60
<b>Total</b>	<b>1.24</b>

**Table 2.15: List of Plants in Rest of North East**

The supply pattern of cement into Rest of North East for FY07 based on CMA data, is depicted in the chart below:

TEFR for a 1,300tpd Expandable to 2,600tpd Greenfield Cement Project in Meghalaya  
Green Valliey Industries Private Limited

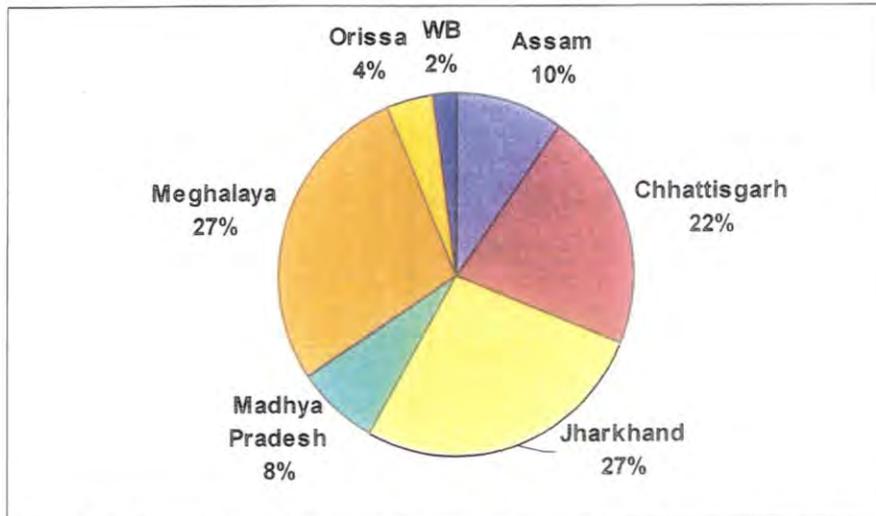


Chart 2.4: Pattern of Cement Supply into Rest of North East

### 2.3.2.2 Future Scenario

#### Future Demand

As explained in **Section 2.2.3** above, various statistical tools have been used to find the future growth rate of cement.

Time series analysis shows a future growth rate of 13.0% for Rest of North East. The region has grown at a CAGR of 12.2% in last 10 years. Cement demand cannot continue growing at 13% thus based on the developments envisaged to take place in the region, we expect the cement demand to grow at a CAGR of 12% pa.

Rest of North East states has seen a Growth in cement consumption as a result of number of Hydel Power projects undertaken by NHPC, NEEPCO etc. and National Highway construction & up gradation projects undertaken by NHAI. Apart from this there has been an increase in the cement consumption on account of individual housing construction.

Estimates of future demand are given in table and chart below:

Year	Demand in mio t
FY08	1.53
FY09	1.71
FY10	1.92
FY11	2.15
FY12	2.41
FY13	2.69
FY14	3.02

Year	Demand in mio t
FY15	3.38
FY16	3.78
FY17	4.24

Table 2.16: Future Cement Consumption in Rest of North East

(figures in mio t)

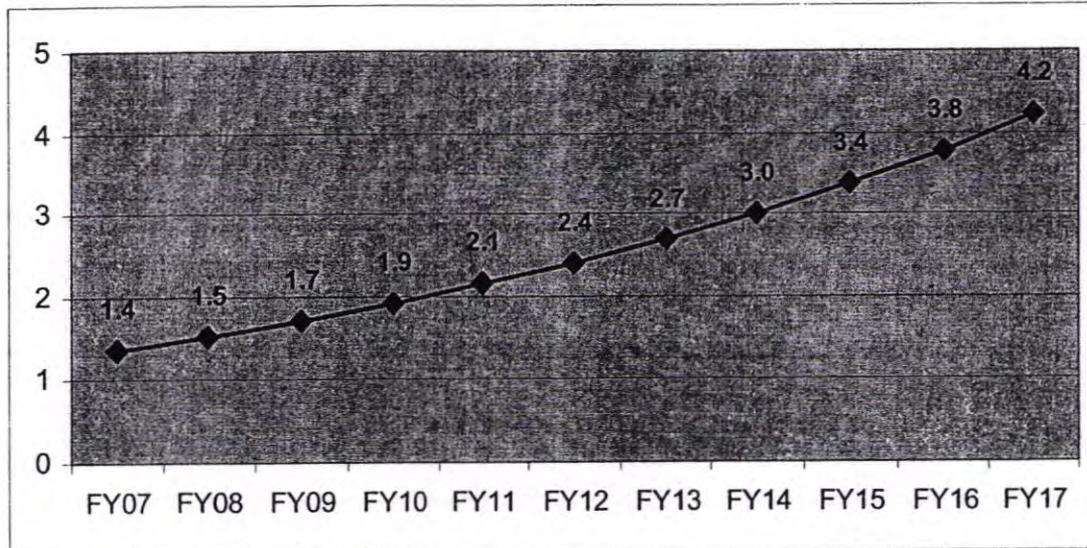


Chart 2.5: Future Cement Consumption Trend in Rest of North East

### Future Capacity

Rest of North East is expected have a capacity of 7.04 mio tpa in FY12. Future capacity additions are given in table below:

Plant	Location	Year of Addition	Additional Capacity in mio tpa
Megha Tech Engg Pvt Limited (CMCL)	Lumshong	FY08	0.46
Cement Manufacturing Company Limited (CMCL)	Lumshong	FY08	0.20
		FY11	1.00
Mawmuluh Cherra Cement Limited (MCCL)	Cherrapunji	FY10	0.10
Meghalaya Cement Limited (MCL)	Lumshong	FY10	0.44
Hill Cement Limited	Jaintia Hills	FY09	0.30

Plant	Location	Year of Addition	Additional Capacity in mio tpa
Adhunik Cement Limited	Lumshong	FY10	0.50
		FY11	0.50
JUD Cement Pvt Ltd	Lumshong	FY10	0.30
Local Players	-	FY11	2.00

**Table 2.17: Future Capacity Additions in Rest of North East**

Expected future supply capability for next 5 years is given in table below, it has been assumed that in the year of commissioning plant supplies only 50% of its installed capacity and works on 100% capacity utilization from next year onwards:

Year	Capacity in mio tpa
FY08	1.57
FY09	2.05
FY10	2.87
FY11	5.29
FY12	7.04

**Table 2.18: Future Supply Capability of Rest of North East****Demand Supply Gap**

The likely demand supply gap has been calculated based on the estimated future demand as well as the expected growth of cement capacity in Rest of North East. The demand supply gap is given in table below:

*(figures in mio t)*

Year	Demand	Supply	Surplus/ (Deficit)
FY08	1.53	1.57	0.04
FY09	1.71	2.05	0.34
FY10	1.92	2.87	0.95
FY11	2.15	5.29	3.14
FY12	2.41	7.04	4.63

**Table 2.19: Future Demand Supply Gap in Rest of North East****2.3.3 West Bengal (WB)**

It is divided into two regions as under:

- **North West Bengal:** Maldah, Dakshin Dinajpur, Uttar Dinajpur, Darjiling, Jalpaiguri, Koch Bihar
- **South West Bengal:** Rest of the districts

### 2.3.3.1 Past and Present Scenario

#### Past Consumption

Cement consumption for West Bengal is given in the table below:

Year	Consumption in mio t	% Growth Rate
FY98	3.91	(3)
FY99	3.71	(5)
FY00	4.73	27
FY01	4.76	1
FY02	5.93	25
FY03	5.63	(5)
FY04	5.78	3
FY05	6.22	8
FY06	6.59	6
FY07	6.93	5

**Table 2.20: Past Cement Consumption of West Bengal**

Cement consumption has grown at a CAGR of 6.6% pa in past 10 years (FY98 - FY07).

#### Present Capacities

Presently West Bengal has a capacity of 4.54 mio tpa. List of main plants is given in the table below:

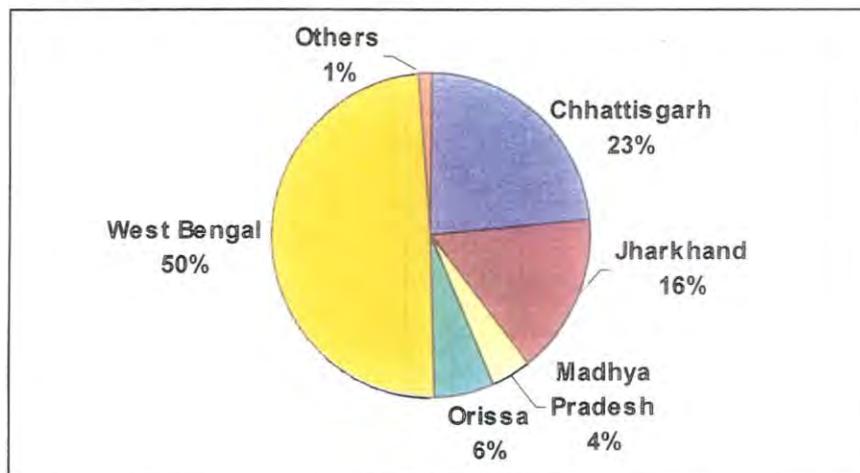
Plant	Capacity in mio tpa
Damodhar Cement (GU), Purulia	0.53
Durgapur, Birla Corp (GU)	0.68
Ambuja Sankrail Howrah (GU)	1.27
UltraTech Durgapur (GU)	1.06
Durga, HiTech (GU)	1.00
<b>Total</b>	<b>4.54</b>

**Table 2.21: List of Plants in West Bengal**

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The supply pattern of cement into West Bengal for FY07 based on CMA data, is depicted in the chart below:



**Chart 2.6: Pattern of Cement Supply into West Bengal**

### 2.3.3.2 Future Scenario

#### Future Demand

As explained in **Section 2.2.3** above, various statistical tools have been used to find the future growth rate of cement.

Time series analysis shows a future growth rate of 7.5% for West Bengal. The region has grown at a CAGR of 6.6% in last 10 years. Based on the developments envisaged to take place in the region, we expect the cement demand to grow at a CAGR of 8.0% pa.

The decision of the West Bengal Government to promote IT Industries, create special IT city near Kolkata, will lead to higher cement consumption. Also emphasis is being given on infrastructure development. Moreover private sector is also foraying in the area of real estate. West Bengal Industrial Infrastructure Development Corporation (WBIIDC) plans to develop industrial townships to attract investment.

Estimates of future demand are given in table and chart below:

Year	Demand in mio t
FY08	7.48
FY09	8.08
FY10	8.73
FY11	9.43
FY12	10.18

Year	Demand in mio t
FY13	11.00
FY14	11.88
FY15	12.83
FY16	13.85
FY17	14.96

Table 2.22: Future Cement Consumption in West Bengal

(figures in mio t)

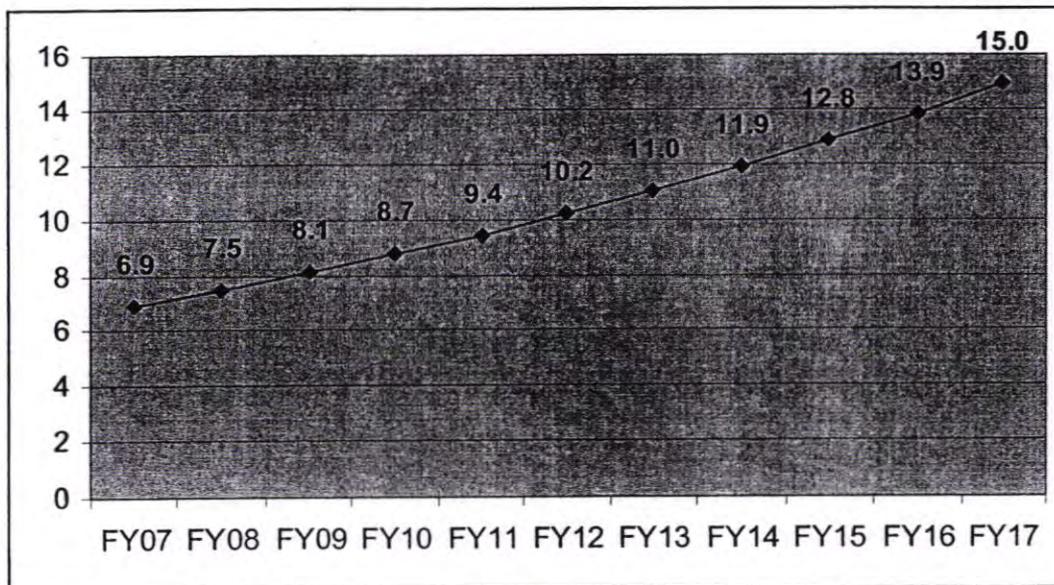


Chart 2.7: Future Cement Consumption Trend in West Bengal

### Future Capacity

West Bengal is expected have a capacity of 9.89 mio tpa in FY12. Future capacity additions are given in table below:

(figures in mio tpa)

Plant	Location	Year of Addition	Additional Capacity
Ambuja (GU)	Farraka	FY08	1.00
Century Cement (GU)	Mushirabad	FY08	1.50
Lafarge (GU)	Mejai	FY09	1.00
OCL India Ltd (GU)	Mejai	FY09	0.35
Grasim Kolaghat (GU)	Kolaghat	FY11	1.50

Table 2.23: Future Capacity Additions in West Bengal

Expected future supply capability for next 5 years is given in table below, it has been assumed that in the year of commissioning plant supplies only 50% of it's installed capacity and works on 100% capacity utilization from next year onwards:

Year	Capacity in mio tpa
FY08	5.79
FY09	7.71
FY10	8.39
FY11	9.14
FY12	9.89

**Table 2.24: Future Supply Capability of West Bengal**

#### Demand Supply Gap

The likely demand supply gap has been calculated based on the estimated future demand as well as the expected growth of cement capacity in West Bengal. The demand supply gap is given in table below:

(figures in mio t)

Year	Demand	Supply	Surplus/ (Deficit)
FY08	7.48	5.79	(1.70)
FY09	8.08	7.71	(0.37)
FY10	8.73	8.39	(0.34)
FY11	9.43	9.14	(0.29)
FY12	10.18	9.89	(0.30)

**Table 2.25: Future Demand Supply Gap in West Bengal**

#### 2.4 TARGET REGION

Markets of interest for Green Valliey Industries Private Limited (GVIPL) are:

- Meghalaya
- Lower Assam
- Guwahati
- Central Assam
- Southern Assam
- Tripura
- Mizoram
- Manipur
- North West Bengal (WB)

These markets have been identified keeping in mind the economic transportation distance and the location of other supplying clusters.

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Chart 2.11: Target Region for GVIPL

#### 2.4.1 Demand in Target Region

The cement consumption in the target region for FY07 has been estimated as 3.39 mio t. The demand for different markets is given in table below:

Market	Consumption in mio t	% Share of target market
Meghalaya - Shillong	0.17	5
Rest of Meghalaya	0.10	3
Lower Assam	0.70	19
Guwahati	0.58	16
Central Assam	0.29	8
Southern Assam	0.14	4
Tripura	0.33	9
Mizoram	0.22	6
Manipur	0.16	5
North West Bengal	0.93	26
<b>Total</b>	<b>3.63</b>	<b>100</b>

Table 2.30: Cement Consumption in Target Market

As can be seen from the table above North West Bengal is the biggest market in the region comprising of 26% of total market. Lower Assam and Guwahati are the biggest markets in the North East region and makes for 19% and 16% of total target market respectively.

Past cement consumption in the different markets over the last 10 years is given in table below:

Year	Meghalaya	Lower Assam	Guwahati	Central Assam	South Assam	Tripura/ Mizoram/ Manipur	North WB	Total
<b>FY98</b>	0.09	0.32	0.26	0.13	0.07	0.22	0.52	<b>1.60</b>
<b>FY99</b>	0.08	0.34	0.28	0.14	0.07	0.21	0.50	<b>1.62</b>
<b>FY00</b>	0.10	0.42	0.34	0.17	0.09	0.26	0.63	<b>2.01</b>
<b>FY01</b>	0.13	0.45	0.37	0.18	0.09	0.34	0.64	<b>2.19</b>
<b>FY02</b>	0.12	0.41	0.34	0.17	0.08	0.30	0.80	<b>2.21</b>
<b>FY03</b>	0.11	0.51	0.42	0.21	0.11	0.29	0.75	<b>2.40</b>
<b>FY04</b>	0.15	0.56	0.46	0.23	0.12	0.38	0.77	<b>2.68</b>
<b>FY05</b>	0.19	0.61	0.50	0.25	0.12	0.49	0.83	<b>2.99</b>
<b>FY06</b>	0.24	0.63	0.52	0.26	0.13	0.63	0.88	<b>3.29</b>
<b>FY07</b>	0.27	0.70	0.58	0.29	0.14	0.71	0.93	<b>3.63</b>

**Table 2.31: Past Cement Consumption in Target Market**

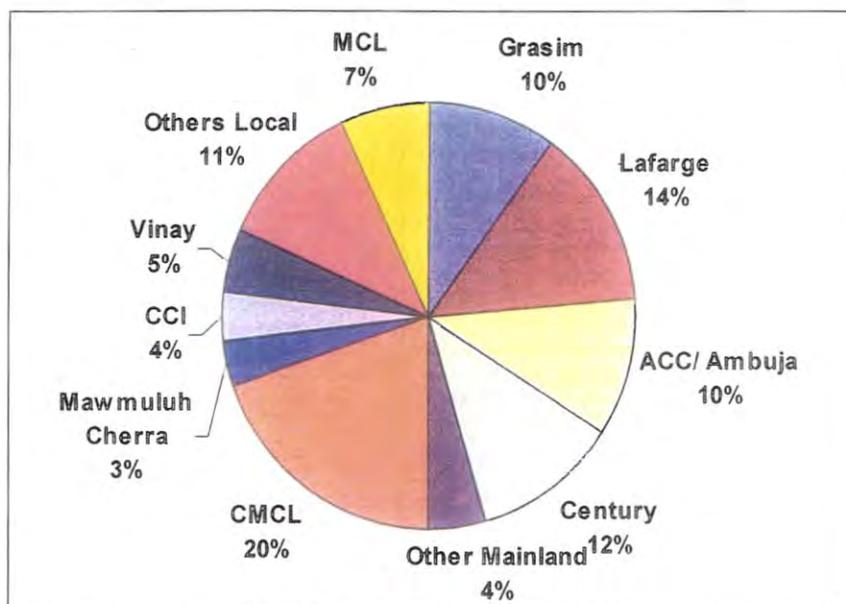
Consumption in the region has grown at a CAGR of 9.5%.

#### **2.4.2 Market Share**

The North East market is a very typical market with cement supply being supplied from the mainland based players and local players. With the emergence of new local players like CMCL (brand name Star), MCL local supply is likely to increase in future, as new capacities are being set up.

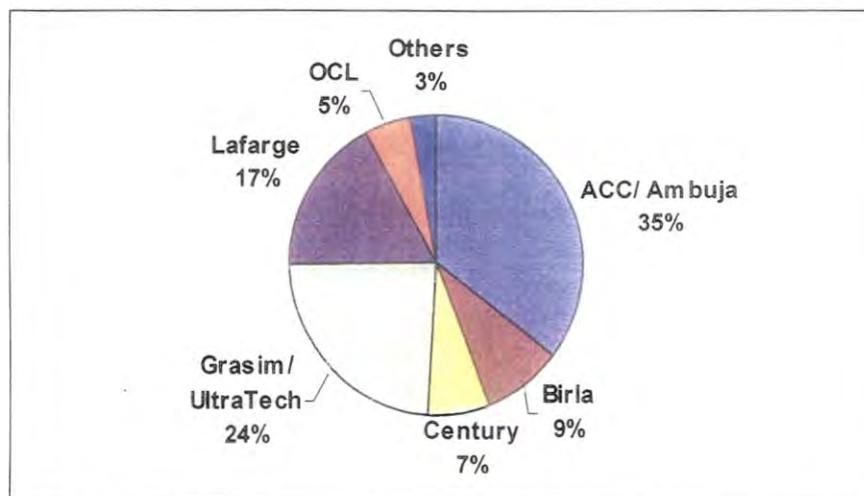
Overall, in the entire North East, Cement Manufacturing Co Ltd, CMCL (Brand: Star) is the market leader with a market share of around 20%. Next is Lafarge with market share of 14% and Century with 12%. Grasim and ACC/Ambuja have a market share of 10% each. Meghalaya Cement Limited (MCL) has a market share of 7% and rest of the market is with Vinay, CCI, Mawmuluh Cherra and other players from mainland and local NE players.

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**Chart 2.12: Market Share of Players in NE**

Market shares of Players in West Bengal are shown in the chart below:



**Chart 2.13: Market Share of Players in West Bengal**

As the local capacities will increase the share of mainland players in North East will come down as the freight for a mainland player is very high and thus their net realization is not good. The average net realization for a mainland player in Bilaspur cluster vis-à-vis a local North East player to Guwahati market is shown in the table below:

(Figures in Rs. Per Bag)

Particulars	NE Player	Mainland Player
Selling Price	185.00	190.00
VAT	20.56	21.11
Less VAT Subsidy	20.35	0.00
<b>Net VAT</b>	<b>0.21</b>	<b>21.11</b>
Freight	21.04	69.79
Channel Margins	8.50	8.50
Excise Duty	18.03	18.03
Less Excise Subsidy	18.03	0.00
<b>Net Excise Duty</b>	<b>0.00</b>	<b>18.03</b>
<b>Ex-Factory Realization</b>	<b>155.26</b>	<b>72.58</b>

Table 2.32: Comparative Net Realization of Mainland Player and Local Player

### 2.4.3 Demand Seasonality

North East and North West Bengal share similar climatic conditions and more or less similar geographical and physical features. The entire region receives heavy rainfall in the monsoon season. The cement consumption peaks in the months from November to March. Seasonality in cement demand is shown in chart below. During the peak, the monthly demand goes up by around 15 %, while at its lowest, during the monsoon, it goes down by 20 % from the average volume.

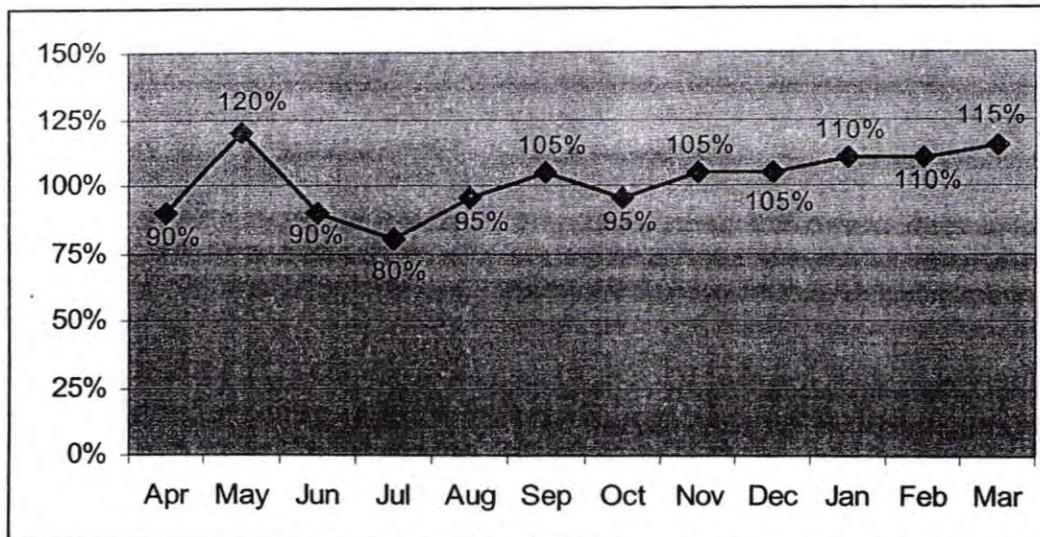


Chart 2.14: Demand Seasonality in the Target Region

#### 2.4.4 Product Mix

In this region, Portland Pozzolana Cement (PPC) is the most prevalent product and constitutes around 70% of the total cement usage. Ordinary Portland Cement (OPC) has share of around 25%. Portland Slag Cement (PSC) has a share of around 5%. The product in the target region is depicted in the chart below:

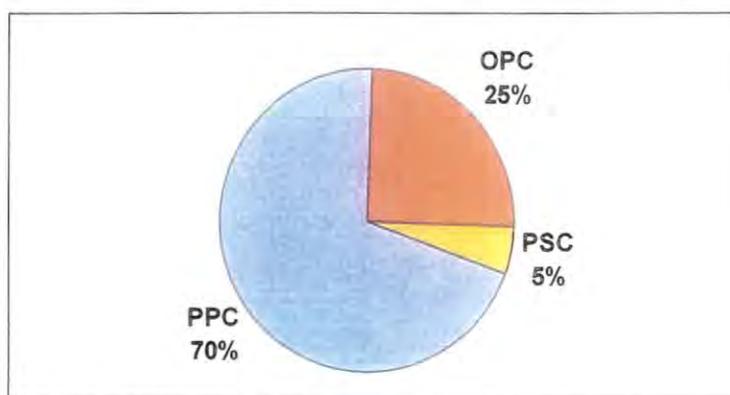


Chart 2.15: Product Mix

#### 2.4.5 Prices

Cement prices in the entire North East are very attractive, as the mainland players incur high freight to cater to the North East markets; prices are driven by their higher cost to market.

Current prices for Ordinary Portland Cement (OPC) are approx. Rs.220/ bag and for Portland Pozzolana Cement (PPC) are approx. Rs.215/ bag. Retail prices of the local players are generally Rs 10 to Rs 15, lower than the retail price of the mainland player. But during the peak demand season this difference in price reduces to Rs 5 to Rs 8, per bag, for local players.

#### 2.4.6 Packaging

The cement supply in the region is primarily in 50 Kg HDPE bags.

#### 2.4.7 Logistics

Freight is the key component in cement distribution and pricing. Primary freight (freight from cement plant to cement depot/ warehouse in the desired market) for mainland players has been worked out based on rail/ road distances from each cement plant to each district in the region. Freight from railway siding to the depot or dealer warehouse has also been added to compute primary freight.

Road is the only mode of transportation used by the local players to reach different markets in the entire North East region.

## 2.4.8 Advertising and Promotion

The most commonly used modes of advertising in the region are wall paintings, hoardings and dealers boards. Cement companies generally highlight their product and message using these media. A few cement companies like Ambuja and Grasim also advertise in electronic and print media viz., television, newspapers, magazines, etc.

Promotional tools like gifts, calendars, diaries, key chains, etc. are distributed among the channel members.

## 2.5 FUTURE OUTLOOK

### 2.5.1 Cement Demand

As mentioned in Section 2.3 above, the growth rates in the target region are given in table below:

Market	Growth Rates
Meghalaya	12%
Lower Assam	9%
Guwahati	9%
Central Assam	9%
Southern Assam	9%
Tripura/ Mizoram/ Manipur	12%
North West Bengal	8%

**Table 2.33: Cement Growth Rates in Target Region**

Table below shows the trend of future demand in different markets of the target region:

(figures in mio t)

Year	Meghalaya	Lower Assam	Guwahati	Central Assam	South Assam	Tripura/ Mizoram/ Manipur	North WB	Total
FY08	0.31	0.77	0.63	0.32	0.16	0.79	1.00	3.97
FY09	0.34	0.83	0.69	0.34	0.17	0.89	1.08	4.35
FY10	0.38	0.91	0.75	0.37	0.19	1.00	1.17	4.77
FY11	0.43	0.99	0.82	0.41	0.20	1.12	1.26	5.23
FY12	0.48	1.08	0.89	0.44	0.22	1.25	1.36	5.73
FY13	0.54	1.18	0.97	0.48	0.24	1.40	1.47	6.29
FY14	0.60	1.28	1.06	0.53	0.26	1.57	1.59	6.90

Year	Meghalaya	Lower Assam	Guwahati	Central Assam	South Assam	Tripura/ Mizoram/ Manipur	North WB	Total
FY15	0.68	1.40	1.15	0.58	0.29	1.76	1.72	7.57
FY16	0.76	1.53	1.26	0.63	0.31	1.97	1.86	8.30
FY17	0.85	1.66	1.37	0.68	0.34	2.20	2.00	9.11

**Table 2.34: Cement Demand Forecast in Target Region**

## 2.6 ACHIEVABLE VOLUMES FOR GREEN VALLIEY INDUSTRIES (GVIPL)

The company's strength in a market, as denoted by its market share, depends primarily on two factors. These are given below.

**Competitive Advantage (CA) Index** is a measure of the company's competitiveness. It can be measured by comparing its Net Realization (difference of the revenue and all cash expenses) at a market center with that of other competitors.

The combination of the two can be used as guiding factors to determine regional focus and the volumes that can be achieved.

**Market Attractiveness (MA) Index** denotes the attractiveness of a market to a company as compared to other markets. By calculating the Net Realization in each market and it is possible to find the relative attractiveness of a market.

The Competitive Advantage (CA) Index indicates how well a player is positioned with respect to its competitors, to sell in a given market, thus enabling the calculation of an achievable market share. After computing the CA Index and the achievable market share, the markets are prioritized on the basis of Market Attractiveness (MA) Index.

In North East, mainland players have very high freight component and with local players emerging in NE, the share of mainland players will decrease in the market.

**In Assam**, average freight cost for a mainland player is very high as compare to that of **GVIPL** but competition is higher in Assam especially Lower Assam and Guwahati as all the mainland players come to this market before entering the NE market. **GVIPL** still has an advantage of being base in the same region and can displace some mainland players to capture their market share.

**In Meghalaya**, **GVIPL** has the advantage of proximity to the market. Cost of freight for a mainland player will be almost 5-6 times the cost for **GVIPL** for reaching the Meghalaya market, but there are lots of local players in Meghalaya which will give tough competition. **GVIPL** can displace some mainland players to get a share in Meghalaya market.

In rest of NE States i.e. Tripura, Mizoram and Manipur, there are no local players and **GVIPL** has the advantage of proximity to these markets but same advantage is also available to other local players in Assam and Meghalaya. Still **GVIPL** can get some share in these markets also.

In **North West Bengal**, **GVIPL** should be able to sell some volumes in this market also but the competition will be high because of presence of main land players in this market.

We have assumed that plant will be operational by FY11. Based on the CAMA analysis, the achievable volumes and market shares (adjusted) of **GVIPL** in the region are given in table below:

(figures in mio t)

Market	Market Size	Achievable Volumes	Achievable Market Share
Meghalaya - Shillong	0.271	0.027	10%
Rest of Meghalaya	0.159	0.014	9%
<b>Meghalaya</b>	<b>0.429</b>	<b>0.041</b>	<b>10%</b>
Lower Assam	0.991	0.068	7%
Guwahati	0.816	0.065	8%
Central Assam	0.408	0.029	7%
Southern Assam	0.204	0.014	7%
<b>Assam</b>	<b>2.420</b>	<b>0.176</b>	<b>7%</b>
Tripura	0.515	0.021	4%
Mizoram	0.344	0.014	4%
Manipur	0.258	0.010	4%
North West Bengal	1.263	0.038	3%
<b>Total</b>		<b>0.300</b>	

Table 2.35: Achievable Volumes for GVIPL in FY11

**GVIPL** plant is located in Jaintia Hills between Khliehriat and Lumshong, Meghalaya and therefore it has the advantage of proximity to the market especially Shillong. **GVIPL** has a CA index of 1.4 approx. in Meghalaya but there are also lots of capacities coming up in Meghalaya. Thus taking all everything into account **GVIPL** should be able to get a market share of 10% in **Meghalaya**.

In **Lower Assam**, **GVIPL** has a good CA index of 1.6 but this market has lot competition with main land players and local North East players both supplying to this area and **GVIPL** should get a market share of 7% in this region

**Guwahati** is also close to the plant and is very well connected, **GVIPL** has CA of 1.6 but the competition is very high as almost all players supply to this market and thus **GVIPL** should get a share of 8% in this market.

In **Central Assam**, **GVIPL** can get a market share of 7% in these markets it has a CA index value of 1.3 to 1.6. **GVIPL** has better advantage in the districts of Sonitpur, Darrang, Marigaon and Nagaon.

In **Southern Assam**, **GVIPL** should be able to get a market share of 7%, it has a CA index value of 1.5 to 1.7 but there other Assam plants also located in this region.

In **Tripura, Mizoram, Manipur**, **GVIPL** has a CA Index of approx 1.4 and should be able to get a share of 4% each in these markets.

In **North West Bengal**, **GVIPL** has a CA index of 1.2 and there are a lot of main land players catering to this market. Taking all the factors into account **GVIPL** should be able to get a market share of 3%.

The total achievable volume for **GVIPL** in the target region based on CAMA analysis is estimated to be around 0..300 mio t in FY11. The achievable volumes would grow as the market grows.

Currently the prices are driven by the mainland players, which incur high freight to reach to the North East market. Therefore, current prices are high. But as the local capacities build up and the share of local players would increase, the prices would no longer be governed by the mainland players. Prices are expected to fall, as the newly emerged local players would try to gain the market.

The average weighted ex-factory realization per t, is given in table below. The ex-factory realization is calculated based on all the subsidies available for the industries set up in the North East.

Particulars	Rs./ Bag
Selling Price	185.65
VAT	20.63
Less VAT Subsidy	17.68
<b>Net VAT</b>	<b>2.95</b>
Freight	20.16
Channel Margins	8.50
Excise Duty	18.03
Less Excise Subsidy	18.03

Particulars	Rs./ Bag
Net Excise Duty	-
Ex-Factory Realization	154.05

Table 2.37: Ex-factory Realization for GVIPL

**Product Mix**

A product mix of 40% OPC and 60% PPC is proposed for the plant.

**2.6 CONCLUSION**

The primary markets of interest for **GVIPL** are essentially Meghalaya, parts of Assam (Lower, Central, Southern and Guwahati), Tripura, Mizoram, Manipur and North West Bengal.

It is estimated that **GVIPL** should be able to sell 0.300 mio t in FY11 and its achievable volumes will grow as the market grows.

The average weighted ex factory realization works out to be Rs. 154.05/ bag.

**CHAPTER - 3**  
**RAW MATERIALS AND FUEL**

## CHAPTER 3 : RAW MATERIALS AND FUEL

### 3.1 RAW MATERIAL SOURCES

The raw material requirements for the proposed plant are to be met from different sources as given in **Table 3.1**.

Sn	Material	Source category	Source locality	Distance from plant (Km)	Remarks
1	Limestone	Captive Concession	Nongsning, Jaintia Hills district.	1	Crusher shall be located in the plant area. Limestone shall be carried to the crusher by dump trucks.
2	Sandstone	Captive Concession	Nongsning, Jaintia Hills district.	1	Sandstone occurs as capping over the limestone and shall be mined and transported to the crusher by dump trucks.
3	Shale	Purchase	Lad Umstain, Jaintia Hills District	25	Shale procured from the source shall be transported to the plant by trucks
4	Mill Scale	Purchase	Guwahati, Assam	220	To be transported by trucks
5	Gypsum	Purchase	Kothakpa, Bhutan	450	To be transported by trucks.
6	Coal	Purchase	Khlieriat,	20	To be transported by trucks.

**Table 3.1: Raw material sources for the proposed plant**

The captive sources are described in the subsequent paragraphs:

### 3.2 DEPOSITS DESCRIPTION

#### 3.2.1 LIMESTONE DEPOSIT

##### 3.2.1.1 Location and accessibility

The limestone deposit of Nongsning is located about 2 km to the east, northeast of Nongsning village which in turn is located about 52 km to the south of Jowai, the district headquarters of Jaintia Hills district. The deposit lies about 1.50 km off the Jowai-Badarpur National Highway (NH) 44.

The deposit forms part of the Survey of India Toposheet no. 83 C/7 (Restricted) having a representative scale of 1:50000 and its spread is around the following co-ordinates.

Latitude      N: 25°14'38.7" to N 25°15'02.9"  
Longitude    E: 92°23'52.9" to E 92°24'30.8"

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A Location Map of the area is enclosed as **Drawing No. 07127- 05-01**.

At present the Nongsning limestone deposit is accessible from Shillong, the state capital along NH-44 leading to Badarpur via Jowai. Jowai is the district headquarters of Jaintia Hills and is located about 52 km north of Nongsning village. A narrow, single lane road branches off from NH-44 at Nongsning and leads to another hamlet of Nongsning, which is about 500 m off the NH. The limestone deposit is further northeast of this hamlet and is accessible by single lane gravel road



**Single lane road off NH 44 leading to Nongsning**

**Gravel road from Nongsning leading to the Deposit**

motorable in dry seasons only. The distance covered by this approach road is 2 km to reach the deposit.

The nearest rail access to the deposit is from Badarpur, which is located about 90 km to the south. Badarpur is on the Lumding-Silchar metergauge section of the North East Frontier Railway. The nearest broadgauge railhead is at Guwahati, which is located about 220 km to the north.

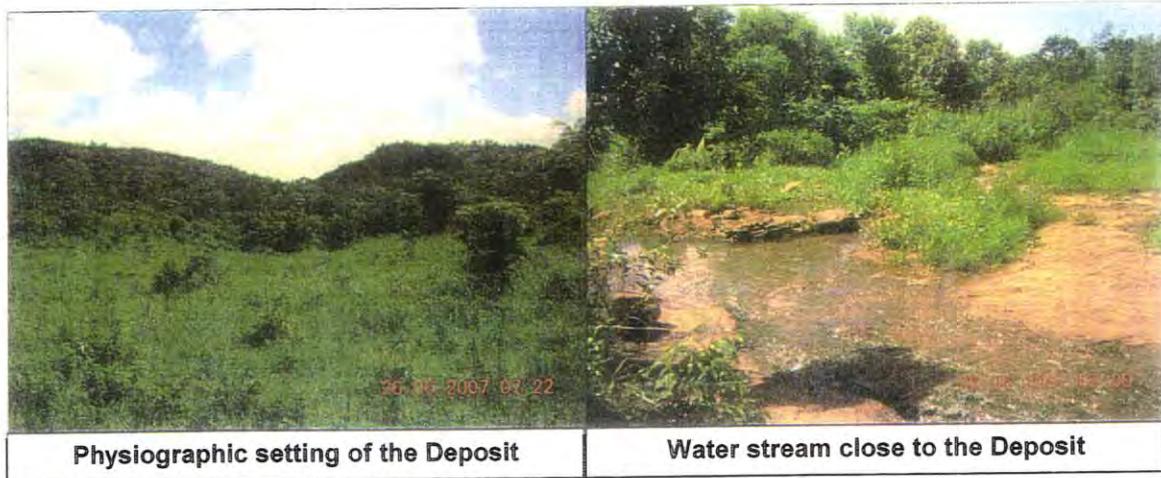
The nearest air access to the deposit is from Silchar, which is located about 120 km to the south of the deposit. However, convenient air connections to different parts of the country exist at Guwahati located about 220 km north of the deposit.

### 3.2.1.2 Physiography and drainage

Physiographically, the Nongsning limestone deposit forms part of an undulating terrain interspersed with low lying areas that too bear an undulating profile. The limestone deposition is observed along the slopes of the northwest-southeast trending ridges of low to moderate relief. While the upper portions of the ridges display a gentle sloping profile, the lower parts of the ridges are rather steep on the northern slopes. The limestone is heavily karstified and pinnacles of limestone stand out as isolated blocks near its upper contact with the soil/ sandstone.

The drainage of the region is through a number of streams that cut through the deposit and its surrounding areas. These streams originate from the ridges, pass through the valleys that have developed in-between the ridges and deposit their load into the Um Lunar River, which controls the drainage of the region flowing further south of the area.

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Physiographic setting of the Deposit

Water stream close to the Deposit

### 3.2.1.3 Mineral Concession Status

At present, **GVIPL** is not having either Prospecting License (PL) or Mining Lease (ML) over any of the limestone bearing area in Jaintia Hills district of Meghalaya. **GVIPL** is in the process of obtaining necessary clearances from the local authorities in order to be able to apply for PL/ ML.

### 3.2.1.4 Exploration

Exploration of limestone deposits in Meghalaya was carried out by the Geological Survey of India (GSI) initially while describing the geological succession of the northeast. The limestone deposit of Lumshnong was also first reported by the GSI. Subsequently, the Directorate of Mineral Resources (DMR), Government of Meghalaya carried out exploration for limestone deposits in Jaintia Hills district of the state and in the course of investigations also covered the limestone deposits of Lumshnong and the surrounding areas. Core drilling and sample analysis of the borehole samples was carried out in the course of exploration conducted by the DMR.

### 3.2.1.5 Regional geology

Based on the explorations carried out in the past, the stratigraphic setup as established in the region is given in **Table 3.2**. Middle Tertiary sedimentary rock sequences of Eocene age occupy most of the region. According to DMR, the Lakadong limestone represents the lower most bed of the Sylhet formation and is overlain by the Lakadong sandstone, which separates the Lower Lakadong limestone from the overlying Umlatdoh limestone. The Umlatdoh limestone represents the middle bed of the Sylhet formation and is in turn overlain by the Prang limestone, which is referred to as the Upper Bed of the Sylhet formation. The Narpuh sandstone lies sandwiched between the Prang limestone and the Umlatdoh limestone. The Prang limestone is overlain by the Kopili stage. All the members of the Jaintia group display a conformable relationship. These rock sequences display a NE-SW strike and have dip values varying from 3° to 10° towards SE.

Age	Group/ Series	Stage	Beds
Oligocene	Barail Series	-	Sandstone and Shale
Upper Eocene	Garro Group	Kopili	Gray shale with alternate layers of

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Age	Group/ Series	Stage	Beds
			sandstone and Siltstone
Lower to Middle Eocene	Jaintia Group	Sylhet	Prang Limestone, Narpuh Sandstone, Umlatdoh Limestone, Lakadong Sandstone, Lakadong Limestone
Paleocene	-	Therria	Sandstone

**Table 3.2: Regional geological succession of the area**

Limestone, which is the horizon of interest, occurs inter-bedded with sandstone in Jaintia Hills district of the state and form part of the Sylhet formation of the Jaintia Group. Along with sandstone, shale, claystone and siltstone also occur inter-bedded with the limestone. The entire limestone sequence is underlain by the Therria sandstone while Kopili shale and sandstone overlies the limestone sequence.

### 3.2.1.6 Local geology and structure

All the three members (the upper Prang, middle Umlatdoh and lower Lakadong) of the Sylhet limestone formation are visible within the Lumshnong area, which comprise of alternate bands of limestone and sandstone. The thicknesses of the individual limestone bands encountered within the boreholes drilled in the Lumshnong area are 92.65 m, 39.65 m and 61.80 m for the Prang, Umlatdoh and the Lakadong limestone members respectively. The inter-burden between the limestone members measure upto 25 m in thickness. The Kopili formation which is the youngest member of the sequence comprising of alternate sequence of shale and sandstone caps the limestone and is seen further south



**Limestone Exposures within the Deposit**

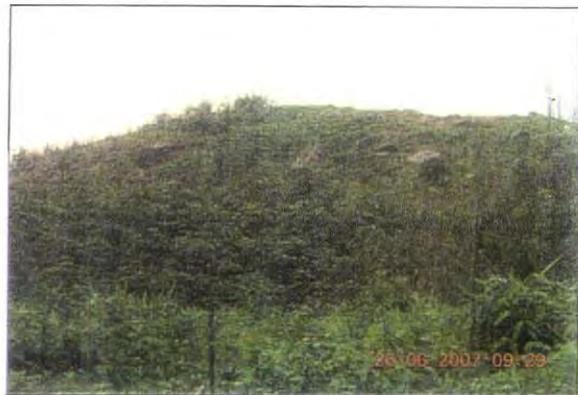
of Lumshnong. The limestone, which is referred to as the Lumshnong limestone is found to commence between 113 and 114 km stone from Shillong on NH-44. The limestone occurrence is reported upto 128 km and beyond. The limestone is in general gray in colour, thinly bedded to massive, fine grained, compact and hard. The deposit appears karstified on the surface. The limestone deposit selected for basing the proposed cement plant is located close to 114<sup>th</sup> km stone from Shillong and lies about 0.50 km off the NH-44 to the east. Although all the three limestone bands have been reported from the Lumshnong area, it is the lower two bands that are prominently present all through the limestone deposit and the uppermost Prang limestone is encountered occasionally. Within the area selected by **GVIPL**, the middle Umlatdoh and the lower Lakadong limestone bands are likely to be encountered while the upper Prang limestone might be missing. The limestone is capped by a thick layer (10 to 15 m) of soil and sandstone and the entire sequence of rocks is seen outcropping in the form of small hills rising about 50 m above the general ground level. A general description of the physical characters of the rocks encountered in the area of interest is given below:

### Top soil/ Alluvium

Almost the entire area lies concealed beneath a thick cover of soil. At places the soil cover assumes a thickness of 9 to 10 m due to weathering of the overlying Kopili shale. The soil is mainly clayey loam, being plastic and sticky in nature. The thickness of this unit varies from 2 m to 5 m in general.

### Sandstone

Light yellowish white to yellow and reddish brown in colour, the sandstone is thickly bedded to massive, fine to medium grained, compact and hard. It occurs mostly in the form of boulders, which are seen lying scattered above the limestone mixed with the soil. No in-situ exposures of sandstone were observed. The thickness of the sandstone column might be in the range of 8 to 12 m.



**Sandstone boulders on the Upper portions of the limestone Hill**

### Limestone



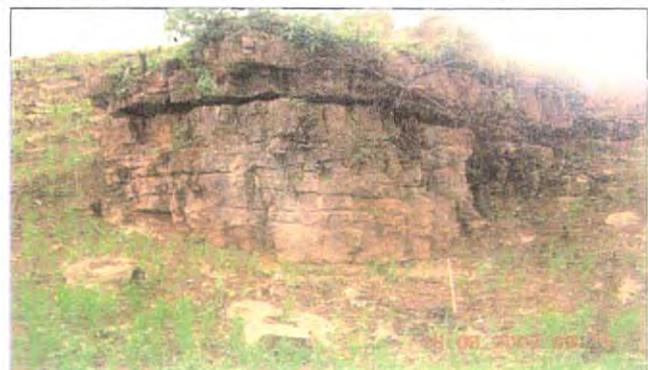
**Cavity within Limestone**

The Upper Prang limestone is a dark coloured one, hard and compact, highly fossiliferous with thin partings of clayey shale at places. This limestone is well exposed and is marked by a typical 'Karst' topography with solution cavities and sink holes. This limestone being argillitic and marked by a *Discocyclus* bed at the top grades into the overlying Kopili shales

The middle limestone is grey to white in colour and at times pink and is highly fossiliferous (foraminiferal). The limestone is massive, fine grained and at places sandy in nature. The limestone is karstified and has large cavernous portions in the form of sink holes and gullies.

The lower limestone is hard, massive and fine grained. It varies in colour from grey to dark grey. The limestone is fossiliferous, the basal part consisting of reef building corals, followed upward by foraminiferal limestone and topped by oncolitic and algal limestone. There are thin inter-beds of pure sandstone and thin lenses of carbonaceous matter.

The rock strata are homoclinally disposed along an E-W strike with minor local variations to ESE-WNW. The dip of the bed is low to



**Horizontally disposed Limestone beds**

moderate varying from horizontal to 40° towards S. The average thickness of the upper Prang limestone is 40 m while the average thickness of the lower two members; the Umlatdoh and Lakadong limestone is about 30 m each.

Whether the upper Prang limestone is available within the area being considered by **GVIPL** can only be ascertained once detailed geological exploration is carried out.

### 3.3 RESERVES AND QUALITY

#### 3.3.1 RESERVES

The area being considered by **GVIPL** has not been geologically explored so far; hence the reserves being assessed are based on geological reconnaissance carried out in the area being considered for basing the proposed project. The limestone mineralization is seen occurring all along the slopes covering the entire length of the hill and its mineralization is seen for a height varying from 18 m to 25 m along the up slopes of the hills bearing the limestone. The limestone is also likely to have subsurface extensions and assuming the exposed limestone to be comprising of the middle Umlatdoh Limestone and not the Prang Limestone, its average anticipated thickness is likely to be 30 m. **GVIPL** proposes to procure an area of 60 ha initially for mining of limestone. Assuming the entire 60 ha of the area being considered for mining to be mineralized, the reserves can be estimated on the basis of the volume of the area being considered. The reserves so assessed shall be 'inferred' reserves only and the parameters considered for assessing the reserves are as follows:

- Limestone Area: 60 ha (2000 m x 300 m) = 0.60 sq. km
- Limestone Thickness: 30 m
- Limestone Volume:  $2000 \times 300 \times 30 = 18000000 \text{ m}^3$
- Tonnage Conversion Factor: 2.5
- Geological Reserves:  $18000000 \times 2.5 = 45000000 \text{ t}$  or say 45 mio t.
- Allowance on estimation: 50%
- Therefore anticipated limestone reserves to be available: **22.5 mio t.**

The limestone as observed over the hills was capped by a layer of sandstone and soil of about 10-12 m thickness of which the anticipated thickness of soil is about 3-4 m while the sandstone shall form a layer of about 8-9 m thickness.

Since sandstone can also form part of the raw mix and can find its use in the manufacturing process, the quantity of sandstone present has also been estimated. Since the hill hosting the limestone occurs in a conical shape its width lessens towards the top and accordingly the average width of the sandstone considered for estimation is 50 m only.

- Sandstone Area: 10 ha (2000 m x 50 m) = 0.1 sq. km
- Sandstone Thickness: 8 m
- Sandstone Volume:  $2000 \times 50 \times 8 = 800000 \text{ m}^3$
- Tonnage Conversion Factor: 2.3
- Geological Reserves =  $800000 \times 2.3 = 1840000 \text{ t}$  or say 1.84 mio t
- Allowance on estimation = 50%
- Therefore anticipated sandstone reserves to be available = **0.92 mio t.**

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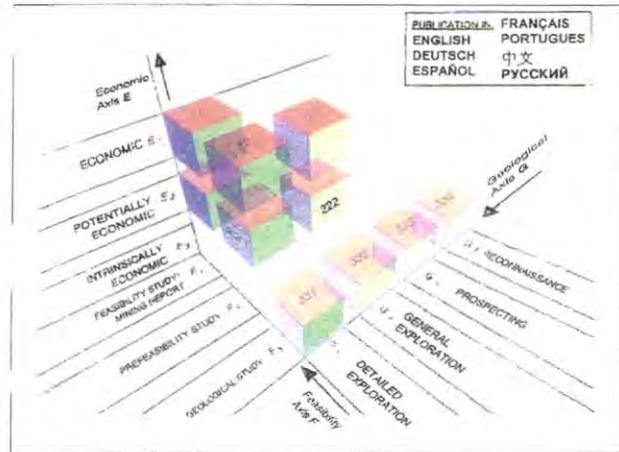


### 3.3.2 CLASSIFICATION OF RESERVES

The UNFC (United Nation Framework of Reserve Classification) has formulated a three dimensional system for classifying the mineral deposit. The system evaluates and rates a deposit on merits of **Economics, Technical Feasibility and Geology**.

Based on the economics of mining, a deposit may be classified as "economic" (**Code 1**), "potentially economic" (**Code 2**) and "intrinsically economic" (**Code 3**). Based on the location, topographical condition and existing infrastructure facilities in the area

and the cost of exploitation as worked out in the paragraph on mining which works out to be comparable with the costs of other operating mines of similar size, the deposit at present can best be termed as intrinsically economic pending detailed geological investigation. Taking into account these factors, this deposit may be **classified as "3" on the Economics axis**.



On the basis of the level of technical feasibility of mining a deposit, a deposit could be classified as "whether the Feasibility Study/ Mining Report has been concluded" (**Code 1**), "whether a Pre-Feasibility Study has been concluded" (**Code 2**) and "whether only a Geological Study has been concluded" (**Code 3**). Although a detailed geological investigation of the deposit has not been concluded so far, but based on the previous geological work done by the DMR over other parts of the deposit, mining of the deposit is technically feasible the details of which shall have to be worked out on conclusion of geological investigation and thus at present it can only be **classified with code "3" on the axis of Technical Feasibility**.

The process of geological assessment is generally conducted in stages of increasing details of exploration i.e. "reconnaissance" (**Code 4**), "prospecting" (**Code 3**), "general exploration" (**Code 2**) and "detailed exploration" (**Code 1**) with clearly defined degrees of geological assurance. No geological exploration has been conducted over the limestone bearing area being considered by **GVIPL** for its proposed cement plant. Thus far the deposit has only been reconnoitered and few surface samples drawn in the course of reconnaissance traverses. Thus the geological assessment is based on reconnaissance traverses only and the reserves could be classified by **code "4" on the geological axis**.

Thus, on an overall assessment, the deposit can be classified as '334'. Reserves under the category of **334** needs to be converted to '111' category by detailed geological investigation followed by judicious mine planning for its use in cement manufacturing.

### 3.3.3 QUALITY

The DMR in the course of exploration conducted established the quality of three limestone bands encountered in Lumshnong area. The quality of these limestone bands as deciphered by the DMR analysis is given in **Table 3.3**.

Constituents	Upper (Prang) Limestone	Middle (Umlatdoh) Limestone	Lower (Lakadong) Limestone
SiO <sub>2</sub>	1.80	1.09-1.92	0.59
Al <sub>2</sub> O <sub>3</sub>	1.00	0.64-0.80	0.72
Fe <sub>2</sub> O <sub>3</sub>	1.60	0.47-0.64	0.39
CaO	52.02	45.29-51.76	52.11
MgO	0.85	2.12-7.06	2.13

**Table 3.3: Quality of limestone assessed by DMR for the three limestone bands of Lumshnong**

Since the Middle bed of Umlatdoh limestone is present at the top at many of the places in Lumshnong, a range of the constituents analyzed is provided by DMR. The analysis results suggest all the three beds of limestone encountered to be high in CaO content and low in SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub> and Fe<sub>2</sub>O<sub>3</sub> values, which shall call for considerable corrective use. There is also a variation in MgO content, which is having incremental values indicating presence of dolomitic limestone within the middle Umlatdoh limestone bed. Identification and isolation of these dolomitic limestone patches in the course of geological investigations is therefore a must in order to avoid feeding of high MgO material in the crusher.

In the course of reconnaissance, four limestone samples were collected from different parts of the deposit and analyzed in the laboratories of S.K. Mitra Private Limited in Kolkata. The analysis results of the four samples are provided in **Table 3.4**.

Component	Chemical Composition, %									
	LOI	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O	SO <sub>3</sub>	Cl
S-1	40.81	4.87	0.67	1.83	50.81	0.81	0.012	0.009	Tr	Tr
S-2	43.08	1.60	0.51	0.70	52.28	1.33	0.164	0.011	Tr	Tr
S-3	42.47	3.52	1.74	0.86	50.02	1.01	0.009	0.184	Tr	Tr
S-4	39.89	7.84	0.92	1.74	48.40	1.07	0.011	0.019	Tr	Tr
<b>Average</b>	<b>41.56</b>	<b>4.46</b>	<b>0.96</b>	<b>1.28</b>	<b>50.38</b>	<b>1.06</b>	<b>0.05</b>	<b>0.06</b>	<b>Tr</b>	<b>Tr</b>

**Table 3.4: Chemical composition of limestone**

Although the DMR analysis has given higher values of MgO for the Umlatdoh limestone, the surface samples analyzed from the area being considered by GVIPL does not bear MgO values which are likely to cause any impact on the clinker.

The average quality of limestone arrived at has been considered for carrying out theoretical raw mix exercises.

### 3.4 CORRECTIVES

As discussed in the preceding para, the limestone shall require correctives to overcome the deficiency of Silica, Iron and Alumina in the raw mix. The correctives that can be considered at this stage of the study are sandstone, shale and mill scale. The sandstone is a rich source of silica while shale can serve the purpose of silica as well as alumina corrective and the mill scale which is

the scrap generated in the processing of steel can be used as iron corrective in the absence of any naturally occurring deposits of iron ore in the nearby vicinity.

**Sandstone:** Sandstone occurs as a capping over the limestone deposit and its availability is assured from the limestone deposit itself and it shall be procured in the process of mining for limestone as it needs to be removed in order to be able to exploit the limestone which lies buried beneath it. The average chemical composition of sandstone from the nearby vicinity is given in **Table 3.5.**

Component	Chemical Composition, %									
	LOI	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O	SO <sub>3</sub>	Cl
Sandstone	2.12	91.50	2.00	0.36	2.75	0.51	-	-	-	-

**Table 3.5: Chemical composition of sandstone**

The sandstone shall also be mined departmentally and the likely landed cost of sandstone is Rs. 71.02 per ton (with salary).

**Shale :** Shale occurs about 12 km further south of Lumshnong in the vicinity of Lad Umstain and Tongseng on the road to Silchar on NH 44 is presently being used as a silica and alumina corrective by the operating cement plants in the surrounding vicinity. The shale deposit from the proposed plant site of **GVIL** would be approximately 25 km. Shale is being procured from the local leaseholders. **GVIL** can also get into independent supply agreement with these local leaseholders for the supply of shale. The values of the various constituents analyzed for shale are as given in **Table 3.6.**

Component	Chemical Composition, %									
	LOI	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O	SO <sub>3</sub>	Cl
Shale	10.89	50.60	24.86	7.98	3.38	0.54	0.80	0.20	0.38	-

**Table 3.6: Chemical composition of shale**

The landed cost of shale from the presently operating source is likely to be Rs. 155 per ton.

**Mill Scale:** There being no source of natural iron ore in and around the proposed plant site, the mill scale being generated from the industrial areas of Assam and Meghalaya shall have to be relied upon to get the requirements of mill scale fulfilled. The source areas are located at an approximate distance of 220 km from the existing plant site. The chemical composition of the mill scale that is available from the source areas is given in **Table 3.7.**

Component	Chemical Composition, %									
	LOI	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O	SO <sub>3</sub>	Cl
Mill Scale	3.18	1.00	1.00	92.00	1.00	0.50	-	-	-	-

**Table 3.7: Chemical composition of mill scale**

The landed cost of the mill scale at the proposed plant is anticipated to be Rs. 1,550 per ton.

Use of these correctives has been considered in the raw mix calculations discussed ahead.

### 3.5 ADDITIVE

#### 3.5.1 GYPSUM

Natural gypsum is neither available locally nor within the surrounding Indian states and has to be procured from neighbouring Bhutan through vendors, the source being approximately 450 km away from the proposed plant site.

The approximate landed cost of gypsum, at the plant is **Rs. 2,500 per ton.**

#### 3.5.2 FLY ASH

There being no source of fly ash in the states of the north east, the nearest available source of fly ash is the existing thermal power plant located at Farakka in the state of West Bengal. Fly ash shall have to be procured from this thermal power plant. The distance between Farakka and the proposed plant site at Nongsning would approximately be 600 km. The chemical composition of fly ash available from this source is given in **Table 3.8:**

Component	Chemical Composition, %									
	LOI	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O	SO <sub>3</sub>	Cl
Fly Ash	0.67	63.59	22.96	4.99	-	0.28	-	0.103	0.27	-

**Table 3.8: Chemical composition of fly ash**

A 500 MW thermal power plant of NTPC is likely to come in Bongaigaon in Assam by the year 2009. **GVIPL** should explore the possibility of obtaining fly ash from this source in future.

The approximate landed cost of fly ash at the proposed plant site would be **Rs 1,600 per ton.**

### 3.6 FUEL

Use of Meghalaya coal as fuel has been considered for the proposed cement plant. Coal is being exploited by locals in the areas around Khlieriat and Sutanga, which are located at a distance of about 18 km and 28 km respectively from the proposed plant site. **GVIPL** shall have to source its coal requirements from the sellers in this area.

The proximate analysis of the Meghalaya coal is given in **Table 3.9.**

Properties	Unit	Value
Moisture ( Max.)	%	8-12
Volatile Matter	%	39.69
Ash	%	15.00
Fixed Carbon	%	45.01
Sulphur	%	4.50
NCV	Kcal/ Kg	6,000

**Table 3.9: Chemical composition of coal**

The ash composition of the coal proposed to be used in the plant is given in Table 3.10.

Component	Chemical Composition %								
	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	Na <sub>2</sub> O	K <sub>2</sub> O	SO <sub>3</sub>	Cl
Coal Ash	29.57	39.00	27.60	1.51	0.47	0.14	0.37	Traces	0.02

**Table 3.10: Chemical composition of coal ash**

The landed cost of coal at the proposed plant site is likely to be **Rs. 1,600 per ton.**

### 3.7 RAW MIX

In order to assess the suitability of the available limestone for manufacture of cement clinker and to quantify its use in conjunction with other correctives and fuel, theoretical raw mix exercises were carried out. The average chemical composition of limestone as arrived at by averaging the chemical data of the four surface samples was used along with the chemical data of shale and mill scale initially. With the use of these three components only, the clinker so formed was deficient in silica values, as a result of which the values of silica moduli were well below the desired range and hence an additional silica corrective in the form of sandstone was introduced in the raw mix. With the introduction of sandstone in the raw mix, the moduli values along with the values of the Bogues components fell within the desired range. The silica in the clinker also goes up to the desired level. The theoretical raw mix exercises have been carried out considering the locally available coal as fuel. The local coal has high values of calorific values but at the same time is also high in its sulfur content; however the raw mix exercise carried out using this coal does not indicate any adverse impact arising out of this coal.

The use of different raw mix components and their proportion use in the feasible solution is given in Table 3.11.

Raw material	Proportion Use %
Limestone	84.780
Shale	7.783
Sandstone	6.759
Mill Scale	0.679

**Table 3.11: Raw mix proportions**

The resultant clinker composition based on the above three component mix proportions is given in Annexure 3.1.

The percentage use of limestone and sandstone in the raw mix has been used for arriving at the raising cost calculations for limestone and sandstone.

### 3.8 MINING CONSIDERATIONS

On the basis of the topographic disposition, structure and mining geological considerations the deposit is best suited for opencast, fully mechanized method of mining.

### Task

The proposed 1300 tpd cement plant with the use of 84.78% of limestone shall require about 0.49 mio t of limestone per annum. The requirement of shale, sandstone and mill scale works out to 0.04 mio t, 0.04 mio t and 0.004 mio t per annum respectively. While the sandstone occurs above limestone it shall have to be removed prior to commencement of limestone mining. The shale and mill scale shall have to be sourced from the suppliers. It is proposed to produce limestone and sandstone departmentally and the working parameters for winning the limestone and sandstone shall be as follows:

Mine working days/a	-	300
Working shifts	-	1 shifts of 8 hours for mine operation and one shift of 8 hours maintenance.
Primary drilling	-	Size 110 mm diameter holes
Blasting	-	Conventional method (high explosive+ ANFO)
Loading	-	By hydraulic excavator
Transportation	-	By dumpers from mines face to crusher with one way lead of about 1.0 km
Mode of mining	-	The limestone is the basic raw material and to ensure its uninterrupted and economic supply a fully mechanized open cast captive mine is considered.

As discussed in para 3.2.1.6 above, limestone and sandstone occur in the form of a distinct bands of approximately 30 m and 10 m thickness each respectively. In the course of reconnaissance it was observed that the limestone thickness increases from north to south across the width of the deposit. The benches in limestone and sandstone shall have to be so designed so as to follow the base of each of the horizons. Thus, the bench height is likely to vary while mining each of the horizon and on an average the height is likely to be 10 m. The exact mining parameters can be established once the geological exploration over the deposit is accomplished. The limestone and sandstone requirement for the proposed cement plant as deciphered from the raw mix exercises were considered while estimating the overall material handling based on which the machinery requirement and the likely exploitation costs for both; limestone and sandstone estimated independently. The landed cost of limestone excluding depreciation on the equipment capital from the mining operations at present is estimated at **Rs. 107.81 per ton** (with salary) while that of sandstone works out to **Rs. 71.02 per ton** (with salary).

The breakdown of costs for limestone and sandstone raising under different heads is given in **Annexure 3.2** while the machineries required for mining limestone and sandstone and their costs are given in **Annexure 3.3**. The limestone and sandstone mining shall be carried out under one administrative setup. Based on the quantum of sandstone to be mined, an excavator with a bucket attachment of 1.8m<sup>3</sup> and a dumper of 10 T capacity in addition to those required for limestone mining has been considered for sandstone mining. The bulldozer, the drilling machine and ancillary equipments shall be common for both; limestone as well as sandstone mining.

GVIPL also proposes to enhance the plant capacity from the presently envisaged 1,300 tpd to 2,600 tpd in future. The additional machinery required for the enhanced capacity works out to 1 Excavator with 3.2 m<sup>3</sup> bucket and 5 dumpers of 20 T capacities each. This equipment can be purchased in a phased manner as and when the expansion takes place.

### 3.09 DEPOSIT LIFE

The requirement of various raw materials has been computed based on the production capacity of a 1,300 tpd cement plant. Considering the use of limestone to the extent of 84.78%, as per the feasible raw mix solution and with 10% moisture and handling losses, a 1000 tpd kiln running for 330 days per annum at a clinker conversion factor of 1.57 the requirement of limestone works out to approximately 0.49 mio. tpa. Assuming the mineable reserves of about **22.5 mio t**, the calculated life of the limestone deposit at the production capacity of 1300 tpd cement works out to about **45.91 or say 46 years** while that of sandstone with the available reserves of **0.92 mio t** and with the requirement of about 0.045 mio t per annum for a 1300 tpd capacity cement plant shall last for a period of **20 years only**, hence additional sandstone bearing areas shall have to be identified and procured under ML.

### 3.10 CONCLUSIONS

- Availability of limestone and sandstone has been indicated in the area being considered for basing the proposed 1300 tpd Greenfield cement project near Nongsning in Jaintia Hills District of Meghalaya. **GVIPL** should secure the area under Mining Lease for which necessary formalities should be initiated with the Government.
- An 'inferred category reserve' of **22.5 mio t** can be anticipated from the limestone deposit while the sandstone reserve works out to **0.92 mio t** within an area of 60 ha presently being conceived for mining.
- The limestone reserves are likely to last for a period of **46 years** for the envisaged capacity of 1000 tpd clinker while the sandstone reserves are likely to last for a period of **20 years only**. Additional sandstone bearing areas shall have to be acquired in order to sustain the proposed plant at the presently conceived capacity for a minimum period of 30 years. Additional limestone and sandstone areas shall also be needed for the regular supply of these materials at the enhanced capacity.
- The assessment of the reserves is based on the reconnoitry traverses undertaken in the area being considered for mining by **GVIPL**. Detailed geological investigation over the deposits is warranted in order to arrive at the exact commercial reserve potential of the area.
- Qualitatively the limestone deposit appears suitable for use in the cement manufacturing process as revealed by the chemical analysis carried out on four surface samples from the area. The average chemical composition of limestone as revealed by the analysis of these four surface samples is as follows:

Component	Chemical Composition, %									
	LOI	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O	SO <sub>3</sub>	Cl
Limestone	41.56	4.46	0.96	1.28	50.38	1.06	0.05	0.06	Tr	Tr

- Theoretical raw mix exercises were conducted using locally available coal as fuel and the exercises reveal production possibility of a good quality clinker with the available limestone in combination with shale, sandstone and mill scale.
- A fully mechanized opencast method of mining to be handled departmentally with due precautions towards thickness variations and qualitative variations shall have to be practiced for exploitation of limestone and sandstone. The exact mining parameters shall have to be finalized before commencement of mining operations.
- The likely capital cost for procuring the mining machineries shall be about **Rs. 8 crores**. The likely raising cost of limestone for a 1300 tpd cement plant excluding depreciation on equipments works out to **Rs. 107.81 per ton** (with salary) while the landed cost of sandstone is likely to be **Rs. 71.02 per ton** (with salary).
- The other correctives; shale and mill scale, additives; gypsum and fly ash and fuel shall have to be sourced from the individual suppliers. While shale is available at Lad Umstain about 12 km further south of Lumshnong, mill scale shall be available from Guwahati in Assam. Gypsum shall have to be sourced from Bhutan and fly ash from Farakka in West Bengal. Coal, which is considered, as fuel is also available locally at Khlieriat at a distance of about 20 km. A long-term agreement for supply of these materials shall have to be ensured with the respective suppliers.
- Perennial streams flowing within and around the proposed plant site are the only source of water in the area at present. Detailed hydrological investigations to ascertain the quality and yield of these streams and if required, the potential of ground water in the area should also be determined.

**ANNEXURES**

TEFR for a 1,300 tpd expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



## Raw Mix Design-GVIPL

Annexure : 3.1

Raw Material	Composition													
	LOI	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O	SO <sub>3</sub>	TiO <sub>2</sub>	Mn <sub>2</sub> O <sub>3</sub>	P <sub>2</sub> O <sub>5</sub>	Cr <sub>2</sub> O <sub>3</sub>	Cl
Limestone	41.56	4.46	0.96	1.28	50.38	1.06	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.00
Shale	10.89	50.60	24.86	7.98	3.38	0.54	0.80	0.20	0.38	0.00	0.00	0.00	0.00	0.00
Sandstone	2.12	91.50	2.00	0.36	2.75	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mill Scale	1.34	1.00	1.00	92.00	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Fuel	Composition															
	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	K <sub>2</sub> O	Na <sub>2</sub> O	TiO <sub>2</sub>	Mn <sub>2</sub> O <sub>3</sub>	P <sub>2</sub> O <sub>5</sub>	Cr <sub>2</sub> O <sub>3</sub>	Cl	SO <sub>3</sub>	Ash	Sulphur	NCV
Coal	29.57	39.00	27.60	1.51	0.47	0.37	0.14	0.00	0.00	0.00	0.00	0.02	Traces	15.00	4.50	6000

Specific Heat Consumption	780
---------------------------	-----

Clinker Parameter	C3S	C2S	C3A	C4AF	AM	SM	HM	LSF	PL	BI	MgO	Tot Alk	Cl	SO3
Upper Limit	60.00	30.00	14.00	15.00	1.50	2.50	0.00	1.00	30.00	-	-	-	-	-
Lower Limit	55.00	15.00	5.00	9.00	1.25	2.20	0.00	0.90	26.00	-	-	-	-	-

## Resultant Raw Mix Percentage

Components	Mix-1
Limestone	84.780
Shale	7.783
Sandstone	6.759
Mill Scale	0.679

## Clinker Quality

SiO <sub>2</sub> (%)	21.66
Al <sub>2</sub> O <sub>3</sub> (%)	5.09
Fe <sub>2</sub> O <sub>3</sub> (%)	4.07
CaO (%)	65.58
MgO(%)	1.49
K <sub>2</sub> O(%)	0.17
Na <sub>2</sub> O(%)	0.10
SO <sub>3</sub> (%)	1.41
TiO <sub>2</sub> (%)	0.00
Mn <sub>2</sub> O <sub>3</sub> (%)	0.00
P <sub>2</sub> O <sub>5</sub>	0.00
Cr <sub>2</sub> O <sub>3</sub>	0.00
Cl(%)	0.00
Na <sub>2</sub> O <sub>equiv</sub>	0.21
Free Lime	1.00

## Bogue Components

C <sub>3</sub> S	54.99
C <sub>2</sub> S	20.60
C <sub>3</sub> A	6.60
C <sub>4</sub> AF	12.40

## Modulii

AM	1.25
SM	2.36
HM	2.13
LSF	0.93

## Other Indices

Liquid at 1350°C(%)	27.37
BI	2.90
Heat of Formation	406.47
Grindability Index	0.70
Conversion Factor	1.57

## Annexure 3.2

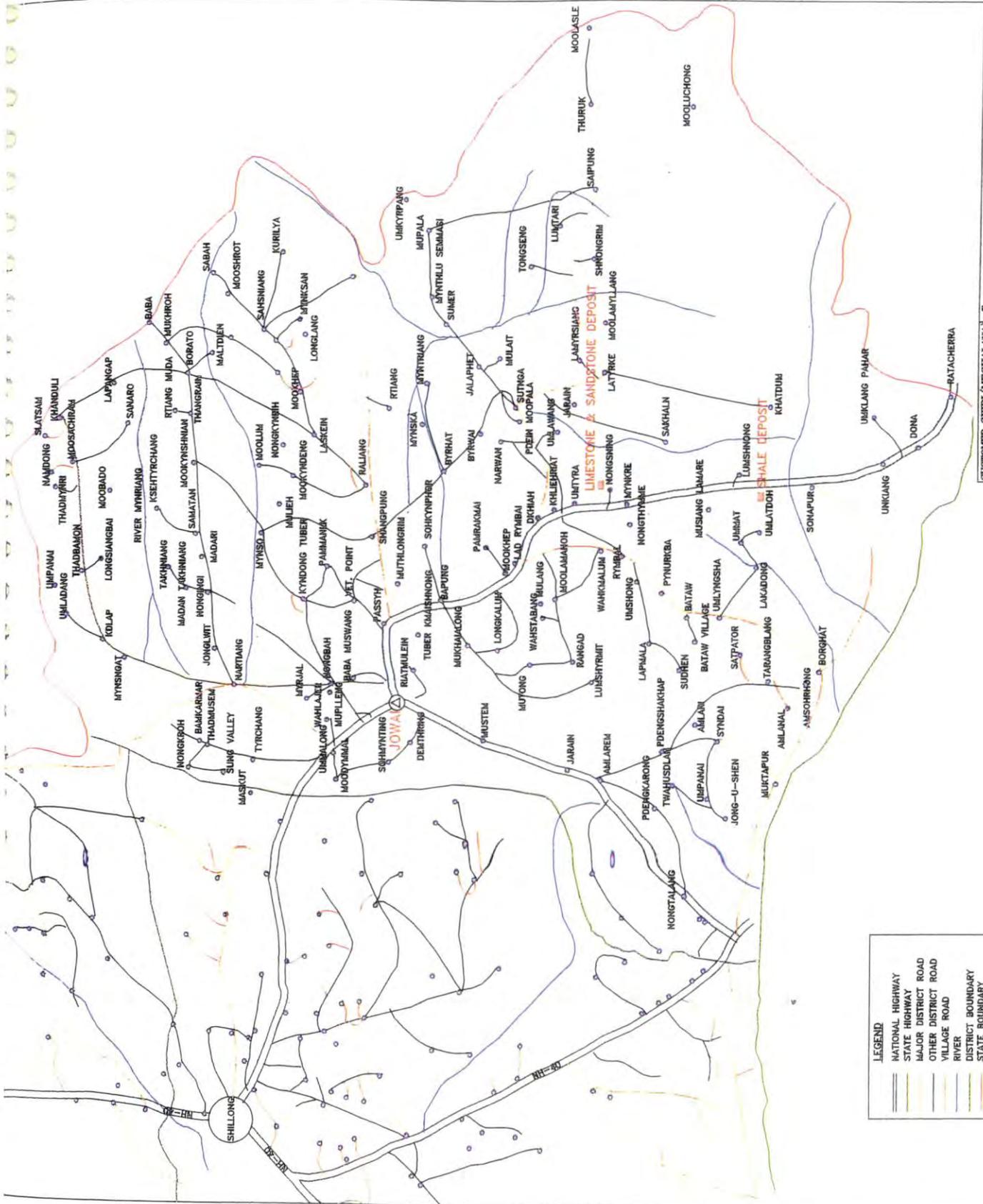
SN	Cost Head	Limestone Raising Cost	Sandstone Raising Cost
1	Repair and Maintenance cost	5.66	5.30
2	Fuel Cost	14.22	28.60
3	Lubricant Cost	5.83	13.60
4	Explosive Cost	1.65	1.77
5	Tyre cost	0.95	1.96
6	Salary and Wages	32.40	9.79
7	Environmental protection	1.11	***
8	Royalty + Cess	46.00	10
	<b>Overall cost per ton with royalty</b>	<b>107.81</b>	<b>71.02</b>
	<b>Over-all cost per tonne without royalty</b>	<b>61.81</b>	<b>61.02</b>

\*\*\* Common with Limestone Mining

## Annexure 3.3

EQUIPMENT	MAKE	CAPACITY	No.	UNIT PRICE	TOTAL COST Rs. Lakhs
				Rs. Lakhs	
<b>Mining Equipments</b>					
Hydraulic Excavator	Komatsu	3.2 m <sup>3</sup>	1	90	90
Hydraulic Excavator*	Komatsu	1.8 m <sup>3</sup>	1	65	65
Dump Trucks	TATA	20 t	4	20	80
Dump Truck*	TATA	10 t	2	15	30
Crawler mounted drills	Atlas Copco	110 mm dia	1	110	110
Bulldozer	BD-80	180 HP	2	45	90
Jack Hammer			1	8	8
<b>Service Equipments</b>					
Payloader	HM	3.2 m <sup>3</sup>	1	55	55
Mobile service van	Elgi		1	15	15
Water sprinkler	TATA	10 KLD	1	10	10
Explosive van	TATA	5 t	1	6	6
Garage equipments			1	25	25
Blasting equipments			1	0.10	0.10
Pool vehicles			2	6	12
F.O.R cost					596.10
Excise duty @ 16 % on F.O.R					95.376
Education Cess @ 3 % of Excise duty					2.86
Sales tax @ 4 % of (F.O.R cost + Excise duty + Education Cess)					27.77
Freight, Handling, Insurance, etc. @ 5 % of F.O. R.					29.805
Spare parts @ 5 % of F.O.R.					29.805
Total cost (in Rs. Lakhs)					781.720
<b>Total cost (in Rs. Crores)</b>					<b>7.82 or say 8.00</b>

\* Exclusively for sandstone mining



**LEGEND**

- NATIONAL HIGHWAY
- STATE HIGHWAY
- MAJOR DISTRICT ROAD
- OTHER DISTRICT ROAD
- VILLAGE ROAD
- RIVER
- DISTRICT BOUNDARY
- STATE BOUNDARY
- INTERNATIONAL BOUNDARY
- STATE CAPITAL
- DISTRICT HCS

CUSTOMER-GVPL/ME/GH/ALAYA  
**HOLTEC CONSULTING PRIVATE LIMITED**  
 PROJECT - 07127  
 LOCATION PLAN OF  
**THE NONGSHING**  
 LIMESTONE, SANDSTONE &  
 SHALE DEPOSIT  
 STATE OF ASSAM

DRN	CHECKD.	APPRD.	SCALE
VECT	KVK	KVK	NPR

DRG. NO. 07127-06-01  
 REV. 0

**CHAPTER - 4**  
**INFRASTRUCTURE AND SITE**

## CHAPTER 4: INFRASTRUCTURE AND SITE CONDITIONS

### 4.1 INTRODUCTION

This chapter covers aspects of plant location, requirements/ availability of infrastructure facilities such as land, power, water, fuel, transport, communication, socio economic environment and site conditions for the proposed integrated cement project in Nongsning village (Korhati), District Jaintia Hills, Meghalaya.

### 4.2 PLANT LOCATION

#### 4.2.1 LOCATION OF CRUSHING PLANT

Since the distance between quarries and the plant is more, it is recommended to install a crusher in the plant itself.

The limestone shall be transported by trucks from the limestone mines to the crusher at the plant site and from the crusher outlet to the respective stockpile in the plant site through belt conveyors.

#### 4.2.2 LOCATION OF MAIN PLANT

Following are the main criteria for locating a cement plant:

- The site should have optimum flat land/ slightly undulating area for plant and colony.
- Source of water exists in the vicinity of the proposed plant site.
- Availability of reliable power supply.
- Proximity to an established township, which would offer reasonable amenities to the plant employees.
- The choice of location will depend on that place, which will be able to deliver cement at the most economical rate, commensurate with the capital investment of the entire project.

From the above considerations, the land of village Nongsning village (Korhati), off Mynkre, district Jaintia Hills, Meghalaya has been, prima facie, considered suitable for locating the proposed cement project.

The co-ordinates of the proposed plant location are:

Latitude	:	N 25° 14' 30.2"
Longitude	:	E 92°23' 34"
Altitude	:	585 m to 695 m above MSL

The choice of the site is appropriate from the point of view of raw material availability and market access, as indicated in the respective chapters.

A map showing the proposed site location is given at **Annexure 4.1**.






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• Lumshnong	14 Km
• Khliehriat	23 Km
• Ladrim Bai	30 Km
• Jowai	52 Km
• Shillong	115 Km
• Guwahati	240 Km

#### Air

The nearest major airport is at Guwahati, which is located at a distance of 240 kms from proposed plant location. Other airports in this area are at Umroi, Shillong and Silchar at a distance of about 150 Kms and 120 kms respectively from the proposed plant site.

#### Rail

Badarpur is the nearest meter gauge (MG) railway station of N-E Frontier Railway at about 90 Km distance from the proposed plant site. Guwahati is the nearest broad gauge railway station from the proposed plant site at a distance of about 240 Km.

#### 4.3.4 COMMUNICATION

Communication facilities such as telephone, telefax and Internet are available in the vicinity of the proposed plant site.

#### 4.4 SOCIO ECONOMIC ENVIRONMENT

##### 4.4.1 HABITATION

Nearest habitation is in village Nongsning at about 1.5 Km from the proposed plant site. Mynkre village is located at about 4 km distance. The area is sparsely populated. All basic amenities such as school, hospital, market, etc. are available in the Khliehriat town, which is at about 23 Km from the proposed plant site.

##### 4.4.2 SOCIAL AMENITIES

A residential colony to provide suitable accommodation for about 90 personnel is required. The residential colony can be located in proximity to the plant. The colony should have other facilities like dispensary, shopping complex, guest house, etc.

All the basic facilities like, school, college, hospital, market, etc. is available in Khliehriat town.

#### 4.5 SITE CONDITIONS

##### 4.5.1 TOPOGRAPHY

The proposed plant site is located in an undulating terrain. Agriculture is being done on a part of the land where mainly orange plantation is grown. The level difference is in the range of about 5-10 m. Apart from the land gradient as specified, there are humps, which also requires leveling. A provision for

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site grading and leveling is kept in cost estimates.

#### 4.5.2 TEMPERATURE

The temperature varies from 6 to 30 °C.

#### 4.5.3 RELATIVE HUMIDITY (RH)

The mean daily maximum and minimum RH is about 86 % and 48 %, respectively.

#### 4.5.4 RAINFALL

The average annual rainfall is about 2415 mm.

#### 4.5.5 WIND

The basic wind velocity as per IS: 875-1987, Part III, 39.0 mps can be considered for designing the civil structures.

#### 4.5.6 SEISMOLOGY

The proposed plant comes under seismic zone – V as per IS 1893 Part I: 2002.

**ANNEXURES**

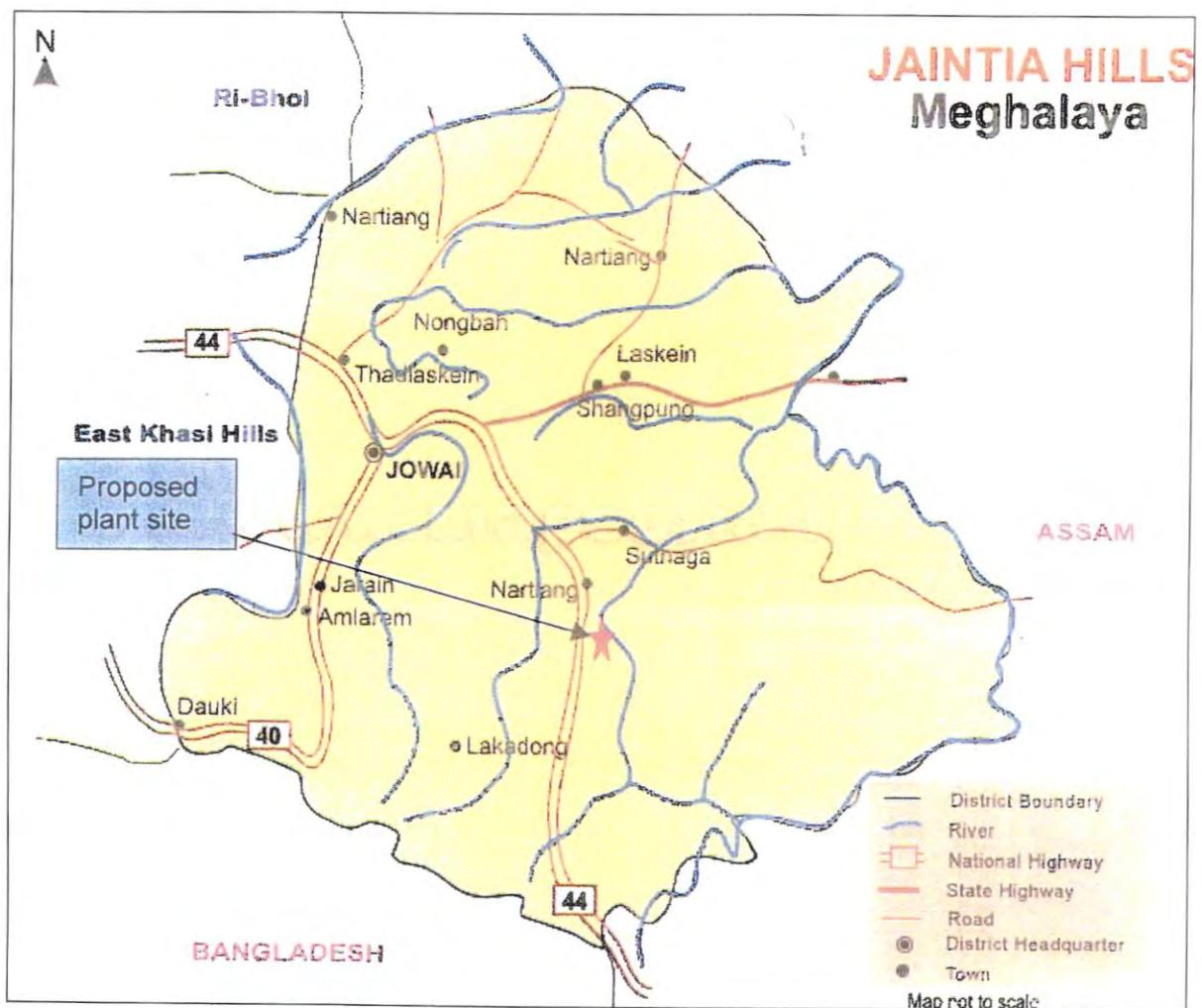
TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya,  
Green Valley Industries Private Limited



HOLTEC

Annexure 4.1

MAP SHOWING THE PROPOSED SITE LOCATION



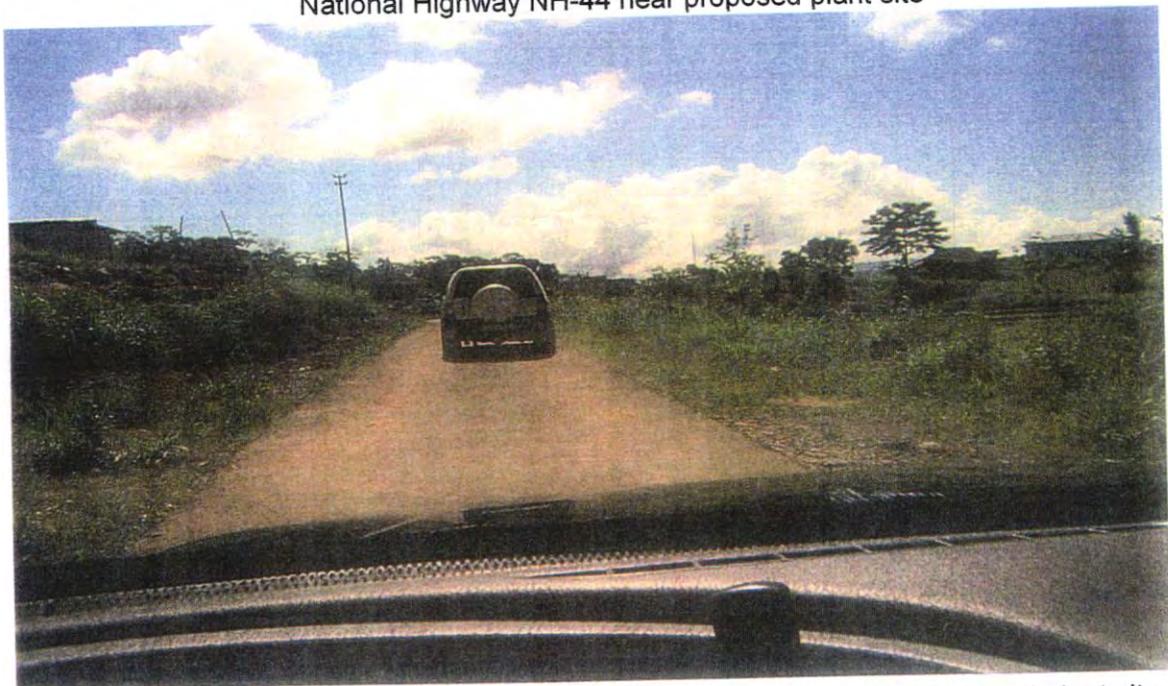
TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya,  
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Annexure 4.2

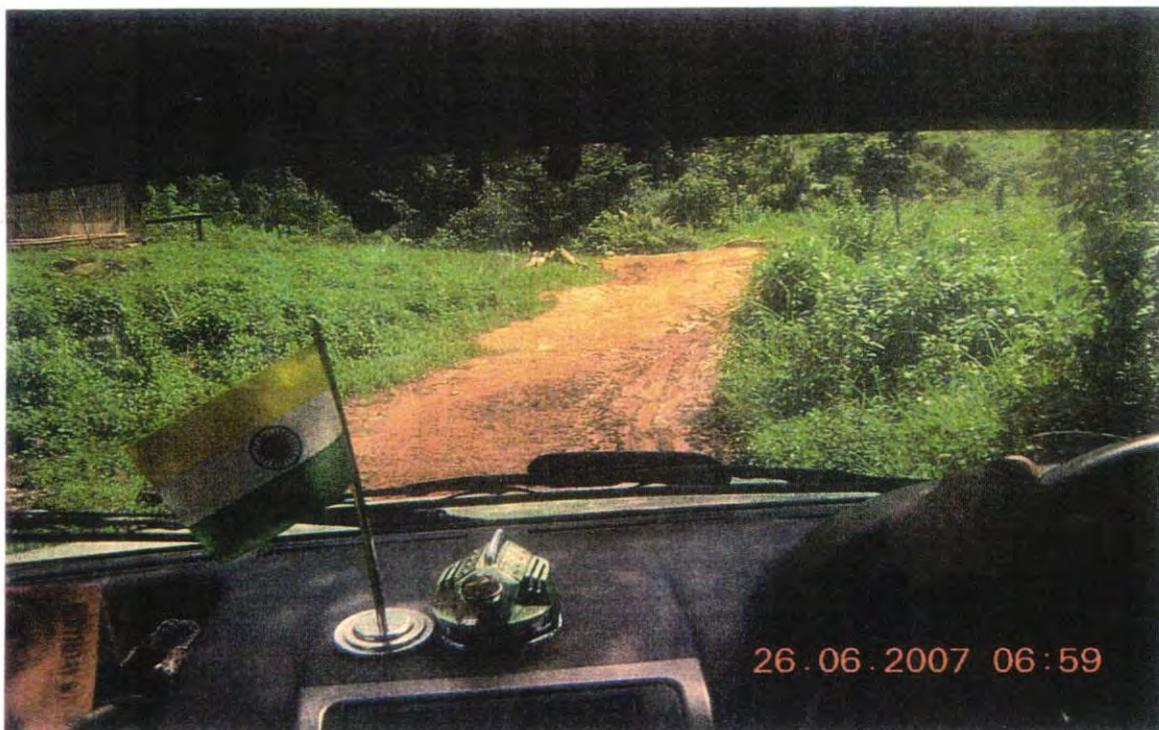


National Highway NH-44 near proposed plant site



Approach road emanating from NH-44 to village Nongsing and to proposed plant site

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Approach road to proposed plant site from village Nongsing



Perennial water stream flowing near proposed plant site

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View of a perennial water source



132 KV line passing nearby proposed plant site

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Green Valliey Industries Private Limited

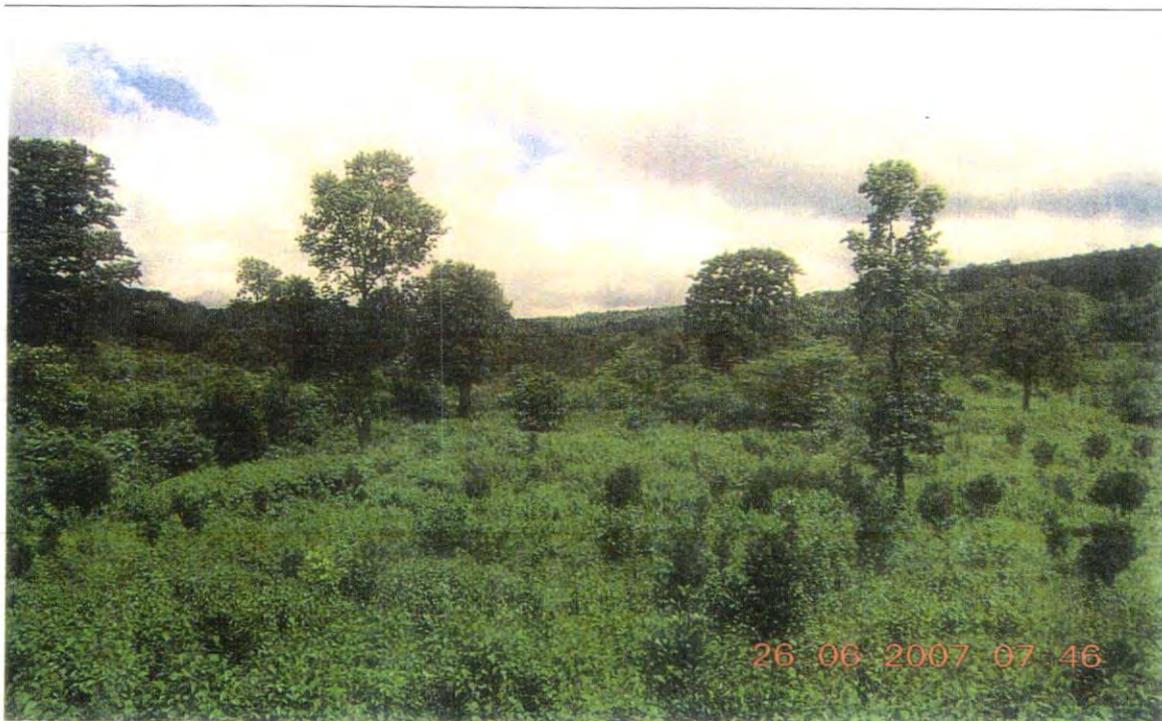


Approach road to proposed plant site and mines



A view of proposed plant site

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Green Valley Industries Private Limited



Another view of proposed plant site



View of a source of limestone near plant site

**CHAPTER – 5**  
**PLANT CAPACITY AND ENGINEERING**

## CHAPTER 5: PROJECT TECHNICAL CONCEPT

### 5.1 PLANT CAPACITY

A plant capacity of 1,300 tpd cement expandable to 2600 tpd cement has been considered for the purpose of the plant technical concept.

A single kiln & cooler has been considered. Crushing equipment, storages shall be designed with a consideration of expansion to 2,600 tpd capacity whereas other equipments such as mills, and packing section have been designed for 1,300 tpd cement. Plant shall be expanded to 2,600 tpd cement by installing a new preheater with in line calciner and mills for raw material, coal, cement grinding and a new packing plant.

A product mix of 40 % OPC and 60 % PPC has been considered in this report. However, OPC:PPC is indicative based upon the present market scenario and may change as per the future market demand. The cement production also may vary depending on the actual addition of gypsum and flyash.

The details of proposed product mix are as given below:

Sn	Product mix	Percentage, %
1	OPC	40
2	PPC	60

Sn	Component	Proportion, %	
		OPC	PPC
1	Clinker	95	65
2	Gypsum	5	5
3	Flyash	-	30

### 5.2 SIZING NORMS FOR MAIN MACHINERY AND STORAGE

- Kiln operating days: 330 dpa
- Operating hours per day and safety factors for plant and machinery given at **Table 5.1** are based upon the **HOLTEC** experience in similar capacity plants.

Sn	Department	Operating, hpd	Safety factor
1	Mines	10	1.10
2	Crusher(s)	10	1.10
3	Raw mill	21	1.10
4	Kiln	24	-
5	Coal mill	21	1.10

Sn	Department	Operating, hpd	Safety factor
6	Cement mill	21	1.15
7	Packer	15	1.25

**Table 5.1: Norms for operating hours and safety factors for plant & machinery**

Norms for storages for raw materials, intermediate products, additives and final products are as given below in **Table 5.2:**

Sn	Department	Storage, days
1	Limestone Preblending Stockpile	7
2	Corrective, Shale/ clay	7
3	Corrective, Mill scale	15
4	Corrective, Sand stone	7
5	Raw meal	2.5
6	Fuel	7
7	Clinker	7
8	Cement	4
9	Gypsum	15
10	Fly ash	7

**Table 5.2: Norms for storages**

The storages are designed with consideration of 1,300 tpd cement plant.

The provision of storages vary from plant to plant, depending upon the following:

- Lead distance of source from plant
- Ownership of source i.e. self or "bought out"
- Transportation route
- Cost of resource
- Operator's comfort.
- Inventory carrying cost

### 5.3 RAW MIX AND PLANT DESIGN

Based on preliminary investigations, the following "Raw mix designs" (Chapter 3) has been considered:

Limestone	:	84.78 %
Shale/ clay	:	7.78 %
Sand stone	:	6.759 %
Mill scale	:	0.679 %
<u>Fuel, coal</u>		<u>100 %</u>

The clinkerisation factor works out to 1.57.

The moisture content considered in limestone, correctives, additives and fuel for calculation of equipment capacities and material storages have been indicated in **Table 5.3** below:

Sn	Department	Moisture content, %
1	Limestone	7
2	Shale/ clay	10
3	Sand stone	6
4	Mill scale	5
5	Gypsum	3
6	Fly ash	Dry
7	Fuel, Meghalaya coal	8

**Table 5.3: Moisture content in raw materials and fuel**

### 5.4 PLANT SYSTEMS

#### 5.4.1 Crushing (Limestone)

The brief technical details of the proposed crushing system are as follows:

Limestone crusher	Type	: Primary & Secondary Hammer crusher
	Location	: In Plant
	Capacity	: 400 tph
	Feed Size	: ROM limestone maximum 1200 mm edge length
	Output Size	: The size distribution of crushed material will be controlled to achieve 90 % passing 40 mm sieve with the maximum product size as 50 mm. The secondary crusher installed just after the primary

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	crusher shall reduce the crushed limestone to achieve the product size of 90 % passing 15 mm.
Crusher Feed Hoppers	: A crusher feed hopper of mass flow design may be installed before the crusher. Material shall be unloaded by truck tippler into the feed hopper of the crusher.
Hoppers Extraction	: Heavy Duty Apron Feeders
Transportation to stockpile	: The crushed material from the crusher will be transported by a set of belt conveyors to the limestone stockpile (2 x 10,000 t) through a stacker of capacity 500 tph. From stockpile, the material shall be reclaimed through a reclaimer of capacity 250 tph and shall be transported to the limestone hoppers
Environmental Control	: Element controlled is fugitive dust from crusher and transfer points. Method of control adopted is with the help of bag filters.

#### 5.4.2 Crushing (Correctives -Shale/Sand stone)

The brief technical details of the proposed crushing system for correctives in the plant is as follows:

Crusher (For Correctives)	Type	: Single stage Hammer Crusher
	Location	: In the Plant
	Capacity	: 75 tph
	Feed Size	: 300X300X300 mm
	Output Size	: The size distribution of crushed material will be controlled to achieve 90 % passing 25 mm sieve with the maximum product size as 30 mm.
	Crusher Feed Hoppers	: Shale & sandstone shall be transported through dumpers to the plant site. Crusher feed hopper of mass flow design may be installed before the crusher. Since mill scale does not require crushing a separate dump hopper shall be provided near the corrective crusher area and trucks shall be unloaded with the help of truck tippler.

Hoppers : Heavy Duty Apron Feeders  
 Extraction

Environmental Control : Fugitive dust from crusher and transfer points will be controlled with the help of bag filters.

#### 5.4.3 Storages (Limestone and Correctives)

Storage requirement for limestone and correctives for a 1300 tpd cement plant works out to:

Material	Storage type	Storage capacity
Limestone	Covered linear stockpile	2 x 10,000
Shale/ Clay	Covered	1,000 t
Sand stone	Covered	800 t
Mill scale	Covered	175 t

Two nos. Chevron type, longitudinal stockpiles have been proposed for storages & homogenization of the crushed limestone. For limestone extraction, a bridge type reclaimer has been considered. The storage capacity for limestone and for each corrective excepting Mill Scale has been considered as 7 days.

While stacking of limestone will be done in one pile, material reclaiming will be done from the other. Reclaimed material shall be transported to the raw material hoppers in the raw mill department through a series of belt conveyors.

The crushed sandstone & shale and mill scale shall be stored in the covered storage yard. From the storage yard, all the correctives shall be fed into the hopper made on a series of belts through a pay loader to feed it to the dedicated raw mill hopper.

Environmental control measures include a totally covered mix storage area and installation of bag filter at raw mill feed bin.

#### Stacker

The capacity of stacker for limestone stockpile shall be of 500 tph.

#### Reclaimer

The required capacity of reclaimer for limestone stockpile shall be around 250 tph.

#### 5.4.4 Crushing (Additives)

The project envisages independent crushing system for additive.

The brief technical details of the proposed crushing system for gypsum in the plant are as follows:

Additive crusher	Type	: Ring granulator/ Impact crusher
	Location	: In Plant
	Capacity	: <b>15 tph</b>
	Feed Size	: 150 mm, maximum
	Output Size	: -25 mm
	Crusher Feed Hoppers	: Gypsum shall be received from Kothakpa, Bhutan by road to the plant site through trucks. A crusher feed hopper of mass flow design may be installed before the crusher. Gypsum received shall be unloaded by truck tippler and fed to the dump hopper of the gypsum crusher. The crushed gypsum will be stored in a covered gantry by belt conveyors.
	Hoppers Extraction	: Heavy Duty Apron Feeders
	Environmental Control	: Element controlled is fugitive dust from crusher and transfer points. Method of control adopted is with the help of bag filters.

#### 5.4.5 Additive Storage

Storage requirement for gypsum and flyash for a 1,300 tpd cement plant works out to:

<b>Material</b>	<b>Storage type</b>	<b>Storage capacity</b>
Gypsum	Covered	<b>1,000 t</b>
Fly ash	Shed	<b>1,700 t</b>

The crushed gypsum from crusher shall be stored in the covered storage yard with the help of a tipper conveyor. From the storage yard, crushed gypsum shall be fed into the hopper made on a series of belts through a pay loader to feed it to the cement mill hopper.

The crushed limestone shall be stored near gypsum storage area for feeding to limestone bin. The feeding of the limestone can be done through the dump hopper and belt conveyors used for gypsum.

## Fly ash

Fly ash for the cement plant would be brought from thermal power plant at Farakka, West Bengal, Kahalgaon and other DVC/ DPL stations. NTPC is also installing a 2x375 MW coal fired thermal power plant in Salakati near Bongaigaon, which is likely to be operational in next 3 years. The fly ash from this source may also be tapped in future. The fly ash is generally available at about 2,200 – 2,500 Blaine.

It is foreseen that fly ash will be transported to the plant from source in HDPE bags through trucks and stored in covered shed. Flyash from these bags shall be transported to flyash bin (steel make of capacity 50 t) in the cement mill section through a belt conveyer.

### 5.4.6 Raw Material Drying and Grinding

For raw material grinding, a CCBM of 90 tph is envisaged in the first phase. An identical raw mill shall be installed for expansion to 2,600 tpd.

The brief technical details of the raw mill drying & grinding system are as follows:

- |                    |   |  |
|--------------------|---|--|
| Raw Mill Bin(s)    | : | For mill feeding, 4 nos. RCC hoppers of mass flow design (three of capacity 50 t each for mill scale, sand stone & shale/clay, respectively and one of capacity 100 t for limestone) shall be installed.   |
| Raw Mill Feeding   | : | Material from the respective raw materials hoppers shall be fed into the mill through the weigh feeders provided beneath the each hopper.  |
| Drying             | : | Hot gases from the kiln shall be used for drying of raw materials in the raw mill. For a situation, when kiln stops but the CCBM has to be operated, a hot air generator (HAG) may be provided.  |
| Mill system        | : | Mill vent gas shall be dedusted in twin cyclones. Exit gas from cyclones shall be transported to the bag house through raw mill fan. Gas from the raw mill fan along with the gases from PH fan exit shall be dedusted in the bag house.   |
|                    |   | Gas from the auxiliary equipment will be dedusted in the bag filter. From bag filter exit, the gas will be transported to raw mill bag filter fan and vented out.  |
| Product collection | : | Material collected at the bottom of the cyclones and bag filter shall be transported to the raw meal storage silo through a set of screw conveyors, bucket elevators and air slides. Material collected from the bag house bottom shall be transported to the kiln feed bin when kiln operates in direct mode. |

Mill dedusting : The main bag house common for pyro section will do dedusting of raw mill gases after mill cyclones. Bag house will be designed to meet the requirements of prevalent environmental norms.

#### 5.4.7 Raw Meal Blending and Kiln Feed

Blending will be performed to minimise the variations in chemistry of raw meal. For homogenisation of the raw meal, it is recommended to provide a continuous, controlled flow type-blending silo with design blending ratio as minimum 7. The proposed capacity of the raw meal silo will be **4,000 t**. Provision will be made for the recirculation of material from silo discharge to silo feeding.

A kiln feed system, comprising of a steel bin shall be installed beneath the blending silo. The system shall use gravimetric feed control by solid flow meters. A system having Bucket elevators and air slides has been considered for feeding the material to preheater (PH).

For the expansion of plant to 2,600 tpd, similar capacity silo and the kiln feed system shall be installed.

#### 5.4.8 Crushing and Storage Of Fuel

It is proposed to use 100 % Meghalaya coal as a fuel. The typical properties of the fuels are as follows:

##### Meghalaya coal

Sn	Property	Unit	Value
1	Moisture	%	8-12
2	Ash	%	15
3	Sulphur	%	4.5
4	Volatile matter	%	39.69
5	Fixed carbon	%	45.01
6	NCV	Kcal/ kg fuel	6,000



The brief technical details of the proposed crushing and storages of coal are as follows:

<b>Coal crusher</b>	Type	: Roll crusher
	Location	: In Plant
	Capacity	: <b>30 tph</b> , Considering total production capacity of <u>2,600 tpd</u>
	Feed Size	: 150 mm, max.
	Output Size	: - 25 mm
	Crusher feed hoppers	: Coal shall be received from Sutanga, Bapung and Suruphi coalfields, which are at a distance of 5 – 50 Km from the proposed plant site. Coal shall be transported by trucks to the plant site. A crusher feed hopper of mass flow design may be installed before crusher. Coal received will be unloaded by truck tippler into feed hopper of coal crusher at proposed plant.
	Hoppers Extraction	: Heavy Duty Apron Feeders
	Environmental Control	: Element controlled is fugitive dust from crusher and transfer points. Method of control adopted is with the help of bag filters.

Storage requirement for coal for a 1,300 tpd cement plant works out to:

Material	Storage type	Storage capacity
Coal	Covered	1,000 t

The crushed coal from crusher shall be stored in the covered storage yard with the help of a tipper conveyor. From the storage yard, crushed coal shall be fed into the hopper made on a series of belts through a pay loader to feed it to the coal mill hopper.

#### 5.4.9 Coal Drying and Grinding

It is recommended to install a CCBM of 8 tph in the first phase for coal grinding. An identical coal mill shall be installed for expansion to 2,600 tpd cement.

The brief technical details of the coal mill drying & grinding system are as follows:

- Coal mill hopper : For mill feeding, 1 No. RCC hopper of mass flow design of capacity 50 t shall be installed.
- Coal mill feeding : Material from the raw coal hopper shall be fed into the coal mill through weigh feeder beneath the hopper.
- Drying : Hot gases from the PH exit shall be used through a booster fan after dedusting it in a cyclone for drying of coal in the coal mill. For a situation, when the kiln stops but the CCBM has to be operated, hot gas from the HAG may be used. Fine coal moisture has been envisaged as 1 %.
- Mill system : Mill vent gas shall be transported to the coal mill bag filter. Fine coal product collected at the bottom of the bag filter shall be transported to the respective fuel bins through screw conveyors.
- Gas from the auxiliary equipment will be dedusted in the bag filter. From bag filter exit, the gas will be transported to coal mill bag filter fan and vented out.
- Product collection : Material collected at the bottom of the fuel bin shall be transported by the dedicated F.K. Pump for the kiln. A stand by F.K. Pump will be provided.
- Mill dedusting : A bag filter will be used. Bag filter will be designed to meet the requirements of prevalent environmental norms.

#### 5.4.10 Fuel Firing

The fuel firing equipment shall comprise of:

- One complete combined multi fuel firing system for rotary kiln burner
- Future provision shall be kept for one complete fuel firing system for PC burner

The firing system shall include required oil pumps, filters, pipes, valves, safety instruments, primary air fans, etc.

#### 5.4.11 Pyro Processing Section

##### Kiln, PH & PC

A dry-process kiln installation has been envisaged. The PH may have 4, or 5 stage cyclones. With higher number of cyclone stages in the PH, the specific heat consumption and the PH exit gas temperature would be lower. On the other hand, the total pressure drop across the PH and hence, the specific power consumption of the PH fan increases with increasing the number of PH

stages. It has been recommended to install a single string, 5 stages PH having new generation, high efficiency cyclones with low-pressure drop. Presently 100 % fuel shall be fired in kiln. In future, for expansion to 2,600 tpd, a separate string with calciner shall be installed. In this event 40 % fuel shall be fired in the kiln and the balance 60 % fuel shall be fired in the PC.

The kiln feed material from storage silo shall be introduced into the PH by means of a system having bucket elevator and air slides. For the PH string, a high efficiency, suitably designed PH fan will be installed for handling the gas from PH exit.

Provision shall be made to feed material at 4<sup>th</sup> stage, if the requirement of hot gases increases.

#### **Kiln burner**

A modern multi channel, multi fuel type burner with low primary air consumption shall be installed for fuel firing in the kiln. Kiln burner will be suitable for using multiple fuels.

#### **Clinker cooler**

A new generation, high heat recuperation efficiency (minimum 75 %) clinker cooler shall be installed. A cooler ESP and a cooler ESP fan shall be installed for dedusting and venting of the cooler exhaust gas. For a situation when the cooler exit gas temperature exceeds a certain value of say 300 °C, the provision will be made for gas cooling by water spray in duct between cooler exit and cooler ESP. The clinker shall be cooled to a temperature of 65°C + ambient. Initially, the cooler grate shall have some dummy plates, which shall be replaced for the expansion of plant to 2,600 tpd.

#### **Specific heat consumption**

For the suitably designed five stage pyro processing system with PC, the specific heat consumption is generally specified within 730 - 750 Kcal/ kg clinker. However, for 5 stage preheater system the value ranges between 760-780 Kcal/Kg.

As is specified, the specific heat consumption is higher in suspension preheater system and for this reason, the expected average heat consumption will be more than this value. Further reasons for higher specific heat consumption than the specified range are the high moisture in raw material, operational abnormalities like variations in the quality of kiln feed material and fuel, variations in feed rate, sudden dislodging of coating, start-stop of the system, etc.

The average specific heat consumption is expected to be about 780 Kcal/ kg clinker, which is the value, considered in this report.

#### **Clinker transport & storage**

Clinker from the clinker cooler discharge shall be transported by deep pan conveyor (DPC) to the covered clinker stockpile of capacity **14,000 t**. The clinker storage has been considered for the plant capacity of 2,600 tpd.

Deep Pan conveyors will be sized with a capacity of 125 tph.

For transport of clinker from clinker storage to cement mill bin(s), pan conveyors have been considered. It has been observed that quite often-fresh clinker needs to be ground, in which case, belt conveyor failures may happen. Installation of pan conveyors for this duty application can eliminate this problem.

#### 5.4.12 Cement Grinding System

For cement grinding, it has been recommended to install the CCBM of 70 tph capacity in the first phase. An identical cement mill shall be installed in the second phase when the plant is expanded to 2,600 tpd.

The brief technical details of the cement grinding system are as follows:

- Cement Mill Bin(s) : For mill feeding, 4 nos. RCC hoppers of mass flow design (Three of capacity 50 t for additive i.e. limestone, gypsum & fly ash and one of capacity 100 t for clinker).
- Cement Mill Feeding : Material from the respective material's hoppers shall be fed into the cement mill through the weigh feeders provided beneath the each hopper.
- Controlled/ measured quantities of fly ash will be drawn from flyash bin through dozing valve and solid flow meter and rotary air lock shall be fed to mill discharge bucket elevator through a set of air slides.
- Mill system : The mill circuit shall be equipped with a new generation, high efficiency separator. The material collection will be done in cyclones and air will be vented through a suitably sized bag filter and fan.
- Dust laden air from the cement mill outlet will be dedusted in the bag filter and vented to the atmosphere through the bag filter fan.
- Product collection : Material collected in the cyclone and bag filter will be transported to the cement storage silo with the help of bucket elevator and air slides.
- Environmental Control : Element controlled is fugitive dust from crusher and transfer points. Method of control adopted is with the help of bag filters.

#### 5.4.13 Cement Storage

Cement storage capacity 1 x 6,000 = 6,000 t

One nos. multi compartment RCC silo of capacity 6,000 t, shall be constructed for storing OPC/ PPC.

From the silos, cement shall be transported to the packer with the help of a set of air slides and bucket elevators.

One more additional silo of 6000 t shall be installed when the plant is expanded to 2,600 tpd.

#### 5.4.14 Cement Dispatch

The capacity of packing system shall be as shown below:

Packer capacity 120 tph

Requirement of packing depends upon the market requirements i.e. extent of bulk and bagged cement sales. However, the packing capacity is designed considering 100 % cement dispatch in bags.

For cement packing, one no., eight spouts, electronic packing machines of capacity 120 tph shall be installed at the proposed plant.

2 truck loaders shall be provided for loading bags onto trucks. From the packer outlet up to loading of the packed bags into the trucks, suitable system with flat belts and diverters has been considered.

One more packing machine of similar capacity shall be installed when the plant is expanded to 2,600 tpd.

#### 5.4.15 Equipment and Storage Capacities

The capacities of the major equipment and storages has been worked out for various departments and enclosed as **Annexure 5.1** and Mass flow diagram for the proposed plant is given in **Annexure 5.3**.

### 5.5 PLANT LAYOUT AND FLOW SHEETS

Based on the technical concept for a new cement plant, the plant layout and process flow sheets are enclosed:

Plant layout : Drawing no. 07127-03-01

Flow sheets : Drawing no. 07127-03-02 to 07127-03-10

## 5.6 QUALITY CONTROL

The quality control department at the proposed plant shall have the following facilities:

### 5.6.1 FOR CHEMICAL ANALYSIS

#### Table Top X-ray fluorescence (XRF)

Table top type X-ray fluorescence can be used for proportioning & control of raw mix preparation. Generally, 5-13 elemental oxides can be analysed.

**Conventional, Chemical analysis equipment.**

### 5.6.2 For Physical Analysis

Facilities for testing the physical properties like sieve analysis, setting time, soundness, fineness, CCS, grindability, moisture content, lime reactivity & drying shrinkage, etc.

### 5.6.3 Quality Control Plan

To produce good quality cement, it is imperative that sampling & testing of various raw materials, fuels, in-process materials and the final product is carried out regularly at the required intervals for taking corrective action timely.

To ensure consistent product quality and to permit the trouble free and cost effective operation, the quality control plan for sampling & testing of various raw materials, in-process materials and the final product is suggested and is given in **Annexure 5.2**.

While proposing the methods and procedures for quality control, the following aspects have been taken into account:

- Requirements and norms, particularly in cement testing.
- Corrective measures to be undertaken as quickly as possible in the process operation.
- Desired degree of automation.
- Available raw materials and process equipment.

The three main areas of quality control have been envisaged:

Facilities and equipment envisaged for quality control of the raw materials and final products for the proposed plant are as follows:

Raw mix preparation	-	Raw material control in quarry
	-	Raw material control before pre-blending

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	-	Raw meal control after raw mill
Pyro-processing	-	Kiln feed
	-	Fuel
	-	Clinker
Cement	-	Before cement mill
	-	After cement mill

#### 5.6.4 Laboratory

Laboratory will be accommodated in the Central Control Room (CCR) building. The laboratory shall have the provision of chemical and physical testing facilities for raw materials, clinker, gypsum, fly ash and cement.

### 5.7 UTILITY SYSTEMS

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#### 5.7.1 Power System

This has been dealt with in detail in para 5.9, Electrical Engineering.

#### 5.7.2 Water Supply

The water requirement for plant and colony has been estimated as about 700 m<sup>3</sup>/day. Water in the plant is required for equipment cooling, drinking, sanitation, horticulture, etc. Water demand can be met from perennial water sources that exists in the vicinity of the plant. A suitably designed water treatment and chlorination plant shall be installed. Water shall be stored in an underground tank for plant and overhead (OH) tank for drinking purpose. For plant equipment, water shall be recirculated after cooling to avoid any wastage and only losses shall be made up from fresh water.

#### 5.7.3 Compressed Air Supply

Centralised compressor and blower room have been envisaged for the sake of overall economy, effectiveness and ease of operation and maintenance. The compressed air is required mainly for dust collection equipment and operation of pneumatic valves. Blowers will be used for aeration of silos.

Two nos. centralised compressor rooms are proposed, one for the clinkerisation section and the other for cement grinding, storage and packing section. Blowers may be suitably accommodated under buildings/ silos near points of utility.

#### 5.7.4 Central Control Room (CCR)

A new CCR building is envisaged to be constructed. Operation of the raw mill, pyro processing section and cement mill will be carried out from this control room.

### 5.7.5 Fire Fighting System

A complete fire fighting system shall be provided comprising of:

- A suitable high-pressure system of fire hydrants consisting of suitable number of fire hydrants.
- A complete separate fire fighting water piping network for feeding the hydrants.
- Heavy-duty ABC powder type fire extinguishers shall be hung at particularly important electrical equipment areas.
- Portable CO<sub>2</sub> extinguishers shall be provided throughout the plant.
- Automatic fire extinguishing system-using water shall be considered for empty bags store in the packing plant.

### 5.7.6 Auxiliary Infrastructural Facilities

#### Workshop

A mechanical and an electrical workshop are envisaged to take care of the regular maintenance/ repair jobs in the plant. Workshop shall have the provision for essential machines like general purpose lathe, milling machine, radial drilling machine, shaper, grinding machine and cutting & welding machine/ tools.

#### Machinery stores

A store building needs to be constructed for storing tools, spare parts, consumables, etc. Open area to be earmarked for storing machinery and construction materials for the proposed plant.

#### Cranes, Monorails and Pulley blocks

Adequate sized maintenance cranes/ hoists, monorails and pulley blocks to be provided at all suitable locations at the plant for ease of maintenance and operation.

#### Technical & Administrative office

A suitable technical office & administrative office shall be constructed for the project activities and operation phase.

#### Time and Security office

At the entrance of the main plant, a time office and a security office shall be constructed.

#### First aid

A small first aid centre shall be provided in the plant premises.

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### **Weighbridge**

Two nos. electronic weighbridges are envisaged to take care of the incoming and outgoing materials at the plant. These may be located near the main entrance of the plant.

### **Bags godown**

Space shall be provided in the packing plant department for the storage of bags.

### **Parking**

Adequate parking space shall be provided in the plant premises for the parking of the vehicles.

### **Colony & social amenities**

A residential colony to provide suitable accommodation for about 90 personnel is envisaged initially. However, a lumpsum figure has been considered for a few social amenities (First aid room, Rest house, Vendor shops) in the project cost.

Accommodation facilities for other essential staff may be provided at Khliehriat town.

## **5.7.7 Environment**

### **Plant landscape and green belt**

Due care has to be taken to keep-up the natural settings/ greenery in and around the mines, plant and colony. For the purpose of landscaping, it is intended to provide a green belt with trees and bushes wherever possible and practical at the new cement plant.

### **Pollution control equipment**

As described in this Chapter, the installation of following pollution control equipment are foreseen:

- Bag house for raw mill and PH exit gases
- Cooler ESP for cooler vent gases
- Bag Filter for Coal mill.
- Cement mill bag house
- Bag filters for dedusting of storages and auxiliaries in different departments

### **Pollution monitoring equipment**

- On line Gas analyser for O<sub>2</sub>, CO emission at Kiln inlet, and PH outlet

Various control measures adopted in the design of the proposed cement plant are as follows:

Units/Process	Environmental Control Measures
Crusher (For Limestone)	Fugitive dust from crusher and transfer points will be controlled with the help of bag filters.
Crusher (For Correctives)	Fugitive dust from crusher and transfer points will be controlled with the help of bag filters.
Storages (Limestone, Correctives & Additives)	Environmental control measures include installation of bag filters at raw mills and cement mills feed bin.
Raw Mill Drying & Grinding System	The main bag house common for Pyro section will do dedusting of raw mill gases after mill cyclones. Bag house will be designed to meet the requirements of prevalent environmental norms.
Coal crusher	Fugitive dust from crusher and transfer points will be controlled with the help of bag filters.
Coal Storage	A covered storage has been proposed for storages and homogenization of the crushed coal. The storage capacity for coal has been considered as equivalent to 7 days consumption. A water spray system is envisaged to prevent the dust nuisance.
Coal Drying and Grinding	A bag filter will be used for dedusting of gases. Bag filter will be designed to meet the requirements of prevalent environmental norms.
Clinker Cooler	A new generation, high heat recuperation efficiency (minimum 75 %) clinker cooler shall be installed. A cooler ESP and a cooler ESP fan shall be installed for dedusting and venting of the cooler exhaust gas. For a situation when the cooler exit gas temperature exceeds a certain value of say 300 °C, the provision will be made for gas cooling by water spray in duct between cooler exit and cooler ESP. The clinker shall be cooled to a temperature of 65°C + ambient.
Cement Grinding System	The solution envisaged for dedusting of cement mill gases is with a bag house. Bag house will be designed to meet the requirements of prevalent environmental norms.

#### Rain Water Harvesting

**GVIPL** shall practice rainwater harvesting at priority level. The plant shall have the required network of pipes to collect the rainwater from the plant building area. The collected rainwater will be diverted to the proposed rainwater harvesting pits for recharging the ground water.

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## 5.8 CIVIL ENGINEERING CONSIDERATIONS

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### 5.8.1 Introduction

This section covers the site condition and design criteria considered for designing the various plant structures.

### 5.8.2 Site condition and design criteria

#### Topography

The Plant largely falls at the moderately flatter foothills of a mountainous terrain with minor undulations. A lump sum figure towards general grading and leveling and removal of trees, etc. has been considered in the cost estimate.

#### Corrosion

There is no evidence of a harsh corrosive environment in the region. The possibility of chemical attack by soil on foundation concrete has also not been envisaged for the time being in the Civil cost estimates. However, presence of corrosive element if identified during detailed soil investigations shall be taken care of during the detailed Engineering.

#### Subsurface Condition

Based on the collected information and details indicated/furnished by Client's representatives of the proposed plant site during the site visit, it is expected that reasonably dense to hard strata shall be encountered at shallow to moderate depths below the average ground level. However, the exact spectrum of the sub-surface shall be known only upon conducting the detailed soil investigation studies.

For the purpose of cost estimates, a safe bearing capacity (SBC) of the order of 50 t/m<sup>2</sup> has been assumed. Foundations shall be provided at least 1.5 m below ground level on well-prepared hard soil/ disintegrated rock type sub-surface. The type of foundations shall depend upon the loading intensity configuration of the loading points at foundation level. Depending upon the loading intensity, isolated/ combined/ strap/ raft foundations shall be considered.

Piling has not been considered at this stage for any of the structure. However, detailed soil investigation of the Plant site shall have to be carried out to ascertain the soil's actual safe bearing capacity. In case it is ascertained after detailed soil investigations that piling is unavoidable, the Civil cost may increase to the extent of 10-15 % depending upon numbers, dimensions and type of the piles required.

#### Ground Water

Ground water table of the area is expected to be encountered at moderate to shallower depths of the order of 12-15 m below the average ground level in the rainy season. The water table generally dips further in the rest of the seasons. As such, no special precautions for waterproofing

of under ground basement, tunnels, pits, etc. have been envisaged in the costing at present. However, the actual depth of ground water table should be determined during detailed hydrological studies of the plant site to determine various design parameters.

The quality and quantity of the ground water shall also be determined while hydrological study.

### Seismicity

The proposed plant-site area falls in Seismic Zone V for which the zone factor is 0.36 [as per IS 1893 (Part I): 2002]. This aspect shall be duly considered and taken care of while designing the structures.

### Plant Structures

The Civil design and construction of structures in the Plant have to meet the load data conditions and functional requirement as stipulated by the main machinery supplier. As a matter of practice all buildings are envisaged to be designed primarily in RCC with suitable brick wall/ CGI sheet roofing and/or cladding, as required. Structural steel usage mainly shall be limited to sheds, conveyor galleries, duct supports and working platforms or where flexibility of stage-wise constructions are involved. Structural steel construction may also be recommended towards speedy execution of a particular structure or wherever modification of certain buildings is involved after it has been constructed.

#### 5.8.3 Design Criteria

Following design criterion need to be adopted for the project:

#### Excavation

Excavation levels shall be requirement specific as per design and should have additional adequate working space for construction purpose. Mechanised means shall be employed for most of the excavation purposes barring excavation towards final level-dressing of the foundations, or small footings, or any other requirement-specific condition, etc.

Any excavation, if inadvertently is carried out below the required design level(s) under any circumstances, shall be filled and made good with plain cement concrete fill.

#### Backfilling

Excavation products of soil can be used directly for back filling after objectionable material are removed from therein. Back filling material should be free of like bigger sized boulders, organic materials, clay, any kind of constructional or non-constructional debris, and other objectionable inorganic matter, etc.

Back filling should be done in layers of not more than maximum 300 mm and each layer should be well watered and compacted by mechanized and manual means.

The boundary of any compacted back-fill material shall extend at least 1.00 m (0.50 m from each side) beyond the foundation footprint.

### Foundation

Isolated, combined or raft footings of shallow-to-moderate depth are envisaged depending upon the type and load of Plant and Non-plant structures. The structures shall be framed (tied) with rigid RCC tie beams to connect isolated footings.

The dimensions of isolated footings should at least be 300 mm more than that of RCC column cross-sectional dimensions from all sides. The minimum size of RC Footing shall be 1,000 mm and the thickness should not be less than either 400 mm or the minimum acting column dimension.

Basement or tunnels walls must be designed with reinforced concrete and flexible joints to be provided in the tunnel footing connections.

The reinforced concrete skeleton buildings shall have plain cement concrete floors over well-compacted sub-base for ground floors and shall generally be 150 mm thick. The floor at higher levels shall either be of RCC or structural steel depending upon the design criteria and other work progress related factors.

### Standards

Indian Standards shall be used for all design and detailing work unless otherwise specified.

### Conclusion

From preliminary investigations it is observed that sub-surface conditions are normal and no special precautions are required. For cost optimization purposes- tunnels, isolated footings can be considered to benefit from reduced overall height of structures especially the heavy structures such as silos, etc.

#### 5.8.4 Civil Cost Estimates

Based on the Plant technical concept and the available data of the site, the civil cost estimates have been worked out.

The basic civil engineering item and material rates for plant structures assumed for costing purpose are as given below:

Sl	Item of work	Unit	Unit rate (Rs)
1	Excavation	m <sup>3</sup>	350
2	PCC 1:4:8	m <sup>3</sup>	2,450
3	RCC M20	m <sup>3</sup>	3,260

Sn	Item of work	Unit	Unit rate (Rs)
4	RCC M25	m <sup>3</sup>	3,700
5	RCC M30	m <sup>3</sup>	4,250
6	RCC M35	m <sup>3</sup>	4,850
7	Form work Plain	m <sup>2</sup>	250
8	Slip form Work	m <sup>2</sup>	450
9	Reinforcement Steel	t	34,500
10	Structural Steel	t	48,000
11	Pre stressing strands	t	1,28,000
12	CGI Sheeting	m <sup>2</sup>	675
13	Brick Masonry	m <sup>3</sup>	2,450
14	Stone Masonry	m <sup>3</sup>	2,200

The item rates mentioned above are the average rate of work and are inclusive of the material cost. The average basic material rates considered are as given below:

Sn	Item of work	Unit rate (Rs/ t)
1	Cement	4,500
2	Reinforcement steel	28,900
3	Structural steel	32,750

## 5.9 ELECTRICAL ENGINEERING

### 5.9.1 Power Requirement And Source

The power requirement for the plant at 1300 tpd cement has been estimated as 6 MW. The power requirement will be met by sourcing power from the 132 kV grid substation of Meghalaya State Electricity Board (M<sub>E</sub>SEB) at Lumshnong town, through a single circuit line. The substation is at an aerial distance of about 8 Km.

## 5.9.2 Power Distribution

### Medium Voltage (6.6kV) Distribution System

The power distribution for the plant shall be as shown in the enclosed **Drawing No. 07127-E1-03-01**. The Medium Voltage distribution and utilization shall be at 6.6 KV level in line with the generation voltage to standardize and minimize the electrical equipment. The power from the Main Sub Station shall be fed to the de-centralised (departmental) substations. The division into areas/ departments shall be dictated by process considerations. MV Switchboards and distribution transformers shall be located in the various departmental substations. The MV motors shall be fed directly from the MV Switchboards located at the respective departmental substations.

#### 6.6 KV MV Switch boards

The MV Switchboard and distribution transformers shall be located in the following departmental substations:

- Main Substation.
- Lime Stone Crusher Substation
- Raw Mill Substation
- Kiln and Cooler Substation
- Cement mill sub-station

The MV switchboards shall be assembled in a line up of factory fabricated; metal clad cubicles with drawout type SF<sub>6</sub>/ Vaccum circuit breakers. Each switchgear shall have necessary metering, protection and control functions to suit the application through multifunction composite microprocessor based numeric relay having serial bus connectivity with plant DCS based Control and Automation system.

#### Low Voltage (415 V) Distribution System

The power supply at 6.6 KV shall be stepped down to 415 V by the distribution transformers at the departmental substations and fed to the Low Voltage (LV) loads of the respective sections through the LV Distribution boards and departmental Motor Control Centres (MCCs). The entire low voltage power distribution system shall be designed to guarantee selective fault isolation and isolating a faulty circuit from the main electrical system.

#### 6.6/ 0.433 kV Distribution Transformers

3 Phase Dyn11 vector group mineral oil filled natural air cooled (ONAN) copper wound distribution transformers complete with off load tap changer and all necessary accessories have been considered to feed the low voltage loads at the respective departmental MCCs.

To attain transformer standardisation, the transformers shall have 1000 kVA, 1250 kVA, 1600 kVA and 2000 kVA sizes.

The transformer capacity shall be selected within the above-mentioned standard sizes and shall not be less than the total installed kW capacity of all LV loads connected to it.

### **Motor Control Centers (MCCs)**

Department wise MCCs controlling a group of interconnected and simultaneously operated loads during the process are envisaged and shall be located in decentralised electrical rooms in the respective departmental substations/ plant buildings.

#### **5.9.3 Power Factor Correction**

For maintaining a high overall power factor, static power factor improving capacitors of suitable KVAR rating and voltage grades shall be considered.

In the envisaged scheme, suitably sized capacitors shall be directly connected across the stator switch terminals of respective 6.6 KV MV motors. For compensation of LV loads, multistep automatically controlled capacitor banks integral to the LV Board or the respective departmental MCCs to improve the power factor to 0.95 or above would be provided.

#### **5.9.4 110 V DC Sytem**

The control voltage for the MV Switchgears shall be 110 V DC to be obtained from Nickel-Cadmium alkaline batteries and solid state battery charger. The battery charger panel shall have regulated output and suitable DC distribution board.

#### **5.9.5 Electrical System Component**

##### **Drives**

The type of drives considered are based on following requirements:

- Speed/ torque characteristics of the driven equipment
- Enclosure protection depending upon the work environment
- Performance characteristics, i.e. high power factor and efficiency at operating points
- Accuracy and range of speed control required for specific application.

All motors, generally above 200 kW shall be connected at 6.6 KV and motors below 200 kW at 415 V.

##### **Illumination**

An energy efficient illumination scheme for the plant and colony premises shall be provided. The illumination shall be arranged by use of energy efficient Sodium Vapour/ Metal Halide luminaries

suitable for High Bay mounting. Adequate lux level shall be maintained for safety and ease of plant operation.

Sufficient numbers of lighting distribution boards are considered for automatic control of lighting fixtures at the various locations of the plant.

### Cabling

Following type of cables shall be used in the plant:

- Power (MV) : 6.6 kV (UE) PVC sheathed XLPE insulated copper cables
- Power (LV) : 1.1 kV PVC sheathed XLPE insulated copper cables
- Control : 1.1 kV PVC sheathed PVC insulated copper cables 1.5 and 2.5 mm<sup>2</sup>
- Instrumentation : 0.6 kV screened PVC insulated copper cables, 0.5 and 1.0 mm<sup>2</sup>

For main cable routing outside plant process buildings Overhead cable gallery has been envisaged. Inside the process buildings the cables shall be routed in the cable trenches or along the columns/ beams.

### Earthing/ Lightning Protection

System and Equipment earthing are considered for safety of operating man and machinery as well as for the stability of the electrical system. The MV system shall be ineffectively earthed through resistance.

Copper rod earth electrodes connected together with strip shall form the main earth mat, which shall be interconnected for each building.

Earth continuity conductor shall be run along with major cable routes to provide grounding to the equipment. Tall structures like preheater tower and storage silos shall be protected against lightning by use of horizontal mesh of conductors and vertical spikes. All the lightning rods, lightning mesh wires and down conductors shall be of stranded copper. A separate electronic earth mat and network interconnected with the above earthing network shall be considered for DCS and other associated control panels.

## 5.10 CONTROL AND INSTRUMENTATION

Distributed control system comprising of programmable controllers and operator stations with peripherals are considered for remote operation of plant from a central control room.

### 5.10.1 Plant Control System

For sequential control of drive and supervision of various process variables, PLC based control system has been considered.

An elaborate instrumentation comprising of field sensors, transducers, etc. shall be set up for monitoring of processes.

The Control system envisaged shall incorporate following essential features for safe operation of plant & machinery and provide necessary operating data to evaluate the plant performance and fault monitoring:

- Programmable controllers for sequence interlocking and automatic closed loop control through PI and PID action.
- Operator stations with colour graphic and alphanumeric display with equipment fault monitoring system and plant remote control.
- An engineering station, which shall provide engineering tools to update PLC, programmes.

For control and instrumentation of the plant, the control system configuration as shown in enclosed drawing No. 07127-i1-03-01 is considered.

The control system shall be structured as under:

#### Level – 1 (Field level)

At Field level the instruments and sensors are installed in accordance with process requirements. For certain systems e.g. mills, silos, weighing systems etc. sub-control systems are also allocated in the field.

#### Level – 2 (Equipment Control level)

Programmable controllers with input/ output devices shall ensure safe operation of machines and supervise production processes.

#### Level – 3 (Supervisory level)

In the Central Control Room, four operator stations with supervisory processor visual display unit, keyboards, etc. for efficient man/ machine interface for the remote operation on the plant has been envisaged.

The functions of operator level PCs are:

- Sequential interlocks for group starting and stopping

- Analog signal processing by real time acquisition of plant process parameters for monitoring of process and safety of equipment.

#### 5.10.2 Process/ Instrumentation

Necessary field sensors shall be installed to monitor process variables like pressure, temperature, flow, level, speed etc. The sensors shall be linked to the control system through field transmitters/ transducers to display the parameters on operator station and exercise the desired controls. The broad technical features of sensors and instruments are described below:

##### Temperature, Pressure, Diff. Pressure, Flow and Level Transmitter

Transmitters shall be employed for measuring of pressure, temperature and flow at various locations in PH, clinker cooler, raw material grinding plant.

Transmitters shall provide very high accurate values and shall have robust field housing.

##### Pyrometers

For temperature measurement in hot zones such as, kiln burning zone, kiln inlet. Non-contact type 2 color radiation pyrometers shall be used. Pyrometers shall include air purging and water cooling arrangements.

##### Level Sensors

Special designed level sensors shall be deployed for monitoring and control of material level in clinker discharge hoppers.

RF admittance type sensors for point level control and for continuous level ultrasonic/ electromechanical type of instruments shall be used.

##### Speed Switches

These shall be deployed to achieve zero speed protection for various equipments. The unit chosen shall have built in initial by-pass time delay and designed to operate over a range of speed. The primary sensor shall be non-contact type designed to achieve unlimited number of operation.

##### Gas Analysers

Microprocessor based Gas analysers shall be installed for combustion control in kiln. The analyzers shall monitor and control NO<sub>2</sub>, CO, and O<sub>2</sub> gases at the kiln inlet. CO & O<sub>2</sub> analyzer in Preheater outlet shall be deployed.

Carbon monoxide analyzer shall be based on absorption on infrared radiation and oxygen analyzer would be based on paramagnetic properties of oxygen.



The chosen analyzer shall provide high degree of stability, quick response and required construction for operating in harsh environment. The analyzer shall include automatic purging cleaning unit.

#### **5.10.3 Intercommunication Equipment**

Public Address System with paging and party facility for CCR operator to contact the field operator and vice versa has been considered in order to facilitate plant operations. For official communication a telephone exchange is considered which shall also supplement the public address system.

#### **5.10.4 Fire Alarm and Detection System**

Fire detection of fires in electrical buildings, cable cellars, switchgear rooms, and control rooms etc., suitable designed detectors shall be installed. Multizone type fire alarm panel shall be deployed for audio-visual alarm.

#### **5.10.5 Uninterrupted Power Supply**

Each location housing automation equipment shall have its own UPS and shall also provide power to microprocessor-based sub controls, process instruments etc. The capacity of UPS shall be chosen to cater to such loads and to have some spare capacity as well. The battery bank shall be Ni-Cd alkaline type to provide adequate backup time.

**ANNEXURES**

## CAPACITIES OF MAJOR EQUIPMENT &amp; STORAGES

Operation	Equipment/ Storage	Unit	Basis	Recommended Capacity
Raw Material Preparation	Limestone Crusher	tph	Clinker capacity per day x Clinkerisation factor x (Limestone % in raw mix/100+ Correctives % in raw mix/100) x ((100- % moisture in dry limestone)/(100- % moisture in limestone feed)) x (1/(1-% loss/100)) x Design safety factor x Kiln operating days per week/working hrs per week	400
	Corrective Crusher	tph	Clinker capacity per day x Clinkerisation factor x ( Correctives % in raw mix/100) x ((100- % moisture in dry corrective)/(100- % moisture in corrective feed)) x (1/(1-% loss/100)) x Design safety factor x Kiln operating days per week/working hrs per week	75
	Limestone Storage	t	Clinker capacity per day x Clinkerisation factor x (Limestone % in raw mix/100) x (100- % moisture in dry limestone)/(100- % moisture in limestone feed) x (1/(1-% loss/100)) x Storage norms	2 x10,000 =20,000
	Shale/ Clay Storage	t	Clinker capacity per day x Clinkerisation factor x (material % in raw mix/100) x (100- % moisture in dry material)/(100- % moisture in feed material) x (1/(1-% loss/100)) x Storage norms	1,000
	Mill scale Storage	t	Clinker capacity per day x Clinkerisation factor x material % in raw mix x (100- % moisture in dry material)/(100- % moisture in feed material) x (1/(1-% loss/100)) x Storage norms	175
	Sand stone storage	t	Clinker capacity per day x Clinkerisation factor x (Clay % in raw mix/100) x (100- % moisture in dry clay)/(100- % moisture in clay feed) x (1+ % loss/100) x Storage norms	800
	Raw Mill (CCBM)	tph	Clinker Capacity per day x clinkerisation factor x Design safety factor/ mill run hrs per day	90
	Raw meal storage	t	Clinker Capacity per day x clinkerisation factor x Storage norms	4,000
Pyro Processing	Kiln feed	tph	Clinker Capacity per day x clinkerisation factor/ kiln run hours x Design safety factor	90
	Rotary Kiln	tpd	Clinker Capacity per day	4,000
	Burner - Kiln	tph	Sp heat cons / NCV x Clinker capacity in tpd/ kiln run hours x % firing in kiln x Design safety factor	6
	Burner - PC	tph	Sp heat cons / NCV x Clinker capacity in tpd/ kiln run hours x % firing in PC x Design safety factor	8
	Clinker Cooler	tpd	Clinker Capacity per day	2,000
	Clinker Storage	t	Clinker capacity per day x storage norms	14,000
	Coal Crusher	tph	(Clinker capacity tpd x Sp heat cons / NCV) x (100- %moisture in dry coal)/(100- %moisture in feed coal) x (1/(1-% loss/100)) x (kiln operating days per week/ working hrs per week) x Design safety factor	30
	Coal Stockpile	t	(Clinker capacity tpd x Sp heat cons / NCV) x (100- %moisture in dry coal)/(100- %moisture in feed coal) x (1/(1-% loss/100)) x storage norms	1,000
Cement Grinding	Coal Mill (CCBM)	tph	Clinker capacity in tpd x (Sp heat cons / NCV of fuel) x Design safety factor/ Mill run hours per day	8
	Gypsum Crushing	tph	(Cement production tpa/(annual working dpa x crusher running hpd)) x (% gypsum in product & raw mix/100) x (100- %moisture in dry gypsum)/(100- %moisture in gypsum) x (1/(1-% dust loss/100)) x Design safety factor	15
	Gypsum Storage	t	(Cement production tpa/(annual working dpa) x (% gypsum in product & raw mix/100) x (100- %moisture in dry gypsum)/(100- %moisture in feed gypsum) x (1/(1-% dust loss/100)) x Storage norms	1,000
	Fly ash Storage	t	(PPC production per annum/ annual working days) x % fly ash in product x (100- %moisture in dry fly ash)/(100- %moisture in fly ash) x (1/(1-% loss/100)) x Storage norms	1,700
	Cement Grinding (CCBM)	tph	(Cement production per annum/ Annual grinding mill hrs ) x Design safety factor	70
Packing & Despatch	Cement Silo	t	(Cement production per annum/ working days per annum) x Storage norms	1 x 6,000=6,000
	Packing	tph	(Cement production per annum/ Packer's available hrs per annum) x % bagging x Design safety factor	120

SUGGESTED QUALITY CONTROL PLAN FOR SAMPLING AND TESTING OF VARIOUS RAW MATERIALS, INTERMEDIATE PRODUCTS AND FINAL PRODUCT

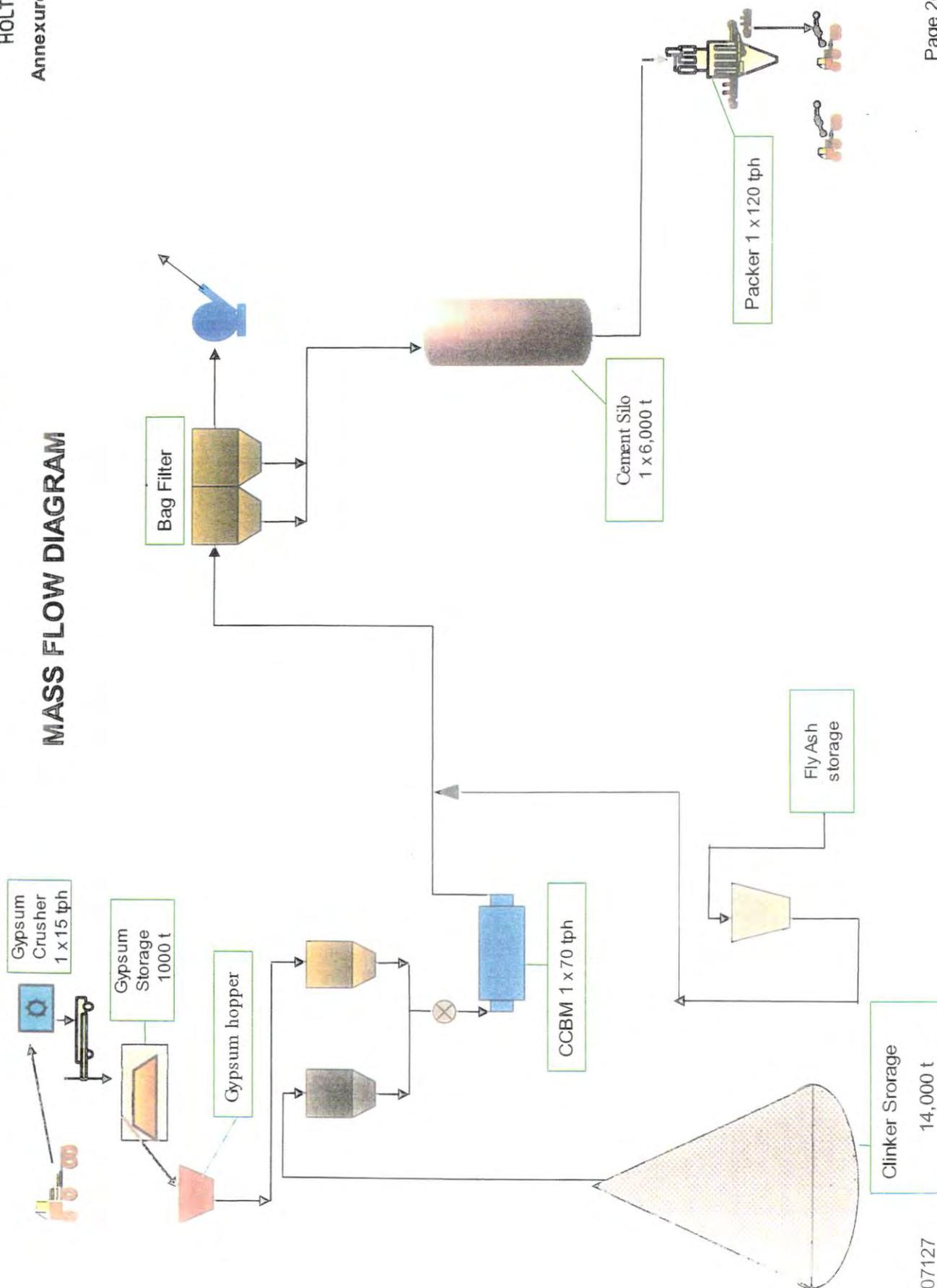
Sl No	Material	Sampling point	Sampler	Sampling frequency	Control parameters	Remarks
<b>A Quarry</b>						
1	Limestone (All types)	Quarry	Drill hole dust	From blast holes	Complete chemical analysis	
<b>B Correctives / Additives</b>						
1	Correctives/ Additives/ Fuels	At storage	Manual	From each batch	Complete chemical analysis In case of coal, complete proximate & ultimate analysis as and when required. In case of fuel oil: Moisture, Calorific value, Sulfur	
<b>C Raw material preparation and preblending control</b>						
1	Limestone	Crusher outlet	Auto sampler	1 hourly	Size fraction analysis, Complete chemical analysis, Moisture	
2	Correctives/Additives	Batch	Manually	From each batch, 1 hourly	Size fraction analysis, Moisture	03 samples from each batch at 1 hour frequency to be analysed.
3	Raw meal	Before raw meal silo	Auto sampler	1 hourly	Residue on 90 and 212 micron sieves, Complete chemical analysis	
4	Kiln feed	In front of bucket elevator	Auto sampler	Composite daily sample 1 hourly	Residue on 90 and 212 micron sieves, Complete chemical analysis Residue on 90 and 212 micron sieves, Complete chemical analysis, Moisture	
<b>D Pyro processing</b>						
1	Fuel (Coal)	Before firing	Auto sampler	1 per shift Composite daily sample	Sieves, Moisture, Ash, Volatile matter Residue on 90 and 212 micron sieves, Moisture, Ash, Volatile matter, Calorific value by Bomb Calorimeter & Complete chemical analysis	
2	Clinker	Cooler outlet	Manual	1 hourly 1 per shift Composite daily sample	Litre weight, Free lime Complete chemical analysis, Free lime Litre weight, Free lime, Complete chemical analysis	
<b>E Cement</b>						
1	Cement grinding	Mill outlet	Auto sampler	1 hourly Composite daily sample	Fineness (Blaine, residues), SO <sub>3</sub> , Setting time, if necessary All physical and chemical testings as per relevant standards	
2	Cement despatch	At silo extraction	Manual	1 per shift Composite daily sample	Fineness (Blaine, residues), SO <sub>3</sub> , Setting time, if necessary All physical and chemical testings as per relevant standards	
3	Pilot cement mill (Laboratory mill)	-	Manual	Composite daily sample of clinker + Gypsum	All physical and chemical testings as per standards	

Note :

- 1 Complete chemical analysis covers: CaO, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, MgO, Alkalies (Na<sub>2</sub>O & K<sub>2</sub>O), SO<sub>3</sub> & Chloride (Cl)
- 2 To carry out the defined complete chemical analysis, it is presumed that plant will have the XRF facility in the laboratory.



# MASS FLOW DIAGRAM



**LIST OF DRAWINGS**



IF IN DOUBT ASK

DRG. NO. 07127-11-03-01

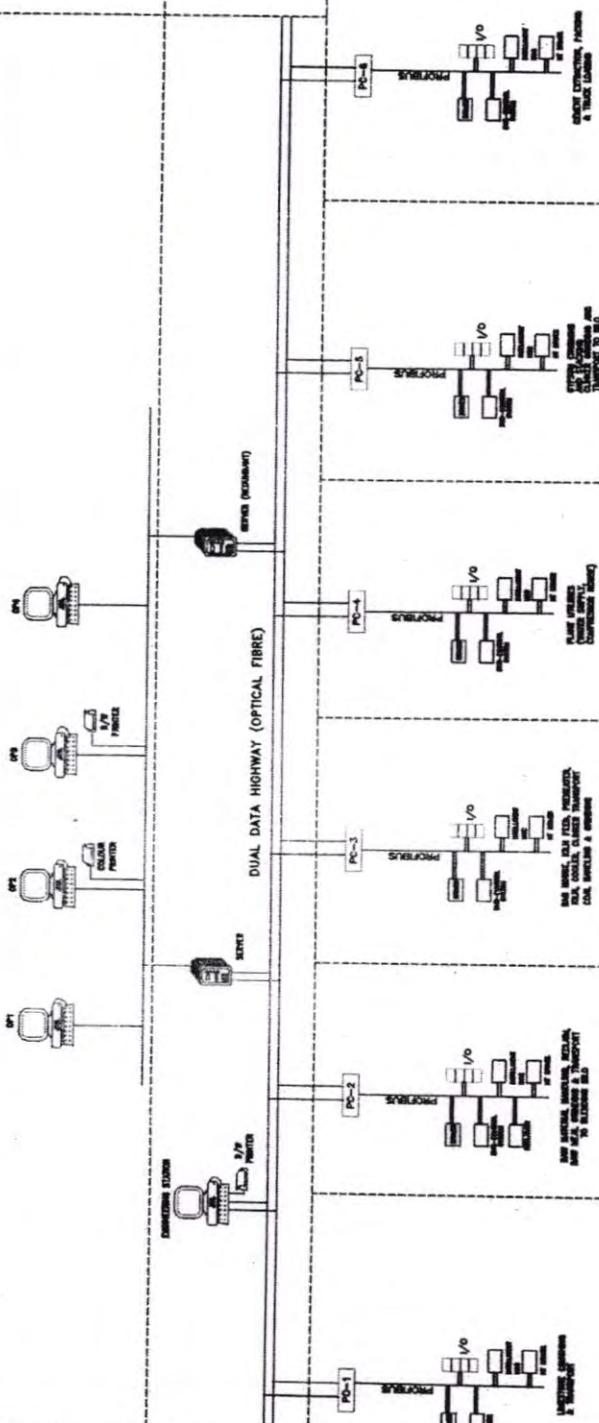
CENTRAL CONTROL ROOM

LEVEL-3

LEVEL-2

LEVEL-1

DUAL DATA HIGHWAY (OPTICAL FIBRE)



<b>HOLTEC CONSULTING PRIVATE LIMITED</b> <small>REGD. OFFICE: A BLOCK, SECTOR 10C, GATEWAY INDUSTRIAL ESTATE, NEW DELHI</small>		<b>PROJECT : 07127</b> <small>DAO FILE: 07127/000001</small>
<b>CUSTOMER : GREEN VALLEY INDUSTRIES PVT. LTD.</b>	<b>CONTROL SYSTEM CONFIGURATION</b>	
<small>DESIGN</small> : 18.07.07 <small>DATA</small> : 18.07.07 <small>CHECK</small> : 18.07.07 <small>APPROV</small> : 18.07.07	<small>SCALE</small> : NTS <small>REV. NO.</small> : 0 <small>DATE</small> : 18.07.07 <small>BY</small> : [Signature] <small>CHKD</small> : [Signature] <small>APPROV</small> : [Signature]	
<small>DRG. NO. 07127-11-03-01</small>		

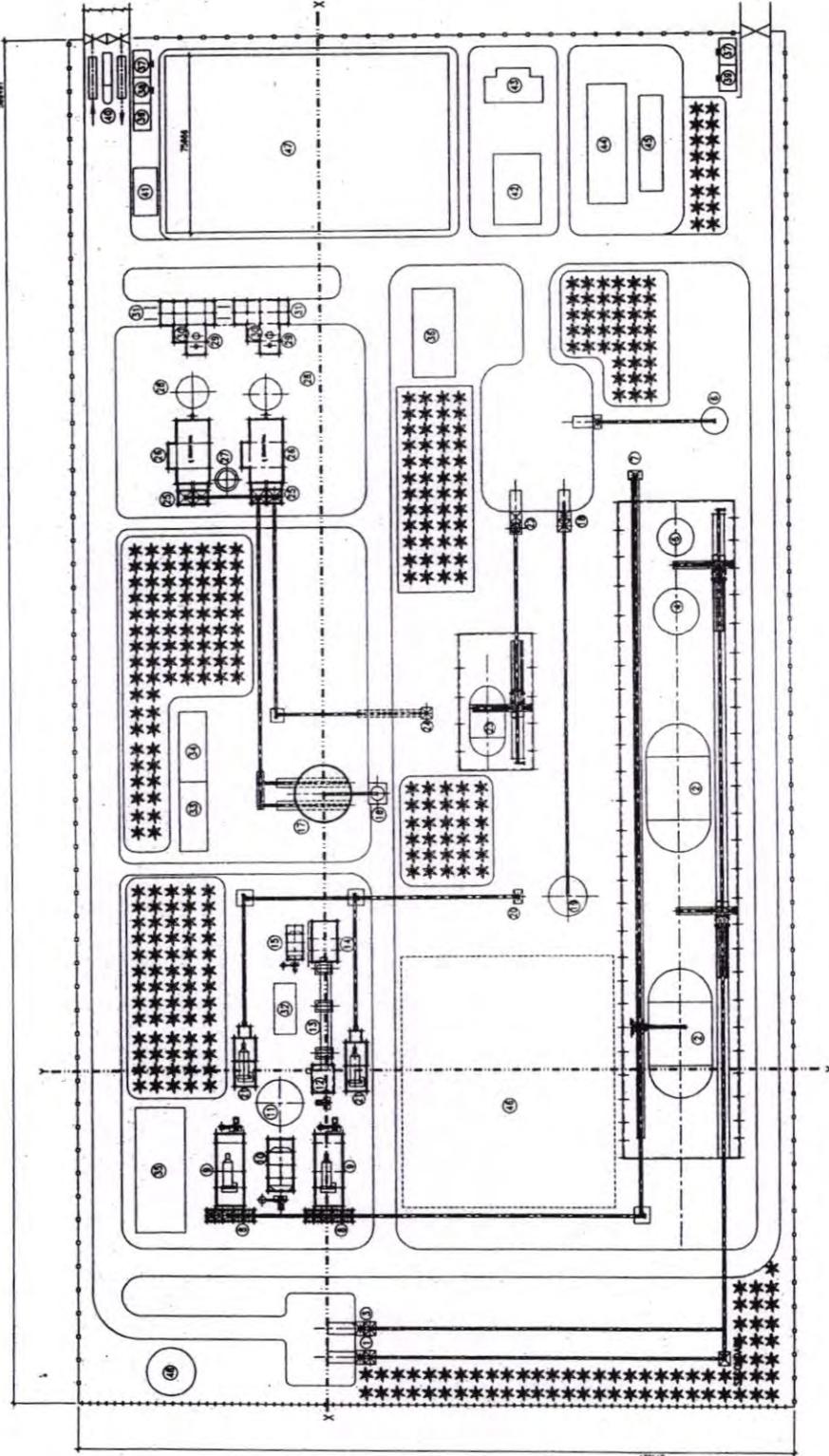
ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SPECIFIED	NOTES 1. ONE NUMBER LAP TOP ENGINEERING STATION TO BE PROVIDED AND THE SAME SHALL BE PLUGGED IN PROCESS STATIONS IN CASE OF TROUBLE SHOOTING & MAINTENANCE.
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REFERENCE NO.	DETAILS
A	B
C	D
E	F
G	H

IF IN DOUBT ASK

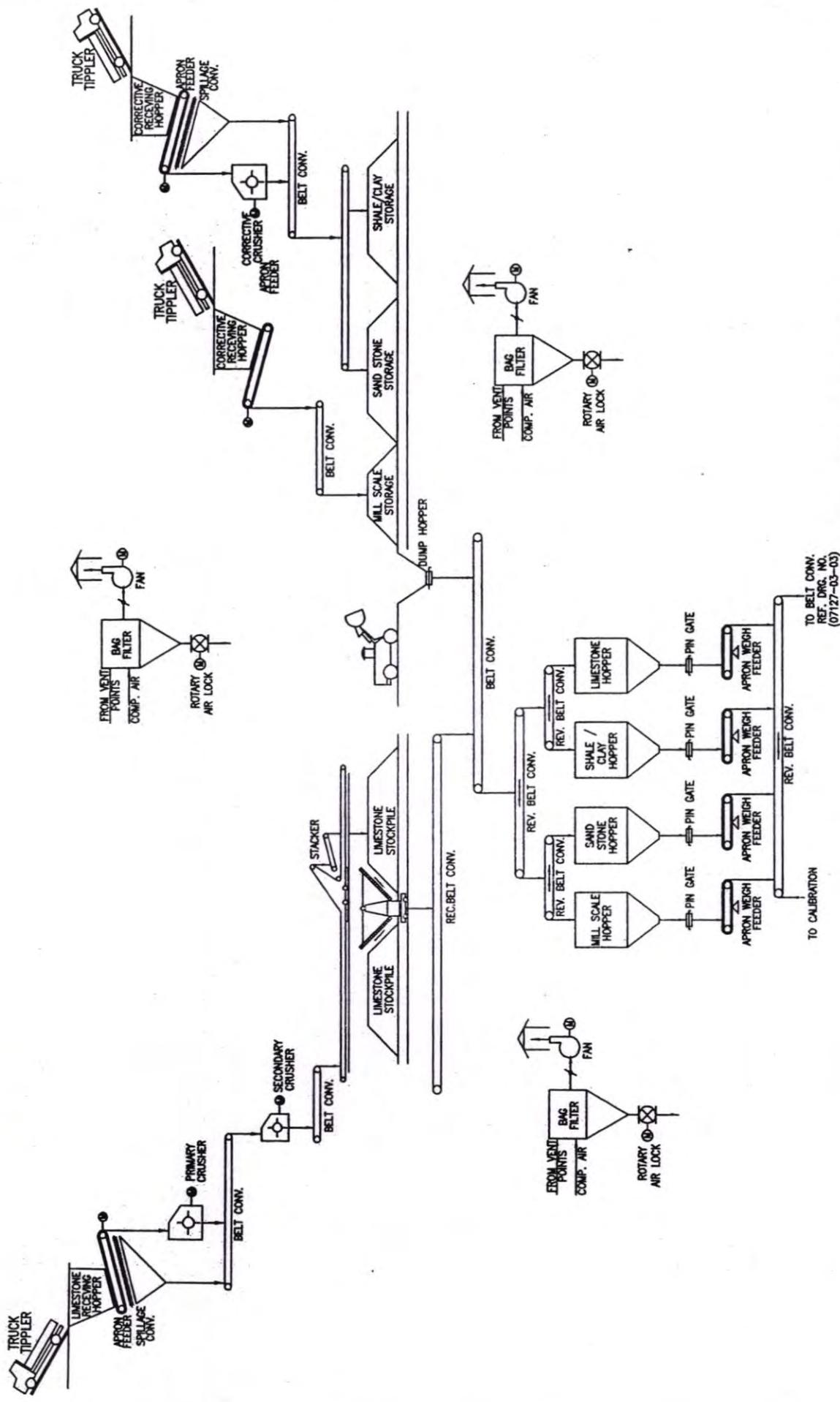
DRG. NO. 07127-03-01



S. NO.	DESCRIPTION
1	WATER TANK
2	WATER PUMP
3	WATER MOTOR
4	WATER PIPE
5	WATER VALVE
6	WATER TANK
7	WATER PUMP
8	WATER MOTOR
9	WATER PIPE
10	WATER VALVE
11	WATER TANK
12	WATER PUMP
13	WATER MOTOR
14	WATER PIPE
15	WATER VALVE
16	WATER TANK
17	WATER PUMP
18	WATER MOTOR
19	WATER PIPE
20	WATER VALVE
21	WATER TANK
22	WATER PUMP
23	WATER MOTOR
24	WATER PIPE
25	WATER VALVE
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27	WATER PUMP
28	WATER MOTOR
29	WATER PIPE
30	WATER VALVE
31	WATER TANK
32	WATER PUMP
33	WATER MOTOR
34	WATER PIPE
35	WATER VALVE
36	WATER TANK
37	WATER PUMP
38	WATER MOTOR
39	WATER PIPE
40	WATER VALVE
41	WATER TANK
42	WATER PUMP
43	WATER MOTOR
44	WATER PIPE
45	WATER VALVE
46	WATER TANK
47	WATER PUMP
48	WATER MOTOR
49	WATER PIPE
50	WATER VALVE

REV. DATE		ISSUED FOR		BY	
<p>ONLY THE LATEST VERSION OF THIS DRG. AS INDICATED IN REVISION COLUMN IS VALID. THE PREVIOUS DRG. SHALL BE MARKED SUPERSEDED AND REMOVED FROM SITE OF WORK.</p>					
<p>1 DO NOT SCALE. WORK TO DIMENSIONS ONLY.</p> <p>2 FOR TOLERANCES REF. HOYTEC STD. DRG. NO. A1-HQ-STD-1-170.</p>		<p>ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SPECIFIED</p>		<p>SCALE: 1:1250</p>	
<p>DRG. NO. 07127-03-01</p>					
<p>HOYTEC CONSULTING PRIVATE LIMITED HOYTEC CENTRE, A BLOCK, SURYANagar, GURGAON-122001 HARYANA, INDIA</p>					
<p>CUSTOMER: GREEN VALLEY INDUSTRIES PVT.LTD.      CR. TEL: 07127030100</p>					
DES.	MU	18.07.07	PROJECT	07127	
DRN.	MU	18.07.07			
CHD.	NA	18.07.07			
APPD.	NA	18.07.07			
<p>PLANT LAYOUT</p>					
<p>DRG. NO. 07127-03-01      REV. 1</p>					

CAD FILE :- 071270302RD



**HOLTEC CONSULTING PRIVATE LIMITED**  
 HOLTEC CENTRE, A BLOCK, SUSHANT LOK, GURGAON-122001 HARYANA, INDIA

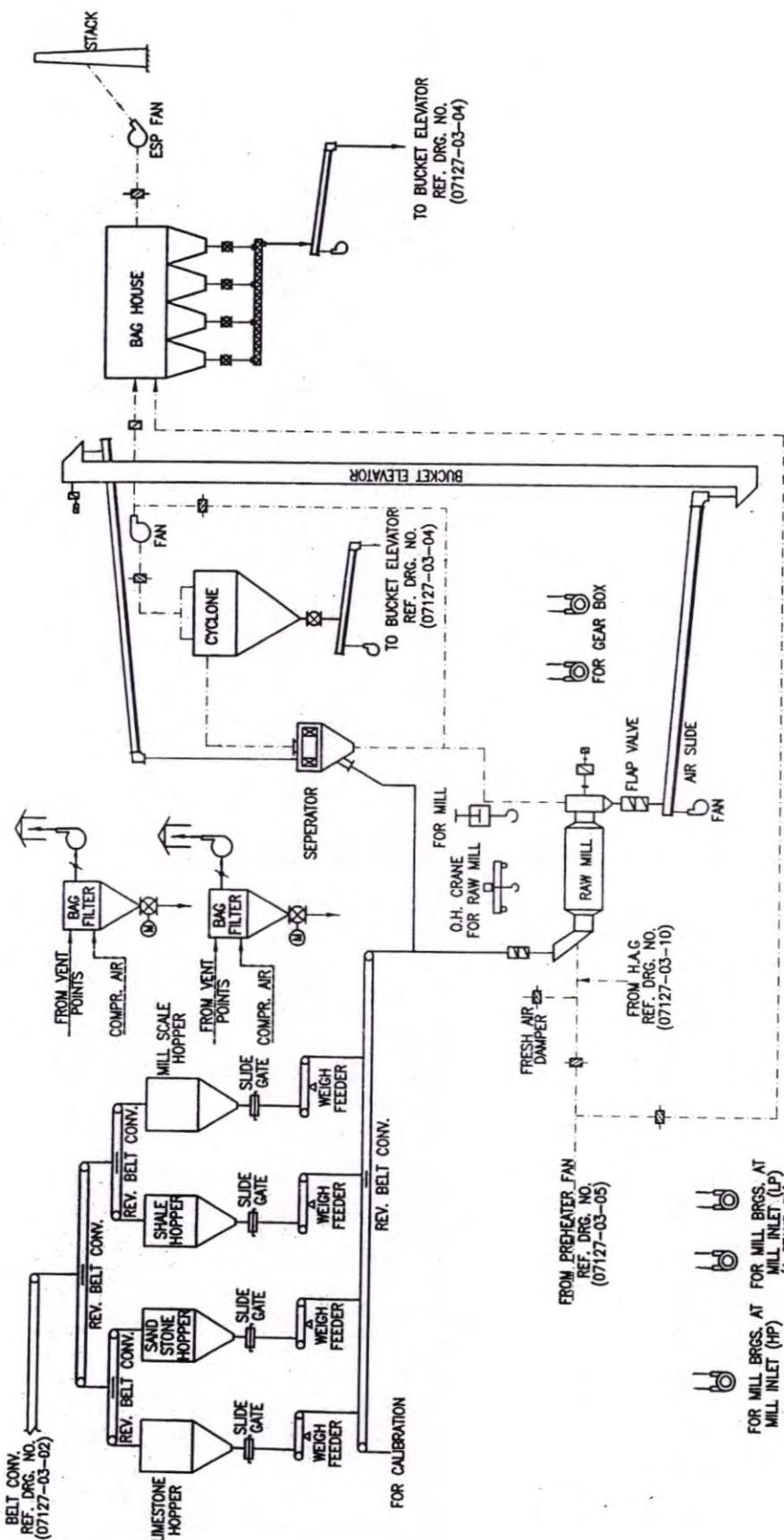
**CUSTOMER :- GREEN VALLEY INDUSTRIES PVT. LTD.**  
 PROJECT :- 07127

**FLOW SHEET FOR  
 RAW MATERIAL HANDLING**

DRW. NO.	CHG. NO.	APPD. NO.	SCALE	DATE	REV.
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TO BELT CONV.  
 REF. DRG. NO.  
 (07127-03-03)

TO CALIBRATION



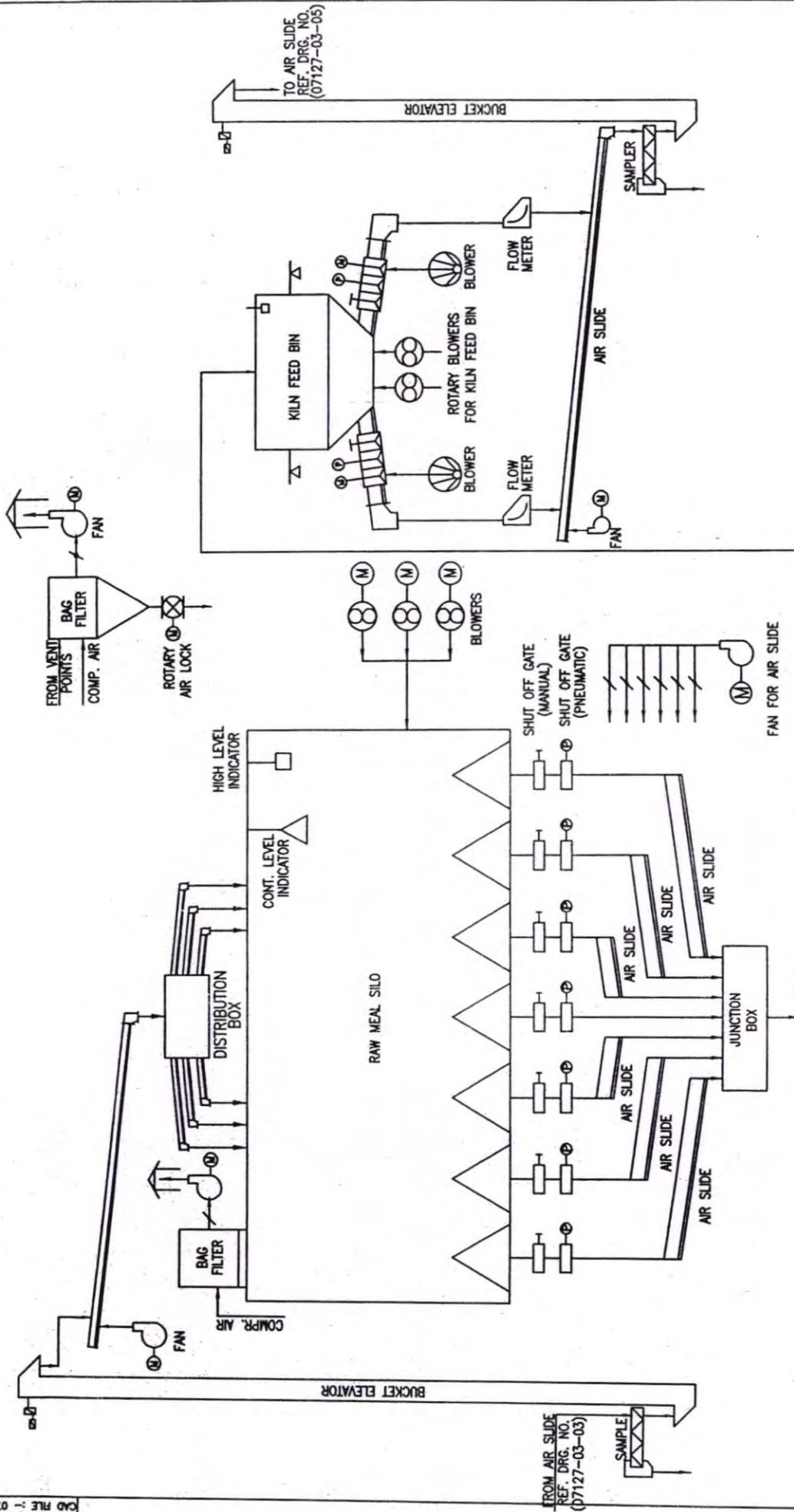
CAD FILE T: 071270303R0

CUSTOMER :- GREEN VALLEY INDUSTRIES PVT. LTD.  
 PROJECT :- 07127

**HOLTEC CONSULTING PRIVATE LIMITED**  
 HOLTEC CENTRE, A BLOCK, SUBHASH LOK, GURGAON-122001 HARYANA, INDIA

**FLOW SHEET FOR  
 RAW MEAL PREPARATION**

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MA	MA	MA	M/S	07127-03-03	0



CAD FILE :- 071270304R0

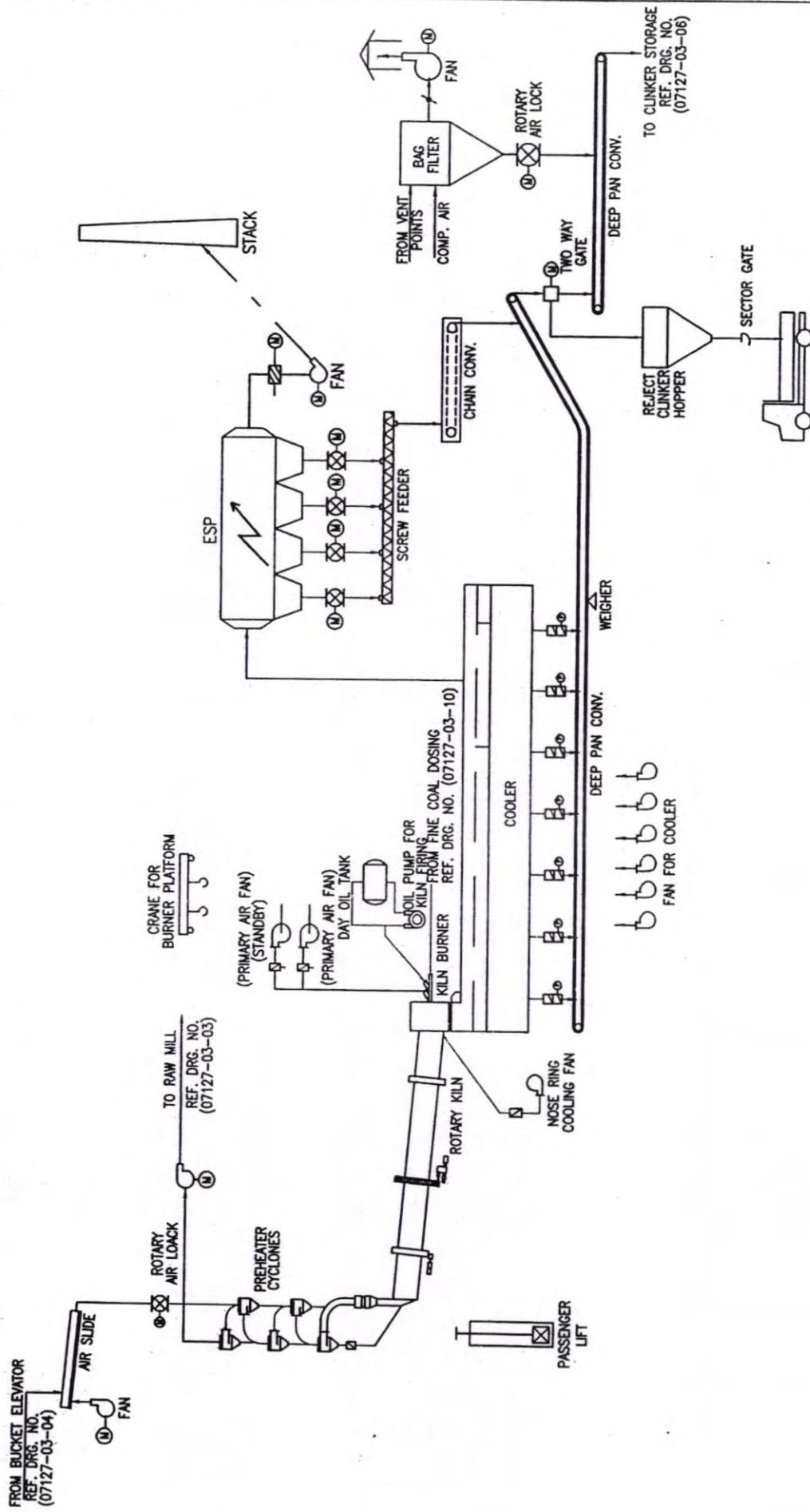
FROM AIR SLIDE  
REF. DRG. NO.  
(07127-03-03)

TO AIR SLIDE  
REF. DRG. NO.  
(07127-03-05)

CUSTOMER :- GREEN VALLEY INDUSTRIES PVT. LTD.  
PROJECT :- 07127

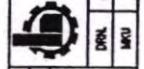
HOLTEC CONSULTING PRIVATE LIMITED				
HOLTEC CENTRE, A BLOCK, SUSHANT LOK, GURGOH-122001 HARYANA, INDIA				
DRN.	CHKD.	APPD.	SCALE	DATE
MRU	MR	MR	MTS	07127-03-04
				REV. 0

FLOW SHEET FOR  
RAW MILL SILO



CUSTOMER :- GREEN VALLEY INDUSTRIES PVT. LTD.  
 PROJECT :- 07127

HOLTEC CONSULTING PRIVATE LIMITED  
 HOLTEC CENTRE, A BLOCK, SUBHARTI LOK, GURGAON-122001 HARYANA, INDIA



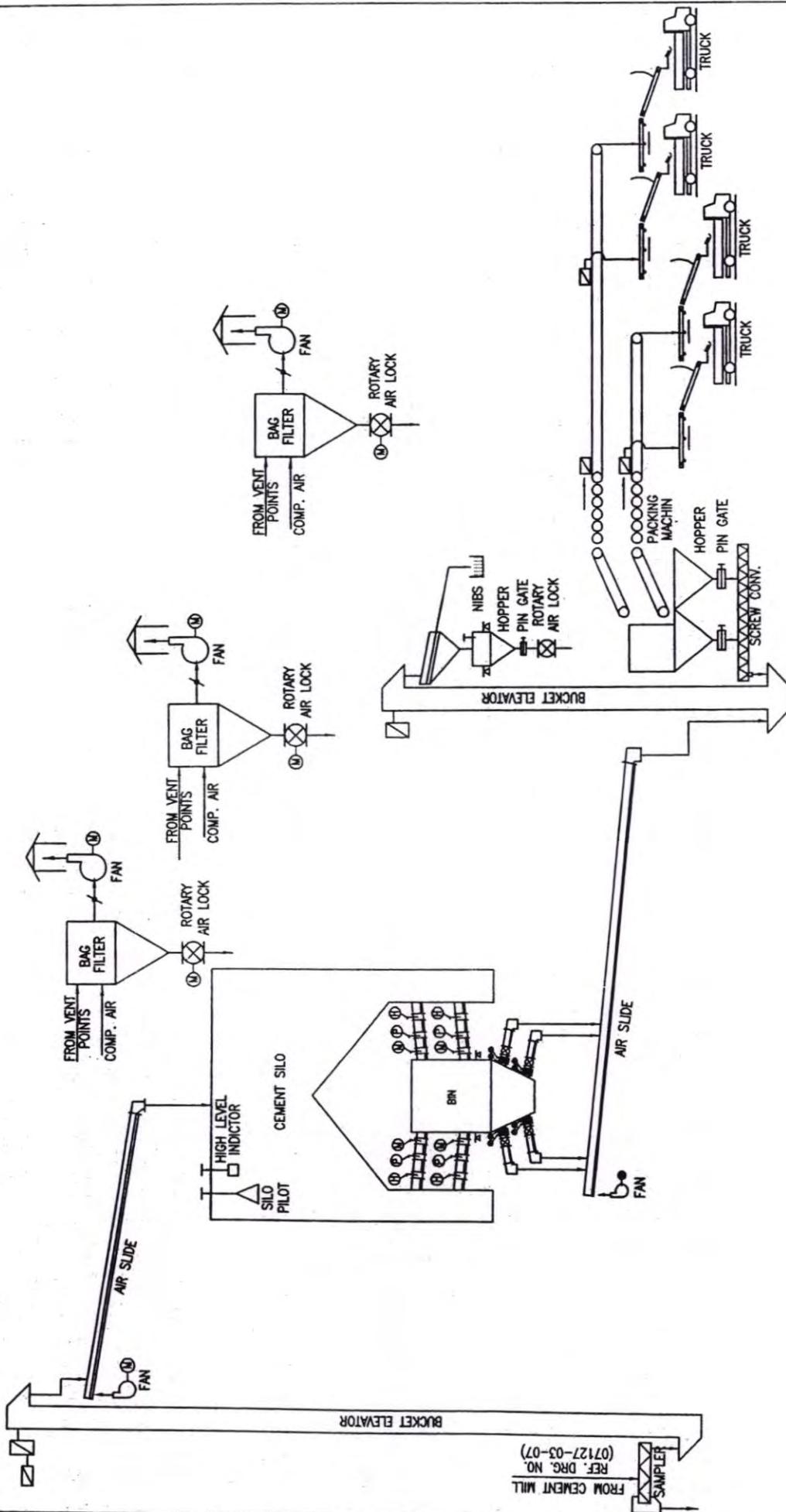
**FLOW SHEET FOR  
 PREHEATER, KILN & COOLER**

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CAD FILE :- 071270305R0







CAD FILE :- 071270308R0

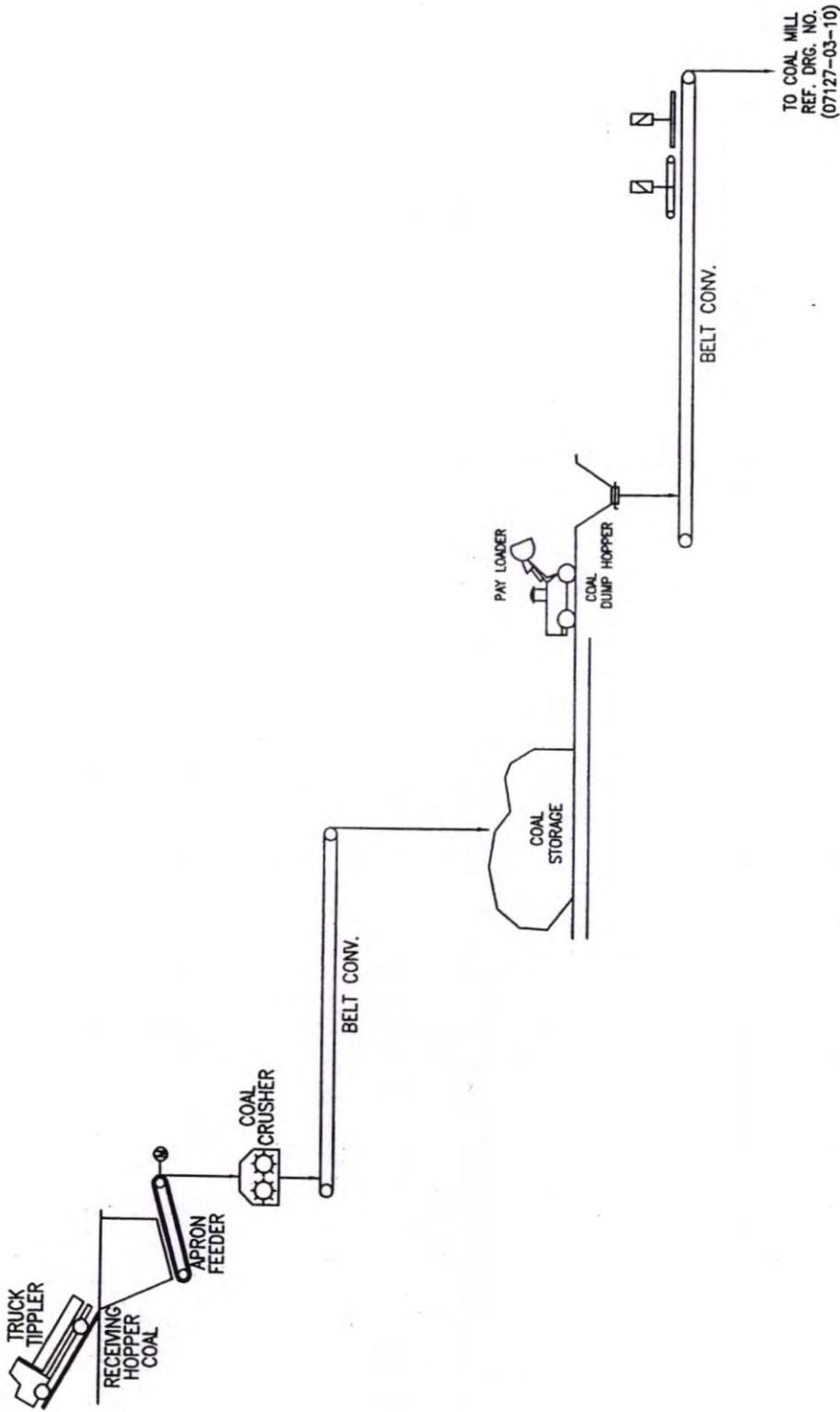
CUSTOMER :- GREEN VALLEY INDUSTRIES PVT. LTD.

PROJECT :- 07127

FLOW SHEET FOR

CEMENT SILO & PACKING PLANT

		<b>HOLTEC CONSULTING PRIVATE LIMITED</b> HOLTEC CENTRE, A BLOCK, SUSHANT LOK, GURSON-122001 HARYANA, INDIA	
DRN.	CHGO.	APTD.	SCALE
MSU	MA	MA	M/S
DRG. NO. 07127-03-08			REV. 0



CAD FILE :- 071270308R0

CUSTOMER :- GREEN VALLEY INDUSTRIES PVT. LTD.  
PROJECT :- 07127

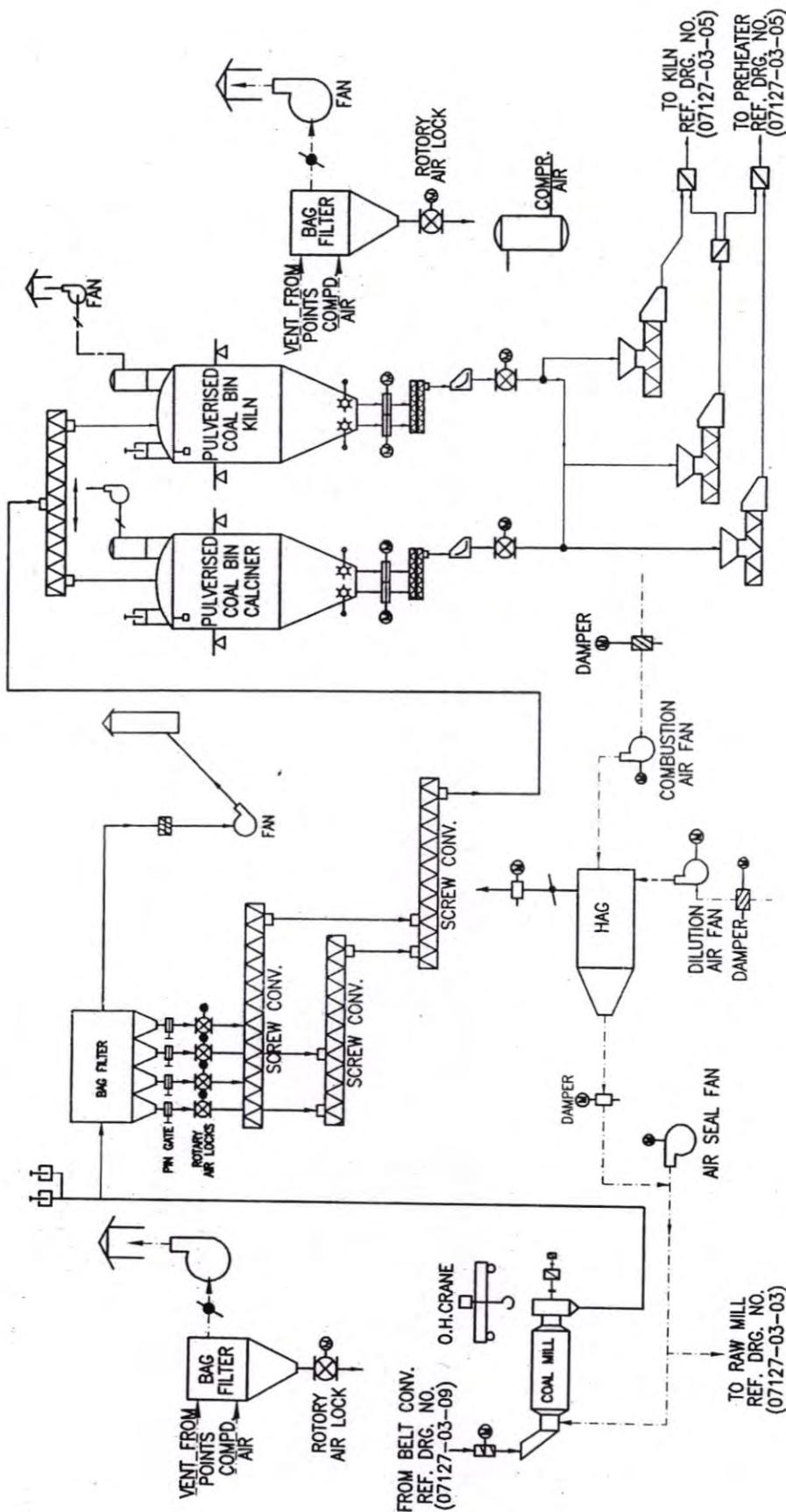


**HOLTEC CONSULTING PRIVATE LIMITED**

HOLTEC CENTRE, A BLOCK, SUSHANT LOK, GURUKON-122001 HARYANA, INDIA

**FLOW SHEET FOR  
COAL STORAGE & TRANSPORT**

DRW.	CHRG.	APPD.	SCALE	DRG. NO.	REV.
MA	MA	MA	M/S	07127-03-09	0



CAD FILE :- 071270310K

CUSTOMER :- GREEN VALLEY INDUSTRIES PVT. LTD.  
PROJECT :- 07127



HOLTEC CONSULTING PRIVATE LIMITED  
HOLTEC CENTRE, A BLOCK, SUBHARTI LOK, GURGAON-122001 HARYANA, INDIA

FLOW SHEET FOR  
COAL GRINDING

DRG. NO.	CHGD.	APPD.	SCALE	DRG. NO.	REV.
MA	MA	MA	NIS	07127-03-10	0

**CHAPTER – 6**  
**HUMAN RESOURCES**

---

## CHAPTER 6: HUMAN RESOURCES

### 6.1 INTRODUCTION

This chapter covers the details of human resources required for this project. The suggested details of human resources have been given separately for the following two phases:

- Project phase.
- Plant operation phase.

### 6.2 BASIS

The suggested details of human resources for each phase have been given considering the following:

- Project technical concept.
- Smooth and efficient plant operation.
- Effective inter-departmental co-ordination.
- Optimum organization with well defined job responsibility.
- Optimum utilization of different levels of workmen and supervisory staff.
- Training needs of the personnel, wherever required, will be taken care of by **GVIPL**.
- Marketing office (other than plant) staff, wherever required, will be taken care of by **GVIPL**.
- Manpower requirement in certain categories like fitters, welders, khalasis, helpers, peons, canteen staff, guest house attendants, etc. can be met through contractor(s).
- Certain activities may be assigned to specialised agencies/ contractors. These may include loading-unloading, plant cleaning job, packing, security for plant & colony, colony maintenance, etc.
- Jaintia Hills district does not have any developed industries, hence, only unskilled/ semi skilled manpower can be sourced from the local area and skilled manpower shall have to be sourced from outside.

### 6.3 IMPLEMENTATION PHASE

For the implementation phase, the total requirement of human resources has been estimated as 131. The details of human resources suggested for the plant for this phase have been given at **Annexure 6.1**.

#### 6.4 OPERATION PHASE

The total manpower requirement for this phase has been suggested as 253 (excluding mines). The details of manpower for this have been given at **Annexure 6.2**.

#### 6.5 SALARIES AND WAGES

The salaries & wages for staff of various categories have been considered as follows:

Sn	Category	Nos.	Salary p.m (INR)/ person	Total Salary p.m (INR)
1	Top Management	4	80,000	3,20,000
2	Middle Management	19	50,000	9,50,000
3	Specialist/ Engineer/ Officers	25	30,000	7,50,000
4	Supervisors	58	12,000	6,96,000
5	Workman/ Labor	147	4,000	5,88,000
	<b>Total</b>	<b>253</b>		<b>33,04,000</b>

**Table 6.1: Salaries & Wages for staff**

#### 6.6 SUMMARY

A summary of the manpower requirement for the plant is as given below in **Table 6.2**:

Unit	Manpower		
	General shift	Shifts	Total
	A	B	A+B
Implementation phase		131	
Operation phase	111	142	253

**Table 6.2: Summary of the manpower requirement**

**ANNEXURES**

**IMPLEMENTATION PHASE**  
**Estimated manpower requirement**

Sn	Department	Manpower	Persons required	Remarks
1	Plant	Unit head (Overall)	1	
1.1	Mines	Mines head/ Manager	1	
		Engineer	1	
		Mines foreman	1	
		Auto mechanics	1	
		Auto electrician	1	
		Blaster	1	
		HEME operators	1	
		Drivers	2	On contract
		Attendant	1	
1.2	Technical	Technical head	1	
1.2.1	Mechanical	Manager	1	
		Engineer	3	
		Foreman	3	
		Draftsman/ designer	3	
		Fitter	3	On contract
		Welder	3	On contract
		Turner	1	
		Khalasi	4	On contract
		Loader driver	1	On contract
		Dumper driver	2	On contract
		Crane operator	2	On contract
1.2.2	Electrical	Manager	1	
		Engineer	2	
		Foreman	2	
		Power distribution foreman	2	

Sn	Department	Manpower	Persons required	Remarks
		Electrician	4	On contract
		Helper	4	On contract
1.2.3	Instrumentation	Manager	1	
		Engineer	2	
		Foreman	2	
		Mechanic	4	
1.2.4	Process	Manager	1	
		Engineer	2	
		Helper	2	On contract
1.2.5	Quality control	Manager	1	
		Chemist	1	
1.2.6	Civil	Manager	1	
		Engineer	5	
		Masons	1	On contract
		carpenter	1	On contract
1.3	Commercial	Commercial head	1	
1.3.1	Stores and Purchase	Manager	1	
		Officers	3	
		Staff	8	
1.3.2	Personal and Administration	Manager	1	
		Officer	1	
		Staff	1	
		Receptionist	1	
1.3.3	EDP	Manager	1	
		Staff	2	
1.3.4	Accounts	Manager	1	

Sn	Department	Manpower	Persons required	Remarks
		Officer	1	
		Staff	3	
1.3.5	Secretaries	Staff	4	
1.3.6	Security	Officer	3	
		Guards	15	On contract
1.3.7	Dispensary	Doctor	1	
		Staff	1	
1.3.8	LMV	Driver	3	On contract
1.3.9	Telephone exchange	Operator	2	
<b>Total:</b>			<b>131</b>	Total no. of persons will be 131. Of this 47 persons may be taken on contract.

**OPERATION PHASE**  
**Estimated manpower requirement**

Sn	Department	Manpower	No. of persons		Remarks
			General shift	Shift	
1	Plant	Unit head(Overall)	1	-	
1.1	Technical	Technical head	1		
1.1.1	Mechanical	Manager	1		
		Engineer	3	-	
		Foreman	1	4	
		Crusher operator	-	3	
		Crusher attendant	-	3	
		Additive/ coal crusher attendant	-	3	
		Draftsman/ designer	2	-	
		Fitter	1	4	Shift fitters on contract
		Compressor house operator	-	4	
		Water supply operators	-	4	
		Welder	-	4	Shift welders on contract
		Turner	1	-	
		Khalasi	4	4	Shift khalasi on contract
		Loader driver	-	4	
Crane operator	1	-			
1.1.2	Electrical	Manager	1	-	
		Engineer	2	-	
		Foreman	-	4	
		Power distribution foreman	-	4	

Sn	Department	Manpower	No. of persons		Remarks
			General shift	Shift	
		Electrician	1	4	
		Helper	2	4	On contract
1.1.3	Instrumentation	Manager	1	-	
		Engineer	1	-	
		Foreman	-	4	
		Mechanic	1	4	
1.1.4	Process	Manager	2	-	
		Engineer	1	4	
		Kiln operator	1	4	
		Pyro attendant	-	4	
		Mills attendant	-	12	
		Helper	2	8	On contract
1.1.5	Quality control	Manager	1	-	
		Chemist	1	-	
		Analyst	1	4	
		Gauger	1	2	
		Sampler	1	4	On contract
1.1.6	Civil	Manager	1	-	
		Engineer	1	-	
		Messon	1	-	
		carpenter	1	-	
		Plumber	1	-	
		Helper	3	-	
1.1.7	Technical cell	Manager	1	-	
		Engineer	2	-	
1.1.8	Packing plant	Manager	1		
		Logistic	1	-	

Sn	Department	Manpower	No. of persons		Remarks
			General shift	Shift	
		Supervisor	2	-	
		Telechecker		3	
		Operator	-	4	On contract
		Loaders	-	6	
1.2	Commercial	Commercial head	1	-	
1.2.1	Stores and Purchase	Manager	1	-	
		Officers	3	-	
		Staff	4	-	
1.2.2	Personal and Administration	Manager	1	-	
		Officer	2	-	
		Staff	2	-	
		Receptionist	1	-	
		Peon	2	-	
1.2.3	EDP	Manager	1	-	
		Staff	3	-	
1.2.4	Excise	Officer	1	-	
1.2.5	Accounts	Manager	1	-	
		Officer	2	-	
		Staff	4	-	
1.2.6	Secretaries	Staff	4	-	
1.2.7	Security	Officer	1	-	
		Guards	4	16	On contract
1.2.8	Dispensary	Doctor	1	-	
		Staff	2	-	
1.2.9	LMV	Driver	2	4	On contract
1.2.10	Telephone exchange	Operator	-	4	

Sn	Department	Manpower	No. of persons		Remarks
			General shift	Shift	
1.2.11	Guest house	Staff	1	-	
		Attendants	1	2	On contract
1.3	Marketing	Marketing head	1	-	At plant site
		Manager - Logistic	1	-	
		Officer	1	-	
		Assistant	1	-	
		Branch manager	1		
		Sales manager	1		
		Sales officer	2		
		Junior sales officer	1		
		Branch manager	1		For other offices
		Sales manager	1		
		Sales officer	2		
		Junior sales officer	1		
		Assistant	1		
<b>Total manpower</b>			<b>111</b>	<b>142</b>	<b>Total no. of persons will be 253. Of which 12 persons of general shift and 54 persons of shifts (Total 66 persons) may be taken from contractor.</b>

**CHAPTER – 7**  
**IMPLEMENTATION SCHEDULE**

## CHAPTER 7: IMPLEMENTATION SCHEDULE

### 7.1 KEY FACTORS/ STRATEGY

The key factors that would facilitate successful and timely project implementation are:

- Proper choice of technology and machinery suppliers.
- Adequate diligence in formulating the technical concept and system design/ selection of the plant.
- Proper choice of contractors for civil construction and erection of equipment.
- Formulation of a effective project team led by an experienced Project Manager.
- Establishment of an efficient system for project planning & monitoring including reporting procedures for progress review & co-ordination.
- Customization of project execution plan to suit the promoter's profile.

The benefits of recognizing and addressing the aforementioned key factors have been successfully demonstrated in most cement projects executed in the recent past/ currently under implementation.

Learning from the implementation strategies adopted in successful projects have been dovetailed with the profile of the respective promoters in order to evolve the most appropriate implementation strategy for the proposed project. The salient features of the proposed strategy are summarized below:

### 7.2 IMPLEMENTATION STRATEGY

Typically any project has four core dimensions viz:

- Engineering: this directly impacts the smooth operations of the plant over its entire life.
- Procurement: is critical on account of the impact that it has on investment and performance benchmarks and also in ensuring the choice of appropriate technology.
- Construction: is critical in terms of its impact on completion quality and the duration of the project phase.
- Project Management: other than its obvious impact on project timeliness it also contributes to risk minimization for the promoter.

"Zero date" for a project is generally reckoned as the date on which the contract for "main machinery" becomes effective.

The plant & machinery for a project can be procured in three modes:

- Turnkey/ Semi-turnkey
- Package
- Shopping

The three procurement modes are described below:

**Turnkey/ Semi-turnkey** In the Turnkey mode, one single contractor is responsible for all project activities concluding with the handing over of the plant to the owner. The role of the owner is limited to appointing the turnkey contractor and making payments (for details refer **Annexure 7.1**).

A variant of this is the Semi-turnkey mode. In this case there are usually two agencies, one the supplier and the other the contractor. The supplier is responsible for all activities that occur off shore, i.e. outside the country/ project site. The contractor is responsible for all activities that occur on shore i.e. within the country/ project site (for details refer **Annexure 7.2**).

**Package** In this case the plant is split up into functional process departments and procured accordingly. Several main suppliers are responsible for the detailed engineering, manufacture and supply. Similarly, multiple contractors are appointed for carrying out on shore activities.

**Shopping** In this case the client/ consultant formulate the basic design for the project and specify & procure equipment by discipline/ type (for details refer **Annexure 7.3**).

The pros and cons of these modes are described in **Annexure 7.4** and summarized in **Table 7.1** below:

Sn	Characteristics	Procurement Modes		
		Turnkey/ Semi-turnkey	Package	Shopping
1	Efforts on Co-ordination	Low	Medium	High
2	Execution Period	Low	Medium	High
3	Project Cost	High	Medium	Low
4	Project Cost Control	High	Medium	Low
5	Supplier Responsibility	High	Medium	Low

**Table 7.1: Characteristics of mode(s) of procurement**

For the **GVIPL** project the semi-turnkey mode of procurement for project execution is proposed, with the assumption, that either a strong in-house project team shall be constituted and/ or the services of a professional Project Management agency, with a cement background, shall be utilized. The proposed solution shall help **GVIPL** in optimizing project investment and minimizing entrepreneur risk due to cost escalation. In the proposed solution, two agencies one for off shore activities and the other for on shore activities have been considered.

### 7.3 PLANNING

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It is proposed that pre-project activities be taken up till the orders for main machinery are awarded. These activities include:

1. Development of Infrastructure at the site
2. Site Studies viz. geotechnical, hydrological, etc.
3. Organization of "enabling works"
4. Appointment of "Consultant"

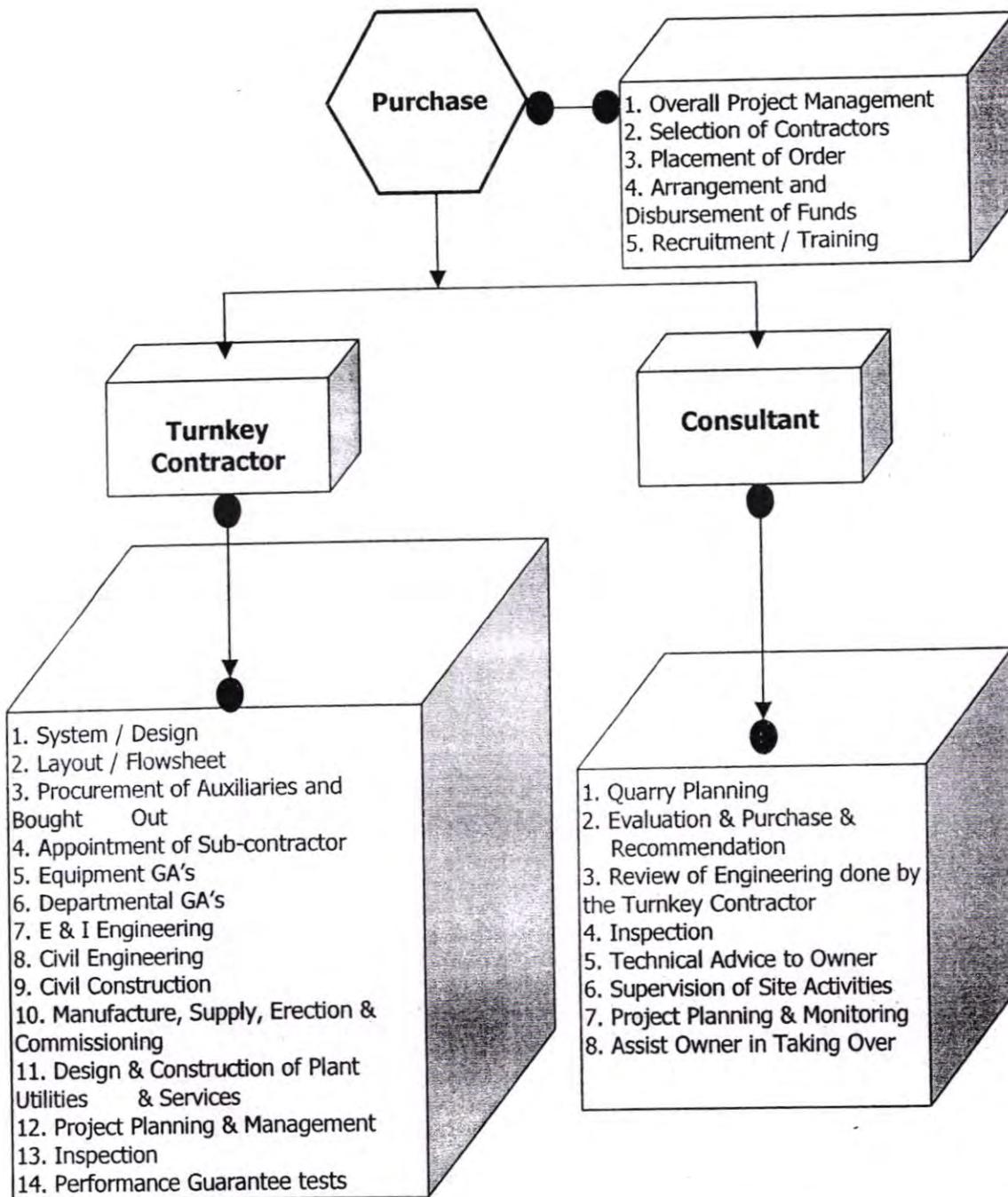
### 7.4 IMPLEMENTATION SCHEDULE

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Based on the consideration that pre-project activities are accomplished prior to the award of the main machinery order, an implementation period of **24 months** from the date of signing/ effectiveness of the contract is foreseen for the project. The broad implementation schedule for pre project activities and post project activities after main machinery order placement is enclosed as **Annexure 7.5 A** and **Annexure 7.5 B**, respectively.

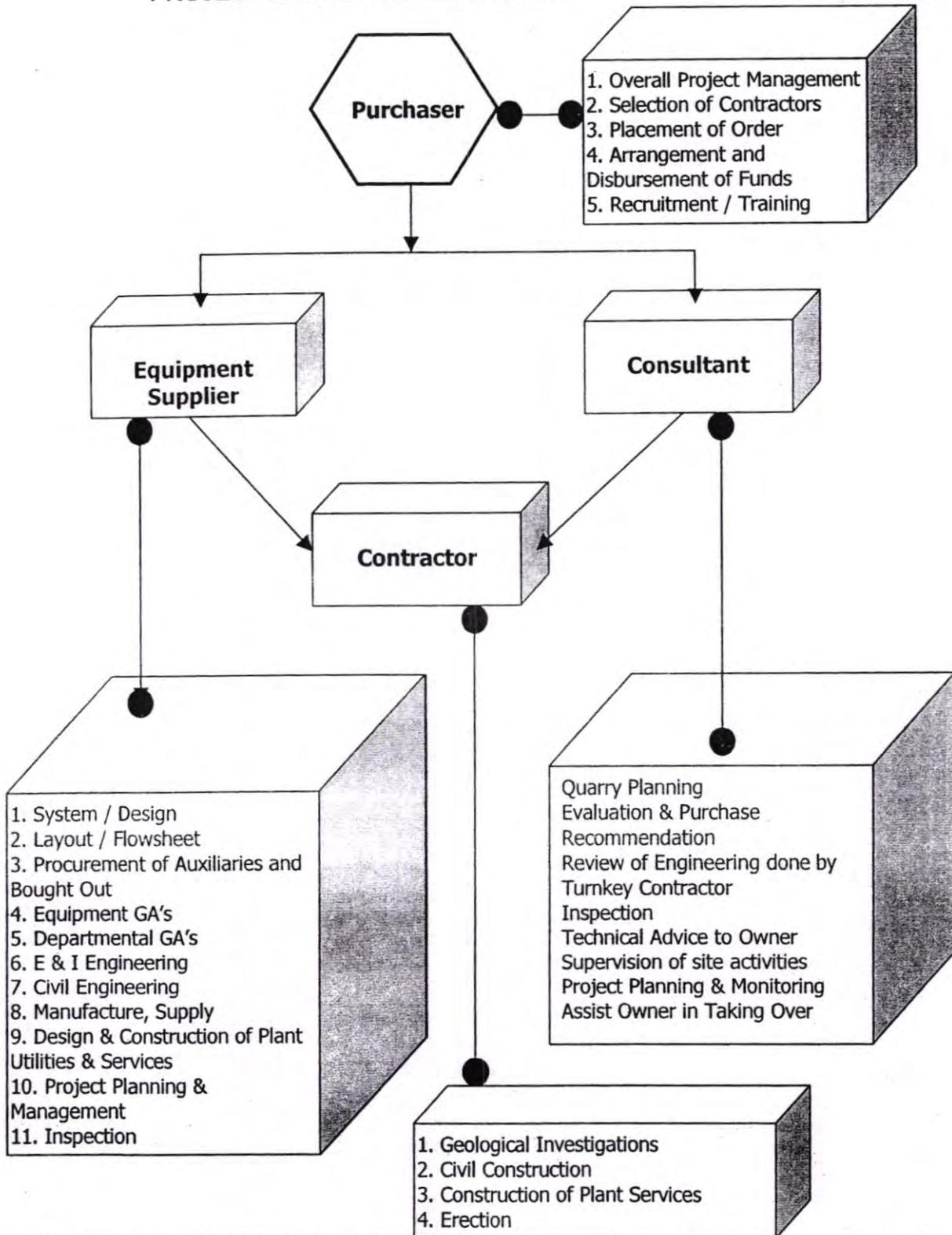
**ANNEXURES**

**PROJECT EXECUTION: TURNKEY**



PROJECT EXECUTION: SEMI-TURNKEY

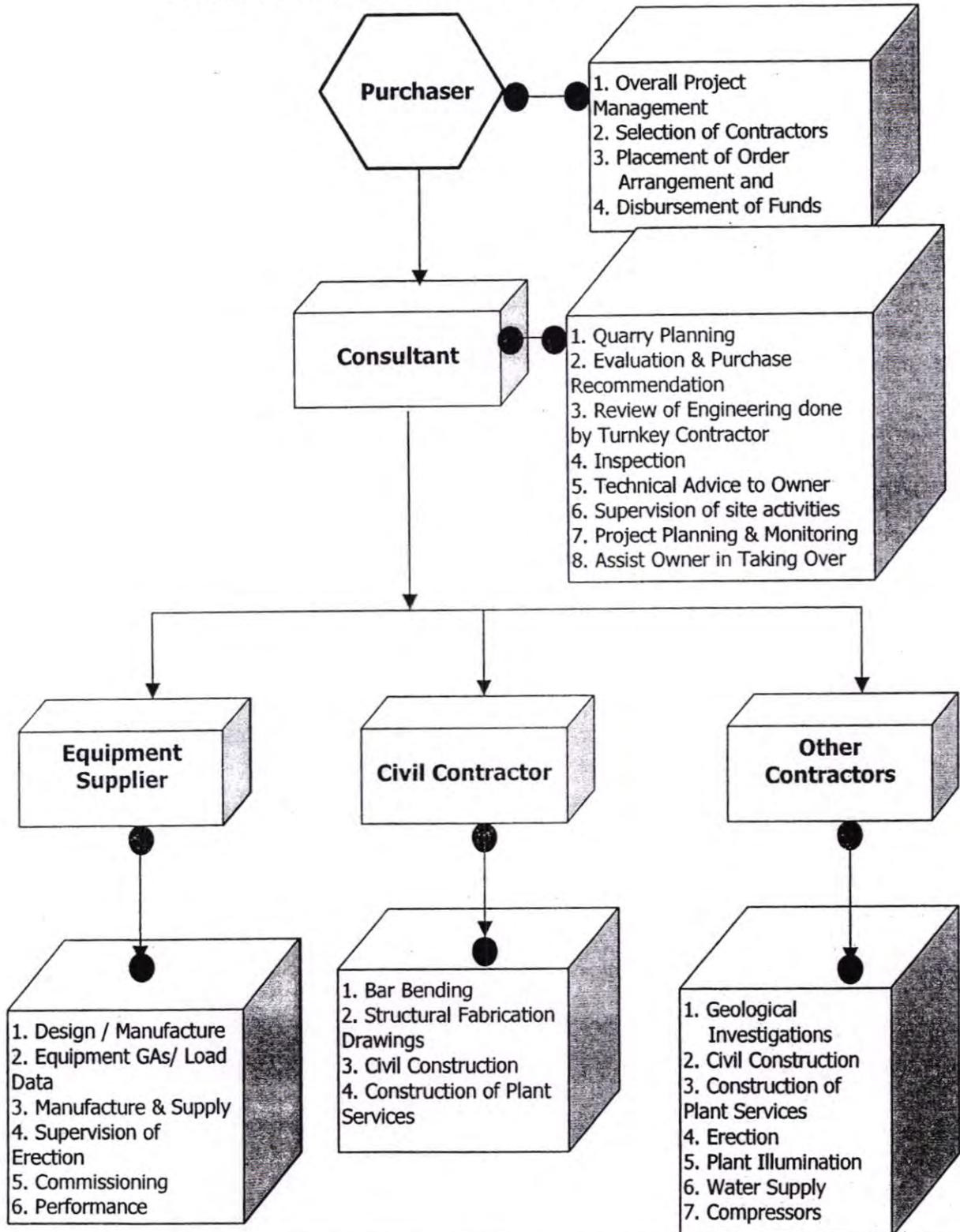
Annexure 7.2





PROJECT EXECUTION: SHOPPING

Annexure 7.3



## COMPARATIVE: PROCUREMENT OPTIONS

Element	Turnkey / Semi Turnkey	Package	Shopping
Choice of Optimum Process Equipment	Limited depending upon Contractor	All main equipment, limited for auxiliaries	Free Choice
Total Investment Costs			
Total Duration			
Performance Guarantee Warranty	Entire Plant Undivided	By Department By Package	By Department / single machine By Individual machine or group
Execution Responsibility	Undivided	By Package	Consultant, contractor(s), client
Client's Risk			
Final Costs Known	At signing	After last package	During execution or final at commitment
Risk of Cost Overrun			
Risk of Time Overrun	Moderate	Medium	Medium
Overall Risk			
Ability to obtain Insurance			
Client's remedy against Performance Failure	Claims based on total contract value	Limitation by counter claims of each package supplier	Limitation by counter claims of each package supplier
Client's Involvement			
Need to change Organization			
Requirements for Project Management			
Overall			

**CHAPTER – 8**  
**INVESTMENT, OPERATING AND**  
**FINANCIAL APPRAISAL**



HOLTEC

Annexure 7.5 A

**PROJECT SCHEDULE - PRE PROJECT ACTIVITIES**

Sn	Project Activity	Months					
		1	2	3	4	5	6
	<b>PROJECT ACTIVITIES AFTER TECHNO ECONOMIC FEASIBILITY</b>						
1	Making financial arrangement for project						
	<b>On site activities</b>						
2	Acquisition of mining land						
3	Acquisition of plant Land						
4	Clearance from satutory authorities such as environment, industry and mining						
5	Soil investigation of land						
6	Hydrological investigation of Land						
7	Geological investigation for mines						
8	Topographic survey of Land						
9	Mines and Land development						
	<b>Off site activities</b>						
10	Preparation of mining plan						
11	Preparation of tender document						
12	Receipt of offer from bidder						
13	Offer evaluation and ordering						

Summary

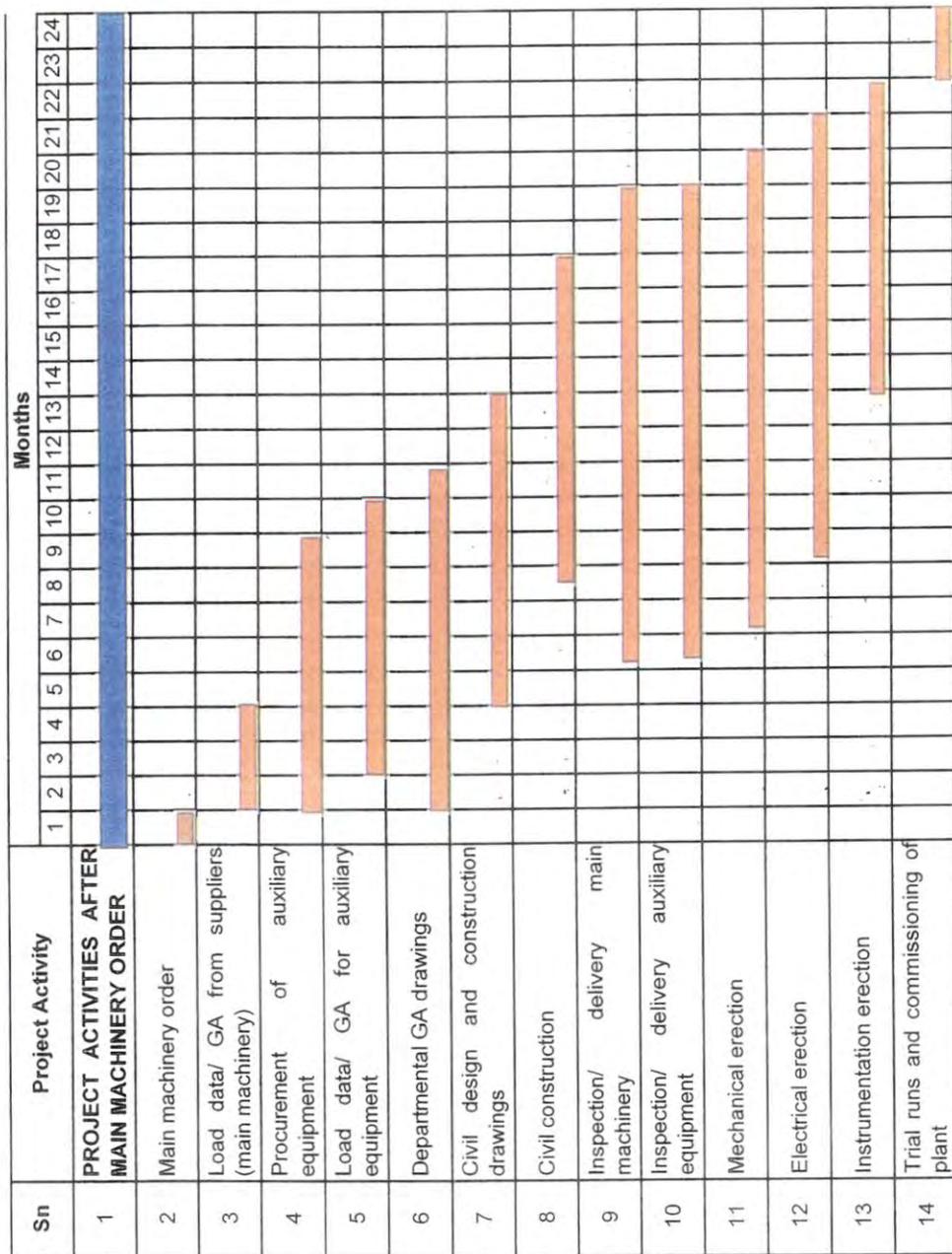
Task



HOLTEC

Annexure 7.5 B

**PROJECT IMPLEMENTATION SCHEDULE**  
**PROJECT ACTIVITIES AFTER MAIN MACHINERY ORDER PLACEMENT**



Summary  
Task  
Milestone

## CHAPTER 8: INVESTMENT, OPERATING COST & FINANCIAL APPRAISAL

### 1.0 INTRODUCTION

This chapter addresses the financial feasibility for the project, encompassing:

- Estimates of Investment Cost
- Estimates of Operational Costs
- Government Subsidies & Tax Exemptions
- Financial statements including Profit and Loss Statement, Projected Cash Flow Statement, etc.
- Financial viability based on the following indicators:
  - Internal Rate of Return (IRR) on Investment and Equity
  - Break Even Point
  - Payback Period
  - Risk and Sensitivity Analysis

For this project, a plant with total capacity of 1,300 tpd cement has been considered:

### 2.0 INVESTMENT COSTS & MODE OF FINANCING

The total project cost estimate for the proposed project of 1300 tpd expandable to 2600 tpd works out to **Rs. 18,571Lakhs**. The estimated Investment Cost for the project has been based on the requirement of fixed and non-fixed assets to meet the prescribed duty requirements.

The above cost has been estimated considering expansion of 1300 tpd cement plant to 2600 tpd and the following have been included:

- Additional land for the higher capacity of 2600 tpd plant.
- Additional mining area sufficient for mining limestone for higher capacity of 2600 tpd.
- Land development commensurate with higher capacity of 2600 tpd.
- Adequate capacity crushers for plant expansion to 2600 tpd for limestone, correctives and additives along with storage and transport equipment.
- Rotary kiln, Cooler and Clinker transportation and storage sizes have been considered for the plant expansion to 2600 tpd.

With the above consideration, it is expected that expansion of cement plant to 2,600 tpd would be possible at a reduced cost.

The details of total investment are shown in **Table 8.1**, which also indicates the mode of financing. The details of the total investment cost estimates are given at **Annexure 8.1 to 8.6**.

The financing of the project has been considered on the basis of a debt-equity ratio of 70:30 Interest on Term Loan has been considered at 11.5 % from Financial Institutions and 12.0 % on Working capital Loan.

The Term Loan has been assumed to be repaid over a period of 6 years that starts after a moratorium of 1 year following the commencement of operations.

Description	Amount (Rs Lakhs)
Land and Site Development	1,014
Civil Works	4,407
Plant and Machinery	8,436
Misc. Fixed Assets	2,755
Pollution Control Equipment, Green belt & Social Amenities	1,250
Contingency	447
Margin Money for Working Capital	263
<b>TOTAL</b>	<b>18,571</b>
<b>Sources of Funds</b>	
Debt	13,000
Equity	5,571
<b>TOTAL</b>	<b>18,571</b>

Table 8.1: Total Project Cost & Project Financing

### 3.0 OPERATING COSTS

The operational costs have been worked out considering the following assumptions:

#### 3.1 General

The volumes achievable by **Green Valliey Industries Pvt Ltd (GVIPL)** as per the competitiveness analysis in Chapter 2 are higher but on a conservative basis volumes considered for the plant are as under and volumes will stabilize by the forth year of operation at 85% capacity utilization

(figures in mlot t)

Year	Achievable Volumes
FY11	0.300
FY12	0.322
FY13	0.343
FY14 onwards	0.365

Table 8.2: Achievable Volumes for GVIPL

### 3.2 Raw Materials & Consumables

The cost of raw materials is given in Table 8.3.

Figures in Rs/ t

Raw materials	Amount
Limestone	107.81
Sandstone	71.02
Shale/ Clay	155
Mill scale	1550
Gypsum	2500.00
Consumables	60.00
Flyash	1600.00

Table 8.3: Cost of raw materials

Raw mix is assumed to consist of 84.78 % limestone, 7.78% Shale/ Clay, 0.68% Mill Scale and 6.76% Sandstone. The clinkerisation factor is assumed to be 1.57. Grinding ratio considered is given in Table 8.4.

Raw materials	OPC	PPC
Clinker	95%	65%
Gypsum	5%	5%
Flyash	-	30%

Table 8.4: Grinding Ratio

### 3.3 Utilities

- Based on the technical concept as detailed in the relevant chapter, specific power consumption has been considered as 89 kWh/ t for OPC and 74 kWh/ t for PPC.
- The variable cost of electricity has been considered @ Rs. 3.50 / kWh, based on grid supply.
- The project envisages 100 % Indian coal. The Indian coal (NCV 6,000 Kcal/ per kg) is assumed to cost Rs. 1,600 per t.
- The expense on water supply, treatment and distribution has been considered as Rs. 1.00 per t of cement.

### 3.4 Manpower

Manpower cost for the plant has been considered to be Rs. 396.48 Lakhs per annum.

### 3.5 Overheads

Overhead(s) for the project have been considered as given in Table 8.5:

Overheads	Amount
Repair & Maintenance	Rs. 100 per ton
Misc. factory expenses	Rs. 60 lakhs/ year
Administrative expenses	Rs. 215 lakhs/ year

Table 8.5: Overheads

#### 4.0 GOVERNMENT SUBSIDIES & TAX EXEMPTIONS

As the plant will be located in the state of Meghalaya, the following government subsidies & tax exemptions were considered. These were drawn from the North East Industrial and Investment Promotion Policy 2007 (NEIIPP 2007).

- Central Excise Duty Exemption for 10 years from the date of commercial production.
- VAT subsidy of 99% for sales of Finished Products within North East region for 9 years.
- Income Tax Exemption for a period of 10 years from the date of commercial production.

Apart from the above-mentioned subsidies the NEIIPP 2007 also provides for:

- Capital Investment Subsidy of 30% on Plant & Machinery without any cap.
- Central Transport Subsidy, which would be available for 90% of freight cost for its raw material and finished goods movement to and from outside North East States and 50 % of freight for movement within North East States.

Both of these subsidies have not been considered in calculating the financial viability of the project but would be available to the project.

#### 5.0 RESULTS

As detailed in Chapter 2, the Net Realization has been considered as shown in Table 8.6.

Particulars	Rs./ Bag
Selling Price	185.65
VAT	20.63
Less VAT Subsidy	17.68
<b>Net VAT</b>	<b>2.95</b>
Freight	20.16
Channel Margins	8.50
Excise Duty	18.03
Less Excise Subsidy	18.03
<b>Net Excise Duty</b>	<b>-</b>

Particulars	Rs./Bag
Ex-Factory Realization	154.05

Table 8.6: Net Realization

## 6.0 PROJECTED PROFIT & LOSS AND CASH FLOW

Based on the Operational & Maintenance costs, as discussed above, the annual cost of production for the first 10 years of operation has been worked out.

For the project, **Annexure 8.7** gives the breakup of Unit cost of production. **Annexure 8.8** gives the annual cost of production each year.

In addition to the cost of production, other elements accounting for profitability have been considered as follows:

The financing pattern and the interest charges for the project have been considered on the basis indicated in **Section 2.0**.

The details of interest calculations and the schedule of repayment for term borrowings for the project have been shown in **Annexure 8.9**.

Depreciation has been worked out using the Straight Line Method (SLM), considering the estimated residual value and the life of various assets.

Based on the revenues and the costs estimated, working results & profitability computations are shown in **Annexure 8.10**.

Working Capital requirements, Projected Cash Flows, Balance Sheets and Discounted Cash Flows are summarized in **Annexure 8.11, 8.12, 8.13, 8.14** and **8.15** respectively. Break-Even Analysis is shown in **Annexure 8.16**.

Contingency, Construction Schedule, Interest during Construction Period, Debt Service Coverage Ratio, Tax Calculation and Depreciation Schedule are given in **Annexure 8.17 to 8.23** respectively.

## 7.0 FINANCIAL ANALYSIS

Financial analysis reveals the following performance indicators given in **Table 8.7**.

Sn	Indicator	Unit	Value
1	IRR on Total Investment	%	22.7
2	IRR on Equity	%	36.9
2	Net Present Value @ 12.00 %	Rs Lakhs	110,13
3	Payback Period	yy-mm	03-11
4	Average Debt Service Coverage	-	1.97

Table 8.7: Performance indicators

## 8.0 SENSITIVITY ANALYSIS

The sensitivity of project break-even to variations in certain key operating parameters has been tested in order to determine operating flexibility. The parameters considered and the break-even points thus arrived at, are summarized in **Table 8.8**:

Case	Description	Break Even Point (%)	
		Project	Cash
I	Normal	40	28
II	10% increase in variable cost	43	30
III	10% increase in fixed cost	42	30
IV	10% increase in Project Cost	43	30
V	10% increase in variable cost + project cost 5% increase in fixed cost Rs. 100/ t increase in Selling Price	44	31

**Table 8.8: Performance indicators**

## 9.0 CONCLUSION

The project exhibits an Internal Rate of Return on Total Investment around 22.7%. The IRR to equity holders is around 36.9 %. Various sensitivity analyses indicate reasonable project and cash break-even percentages. In view of the acceptable level of returns, the project is financially feasible even though the Transport and Capital subsidies have not been accounted for but are available to the company.

**ANNEXURES**



## Annexure 8.1

**SUMMARY OF INVESTMENT COST ESTIMATES, LINE I**  
**( In Rs. Lacs Unless Specified Otherwise )**

Sn.	Description	Total Cost
1	Land and Site Development	1,014
2	Buildings and Other Civil Structures	4,407
3	Plant and Machinery	8,436
4	Pollution Control Equipment, Green belt & Social Amenities	1,250
5	Miscellaneous Fixed Assets	2,755
6	Provision for Contingency	447
7	Working Capital	263
	<b>Total Investment Cost</b>	<b>18,571</b>



## Annexure 8.2

**INVESTMENT COST ESTIMATES, LINE I**  
( In Rs. Lacs Unless Specified Otherwise )

Sn.	Description	Total Cost	Remarks
<b>1.0</b>	<b>Land and Site Development</b>		
1.01	Land Cost for Mines	360	60 hectare @ 6.0 lacs/hectare
1.02	Land Cost for Plant & Colony	140	40 hectare @ 3.50 lacs/hectare
1.03	Approach road (2.5 km long x 10 m wide)	140	Lumpsum
1.04	Internal plant road, semi asphalted	95	Lumpsum
1.05	Geo-technical and Hydrological Investigations	17	Lumpsum
1.06	Site Leveling and Grading	35	Lumpsum
1.07	Compound Fencing	35	Lumpsum
1.08	Gates	5	Lumpsum
1.09	Surface drain	55	Lumpsum
1.10	Interest and other preoperative expenses capitalised as per the law	131.72	
	<b>Sub-total</b>	<b>1,014</b>	
<b>2.0</b>	<b>Buildings and Other Civil Structures</b>		
2.01	Main Factory Buildings	1,348	Refer Annexure 8.3
2.02	Silos/Hoppers	1,073	Refer Annexure 8.3
2.03	Office & Non-factory Building Structures	43	Refer Annexure 8.3
2.04	Factory Buildings for Aux. Services	688	Refer Annexure 8.3
2.05	Foundation Cost	317	Refer Annexure 8.3
2.06	Housing Colony, guest House	296	Refer Annexure 8.3
2.07	Sanitation and Other Services	70	Refer Annexure 8.3
2.08	Interest and other preoperative expenses capitalised as per the law	572.64	
	<b>Sub-total</b>	<b>4,407</b>	
<b>3.0</b>	<b>Plant and Machinery</b>		
3.01	Plant	5,968	Refer Annexure 8.4
3.02	Stores & Spares @ 5% of 3.01	298	
3.03	Installation Charges @ 5% of 3.01	275	Refer Annexure 8.4
3.04	Mining Machinery	800	
3.05	Interest and other preoperative expenses capitalised as per the law	1096.18	
	<b>Sub-total</b>	<b>8,436</b>	
<b>4.0</b>	<b>Pollution Control Equipment, Green belt &amp; Social Amenities</b>		
4.01	Pollution Control Equipment	951	Refer Annexure 8.5
4.02	Stores & Spares @ 5% of 4.01	48	
4.03	Installation Charges @ 5%	44	Refer Annexure 8.5
4.04	Provision for Green Belt	5	Lumpsum
4.05	Social amenities	24	Refer Annexure 8.5
4.06	Rain water Harvesting	16	Lumpsum
4.07	Interest and other preoperative expenses capitalised as per the law	162.41	
	<b>Sub-total</b>	<b>1,250</b>	
<b>5.0</b>	<b>Miscellaneous Fixed Assets (MFA)</b>		
5.01	Furniture	15	
5.02	Office Machinery and Equipment	10	
5.03	Miscellaneous Tools and Tackles	15	
5.04	Vehicles	20	
5.05	Equipment for Distribution of Power	1,872	Refer Annexure 8.6
5.06	Emergency D.G	250	
5.07	Equipment for Water Supply	50	
5.08	Equipment for Compressed Air Distribution	-	Included in the Plant and Machinery cost
5.09	Laboratory Equipment	25	
5.10	Workshop Equipment	50	
5.11	Fire Fighting Equipment	15	
5.12	Weigh Bridge	40	
5.13	Office Computers	5	
5.14	Front End Loaders	30	
5.15	Interest and other preoperative expenses capitalised as per the law	357.92	
	<b>Sub-total</b>	<b>2,755</b>	
<b>6.0</b>	<b>Provision for Contingency</b>	<b>447</b>	
<b>7.0</b>	<b>Working Capital</b>	<b>263</b>	
	<b>Total Investment Cost</b>	<b>18,571</b>	

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valliey Industries Private Limited



## Annexure 8.2A

**DETAILS OF NON INTEREST PRE-OPERATIVE EXPENSES**  
( In Rs. Lacs Unless Specified Otherwise )

Sn.	Description	Total Cost	Remarks
<b>1.0</b>	<b>Pre-Operative Expenses</b>		
1.01	Insurance During Construction	-	
1.02	Start up Expenses	30	
1.03	Salary, Administrative Expense and other Charges during implementation phase	617	
1.04	Technical Know How Fees	200	
1.05	Expenses on Foreign Technicians and Training Abroad of Local Technicians	25	
	<b>Total</b>	<b>872</b>	



**COST OF CIVIL STRUCTURES AND FOUNDATIONS, LINE I**  
( In Rs. Lacs Unless Specified Otherwise )

Sn.	Description	Building Cost	Spl. Fnd. Cost
<b>1.0</b>	<b>Main Factory Buildings</b>		
1.01	Limestone Crusher (including ramp, ret. wall)	135	18
1.02	Corrective Crusher (including ramp)	58	8
1.03	Raw Mill House	148	19
1.04	Raw Mill Bag House & Stack	134	8
1.05	Preheater Tower	275	14
1.06	Kiln Pier	2	97
1.07	Clinker Cooler House, ESP, Stack	145	17
1.08	Coal Mill House	48	9
1.09	Cement Mill House	183	23
1.10	Coal Crusher including ramp, ret. wall, etc	45	6
1.11	Packing Plant, Truck loading, Bags godown	123	3
1.12	Gypsum Crusher (including ramp)	52	8
	<b>Sub total of Main Factory Buildings</b>	<b>1348</b>	<b>230</b>
<b>2.0</b>	<b>Silos/Storages/Hoppers</b>		
2.01	LSPB Stockpile, Linear, Covered	124	45
2.02	Corretives & Additives Stockpile, Linear, Covered	30	12
2.03	Reject (Unburnt) Clinker Hopper	12	0
2.04	Coal Stockpile, Covered	16	6
2.05	Raw Mill Hoppers	83	0
2.06	Raw Meal (Blending) Silo	175	1
2.07	Clinker Stockpile & Transport	278	1
2.08	Cerhent Mill Hoppers (including limestone hoppers)	87	0
2.09	Coal Mill Feed Bins	19	0
2.10	Flyash Storage & Bin	24	0
2.11	Cement Silo	207	1
2.12	Dump Hoppers	18	0
	<b>Sub total of Silos/Hoppers</b>	<b>1073</b>	<b>66</b>
<b>3.0</b>	<b>Auxiliary Services</b>		
3.01	Main Substation, Switchyard	18	1
3.02	Limestone Crusher Substation	12	0
3.03	CCR, Lab, Technical Office & Kiln Substation	135	0
3.04	Cement Mill Substation	14	0
3.05	MCC Rooms	16	0
3.06	Water Storage Tanks	46	0
3.07	Compressor House	22	7
3.08	Transfer Towers & Belt Conveyors (covered)	300	0
3.09	Electrical & Mechanical Workshop	50	6
3.10	Overhead Cable Galleries	65	0
3.11	Weigh Bridges	2	7
3.12	Cable Tunnel/ Trenches	8	0
	<b>Sub total of Auxiliary Services</b>	<b>688</b>	<b>21</b>
<b>4.1</b>	<b>Office &amp; Non-Factory Building Structures</b>		
4.01	Administration Building	15	0
4.02	Canteen Building	7	0
4.03	General Stores	16	0
4.04	Cement Dispatch, Security & Time office	5	0
	<b>Sub total of Office &amp; Non-Factory building structures</b>	<b>43</b>	<b>0</b>
<b>4.2</b>	<b>Quarters for Essential Staff &amp; Guest House</b>		
4.2.1	Type A Quarters - 5 Nos. 120Sqm each	34	0
4.2.2	Type B Quarters - 10 Nos. 90Sqm each	47	0
4.2.3	Type C Quarters - 20 Nos. 75Sqm each	72	0
4.2.4	Type D Quarters - 15 Nos. 60Sqm each	35	0
4.2.5	Type E Quarters - 40 Nos. 40Sqm each	59	0
4.2.6	Guest House - 900Sqm	49	0
	<b>Sub total Quarters for Essential Staff and Guest House</b>	<b>295</b>	<b>0</b>
<b>4.3</b>	<b>Sanitation and Other Services</b>		
	Sewerage, Drainage, Water Supply, Lighting, Road etc.	70	0
	<b>Sub total Sanitation and Other Services</b>	<b>70</b>	<b>0</b>
	<b>Total of Civil Structures and Spl Foundations</b>	<b>3518</b>	<b>317</b>



**Annexure 8.4**  
**COST OF MECHANICAL AND ELECTRICAL EQUIPMENT, LINE I**  
**( In Rs. Lacs Unless Specified Otherwise )**

Sn.	Description	F.O.B.	F.O.R.
<b>1.0</b>	<b>Mechanical Equipment</b>		
1.01	Raw Material Crushing	0	350
1.02	Limestone Storage, Stacker & Reclaim	0	200
1.03	Raw Material & Coal Drying and Grinding	0	800
1.04	Raw meal storage, kiln feed, Clinkerisation & Coal Firing	0	1,025
1.05	Clinker Storage and Reclaim	0	70
1.07	Clinker Handling & Grinding	0	1,000
1.08	Cement Storage	0	90
1.09	Cement Packing and despatch	0	125
1.10	Coal Crushing & Handling	0	40
1.11	Gypsum Crushing & Handling	0	30
1.12	Fly ash Storage and Handling	0	60
	<b>Sub-total of Main Machinery (1.0)</b>	<b>0</b>	<b>3790</b>
<b>2.0</b>	<b>MECHANICAL AUXILIARY EQUIPMENT(S)</b>		
2.01	Duct/Chute 500t @Rs 0.50 Lacs/t	0	250
2.02	Beltconveyor to plant and inside plant 1.5 km @Rs 250 Lacs/km	0	375
2.03	Refractory & castable 1,300 t @ Rs 00.20 lacs/t	0	260
2.04	Insulation 17,000 sqm @ Rs 00.006 lacs/sqm	0	102
2.05	Lubricants	0	20
2.06	Passenger Lifts	0	25
2.07	Roots Blowers & Compressor	0	100
2.08	Truck Tippler 2 nos.	0	40
2.09	Cranes/Hoists etc.	0	75
2.10	Miscellaneous	0	50
	<b>Sub-total of Mechanical Auxiliary Equipment</b>	<b>0</b>	<b>1297</b>
	<b>Total of Mechanical Equipment (1.0 + 2.0)</b>	<b>0</b>	<b>5087</b>
<b>3.0</b>	<b>Electrical and Instrumentation</b>		
3.01	HT Motors, LRS and Capacitors	0	100
3.02	LT Motors	0	55
3.03	AC Variable Speed Inverter Panels	0	25
3.04	X Ray Analyser (Desk Top)	0	25
3.05	Control & Instrumentation	0	200
	<b>Total Electrical and Instrumentation (3.0)</b>	<b>0</b>	<b>405</b>
	<b>Total Mechanical and Electrical excluding Pollution control equipment (1.0+2.0+3.0)</b>	<b>0</b>	<b>5492</b>
<b>4.0</b>	<b>Landed Cost of Equipment</b>		
<b>4.1</b>	<b>Imported Equipment</b>		
4.1.1	F.O.B Cost	0	
4.1.2	Ocean Freight, Insurance etc. @ 6% of 5.1.1	0	
4.1.3	Import Duty @ 7.5% of (5.1.1+5.1.2)	0	
4.1.4	Education Cess @ 3% of 5.1.3	0	
4.1.5	Countervailing Duty @ 16% of (5.1.1+5.1.2+5.1.3+5.1.4)	0	
4.1.6	Surcharge @ 2% of (5.1.5)	0	
4.1.7	Clearing/Loading/Handling etc. @ 5% of (5.1.1)	0	
	<b>Sub-total of Imported Equipment (5.1)</b>	<b>0</b>	
<b>4.2</b>	<b>Indigenous Equipment</b>		
4.2.1	F.O.R Cost	5,492	
4.2.2	Excise Duty @ 16% of F.O.R (5.2.1)	879	
4.2.3	Education Cess @ 3 % of 5.2.2	26	
4.2.4	Sales Tax @ 4% of (5.2.1+5.2.2+5.2.3)	256	
4.2.5	Freight, Handling, Insurance etc. @ 4.0% of 5.2.1	220	
	<b>Sub-total of Indigenous Equipment (5.2)</b>	<b>6873</b>	
	<b>Total Landed Cost of Equipment (5.1 + 5.2)</b>	<b>6873</b>	
<b>5.0</b>	<b>Installation Charges @ 5% of (F.O.R. + F.O.B)</b>	<b>275</b>	
<b>A</b>	<b>Total Cost of Mechanical and Electrical Equipment</b>	<b>7147</b>	
<b>B</b>	<b>Imported Equipment Net of CVD</b>	<b>0</b>	
<b>C</b>	<b>Indigenous Equipment Net of Excise Duty</b>	<b>5,968</b>	
<b>D</b>	<b>Excise Duty + 100% CVD</b>	<b>905</b>	



## Annexure 8.5

COST OF POLLUTION CONTROL EQUIPMENT & SOCIAL AMENITIES, LINE I		
( In Rs. Lacs Unless Specified Otherwise )		
Sn.	Description	FOR COST
<b>1</b>	<b>POLLUTION CONTROL EQUIPMENT</b>	
	Bag house, ESP, Bag Filters	875
	<b>Total of Pollution Control Equipment</b>	<b>875</b>
1.1.1	F.O.R Cost	875
1.1.2	Excise Duty @ 16% of F.O.R (1.1.1)	140
1.1.3	Education Cess @ 3 % of 1.1.2	4.2
1.1.4	Sales Tax @ 4% of (1.1.1+1.1.2+1.1.3)	40.8
1.1.5	Freight, Handling, Insurance etc.@ 4.0% of 1.1.1	35
	<b>Sub-total of Pollution Control Equipment</b>	<b>1095</b>
	<b>Pollution control equipment net of excise</b>	<b>951</b>
<b>2.0</b>	<b>Social Amenities</b>	
2.1	Dispensary ~ 150Sqm	5
2.2	Community Hall/Shops ~ 500Sqm	19
	<b>Sub-total of Social Amenities</b>	<b>24</b>



## Annexure 8.6

**COST OF POWER DISTRIBUTION EQUIPMENT, LINE I**  
( In Rs. Lacs Unless Specified Otherwise )

Sn.	Description	F.O.B.	F.O.R.
<b>1.0</b>	<b>Power Distribution Equipment</b>		
1.01	Transmission line (8 Km )		70
1.02	132 KV switch yard		150
1.03	6.6 KV switchboards and bus duct		200
1.04	6.6/ 0.433 KV Distribution Transformer		60
1.05	415 V Switchboards and busducts		100
1.06	415 V LT Capacitors and Capacitor Control Panels	0	35
1.07	415 V Motor Control Centres and Push Button Station	0	200
1.08	Cables ( HT, LT, Control & Instrumentation )	0	450
1.09	Earthing cable trays and lightning protection	0	100
1.10	Plant Illumination	0	30
1.11	Pressurisation and Ventilation System	0	40
1.12	Air-Conditioning Units	0	15
1.13	PA System & Telephone exchange	0	15
1.14	Battery & Battery Charger	0	20
1.15	Miscellaneous Electrical Equipment and Erection Hardware	0	50
1.16	Fire Detection System in Electrical Buildings	0	20
1.17	Colony power distribution		50
	<b>Sub Total</b>	<b>0</b>	<b>1,385</b>
<b>2.0</b>	<b>Landed Cost of Equipment</b>		
2.01	F.O.R Cost	1,385	
2.02	Excise Duty on Equipment @ 16% of 2.01	222	
2.03	Education Cess @ 3 % of 2.02	7	
2.04	Sales Tax @ 4% of (2.01+2.02+2.03)	65	
2.05	Freight, Handling, Insurance etc @ 4.0% of (2.01)	55	
	<b>Total Landed Cost of Equipment</b>	<b>1,733</b>	
<b>3.0</b>	<b>Spare Parts @ 5%</b>	<b>69</b>	
<b>4.0</b>	<b>Installation Charges @ 5% of FOR cost</b>	<b>69</b>	
<b>A</b>	<b>Total Cost of Power Distribution Equipment</b>	<b>1,872</b>	
<b>B</b>	<b>Power Distribution Equipment Net of Excise</b>	<b>1,643</b>	
<b>C</b>	<b>Excise Duty on Power Distribution Equipment</b>	<b>228</b>	

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



## ANNEXURE 8.7

## UNIT COST OF PRODUCTION ( 4th year of operation )

S.NO	DESCRIPTION	UNIT	Rs./UNIT	QTY/UNIT	QTY/UNIT	COST (Rs/t)	COST (Rs/t)
				OPC - TOTAL	PPC - TOTAL	OPC - TOTAL	PPC - TOTAL
<b>1.0</b>	<b>RAW MATERIALS &amp; CONSUMABLES</b>						
1.1	Limestone	Tonnes	107.81	1.264	0.865	136.33	93.28
1.2	Shale/ Clay	Tonnes	155.00	0.116	0.079	17.99	12.31
1.3	Mill scale	Tonnes	1550.00	0.010	0.007	15.72	10.76
1.4	Sandstone	Tonnes	71.02	0.101	0.069	7.16	4.90
1.5	Flyash	Tonnes	1600.00		0.300	0.00	480.00
1.6	Gypsum	Tonnes	2500.00	0.050	0.050	125.00	125.00
1.7	Consumables	Tonnes	60.00	1.000	1.000	60.00	60.00
	SUB TOTAL ( 1 )					362.19	786.24
<b>2.0</b>	<b>UTILITIES</b>						
2.1	Power (IU)	KWH	3.500	89.00	74.00	311.50	259.00
2.2	Indian coal	Tonnes	1600	0.1235	0.0845	197.60	135.20
2.3	Water					1.00	1.00
	SUB TOTAL ( 2 )					510.10	395.20
<b>3.0</b>	<b>WAGES &amp; SALARIES INCL. BENEFITS</b>					108.73	108.73
<b>4.0</b>	<b>FACTORY OVERHEADS</b>					116.45	116.45
<b>5.0</b>	<b>ADMINISTRATIVE EXPENSES</b>					58.82	58.82
	Sub Total (1+2+3+4+5)					1156.30	1465.44
<b>6.0</b>	<b>PACKING EXPENSES</b>					140.00	140.00
	<b>TOTAL UNIT COST OF PRODUCTION</b>					<b>1296.30</b>	<b>1605.44</b>

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



## ANNEXURE 8.8

## ESTIMATED COST OF PRODUCTION (In Rs. Lacs unless otherwise mentioned)

OPERATING YEARS	1	2	3	4	5	6	7	8	9	10
CAPACITY										
Installed Capacity ( Lac Tonnes )	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29	4.29
Capacity Utilisation ( % )	70%	75%	80%	85%	85%	85%	85%	85%	85%	85%
PRODUCTION ( Lac Tonnes )	3.00	3.22	3.43	3.65	3.65	3.65	3.65	3.65	3.65	3.65
OPC - TOTAL	1.20	1.29	1.37	1.46	1.46	1.46	1.46	1.46	1.46	1.46
PPC - TOTAL	1.80	1.93	2.06	2.19	2.19	2.19	2.19	2.19	2.19	2.19
RAW MATERIALS & CONSUMABLES										
Limestone	332	356	379	403	403	403	403	403	403	403
Shale/ Clay	44	47	50	53	53	53	53	53	53	53
Mill scale	38	41	44	46	46	46	46	46	46	46
Sandstone	17	19	20	21	21	21	21	21	21	21
Flyash	865	927	988	1050	1050	1050	1050	1050	1050	1050
Gypsum	375	402	429	456	456	456	456	456	456	456
Consumables	180	193	206	219	219	219	219	219	219	219
SUB TOTAL	1852	1984	2116	2249	2249	2249	2249	2249	2249	2249
UTILITIES & FUELS										
Power (IU)	841	901	961	1021	1021	1021	1021	1021	1021	1021
Indian coal	481	515	550	584	584	584	584	584	584	584
Water	3	3	3	4	4	4	4	4	4	4
SUB TOTAL	1325	1419	1514	1609	1609	1609	1609	1609	1609	1609
WAGES & SALARIES										
Wages	396	396	396	396	396	396	396	396	396	396
SUB TOTAL	396	396	396	396	396	396	396	396	396	396
FACTORY OVERHEADS										
Repair & Maintenance	300	322	343	365	365	365	365	365	365	365
Misc. Factory Expenses	60	60	60	60	60	60	60	60	60	60
SUB TOTAL	360	382	403	425	425	425	425	425	425	425
ESTIMATED COST OF PRODUCTION	3933	4182	4430	4678	4678	4678	4678	4678	4678	4678

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



## ANNEXURE 8.9

REPAYMENT AND INTEREST SCHEDULE FOR LOANS (In Rs. Lacs unless otherwise mentioned)										
OPERATING YEARS	1	2	3	4	5	6	7	8	9	10
Loan										
Rate of Interest	11.50%									
Loan ( Outstanding )	13000	13000	10833	8666	6500	4333	2167	0	0	0
Interest	1495	1370	1121	872	623	374	125	0	0	0
Moratorium	Yes									
Repayment	0	2167	2167	2167	2167	2167	2167			
Closing Balance	13000	10833	8666	6500	4333	2167	0	0	0	
Total Interest (Term Loan)	1495	1370	1121	872	623	374	125	0	0	0
Working Capital Loan										
Rate of Interest	12.00%									
Loan ( Outstanding )	338	362	386	410	410	410	410	410	410	410
Interest	41	43	46	49	49	49	49	49	49	49
Moratorium	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Repayment	0	0	0	0	0	0	0	0	0	0
Total Interest (Working Capital Loan)	41	43	46	49	49	49	49	49	49	49

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



## ANNEXURE 8.10

## ESTIMATES OF WORKING RESULTS AND PROFITABILITY (In Rs. lacs unless otherwise mentioned)

OPERATING YEARS	1	2	3	4	5	6	7	8	9	10
COST OF MANUFACTURE	3933	4182	4430	4678	4678	4678	4678	4678	4678	4678
ADMINISTRATIVE EXPENSES										
All	215	215	215	215	215	215	215	215	215	215
SUB TOTAL	215	215	215	215	215	215	215	215	215	215
PACKING EXPENSES										
Packing	420	450	480	511	511	511	511	511	511	511
SUB TOTAL	420	450	480	511	511	511	511	511	511	511
TOTAL COST OF PRODUCTION	4568	4847	5125	5403	5403	5403	5403	5403	5403	5403
SALES ( LAC TONNES )										
OPC - TOTAL	1.20	1.29	1.37	1.46	1.46	1.46	1.46	1.46	1.46	1.46
PPC - TOTAL	1.80	1.93	2.06	2.19	2.19	2.19	2.19	2.19	2.19	2.19
SUB TOTAL	3.00	3.22	3.43	3.65	3.65	3.65	3.65	3.65	3.65	3.65
NET SELLING PRICE / TONNE										
OPC - TOTAL	2367	2367	2367	2367	2367	2367	2367	2367	2367	2367
PPC - TOTAL	2367	2367	2367	2367	2367	2367	2367	2367	2367	2367
SALES REVENUE										
OPC - TOTAL	2843	3046	3249	3452	3452	3452	3452	3452	3452	3452
PPC - TOTAL	4265	4569	4874	5178	5178	5178	5178	5178	5178	5178
SUB TOTAL	7108	7615	8123	8631	8631	8631	8631	8631	8631	8631
GROSS PROFIT BEFORE INTEREST DEPRECIATION AND TAX	2539	2769	2998	3227	3227	3227	3227	3227	3227	3227
FINANCIAL EXPENSES										
INTEREST ON TERM LOAN	1495	1370	1121	872	623	374	125	0	0	0
INTEREST ON WORKING CAPITAL LOAN	41	43	46	49	49	49	49	49	49	49
SUB TOTAL	1536	1414	1168	921	672	423	174	49	49	49

## ESTIMATES OF WORKING RESULTS AND PROFITABILITY (In Rs. lacs unless otherwise mentioned)

OPERATING YEARS	1	2	3	4	5	6	7	8	9	10
DEPRECIATION PROVISION	820	820	820	820	820	820	820	820	820	820
OPERATING PROFIT / LOSS	184	535	1011	1486	1736	1985	2234	2358	2358	2358
PROFIT / LOSS BEFORE TAXATION	184	535	1011	1486	1736	1985	2234	2358	2358	2358
Subsidies and Exemptions										
EXCISE SUBSIDY	1083	1160	1237	1315	1315	1315	1315	1315	1315	1315
VAT SUBSIDY	1062	1138	1214	1290	1290	1290	1290	1290	1290	0
TOTAL SUBSIDY	2145	2298	2451	2604	2604	2604	2604	2604	2604	1315
PROFIT / LOSS BEFORE TAXATION + SUBSIDY	2329	2833	3462	4091	4340	4589	4838	4963	4963	3673
PROVISION FOR TAXATION (only MAT if applicable)	264	321	392	463	492	520	548	562	562	416
PROFIT / LOSS AFTER TAX	2065	2512	3070	3627	3848	4069	4290	4400	4400	3257
RETAINED PROFIT	2065	2512	3070	3627	3848	4069	4290	4400	4400	3257
DEPRECIATION ADDED BACK	820	820	820	820	820	820	820	820	820	820
NET CASH ACCRUALS	2885	3332	3889	4447	4668	4889	5110	5220	5220	4077

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



## ANNEXURE 8.11

## SCHEDULE FOR WORKING CAPITAL REQUIREMENTS (In Rs. Lacs unless otherwise mentioned)

S.NO	DESCRIPTION	NO OF DAYS	%OF BANK FINANCE	I YEAR			II YEAR			III YEAR			IV YEAR						
				AMOUNT	BANK FINANCE	MARGIN MONEY	AMOUNT	BANK FINANCE	MARGIN MONEY	AMOUNT	BANK FINANCE	MARGIN MONEY	AMOUNT	BANK FINANCE	MARGIN MONEY				
1.0	RAW MATERIALS & CONSUMABLES																		
1.1	Limestone	3.5	75%	3.52	2.64	0.88	3.77	2.83	0.94	4.02	3.02	1.01	4.27	3.21	1.07				
1.2	Shale/Clay	3.5	75%	0.46	0.35	0.12	0.50	0.37	0.12	0.53	0.40	0.13	0.56	0.42	0.14				
1.3	Mill scale	7.5	75%	0.87	0.65	0.22	0.93	0.70	0.23	0.99	0.75	0.25	1.06	0.79	0.26				
1.4	Sandstone	3.5	75%	0.18	0.14	0.05	0.20	0.15	0.05	0.21	0.16	0.05	0.22	0.17	0.06				
1.5	Flyash	3.5	75%	9.17	6.88	2.29	9.83	7.37	2.46	10.48	7.86	2.62	11.14	8.35	2.78				
1.6	Gypsum	7.5	75%	8.53	6.40	2.13	9.14	6.86	2.29	9.75	7.31	2.44	10.36	7.77	2.59				
1.7	Consumables	15	75%	8.19	6.14	2.05	8.78	6.58	2.19	9.36	7.02	2.34	9.95	7.46	2.49				
2.0	UTILITIES																		
2.1	Power (IU)	30	0%	76.44	0.00	76.44	81.90	0.00	81.90	87.36	0.00	87.36	92.82	0.00	92.82				
2.2	Indian coal	3.5	75%	5.10	3.83	1.28	5.47	4.10	1.37	5.83	4.37	1.46	6.19	4.65	1.55				
3.0	LABOUR & FACTORY OVERHEADS																		
3.1	Wages & Salaries	30	0%	36.04	0.00	36.04	36.04	0.00	36.04	36.04	0.00	36.04	36.04	0.00	36.04				
3.2	Factory Overheads	30	0%	32.75	0.00	32.75	34.70	0.00	34.70	36.65	0.00	36.65	38.60	0.00	38.60				
4.0	SELLING EXPENSES																		
4.1	Packing Expenses	15	75%	19.11	14.33	4.78	20.48	15.36	5.12	21.84	16.38	5.46	23.21	17.40	5.80				
5.0	WORK IN PROGRESS																		
5.1	Raw Meal	1.25	0%	4.47	0.00	4.47	4.75	0.00	4.75	5.03	0.00	5.03	5.32	0.00	5.32				
5.2	Clinker	3.5	75%	31.29	23.47	7.82	33.26	24.95	8.32	35.24	26.43	8.81	37.21	27.91	9.30				
5.3	Cement in Silo	3.5	75%	41.72	31.29	10.43	44.35	33.26	11.09	46.98	35.24	11.75	49.62	37.21	12.40				
6.0	ACCOUNTS RECEIVABLE	15	75%	323.07	242.30	80.77	346.15	259.61	86.54	369.23	276.92	92.31	392.30	294.23	98.08				
	TOTAL			600.93	338.42	262.51	640.25	362.13	278.11	679.56	385.85	293.71	718.88	409.57	309.31				
	INCREASE IN WORKING CAPITAL			-	-	-	39.32	23.72	15.60	39.32	23.72	15.60	39.32	23.72	15.60				

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



## ANNEXURE 8.12

## PROJECTED FUNDS FLOW STATEMENT (In Rs. Lacs unless otherwise mentioned)

S.NO	YEARS	CONSTRUCTION PERIOD		OPERATION PERIOD																
		1	2	1	2	3	4	5	6	7	8	9	10							
1.00	SOURCES OF FUNDS																			
1.01	Equity	2994	2578																	
1.02	Debt	7332	5668																	
1.03	Working Capital Loan		338	24	24	24	0	0	0	0	0									
1.04	PBT with Interest Added Back			3864	4247	4629	5012	5012	5012	5012	5012	5012	5012	5012	5012	5012	5012	5012	5012	3722
1.05	Depreciation			820	820	820	820	820	820	820	820	820	820	820	820	820	820	820	820	820
	TOTAL SOURCES	10325	8584	4708	5090	5473	5831	5831	5831	5831	5831	5831	5831	5831	5831	5831	5831	5831	5831	4542
2.00	DISPOSITION OF FUNDS																			
2.01	Fixed Assets Purchase																			
2.02	Increase in Current Assets		7983																	
2.03	Repayment of Term Loan		601	39	39	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.04	Payment of Interest on Term Loan			0	2167	2167	2167	2167	2167	2167	2167	2167	2167	2167	2167	2167	2167	2167	2167	0
2.05	Payment of Interest on W/C Loan			1495	1370	1121	872	623	374	125	0	0	0	0	0	0	0	0	0	0
2.06	Taxation			41	43	46	49	49	49	49	49	49	49	49	49	49	49	49	49	49
	TOTAL DISPOSITION			264	321	392	463	492	520	548	562	562	562	562	562	562	562	562	562	416
				1839	3941	3766	3551	3330	3109	2888	2888	2888	2888	2888	2888	2888	2888	2888	2888	2888
3.00	SURPLUS DEFICIT	0	0	2869	1149	1707	2280	2501	2722	2943	2943	2943	2943	2943	2943	2943	2943	2943	2943	4077
4.00	OPENING CASH & BANK BALANCE	0	0	0	2869	4018	5725	8006	10507	13229	16172	19115	22058	25001	27944	30887	33830	36773	39716	42659
5.00	CLOSING CASH & BANK BALANCE	0	0	2869	4018	5725	8006	10507	13229	16172	19115	22058	25001	27944	30887	33830	36773	39716	42659	45602

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited

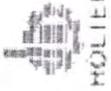


## ANNEXURE 8.13

## PROJECTED BALANCE SHEET (In Rs. Lacs unless otherwise mentioned)

S.NO	DESCRIPTION	CONSTRUCTION PERIOD		OPERATION PERIOD (CALENDAR YEARS)																	
		1	2	1	2	3	4	5	6	7	8	9	10								
1.00	LIABILITIES																				
1.01	Equity	2,994	5,571	5,571	5,571	5,571	5,571	5,571	5,571	5,571	5,571	5,571	5,571	5,571	5,571	5,571	5,571	5,571	5,571	5,571	
1.02	General reserves		-	2,065	4,577	7,646	11,274	15,122	19,191	23,480	27,881	32,281	35,538								
1.03	Debt	7,332	13,000	13,000	10,833	8,666	6,500	4,333	2,167	-	-	-	-	-	-	-	-	-	-	-	
1.04	Working Capital Loan		338	362	386	410	410	410	410	410	410	410	410	410	410	410	410	410	410	410	
	TOTAL LIABILITIES	10,325	18,909	20,998	21,367	22,294	23,754	25,435	27,338	29,461	33,861	38,262	41,519								
2.00	ASSETS																				
2.01	Gross fixed assets	10,325	18,308	18,308	18,308	18,308	18,308	18,308	18,308	18,308	18,308	18,308	18,308	18,308	18,308	18,308	18,308	18,308	18,308	18,308	
2.02	Accumulated Depreciation		-	820	1,639	2,459	3,279	4,099	4,918	5,738	6,558	7,377	8,197								
2.03	Net fixed assets (2.01-2.02)	10,325	18,308	17,489	16,669	15,849	15,029	14,210	13,390	12,570	11,751	10,931	10,111								
2.04	Preliminary Expenses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2.05	Working capital assets		601	640	680	719	719	719	719	719	719	719	719	719	719	719	719	719	719	719	
2.06	Cash & bank balance		-	2,869	4,018	5,725	8,006	10,507	13,229	16,172	21,392	26,612	30,689								
	TOTAL ASSETS	10,325	18,909	20,998	21,367	22,294	23,754	25,435	27,338	29,461	33,861	38,262	41,519								

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



ANNEXURE 8.14

DISCOUNTED CASH FLOW STATEMENT(TOTAL INVESTMENT) (In Rs.Lacs unless otherwise mentioned)

YEARS	CONSTRUCTION PERIOD			OPERATION PERIOD (CALENDAR YEARS)									
	0	1	2	1	2	3	4	5	6	7	8	9	10
INFLOWS													
NET CASH ACCRUALS AFTER INTEREST & TAX				2,885	3,332	3,889	4,447	4,868	4,889	5,110	5,220	5,220	4,077
ADD BACK: FINANCIAL EXPENSES				1,536	1,414	1,168	921	672	423	174	49	49	49
LESS: INCREASE IN WORKING CAPITAL				39	39	39	-	-	-	-	-	-	-
MODVAT													
TERMINAL VALUE													18,167
TOTAL INFLOW	-	-	-	4,381	4,706	5,017	5,368	5,340	5,312	5,283	5,269	5,269	22,292
OUTFLOWS													
INVESTMENT		10,325	8,584										
TOTAL OUTFLOW	-	10,325	8,584										
NET CASH FLOW	-	(10,325)	(8,584)	4,381	4,706	5,017	5,368	5,340	5,312	5,283	5,269	5,269	22,292

IRR ON INVESTMENT (%) 22.7%  
NPV ( 12 % Discount rate ) 11,013 Rs. Lacs  
PAY BACK PERIOD 3 years and 11 months

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



HOLIER

## ANNEXURE 8.15

DISCOUNTED CASH FLOW STATEMENT (TOTAL EQUITY) (In Rs. Lacs unless otherwise mentioned)

YEARS	CONSTRUCTION PERIOD			OPERATION PERIOD (CALENDAR YEARS)									
	0	1	2	1	2	3	4	5	6	7	8	9	10
INFLOWS													
NET CASH ACCRUALS AFTER INTEREST & TAX				2,885	3,332	3,889	4,447	4,668	4,889	5,110	5,220	5,220	4,077
LESS: LOAN REPAYMENT				-	2,167	2,167	2,167	2,167	2,167	2,167	-	-	-
LESS: CHANGES IN WORKING CAPITAL FROM INTERNAL ACCRUALS				16	16	16	-	-	-	-	-	-	-
TERMINAL VALUE													11,055
TOTAL INFLOW	-	-	-	2,869	1,149	1,707	2,280	2,501	2,722	2,943	5,220	5,220	15,131
OUTFLOWS													
EQUITY		2,994	2,578										
TOTAL OUTFLOW	-	2,994	2,578										
NET CASH FLOW	-	(2,994)	(2,578)	2,869	1,149	1,707	2,280	2,501	2,722	2,943	5,220	5,220	15,131

36.9%

IRR ON EQUITY (%)

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



ANNEXURE 8.16

BREAK EVEN POINT AND SENSITIVITY ANALYSIS ( 4th year of operation )					
	NORMAL	CASE1	CASE2	CASE3	CASE4
VARIABLE COST (Rs. Lacs)					
RAW MATERIAL & CONSUMABLE STORES	2249	2473	2249	2249	2473
UTILITIES	1609	1770	1609	1609	1770
PACKING EXPENSES	511	562	511	511	562
TOTAL VARIABLE COST (Rs. Lacs)	4368	4804	4368	4368	4804
AVERAGE VARIABLE COST ( Rs./ton )	1198	1318	1198	1198	1318
FIXED COST (Rs. Lacs )					
WAGES & SALARIES	396	396	436	396	416
FACTORY OVERHEADS	425	425	467	425	446
ADMINISTRATIVE EXPENSES	215	215	236	215	225
FINANCIAL EXPENSES	921	921	921	1013	1013
DEPRECIATION	820	820	820	902	902
TOTAL FIXED COST (Rs. Lacs )	2777	2777	2880	2951	3002
AVERAGE FIXED COST ( Rs./ton )	761	761	790	809	823
Total Subsidy (Rs./ton)	714	714	714	714	714
AVERAGE SELLING PRICE PLUS SUBSIDY(Rs./ton)	3081	3081	3081	3081	3181
PROJECT BREAK EVEN POINT ( Lac tonnes )	1.47	1.57	1.53	1.57	1.61
PROJECT BREAK EVEN PERCENTAGE	40%	43%	42%	43%	44%
CASH BREAK EVEN POINT (Lac tonnes )	1.04	1.11	1.09	1.09	1.13
CASH BREAK EVEN PERCENTAGE	28%	30%	30%	30%	31%

CASE 1 - 10% increase in variable cost

CASE 2 - 10% increase in fixed cost

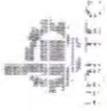
CASE 3 - 10% increase in Project Cost

CASE 4 - 10% increase in Variable Cost & Project Cost

5% increase in Fixed Cost

100 Rs/t increase in Selling Price

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



**ANNEXURE 8.17**

CONTINGENCY CALCULATION (In Rs.lacs unless otherwise mentioned)

DESCRIPTION	COST	CONTINGENCY %	CONTINGENCY	SUB TOTAL	PRO RATA EXP	OPENING BALANCE
LAND AND SITE DEVELOPMENT	882	2.50%	22	904		904
OTHER BUILDINGS	3835	2.50%	96	3930		3930
PLANT & MACHINERY EXCL FOUNDN. ETC	7340	2.50%	184	7524	1613	9137
PRO RATA EXP						
a) TECHNICAL KNOW HOW FEES	200	2.50%	5	205		
b) EXP ON FOREIGN TECHNICIANS	25	2.50%	1	26		
c) PRE OPERATIVE EXPENSES	2096	2.50%	52	2148		
SUB TOTAL (a,b,c)				2379		
MISCELLANEOUS FIXED ASSETS						
Power Distribution System & Transmission lines	1872	2.50%	47	1918	411	2330
Other MFA	1613	2.50%	40	1653	354	2007
MARGIN MONEY FOR WORKING CAPITAL	263	0.00%	0	263		263
TOTAL	18124		447	18571	2379	18571
FIXED ASSETS	11095					
GROSS FIXED ASSETS	18308					

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



## ANNEXURE 8.18

ESTIMATES OF CASH FLOW  
(In Rs. Lacs unless otherwise mentioned)

S.NO	DESCRIPTION	TOTAL COST	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 5	Qtr. 6	Qtr. 7	Qtr. 8	Total
1.00	LAND AND SITE DEVELOPMENT	882.00	30%	20%	20%	20%	5%	5%	0%	0%	100%
2.00	BUILDINGS										
	Main Factory Buildings	3834.50	5%	10%	20%	20%	20%	10%	10%	5%	100%
3.00	PLANT AND MACHINERY										
	Indigenous	7340.18	5%	10%	20%	20%	15%	15%	10%	5%	100%
	Sub-Total	7340.18									
4.00	TECHNICAL KNOW HOW FEES	200.00	10%	15%	20%	15%	15%	10%	10%	5%	100%
5.00	EXPENSES ON FOREIGN TECHNICANS & TRAINING	25.00	0%	0%	15%	25%	20%	15%	15%	10%	100%
6.00	MISCELLANEOUS FIXED ASSETS (MFA)										
	Power Distribution Equipment	1871.68	10%	10%	15%	15%	15%	15%	10%	10%	100%
	Other MFA, Pollution Control Equipment, etc	1612.52	10%	10%	15%	15%	15%	15%	10%	10%	100%
	Sub-Total	3484.20									
7.00	PRE OPERATIVE EXPENSES (EXCL. INTEREST)	647.00	10%	10%	20%	20%	15%	15%	5%	5%	100%
8.00	PROVISION FOR CONTINGENCY ( @2.5% )	446.54	0%	0%	0%	0%	0%	0%	0%	100%	100%
9.00	MARGIN MONEY FOR WORKING CAPITAL	262.51	0%	0%	0%	0%	0%	0%	0%	100%	100%

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



ANNEXURE 8.19

SCHEDULE FOR CASH OUT FLOW DURING CONSTRUCTION PERIOD (In Rs. Lacs unless otherwise mentioned)										
S.N O	DESCRIPTION	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 5	Qtr. 6	Qtr. 7	Qtr. 8	TOTAL
1.00	LAND AND SITE DEVELOPMENT	265	176	176	176	44	44	0	0	862
2.00	BUILDINGS									
	Main Factory Buildings	192	383	767	767	767	383	383	192	3835
	TOTAL BUILDING									3835
3.00	PLANT AND MACHINERY									
	Indigenous	367	734	1468	1468	1101	1101	734	367	7340
	TOTAL PLANT AND MACHINERY									7340
4.00	TECHNICAL KNOW HOW FEES	20	30	40	30	30	20	20	10	200
5.00	EXPENSES ON FOREIGN TECHNICIANS & TRAINING	0	0	4	6	5	4	4	3	25
6.00	MISCELLANEOUS FIXED ASSETS (MFA)									
	Power Distribution Equipment	187	187	281	281	281	281	187	187	1872
	Other MFA, Pollution Control Equipment, etc.	161	161	242	242	242	242	161	161	1613
	TOTAL MFA									3484
7.00	PRE OPERATIVE EXPENSES (EXCL. INTEREST)	65	65	129	129	97	97	32	32	647
8.00	PROVISION FOR CONTINGENCY (@2.5%)	0	0	0	0	0	0	0	447	447
9.00	MARGIN MONEY FOR WORKING CAPITAL	0	0	0	0	0	0	0	263	263
	GRAND TOTAL	1256	1737	3107	3100	2567	2172	1522	1661	17122

CALCULATION OF INTEREST DURING CONSTRUCTION PERIOD (In Rs. Lacs unless otherwise mentioned)										
	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 5	Qtr. 6	Qtr. 7	Qtr. 8	TOTAL	
TOTAL FUND REQUIREMENT	1256.45	1737	3107	3100	2567	2172	1522	1661	17121.94	
EQUITY	408.82	565	1011	1009	835	707	495	540	5571.08	
*)PROMOTERS CONTRIBUTION	409	565	1011	1009	835	707	495	540	5571	
TERM LOANS	848	1172	2096	2091	1732	1465	1027	1121	11550.86	
PERIOD OF TERM LOAN	22.50	19.50	16.50	13.50	10.50	7.50	4.50			
LOAN	848	1172	2096	2091	1732	1465	1027	1121	11551	
INTEREST - LOAN	183	219	331	271	174	105	44	0	1328	
COMMITMENT CHARGES ON TERM LOAN	121	0	0	0	0	0	0	0	121	
TERM LOAN + PREOP. INTEREST + COMM. CHARGE	1152	1391	2428	2362	1906	1571	1071	1121	13000	
GRAND TOTAL OF EQUITY	409	565	1011	1009	835	707	495	540	5571	
TOTAL OF TERM LOANS	848	1172	2096	2091	1732	1465	1027	1121	11550.9	
TOTAL OF INTEREST & COMMITMENT CHARGES	304	219	331	271	174	105	44	0	1448.9	
GRAND TOTAL OF DEBT	1152	1391	2428	2362	1906	1571	1071	1121	12999.7	
GRAND TOTAL	1561	1956	3439	3370	2741	2277	1566	1661	18570.8	

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valliey Industries Private Limited

**ANNEXURE 8.20**

INDICATORS OF PERFORMANCE (In Rs. Lacs unless otherwise mentioned)							
OPERATING YEARS	1	2	3	4	5	6	7
DEBT SERVICE COVERAGE RATIO	2.93	1.33	1.52	1.75	1.90	2.07	2.28
AVERAGE DSCR	1.97						

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valley Industries Private Limited



## ANNEXURE 8.21

COMPUTATION OF TAX LIABILITY (In Rs. Lacs unless otherwise mentioned)										
OPERATING YEARS	1	2	3	4	5	6	7	8	9	10
PROFIT/LOSS BEFORE TAXATION	2329	2833	3462	4091	4340	4589	4838	4963	4963	3673
ADD BACK DEPRECIATION	820	820	820	820	820	820	820	820	820	820
PBDT	3148	3653	4281	4910	5159	5409	5658	5782	5782	4493
B/F Loss previous year	0	0	0	0	0	0	0	0	0	0
Previous Year Loss Adjusted	0	-	-	-	-	-	-	-	-	-
Adjusted PBDT	3148	3653	4281	4910	5159	5409	5658	5782	5782	4493
Unabsorbed Loss current year	-	-	-	-	-	-	-	-	-	-
Unabsorbed Loss previous year	-	-	-	-	-	-	-	-	-	-
Unabsorbed Loss C/F	-	-	-	-	-	-	-	-	-	-
B/F depreciation previous year	-	-	-	-	-	-	-	-	-	-
Depreciation as per Income Tax Act	3111	2457	1955	1566	1265	1030	846	700	585	492
Depreciation available for adjustment	3,111	2,457	1,955	1,566	1,265	1,030	846	700	585	492
Depreciation adjusted during the year	3,111	2,457	1,955	1,566	1,265	1,030	846	700	585	492
Depreciation c/f	-	-	-	-	-	-	-	-	-	-
Total Taxable Income	37	1,195	2,327	3,344	3,894	4,378	4,812	5,082	5,198	4,001
Tax on Taxable Income	13	406	791	1,137	1,324	1,488	1,636	1,727	1,767	1,360
MAT	264	321	392	463	492	520	548	562	562	416
TAX PAID (at most MAT for NorthEast)	264	321	392	463	492	520	548	562	562	416

CORPORATE TAX RATE	30%
SURCHARGE	10.0%
Education cess	3.0%
NET TAX	33.99%

MAT	10%
SURCHARGE	10.0%
Education cess	3.0%
NET TAX	11.33%

TEFR for a 1,300 tpd Greenfield Cement Project in Meghalaya Expandable to 2,600 tpd  
Green Valley Industries Private Limited



HOLTEC

## ANNEXURE 8.22

DEPRECIATION TABLE (STRAIGHT LINE METHOD) (In Rs. Lacs unless otherwise mentioned)

ITEM	Land and Site Development	Building	Plant and Machinery	Power Distribution System & Transmission lines	Other MFA	GRAND TOTAL
OPENING. BAL	904	3930	9137	2330	2007	18308
RATE	0%	3%	5%	5%	5%	-
DEP YR 1	0	131	482	111	95	820
DEP YR 2	0	131	482	111	95	820
DEP YR 3	0	131	482	111	95	820
DEP YR 4	0	131	482	111	95	820
DEP YR 5	0	131	482	111	95	820
DEP YR 6	0	131	482	111	95	820
DEP YR 7	0	131	482	111	95	820
DEP YR 8	0	131	482	111	95	820
DEP YR 9	0	131	482	111	95	820
DEP YR 10	0	131	482	111	95	820
DEP YR 11	0	131	482	111	95	820
DEP YR 12	0	131	482	111	95	820
DEP YR 13	0	131	482	111	95	820
DEP YR 14	0	131	482	111	95	820
DEP YR 15	0	131	482	111	95	820

TEFR for a 1,300 tpd Expandable to 2,600 tpd Greenfield Cement Project in Meghalaya  
Green Valliey Industries Private Limited



HOLTEC

ANNEXURE 8.23

W.D.V DEPRECIATION (INCOME TAX ACT)(In Rs. Lacs unless otherwise mentioned)

ITEM	Land and Site Development	Buildings	Plant and Machinery	Power Distribution System & Transmission lines	Other MFA	GRAND TOTAL
OPENING. BAL	904	3930	9137	2330	2007	18308
WDV RATE	0%	10%	25%	10%	10%	
DEP YR 1	0	393	2284	233	201	3111
DEP YR 2	0	354	1713	210	181	2457
DEP YR 3	0	318	1285	189	163	1955
DEP YR 4	0	287	964	170	146	1566
DEP YR 5	0	258	723	153	132	1265
DEP YR 6	0	232	542	138	119	1030
DEP YR 7	0	209	407	124	107	846
DEP YR 8	0	188	305	111	96	700
DEP YR 9	0	169	229	100	86	585
DEP YR 10	0	152	172	90	78	492
DEP YR 11	0	137	129	81	70	417
DEP YR 12	0	123	96	73	63	356
DEP YR 13	0	111	72	66	57	306
DEP YR 14	0	100	54	59	51	264
DEP YR 15	0	90	41	53	46	230

## Proof of service

**Sebastian, Prannoy**

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**From:** Sebastian, Prannoy  
**Sent:** Wednesday, May 15, 2024 10:51 AM  
**To:** 'enatoli@gmail.com'; 'avijitmani@gmail.com'; 'ccb.cpcb@nic.in'; 'secy-moef@nic.in'; 'rajpanjwani339@gmail.com'; 'aagneysail@gmail.com'  
**Cc:** Vibhaw, Nawneet  
**Subject:** Threat to life arising out of coal mining in South Garo Hills District vs State of Meghalaya & Ors. [OA No. 154of 2023/ EZ] - Advance Service of Response to 5th Interim Report of the Committee on behalf of Green Valliey Industries Ltd.

Dear Sir/ Ma'am,

In reference of OA No. 154 of 2023 titled "*Threat to life arising out of coal mining in South Garo Hills District vs State of Meghalaya & Ors.*" pending before National Green Tribunal, Eastern Zone Bench at Kolkata, kindly click the link provided below to access the Response to 5<sup>th</sup> Interim Report of Committee filed on behalf of **Green Valliey Industries Ltd.**

Link –

<https://amsshardul.sharefile.com/public/share/web-s6f7c8ca394b2445585ec8e215bfb0c6d>

**Kindly treat this email as due advance service and acknowledge the receipt of the same.**

Thanks and regards,

Prannoy Joe Sebastian