

**BEFORE THE NATIONAL GREEN TRIBUNAL  
EASTERN ZONE BENCH, KOLKATA  
ORIGINAL APPLICATION No. 89 OF 2024  
IN THE MATTER OF: -**

**Gopinath Majhi ...Applicant(s)**

**VERSUS**

**State of Odisha and Ors. ...Respondent(s)**

**ADDITIONAL AFFIDAVIT ON BEHALF OF RESPONDENT NO.4  
AND RESPONDENT NO. 13 i.e. UNION OF INDIA THROUGH ITS  
SECRETARY MINISTRY OF ENVIRONMENT, FOREST AND  
CLIMATE CHANGE**

**INDEX**

<b>S. No.</b>	<b>Particulars</b>	<b>Pg. No.</b>
1.	Additional Affidavit On Behalf Of Respondent No.4 And Respondent No. 13 I.E. Union Of India Through Its Secretary Ministry Of Environment, Forest And Climate Change	<b>1-8</b>
2.	Copy of the EC letter dated 30.01.1987 annexed herewith as <b>Annexure R/1.</b>	<b>9-29</b>
3.	Copy of the EC letter dated 04.02.2010 annexed herewith as <b>Annexure R/2.</b>	<b>30-35</b>
4.	Copy of the EC letter dated 22.01.2014 annexed herewith as <b>Annexure R/3.</b>	<b>36-38</b>
5.	Copy of the EC letter dated 16.01.2015 annexed herewith as <b>Annexure R/4.</b>	<b>39</b>
6.	A copy of the monitoring report dated 09.09.2024 has been annexed herewith as <b>Annexure-R/5.</b>	<b>40-69</b>
7.	A copy of the Office Memorandum dated 28.08.2019 has been annexed herewith as <b>Annexure-R/6.</b>	<b>70-72</b>
8.	A copy of the SCN dated 26.09.2024 has been annexed herewith as <b>Annexure-R/7.</b>	<b>73-75</b>
9.	A copy of the SCN response dated 21.10.2024 has been annexed herewith as <b>Annexure-R/8.</b>	<b>76-114</b>
10.	A copy of the letter dated 28.11.2024 has been annexed herewith as <b>Annexure-R/9.</b>	<b>115-116</b>
11.	A copy of the SCN Review Report has been annexed herewith as <b>Annexure-R/10.</b>	<b>117-124</b>

BEFORE THE NATIONAL GREEN TRIBUNAL  
EASTERN ZONE BENCH, KOLKATA  
ORIGINAL APPLICATION No. 89 OF 2024

IN THE MATTER OF: -

Gopinath Majhi ...Applicant(s)

VERSUS

State of Odisha and Ors. ...Respondent(s)

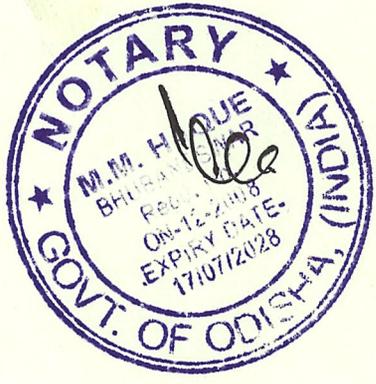
11 7 FEB 2025

ADDITIONAL AFFIDAVIT ON BEHALF OF RESPONDENT NO.4  
AND RESPONDENT NO. 13 i.e. UNION OF INDIA THROUGH ITS  
SECRETARY MINISTRY OF ENVIRONMENT, FOREST AND  
CLIMATE CHANGE

I, Dr Timir Haran Mahato S/o Shri P.C Mahato, aged about 49 years, presently working as Scientist 'E' in the Ministry of Environment, Forest & Climate Change (hereinafter referred to as "MoEF&CC"), Government of India, Regional Office, A/3 , Chandrasekharapur, Bhubaneswar- 753012 , do hereby, in my official capacity, solemnly affirm and state on oath as under:-

1. That, I am acquainted with the facts and circumstances of the instant case and duly competent to swear the present affidavit on behalf of the Ministry of Environment, Forest & Climate Change on the basis of the official records maintained therein.
2. It is humbly submitted that, all the averments made in the instant petition

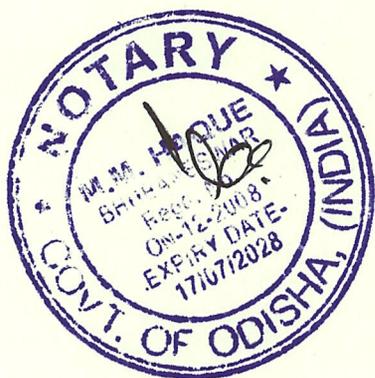
*Timir Haran Mahato*



are denied except those, which are specifically admitted herein this reply affidavit.

3. It is humbly submitted that applicant's grievance is that the Odisha Power Generation Corporation Ltd. (OPGC), a Thermal Power Plant in Banaharpali, Jharsuguda District, is causing significant environmental hazards due to improper fly ash management, violating its EC conditions. The Applicant seeks the removal of Fly ash from both land and the backwater of Hirakud Reservoir, restoration of the affected land, and an evaluation of the ash pond's compliance with siting criteria and its impact on the Hirakud Wetland.
4. It is humbly submitted that; the present affidavit is in continuation to the previously filed affidavit in the instant matter. To contextualize, the EC to IB Thermal Power Project 4x210MW of M/s Orissa Power Generation Corporation Ltd for 4x210MW coal based thermal power plant was granted by the Answering Respondent vide letter no 14/13/83-EM I/I.A dated 30.01.1987. Subsequently, the EC for Expansion of existing Coal Based Thermal Power Plant by addition of 2x660 MW Coal Based Thermal Power Plant at village Banaharpalli, in Jharsuguda Distt., in Orissa was granted by the Answering Respondent vide letter no J-13011/59/2008-IA. II (T) dated 04.02.2010. This EC dated 04.02.2010 was later amended vide EC amendment letter granted by the Answering Respondent vide letter no. J-13011/59/2008-IA. II (T) dated 22.01.2014 and validity of this EC dated 04.02.2010 was extended vide letter dated 16.01.2015. Copies of the EC letters dated 30.01.1987, 04.02.2010, 22.01.2014 and 16.01.2015 has been annexed herewith as **Annexure-R/1**, **Annexure-R/2**, **Annexure-R/3**, and **Annexure-R/4** respectively.

*Lionis Hasan Mehat*



5. It is humbly submitted that in accordance with the Ministry's Standard Operating Procedure (SoP) dated 25.11.2022, vide letter dated 31.07.2024 the Regional Office (hereinafter referred to as "RO"), Bhubaneshwar was requested to furnish a condition wise compliance status report for all the ECs issued to the project along with a factual status report concerning the issues raised in the application.
6. It is humbly submitted that, in pursuance of the Ministry's letter dated 31.07.2024, the project was monitored by the Regional Office (RO), Bhubaneshwar on 08.08.2024. Based on the observations made during the monitoring, RO, Bhubaneshwar submitted a factual status report and a monitoring report vide letter no. 101-361/08/EPE dated 09.09.2024. A copy of the monitoring report dated 09.09.2024 has been annexed herewith as **Annexure-R/5**.
7. It is humbly submitted that the monitoring report and the factual status report was examined within the Ministry and the following observations were made:

**Observations of RO with respect to EC Condition-wise compliance status of the project:**

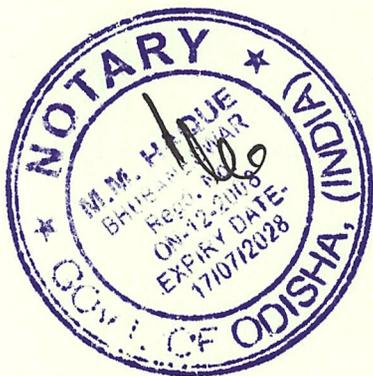
- i. The height of the existing ash pond has been increased without prior intimation to the Ministry. (Specific condition-ii of EC dated 04.02.2010)
- ii. Dust suppression system at the ash pond A and C has not been provided. (Specific condition-vii of EC dated 04.02.2010, Specific condition-xiii of EC dated 22.01.2014)
- iii. 100% ash utilization has not been achieved by PP. (Specific condition-

*Tiajis Kisan meher*



- viii of EC dated 04.02.2010)
- iv. Adequate safety measure has not been taken by PP to protect the ash dyke from getting breached. (Specific condition-x of EC dated 04.02.2010)
  - v. Cr has not been monitored, Piezometric monitoring data has not been furnished. A network of existing wells and constructing new piezometers has not been established. (Specific condition-xix of EC dated 04.02.2010)
  - vi. SO<sub>2</sub> and PM<sub>10</sub> exceeded the standard. Hg analysis data has not been furnished by PP. (Specific condition-xxiv, Specific Condition-iii of EC dated 30.01.1987)
  - vii. Expenditure on the CSR programme has not been done as per the stipulated condition. (Specific condition-xxvi of EC dated 04.02.2010)
  - viii. Year wise expenditure on the implementation of environmental protection has not been furnished. (Specific condition-xxviii of EC dated 04.02.2010)
  - ix. Heavy metal analysis in and around the ash pond by reputed institute has not been furnished. (Specific condition-xlii of EC dated 22.01.2014)
  - x. Green belt around the ash pond has not been developed. (Specific condition- xviii of EC dated 22.01.2014)
  - xi. Details of the common Green Endowment Fund as stipulated in EC condition has not been provided. (Specific condition-xlix of EC dated 22.01.2014)
  - xii. Annual social audit from the nearest government institute of repute has not been carried out. (Specific condition-l of EC dated 22.01.2014)
  - xiii. Details of resettlement package of rehabilitation of dispersed families. (condition-v Solid Waste Management of EC dated 30.01.1987).

*Limited Hardian Market*

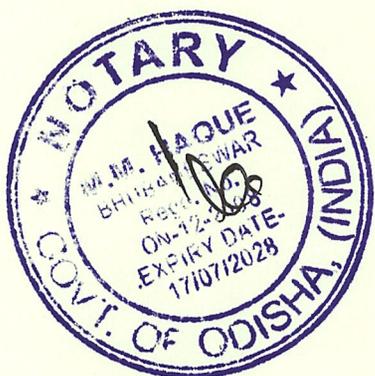


~~X~~

**Observations of the RO with respect to other Facts as Pertaining to Fly Ash Management at the Project Site:**

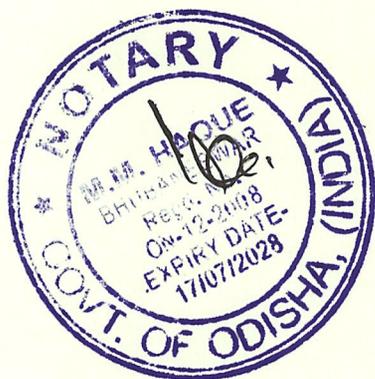
- i. The project has ash pond in two areas, i.e. Tilia and Rengali. Ash pond at Tilia is divided into two lagoons. Ash pond area at Rengali is divided into 3 lagoons namely Ash Pond A, Ash Pond B and Ash pond C. Ash Pond-A was commissioned on 31.08.2007, Ash Pond- B was commissioned on 03.06.1995 and Ash Pond- C was commissioned on 17.04.2017. Thus, the ash ponds were commissioned before the MoEF&CC's Office Memorandum dated 28.08.2019, which states minimum distance of Ash Pond should be 500 m from High Flood Level (HFL) of larger water bodies. A copy of the Office Memorandum dated 28.08.2019 has been annexed herewith as **Annexure-R/6**.
- ii. The breach/ incident had occurred on the Northern side of Ash Pond-C on 09.12.2023 at 8.30 AM. It was found that 20 m width of entire starter dyke along with raised embankment was washed-out. It was estimated by the industry that around 4.0 to 4.5 lakh tons of ash has been washed away into the nearby areas (154.24 Acre). As on date i.e. till 11.06.2024 around 4.2 Lakh MT of ash had been recovered and has been disposed back at Ash Pond-C. As informed the balance quantity of ash will be recovered within 7 -10 days of time period.
- iii. It was found that the Pond-C was operational during the time of visit and the industry has all necessary safety measures as directed by OSPC.
- iv. During visit, it was observed that the restoration and reclamation work of the affected and breached area has been completed up to RL 208 m and grass turffing on the downstream bund was in progress. The committee members also visited periphery of the ash ponds (i.e. Ash Pond A, B, and

Tilina Hassan Mahab

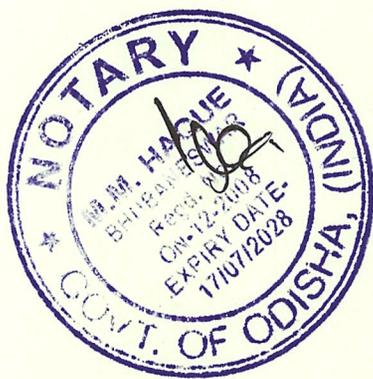


- C) as well as the backwater area of Hirakud reservoir side (Southern side of ash pond). Any type of ingress of Ash water/ Supernatant into Hirakud reservoir was not observed. The dyke restoration work has been completed as per recommendation, design & drawing of IIT Chennai.
- v. The industry has paid necessary compensation of amount Rs 53,98,400/- to the affected families and Rs 6,50,000/- to affected SHG group.
8. It is humbly submitted that based on the continued non-compliance by the Project Proponent and recent ash dyke breach impacting the health and livelihood of the locals, the Answering Respondent vide letter no. IA-L-11011/43/2024-IA-I dated 26.09.2024 issued a Show Cause Notice (herein after referred to as "SCN") to the Project Proponent directing the Project Proponent to submit a point-wise response to the mentioned noncompliance of the EIA, Notification, 2006, causative reasons for the accident, remediation actions and the future action plan to avoid such incidents. A copy of the SCN dated 26.09.2024 has been annexed herewith as **Annexure-R/7**.
9. It is humbly submitted that in response to the Ministry's SCN dated 26.09.2024, a response was submitted by the Project Proponent vide letter dated 21.10.2024. A copy of the SCN response dated 21.10.2024 has been annexed herewith as **Annexure-R/8**.
10. It is further submitted that in accordance with the Ministry's SoP, the Answering Respondent vide letter dated 28.11.2024 requested the RO, Bhubaneswar to review the SCN response submitted by the Project Proponent and provide comments on the Action Taken by the Project proponent. A copy of the letter dated 28.11.2024 has been annexed herewith as **Annexure-R/9**.

*Limor Hastan Mehat*



11. It is humbly submitted that the RO, Bhubaneshwar submitted a SCN Review Report vide letter no. 101-361/08/EPE dated 10.12.2024. A copy of the SCN Review Report has been annexed herewith as **Annexure-R/10**.
12. It is humbly submitted that the SCN Review Report submitted by the RO, Bhubaneshwar was examined within the Ministry and it was observed that there has been minimal improvement in addressing the non-complied conditions mentioned in the SCN dated 26.09.2024. The RO has reported that all the conditions are either 'Partially Complied or 'Ministry may take a view'. Consequently, in line with the SoP dated 25.11.2022, the Answering Respondent has called for a Personal Hearing to be held on 19.02.2025.
13. It is humbly submitted that, the present Additional Affidavit may kindly be taken on record and into consideration and the Hon'ble Tribunal may pass appropriate Order(s). direction(s) as deemed fit and proper under the facts and circumstances of the present case.
14. It is humbly submitted that, the Answering Respondent seeks leave to make additional submissions, if required, during the course of the proceedings.



*Timir Haran Mahato*

**DEPONENT**

(डॉ. तिमिर हरण महातो)  
(DR. TIMIR HARAN MAHATO)  
वैज्ञानिक 'ई' / SCIENTIST "E"  
भारत सरकार / Govt. of India  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय  
Min. of Env. Forest & CC  
क्षेत्रीय कार्यालय, बhubaneswar / Regional Office, Bhubaneswar

VERIFICATION

I, the above named Deponent, do hereby verify that the contents of the above affidavit are true and correct to my knowledge as per the records of the answering respondents. No part of it is false and nothing material has been concealed there from. Verified at Bhubaneswar on this 17th day of February , 2024.

Identified by me  
*Sudhrajit Laha*  
Advocate Bhubaneswar



*Timir Haran Mahato*

**DEPONENT**  
(डॉ. तिमिर हरण महतो)  
(DR. TIMIR HARAN MAHATO)  
वैज्ञानिक 'ई' /SCIENTIST "E"  
भारत सरकार/Govt. of India  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय  
Min. of Env. Forest & CC  
राज्य सरकार, पुणे/State Government, Pune

*17/02/2025*  
**M.M. HAQUE**  
NOTARY, BHUBANESWAR  
Regd. No.- ON-12/2008

D.O.No. 14/13/83-E.A.I./I.A.

Telegram: PARYAVARAN  
NEW DELHI

Annexure-R/1 549

Dr. G.K. Pandey,  
Principal Scientific Officer,

Telephone:

Telex: W. 66185 DOE IN

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT & FORESTS  
PARYAVARAN BHAWAN C.G.O COMPLEX  
LODI ROAD, NEW DELHI-110003

Dated the 30th January, 1987.

Dear Shri Mishra,

This has reference to the telephonic discussions you had with me yesterday regarding the proposed Ib Power Plant. As desired, I am enclosing herewith a copy of my letter, dated, 2.9.85 alongwith a copy of the minutes of the site visit. The additional conditions as mentioned in Annexure II should be implemented and this department should be kept informed ~~annually~~ about the action taken in the matter.

With regards,

Yours faithfully,

sa/-  
(G.K.PANDEY)

Sri Jayadeev Mishra,  
Managing Director,  
Orissa Power Generation Corporation,  
P.O.Box No.96, Govt. of Orissa,  
Secretariate,  
Bhubaneswar.

P 1/11

~~M. S. ...~~  
K. S. ...  
27/2/87

~~10~~

D.O.No.14/13/83-EM.2

Dr.G.K.Pandey,  
Principal Scientific Officer.

Dated 2nd September, 1985.

Subject: Ib Thermal Power Project 4x210 M.W. in Orissa.

Dear Shri Rath,

In continuation of my letter of even No. dated 27/9/84, please find enclosed herewith a copy of the minutes of the site visit of the Thermal Power Appraisal committee to the proposed Ib Power Plant from 19th to 22nd August, 85. In addition, the Additional Conditions as given in Annexure II should be implemented to keep the impact on the environment to the minimum.

Encl:-As above.

Yours faithfully,

Sd/-  
(G.K.Pandey)

Shri H.Rath,  
Chief Engineer(Electricity)  
Office of the Chief Engineer,  
Bhubaneswar(Orissa).

P 2/11

Minutes of the Site Visit of the Committee to Ib Thermal Power Plant, Orissa from 19th to 22nd August, 1985.

The Chairman, Member Secretary and three members of the Committee participated in the visit to the site of the proposed Ib Thermal Power Plant (4x210 M.W.) at Belpahar, Orissa from 19th to 22nd August, 1985. The site was visited on 20th. This was followed by discussions on the 21st with the concerned officials of the various State Departments of Forests, Irrigation, Coal, Orissa Power Corporation, State Pollution Control Board and the District Collector, Sambalpur. A list of persons who participated is appended (Annexure-I).

2. Shri S.K. Roy, Chairman of the Thermal Power Appraisal Committee welcomed the members and the participants. He emphasised the need for development with minimum destruction. He further stressed on the need to use the best technology for power generation and prevention and control of environmental pollution, instead of planning for tomorrow with yesterday's technology, which is largely obsolete already and in the face of massive increase in coal-based thermal power stations.

3. He then requested Dr. M.K. Rout, Chairman, Orissa State Pollution Control Board to express his views about the proposed power plant.

4. Dr. Rout mentioned that before NOC ('No Objection Certificate') was given, a questionnaire formulated by State Board was sent to the project authorities for eliciting the necessary information for examining the project from environmental angle. On the basis of the information furnished by the proponent of the Power Plant, NOC was issued subject to certain environmental conditions. He further mentioned that the emission and ambient air quality standard as stipulated by the Central/State Board are required to be followed by the project authorities for particular matters, but was concerned about  $SO_2$ ,  $HO_x$ ,  $CO_2$  residues, the water pollution standards are also to be met by the project authorities. He mentioned that there was one TDS without an ash pond, and his requirement that for every tree cut 10 have to be planted mixed species.

5. There was general agreement on the need for proper maintenance and operation of electrostatic precipitators to ensure the desired efficiency. The training of engineers in proper maintenance and up-keep of ESP is very important and must be undertaken in advance by the plant authorities. There was also recognition that there had to be in-plant control measures, installation of adequate pollution control equipment and their proper maintenance, training of man power and introduction of tree, plantations appropriate species.

P3/11

-: (3) :-

12. Dr. Rout agreed with the observations made by Shri Roy, Chairman, and stressed the need of utilization of the fly ash, including its disposal in the abandoned mines after being fixed with the OB.

13. The Chairman requested Shri S.G. Bohidar, Divisional Forest Officer, Sambalpur to express his views from the forest angle. Shri Bohidar informed the committee that 258 hectors of forest land have been agreed for the proposed plant by the Govt. of India. He further informed the committee that a number of plants of eucalyptus and pine trees etc., were planted in the area during the last several years. The Chairman suggested that there is need to give more emphasise on the trees grown than trees planted. The District Forest Officer informed the committee on enquiry made by Shri Sastry of C.E.A. that the forest land to be released to the project authorities would be on lease basis only. Dr. C.K. Varshney of JN University mentioned that there is need to restrict the movement of labour to forest areas during the construction period to avoid illegal tree felling and emphasised that the same may be checked if the supply of coal to the construction labours is made mandatory and provided free.

14. The District Collector, Shri Bhatia suggested that the Project Authorities should acquire additional land (Private Land) for compensatory afforestation. He also suggested that a master plan should be prepared taking into account the requirements of the power plant, the township alongwith the fuel requirement. In his view additional land should be considered to accommodate the large number of miscellaneous establishments that automatically get collected around such urbanisation. This would ensure that necessary measures could be taken to avoid illegal human settlements, haphazard growth of the area, illegal tree felling etc. The Forest Officer mentioned that significant quantity of timber would be required by the project authorities and the same could be supplied through the Forest Corporation, instead of procuring it from the open market/contractors. Shri Mishra agreed to prepare a master plan and work out the strategy for human settlement, colony, township, fuel requirement etc. in collaboration with the



~~14~~

-(5)-

21. Based on the discussions and the site visit, it was decided to accord final clearance to the project subject to certain conditions. (Annexure-II). The conditions to be imposed as the project authorities should be worked out by the Secretariate.

22. Before concluding the meeting, Shri S.K. Roy expressed his thanks to the management of Western Coal Fields for extending the hospitality and making necessary arrangements for holding the meetings.

P 7/11

1. Sri S.K.Roy, Chairman
2. Sri U.S.Bhatia, Collector, Sambalpur.
3. Sri S.N.Patttnaik, Member Secretary, S.P.C.P.Board.
4. Sri M.S.Gastroy, Director, CEA, Member T.P.A.Committee, DOE .
5. Prof. J.M.Dave, Member, T.P.A.committee, DOE., JNU, New Delhi.
6. Prof. C.K.Vandhney, Member, T.P.A.Committee, DOE, JNU, New Delhi.
7. Dr.G.K.Pandey, Principal Scientific Officer, DOE, New Delhi.
8. Sri G.N.Dash, Executive Engineer, Main Dam Division, Burla.
9. Sri S.K.Chakraborty, Executive Engineer, Sundargarh Irrigation Divn.
10. Sri R.V.Erady, Deputy CME, Orient
11. Sri M.G.K.Murty, Deputy CME, Hingir, Rampur Colly.
12. Sri N.N.Sahu, General Manager, Ib Valley Area, WCL.
13. Dr.M.K.Rout, Chairman, State Pollution Control Board.
14. Sri Jayadev Mishra, Managing Director, O.P.G.C.
15. Sri S.C.Bohidar, Divisional Forest Officer(T), Sambalpur.
16. Sri R.N.Singh, SEO, Jharsuguda.
17. Sri K.C.Panda, Asst.Manager, Ib Thermal
18. Sri S.N.Sahu, Asst.Manager, Ib Thermal, Belpahar.
19. Sri B.Sahu, Asst. Engineer, Talcher, Thermal
20. Sri D.Sahu, Asst. Engineer, Burla, BPI Sub-Division-III, Jharsuguda.
21. Sri S.C.Dash, Manager (O.P.G.C.), Bhubaneswar.
22. Sri K.C.Tripathy, Manager (C), Ib Thermal Power Station, Belpahar.
23. Sri P.C.Mishra, S.E., Electrical Project, Investigation Circle, Govt. of Orissa, Bhubaneswar.
24. Sri I.C.Das, G.M., Ib Thermal Power Station, Bhubaneswar.
25. Sri P.R.Dhal, L.A.O., Sambalpur.
26. Sri A.Patttnaik, Asst.Manager, O.P.G.C., Bhubaneswar.
27. Sri B.K.Purohit, A.E., Sundargarh Investigation Sub-Division.
28. Sri S.P.Labhotwar, Staff Officer (M.W.C.L.), Ib Valley
29. Sri V.P.Agrawal, Superintendent of Mines, W.C.L., Ib Valley area.
30. Sri B.P.Rekhani, Executive Engineer, O.S.E.B.
31. Sri B.Sandha, Asst. Engineer, EPI, sub-Division-III, Jharsuguda.
32. Sri R.N.Kar, Asst.Manager, O.P.G.C., Bhubaneswar.
33. Sri S.Bandopadhyay, Sub-Area Manager, Belpahar, Open Cast Mines, W.C.L., Ib Valley Area.
34. Sri R.S.Dhami, Sub-Area, Manager, Orient Colliery, W.C.L., Ib Valley
35. Sri K.H.Kudua, Deputy, C.E. (ESM), W.C.L., Ib Valley, Area.
36. Sri D.B.Sahoo, Area Survey Officer, Ib Valley Area, W.C.L.

P 8/11

1. Air Pollution

- (i) A common stack height of not less than 220 meters should be provided for two Units of 210 M.W. Similarly for other two units, a common stack of 220 meters height should be provided.
- (ii) ESPs of having operational efficiency of not less than 99.7% should be provided and extra fields made part of the Design. The efficiency of ESPs should be monitored and recorded. Adequate training should be given to the persons engaged in the operations and maintenance of ESPs.
- (iii) Emission and ambient air quality monitoring should be done after the commissioning of the units and data recorded, and should not exceed the standards set by the Central and State Pollution Control Boards.
- (iv) Adequate space for FGD plant should be part of the design so that they could be installed if required at a latter stage.
- (v) Dust suppression/control equipment should be installed in wagon tipping area, transfer points, crushers etc.

2. Water Pollution

- (i) Closed cooling system for condensers should be provided instead of once-through, cooling system as proposed.
- (ii) Liquid effluents emanating from the different plants such as D.M. Plant, blow down, sewage etc. should be properly treated as per the CE/S. Board standards.

3. Solid Waste Disposal

- (i) Fly Ash and Bottom ash should be collected in ash dykes/ponds and the supernatant water should not contain suspended matters more than 100 ppm. Dry disposal of fly ash should also be planned including the disposal in abandoned mines after mixing with the OB.
- (ii) Green belt should be raised on the ash disposal areas filled with fly ash to check the dispersion of fly ash in the air. Additional land (pvt. land) should be acquired for compulsory afforestation.
- (iii) Efforts should be made to utilise fly ash in bricks, blocks, building materials etc.
- (iv) A comprehensive re-settlement package of rehabilitation of displaced families should be made including providing of job to atleast one person per family, apart from giving cultivable land for land to those who were possessing the same.

P 9/11

- ~~X~~
5. A master plan should be prepared taking into account the requirement of power plant, township, fuel requirement, human settlements, etc. in consultation with District authorities.
  6. Timber required for the project should be procured through the Forest Corporation and not by private contractors/dealers and the former should not abrogate this responsibility by contracting the supply out and adding its handling charges. If the corporation is not equipped to handle this themselves the project authorities should negotiate the best terms, price and environment-wise with contractors by obtaining bids.
- P 10/11

GOVERNMENT OF INDIA  
NEW DELHI

MINISTRY OF ENVIRONMENT & FORESTS  
PARYAYAN BHANGA, NEW DELHI  
TELEPHONE: 2301-2302  
FAX: 2301-2303

~~18~~

To

Dr. V.F. Upadhyay,  
Ministry of Environment  
& Forests,  
Eastern Regional Office,  
194, Kharavel Nagar  
Bhubaneswar-751001.

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT & FORESTS  
PARYAYAN BHANGA, NEW DELHI  
TELEPHONE: 2301-2302  
FAX: 2301-2303

Dated: 27.1.93.

Sir,

This has reference to your L.O. Letter No. 101-49/92-ELB dt. 5th January, 93 regarding clearance of 1b-Thermal power station, Stage-1 (4x210 MW). A copy of the clearance letter is enclosed herewith for your information.

Yours faithfully,

(Dr. S. Bhattacharya)  
Jt. Director (Scientific)

*Handwritten signature*

*112/93*  
*Please prepare file*  
*11/2/93*

*Envt*  
*91*  
*11/2/93*

*P 11/11*

D.O. No. 14/13/83-E.W. I./I.A

Telegram: PARYAVARAN  
NEW DELHI

Telephone:  
Telefax: W 66185 DOE IN

Dr. G.K. Pandey,  
Principal Scientific Officer

GOVERNMENT OF INDIA  
MINISTRY ENVIRONMENT & FOREST

PARYAVARAN BHAWAN, C.G.O. COMPLEX  
LODHI ROAD, NEW DELHI-110003

Date the 30<sup>th</sup> January, 1987

Dear Shri Mishra,

This has reference to the telephonic discussions you had with me yesterday regarding the proposed Ib power plant. As desired, I am enclosing herewith a copy of my letter dated 02.09.85 along with a copy of the minutes of the site visit. The additional conditions as mentioned in annexure – II should be implemented and the department should be kept informed about the action taken in the matter.

With regards,

Yours faithfully

Sd/-  
(G.K. Pandey)

Sri Jaydev Mishra,  
Managing Director,  
Orissa Power Generation Corporation,  
P.O. Box no. 96, Govt. of Orissa,  
Secretariate,  
Bhubaneswar.

D.O. No. 14/13/83-EN-2

Dr. G.K. Pandey  
Principal Scientific Officer.

Dated 2<sup>nd</sup> September, 1985

Sub – Ib Thermal Power Project 4x210 M.W. in Orissa.

Dear Shri Rath,

In continuation of my letter of even no. dated 27/9/84, please find enclosed herewith a copy of the minutes of the site visit of the Thermal Power Appraisal committee to the propone Ib power plant from 19<sup>th</sup> to 22<sup>nd</sup> August, 85. In addition, the additional conditions as given in Annexure – II should be implement to keep the impact on the environment to the minimum.

Encl: - As above.

Yours faithfully

Sd/-  
(G.K. Pandey)

Shri H. Rath  
Chief Engineer (Electricity)  
Office of the Chief Engineer.  
Bhubaneswar (Orissa).

DEPARTMENT OF ENVIRONMENT.

Minutes of the Site Visit of the Committee to Ib Thermal Power Plant, Orissa from 19<sup>th</sup> To 22<sup>nd</sup> August, 1985.

1. The Chairman, Member Secretary and three members of the Committee participated in the visit to the site of the proposed Ib Thermal Power Plant (4x210 M. W.) at Belpahar, Orissa from 19<sup>th</sup> to 22<sup>nd</sup> August, 1985. The site was visited on 20<sup>th</sup>. This was followed by discussions on the 21<sup>st</sup> with the concerned officials of the various state Departments of Forests, Irrigation, Coal, Orissa Power Corporation, State Pollution Control Board and the District Collector, Sambalpur. A list of persons who participated is appended (Annexure-I).
2. Shri S.K. Roy, Chairman of the Thermal Power Appraisal committee welcomed the members and the participants. He emphasised the need for development with minimum destruction. He further stressed on the need to use the best technology for power generation and prevention and control of environmental pollution, instead of planning for tomorrow with yesterday's technology, which is largely absolute already and in the face of massive increase in coal-based thermal power stations.
3. He then requested Dr. M.K. Rout, Chairman, Orissa State Pollution Control Board to express his views about the proposed power plant.
4. Dr. Rout mentioned that before NOC ('No Objection Certificate') was given, a questionnaire formulated by State Board was sent to the project authorities for eliciting the necessary information for examining the project from environmental angle. On the basis of the information furnished by the proponent of the Power Plant, NOC was issued subject to certain environmental conditions. He further mentioned that the emission and ambient air quality standards stipulated by the Central/State Board are required to be followed by the project authorities for particular matters, but was concerned about SO<sub>2</sub>, NO<sub>x</sub>, CO<sub>2</sub>. Besides, the water pollution standards are also to be met by the project authorities. He mentioned that there was one TPS without an ash pond, and his requirement that for every tree cut, 10 have to be planted "mixed species".

5. There was general agreement on the need for proper maintenance and operation of electrostatic precipitators to ensure the desired efficiency. The training of engineers in proper maintenance and up-keep of ESP is very important and must be undertaken in advance by the plant authorities. There was also recognition that there had to be in-plant control measures, installation of adequate pollution control equipment and their proper maintenance, training of manpower and introduction of tree plantations appropriate species.
6. Shri Mishra, Managing Director, Orissa Power Generation Corporation (OPGC) mentioned that he is in complete agreement with the observations made by Dr. Rout, regarding preventive and control measures to be adopted for keeping the impact of on the environment to the absolute minimum. He showed a perspective understanding of this essential design element.
7. Shri M.S. Sastry, Director, Central Electricity Authority stressed the need of installation of ESPs of high efficiency, 99.5 plus and feared that the efficiency may be reduced due to the corrosive effect of silica particles present in coal. Dr. Rout informed that the project authorities have been asked to provide ESPs of 99.7% efficiency. Shri Sastry also said land for additional tree growing should be acquired at the project cost, and referred to the system of ash mix with overburden in the mines as at Talcher.
8. Shri N.G. K. Murty of Himgir Rampur Colly. mentioned that the efficiency of ESPs may be reduced to 80% on full loading. Shri Mishra of OPGC informed that the ESPs would be having extra fields to meet exigencies arising due to overloading, poor quality of coal, operational and maintenance problems etc.
9. Dr. Rout informed the Committee that the authorities of about 85 mines have been asked to put back the overburden (OB) in the abandoned mines and plant trees to rehabilitate the mined areas. Shri Murty mentioned that this has already been done in few areas and is being done as a result of a directive from the Government of India. The top soil is kept separately and put back after the coal is taken out in case of opencast mines. In response to a quarry from the Chairman, the Forest Department rep. said most of the trees planted



are eucalyptus. The Chairman suggested concentration on mixed species and trial of cashew plants which should do well.

10. Prof. Dave of JN University mentioned that about 0.8 million cubic meters of ash per annum would be generated and as such may adversely effect the environment if disposed off in a haphazard manner. He suggested that the fly ash should be mixed with the OB and disposed off in the abandoned mines. Shri Sahoo, GM, Ib Valey area, WCL reacted and opined that the coal OB ratio is significantly high and as such the mixing of fly ash with OB will pose practical problems and may also be interfere with the mining activity.
11. Shri S.K. Roy stressed the need for constructive utilization of fly ash in the bricks, blocks and building materials and mentioned that 20% of fly ash is already being utilized as building material at Neyveli. Tata Electric Co. has also built its offices and colony made up of fly ash bricks. He further stated that the brickets may also be made from the fly ash, which would be used for road building, as is already being done by a German plant.
12. Dr. Rout agreed with the Observations made by Shri Roy, Chairman, and stressed the need of utilization of the fly ash, including its disposal in the abandoned mines after being mixed with the OB.
13. The Chairman requested Shri S.S. Bohidar, Divisional Forest Officer, Sambalpur to express his views from the forest angle. Shri Bohidar informed the committee that 258 hectares of forest land have been agreed for the proposed plant by the Govt. of India. He further informed the committee that a number of plants of eucalyptus and pine trees etc., were planted in the area during the last several years. The Chairman suggested that there is need to give more emphasis on the trees grown than trees planted. The District Forest Officer informed the committee on enquiry made by Shri Sastry, of C.E.A. that the forest land to be released to the project authorities would be on lease basis only. Dr. C.K. Varshney of JN University mentioned that there is need to restrict the movement of labour to forest areas during the construction period to avoid illegal tree falling and emphasised that the

same may be checked if the supply of coal to the construction labours is made mandatory and provided free.

14. The District collector, Shri Bhatia suggested that the Project Authorities should acquire additional land (private land) for compensatory afforestation. He also suggested that a master plan should be prepared taking into account the requirements of the power plant, the township alongside the fuel requirement. In his view additional land should be considered to accommodate the large number of miscellaneous establishments that automatically get collected around such urbanization. This would ensure that necessary measures could be taken to avoid illegal human settlements, haphazard growth of the area, illegal tree falling etc. The Forest Officer mentioned that significant quantity of timber would be required by the project authorities and the same could be supplied through the Forest Corporation, instead of procuring it from the open market/contractors. Shri Mishra agreed to prepare a master plan and work out the strategy for human settlement, colony township/fuel requirement etc. In collaboration with the District Collector.

15. Apprehensions were raised about the possible adverse effect on the forests due to the gaseous discharge from the power plant, such as sulphur dioxide, oxides of nitrogen, etc. in the long run. Prof. Dave informed that about 120 tonnes of sulphur dioxide, 225 tonnes of oxides of nitrogen etc. would be emitted per annum from the proposed units. The chairman pointed out that high stacks alone are not the solution and may not be enough to reduce its impact on the environment. He mentioned that the high stacks provided in the thermal power plants located in UK are dispersing the pollutants to fairly large areas, posing transboundary pollution problems. The emissions from the stacks of the power plants in UK have travelled even up to Sweden and Germany and caused significant environmental pollution problems. As such, there is need to provide proper space in the design for installation of FGD plant for future needs.

16. Dr. G.K. Pendey, Department of Environment, suggested that an environmental management plan should be prepared by the project authorities bringing out clearly the preventive and pollution control measures to be adopted, emission and ambient air quality monitoring programme, manpower and training requirements, time schedule, budget etc. for which Shri Mishra agreed.

17. Dr. Varshney feared that if once through cooling system is adopted, it may have adverse effects on the aquatic life, particularly fish/ etc., as they may be taken inside the condenser. The water in-take structure needs to be designed in such a way that no damage to aquatic life is caused. This could be done by providing traveling screen which would prevent fishes and other aquatic animals getting into condensers. Shri Mishra reacted and said that travelling screens will provide protection to only big fishes and not to small/ smaller fishes. Further, he informed that he is examining the possibility of adopting closed cooling system instead of once through cooling system, which would not pose any problem to aquatic life.

18. It was mentioned that boiler blow-down water and the supernatant water coming out of the ash dykes should be treated properly before being discharged. A separate treatment plant may be necessary.

19. The District Collector mentioned, that about 121 families are to be evacuated/displaced. There is need to have a comprehensive re-settlement package for rehabilitation of the displaced families and at least one person in each family should be given employment in the proposed power plant. Sri Roy stressed that apart from the re-settlement of the displaced families, cultivable land for land acquired should be given to those who are possessing it.

20. To a query made by Dr. Varshney about siltation problems of the Hirakud Reservoir, Shri S.K. Chakravorty (of Irrigation Department) informed the Committee that as per the present rate of siltation, the reservoir is likely to be filled up in 75 years. He added that the siltation rate is probably going up as the denudation of forest is taking place in the catchment areas, most of which is in M.P. and is further reducing the life of the reservoir.

21. Based on the discussions and the site visit, it was decided to accord final clearance to the project subject to certain conditions (Annexure-II). The conditions to be imposed as the project authorities should be worked out by the Secretariate.

22. Before concluding the meeting, Shri S.K. Roy expressed his thanks to the management of Western Coal Fields for extending the hospitality and making necessary arrangements for holding the meetings.

MEMBER WHO ATTENDED THE MEETING HELD ON 21.08.1985 AT IB VALLY AREA, WESTERN COALFIELD LIMITED

1. Sri S.K. Roy, Charman
2. Sri U.S. Bhatia, Collector, Sambalpur.
3. Sri S.M. Pattnayak, Member Secretary, S.P.C.P. Board.
4. Sri H.S. Sastry, Director, CEA, Member T.P.A. Committee, DOE.
5. Prof. J.M. Dave, Member, T.P.A. committee, DDE., JNU, New Delhi.
6. Prof. C.K. Varnhney, Member, T.P.A. Committee, DDE, JNU, New Delhi.
7. Dr. G.K. Pandey, Principal Scientific Officer, DDE, New Delhi.
8. Sri G.N. Dash, Executive Engineer, Main Dam Division, Burla.
9. Sri B.K. Chakraborty, Executive Engineer, Sundargarh Imigration Humanity.
10. Sri R.J. Erady, Deputy CME, Orient.
11. Sri M.G.K. Murty, Deputy CME, Hingir, Rampur, Colly.
12. Sri H.M. Sahu, General Manager, Ib Valley Area, WCL.
13. Dr. M.K. Kout, Chairman, State Pollution Control Board.
14. Sri Jayadev Mishra, Managing Director, O.P.G.C.
15. Sri S.C. Bohidar, Divisional Forest Officer (T), Rambalpur.
16. Sri R.H. Singh, SDO, Tharsuguda.
17. Sri K.C. Panda, Asset Manager, Ib Thomal.
18. Sri S.M. Sahu, Asset Manager, Ib Thermal, Belpahar.
19. Sri B. Sahu, Asset Engineer, Talcher, Thermal.
20. Sri D. Sahu, Asset Engineer, Burla, BPI Sub-Division-III, Jharsuguda.
21. Sri S.C. Dash, Manager (O.P.G.C.), Bhubaneswar.
22. Sri M.C. Tripathy, Manager (C), Ib Thermal Power Station, Belpahar.
23. Sri P.C. Mishra, S.E., Electrical Project, Investigation Circle, Govt. of Orissa, Bhubaneswar.
24. Sri I.C. Das, G.M., Ib Thermal Power Station, Bhubaneswar.
25. Sri P.R. Dhal, L.A.O., Sambalpur.
26. Sri A. Pattnaik, Asset Manager, O.P.G.C., Bhubaneswar.
27. Sri B.K. Purohit, A.F., Sundargarh Investigation Sub-Division.
28. Sri S.P. Labhserwar, Staff Officer (H.W.C.L.), Ib Valley.
29. Sri V.P. Agraval, Superintendent of Mines, W.C.L., Ib Valley area.
30. Sri B.P. Rekhani, Executive Engineer, O.S.S.B.
31. Sri D. Sandha, Asst. Engineer, EPI, Sub-Division-III, Jharsuguda.
32. Sri R.N. Kar, Asst. Manager, O.P.G.C., Bhubaneswar.
33. Sri S. Bandopadhyay, Sub-Area Manager, Belpahar, Open Cast Mines, W.C.L., Ib Valley Area.
34. Sri R.S. Dhami, Sub-Area, Manager, Orient Collery, M.C.L., Ib Valley Area.
35. Sri K.M. Kudua, Deputy, C.B. (East), W.C.L., Ib Valley, Area.
36. Sri D.B. Sahoo, Area Survey Officer, Ib Valley Area, W.C.L.

**CONDITIONS TO BE IMPOSED ON IB POWER PLANT AUTHORITIES ORISSA**1. Air Pollution

- (i) A common stack height of not less than 220 meters should be provided for two units of 210 M.W. Similarly for other two units, a common stack of 220 meters height should be provided.
- (ii) ESPS of having operational efficiency of not less than 99.7% should be provided and extra fields made part of the Design. The efficiency of ESPS should be given to the persons engaged in the operations and maintenance of ESPS.
- (iii) Emission and ambient air quality monitoring should be done after the commissioning of the units and data recorded and should not exceed the standards set by the Central/State and State Pollution Control Board.
- (iv) Adequate space for FGD plant should be part of the design so that they could installed if required at a later stage.
- (v) Dust suppression/control equipment should be installed in wagon tipping area, transfer points, crushers etc.

2. Water Pollution

- (i) Cloud cooling system for condensers should be provided instead of once-through, cooling system as proposed.
- (ii) Liquid effluents emanating from the different plants such as D.M Plant, blow down, sewage etc. should be properly treated as per the Central/State Board standards.

3. Solid Waste Disposal

- (i) Fly ash and bottom ash should be collected in ash dykes/ponds and the supernatant water should not contain suspended matters more than 100 ppm. Dry disposal of fly ash should also be planned including the disposal in abandoned mines after mixing with the OB.
- (ii) Green belt should be raised on the ash disposal areas filled by fly ash to check the dispersion of fly ash in the air. Additional land (private Land) should be acquired for compulsory afforestation.
- (iii) Efforts should be made to utilize fly ash in bricks, blocks, building materials etc..

4. A comprehensive re-settlement package of rehabilitation of displaced families should be made including providing of job to at least one person per family, apart from giving cultivable land to those who were possessing the same.
5. A master plan should be prepared taking into account the requirement of power plant, township, fuel requirement, human settlements etc. in consultation with District authorities.
6. Timber required for the project should be procured through the Forest Corporation and not by private contractor/ dealers and the former should not abrogate this responsibility by contracting the supply out and adding its handling charge. If the corporation is not equipped to handle this themselves the project authorities should negotiate the best terms, price and environment-wise with contractor by obtaining bids.



TRUE COPY

No. J-13011/1/93-IA-III

तार:

Telegram: PARYAVARAN  
NEW DELHI

दुरभाष:

Telephone:

Telefax: W 66185 DOB IN

भारत सरकार

पर्यावरण एवं वन मंत्रालय

GOVERNMENT OF INDIA

MINISTRY ENVIRONMENT &amp; FOREST

पर्यावरण भवन, सी। जी। ओ। कॉम्प्लेक्स

लोधी रोड, नई दिल्ली -110003

PARYAVARAN BHAWAN, C.G.O. COMPLEX

LODHI ROAD, NEW DELHI-110003

Dated: 27.1.93

To

Dr. V.F. Upadhyay,  
Ministry of Environment & Forests,  
Eastern Regional Office,  
194, Kharavel Nagar  
Bhubaneswar – 751001.

Sir,

This has reference to your letter no. 101-49/92-ENV dt. 5<sup>th</sup> January, 93 regarding clearance of Ib- Thermal Power Station, Stage-1 (4x210 M.W.).

A copy of the clearance letter is enclosed herewith for your information.

Yours faithfully

-Sd-

(Dr. S. Bhowmik)

Jt. Director (Scientific)



~~38~~ O.P.G.C. LTD. Annexure-R/2<sup>520</sup>

RECEIPT No... 427

DATE..... 23-2-10

BHUBANESWAR

BY SPEED POST

J-13011/59/2008 -IA.II (T)  
Government of India  
Ministry of Environment & Forests

Paryavaran Bhawan  
CGO Complex, Lodi Road  
New Delhi-110 003

Dated: 04/02/2010

To

M/s Orissa Power Generation Corporation Ltd.  
Zone-A, 7<sup>th</sup> Floor, Fortune Towers  
Bhubaneswar- 751 023.

**Sub: Expansion of existing Coal Based Thermal Power Plant by addition of 2x660 MW (Unit 3 & 4) at village Banaharpalli, in Jharsuguda Distt., in Orissa – reg. Environmental Clearance.**

Sir,

The undersigned is directed to refer to letter dated 26.10.2009 on the subject mentioned above. The Ministry of Environment & Forests has examined the application.

2. It is noted that the proposal is for expansion of existing Coal Based Thermal Power Plant by addition of 2x660 MW (Unit 3 & 4) at village Banaharpalli, in Jharsuguda Distt., in Orissa. Unit 1&2 is under operation. No additional land is required for the expansion. Additional land is however proposed to be acquired for new ash pond keeping the required distance criteria of 500 m from HFL of Hirakud Reservoir. Coal requirement will be met from two Coal Blocks viz. Manoharpur and Dip-side of Manoharpur) in Ib valley area with total reserve of 531 MT. Coal requirement will be 6.73 MTPA at 80% PLF. Ash content in coal will be 40% and Sulphur content 0.4 % (maximum). Water requirement 4100 m<sup>3</sup>/hr and will be sourced from Hirakud Reservoir, which has been accorded by the state government. No diversion of forest land will be involved. COC 5.0 will be adopted. Fly ash will be used for filling Manoharpur mines. A twin flue stack of 275 m height with flue gas velocity of 22 m/s will be installed. No ground water will be tapped for the project activity. There are no wildlife sanctuaries, national parks, biosphere, tiger, elephant reserves; heritage sites etc within 10 km of the plant. Public hearing was conducted on 24.06.2008. Cost of the project will be Rs. 6091.0 Crores.

3. The project has been considered in accordance with the provisions of the EIA notification issued by the Ministry of Environment & Forests vide S.O. 1533 (E), dated September 14, 2006.

4. Based on the information submitted by you, as at Para 2 above and others, the Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA notification dated September 14, 2006, subject to the compliance of the following conditions:

- (i) It shall be ensured that natural drainage in the area is not disturbed due to any activity associated with operation or development of the power plant.
- (ii) The height of the existing ash pond shall not be increased to accommodate fresh disposal of ash slurry.

- (iii) Wildlife conservation plan prepared in consultation with the office of the concerned Chief Wildlife Warden shall be implemented before any expansion activity is undertaken. The status of implementation shall be submitted to the Regional Office of the Ministry within six months and from time to time.
- (iv) Hydro-geological study of the area shall be **reviewed annually** and results submitted to the Ministry and concerned agency in the State Govt. In case adverse impact on ground water quantity and quality is observed, immediate mitigating steps to contain any adverse impact on ground water shall be undertaken.
- (v) A twin flue stack of 275 m height shall be provided with continuous online monitoring equipments for SO<sub>x</sub>, NO<sub>x</sub> and RSPM (PM<sub>2.5</sub> & PM<sub>10</sub>). Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack shall also be monitored on periodic basis.
- (vi) High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm<sup>3</sup>.
- (vii) Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.
- (viii) Utilisation of 100% Fly Ash generated shall be made from 4<sup>th</sup> year of operation of the plant. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.
- (ix) Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry form. Mercury and other heavy metals (As, Hg, Cr, Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying area.
- (x) Ash pond shall be lined with HDP/LDP lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.
- (xi) For disposal of Bottom Ash in abandoned Manohar mines it shall be ensured that **the bottom and sides of the mined out areas are adequately lined with clay before Bottom Ash is filled up**. The project proponent shall inform the State Pollution Control Board well in advance before undertaking the activity.
- (xii) Closed cycle cooling system with natural draft cooling towers shall be provided. The Effluents shall be treated as per the prescribed norms.
- (xiii) COC 5.0 will be adopted.
- (xiv) The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements shall be made that effluents and storm water do not do not get mixed.
- (xv) A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.

- (xvi) Rainwater harvesting should be adopted. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology within a **period of three months** from the date of clearance and details shall be furnished.
- (xvii) Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.
- (xviii) Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.
- (xix) Regular monitoring of ground water (especially around ash pond and plant areas) shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg,Cr,As,Pb) and records maintained and submitted to the Regional Office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.
- (xx) Monitoring surface water quantity and quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.
- (xxi) Green Belt consisting of 3 tiers of plantations of native species around plant and at least 100 m width shall be raised. Wherever 100 m width is not feasible a 50 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not less than 2500 per ha with survival rate not less than 70 %.
- (xxii) First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- (xxiii) Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.
- (xxiv) Regular monitoring of ground level concentration of SO<sub>2</sub>, NO<sub>x</sub>, RSPM (PM<sub>2.5</sub> & PM<sub>10</sub>) and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.

- (xxv) A good action plan for R&R (if applicable) with package for the project affected persons be submitted and implemented as per prevalent R&R policy **within three months** form the date of issue of this letter.
- (xxvi) An amount of Rs 24.36 Crores shall be earmarked as one time capital cost for CSR programme. Subsequently a recurring expenditure of Rs 4.87 Crore per annum shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be **submitted within one month** along with road map for implementation.
- (xxvii) As part of CSR programme the company shall conduct need based assessment for the nearby villages to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. This will be in addition to vocational training for individuals imparted to take up self employment and jobs.
- (xxviii) The project proponent shall also adequately contribute in the development of the neighbouring villages. Special package with implementation schedule for providing fluoride free potable drinking water supply in the near by villages and schools shall be undertaken in a time bound manner.
- (xxix) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (xxx) The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>.
- (xxxi) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
- (xxxii) A separate Environment Management Cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- (xxxiii) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely, RSPM, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.

-5-

- (xxxiv) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well by e- mail) to the respective Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB.
- (xxxv) The environment statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.
- (xxxvi) **The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests.**
- (xxxvii) Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. **Criteria pollutants levels including NO<sub>x</sub> (from stack & ambient air) shall be displayed at the main gate of the power plant.**
- (xxxviii) Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.
- (xxxix) The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.
- (xl) Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bangalore / CPCB/ SPCB who would be monitoring the compliance of environmental status.
4. The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. The Ministry may also impose additional environmental conditions or modify the existing ones, if necessary.
5. The environmental clearance accorded **shall be valid for a period of 5 years** to start operations by the power plant.

6. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

7. In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.

8. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.

9. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

  
(LALIT KAPUR)  
DIRECTOR

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Secretary (Environment), Environment Department, Government of Orissa, Bhubaneswar.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Orissa State Pollution Control Board, A-118, Nilkanta Nagar, Unit - VIII, Bhubaneswar- 751 012.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi- 110032.
6. The Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment & Forests, A/3, Chandesekhapur, Bhubaneswar - 751023.
7. The District Collector, Jharsuguda District, Orissa.
8. The Director (EI), MOEF.
9. Guard file.
10. Monitoring file.

(LALIT KAPUR)  
DIRECTOR



J-13011/59/2008 -IA.II (T)  
Government of India  
Ministry of Environment & Forests

BY SPEED POST

Paryavaran Bhawan  
CGO Complex, Lodi Road  
New Delhi-110 003  
Dated: 22.01.2014.

To

M/s Odisha Power Generation Corporation Ltd.  
Zone-A, 7<sup>th</sup> Floor, Fortune Towers,  
Bhubaneswar- 751 023,  
Odisha.

Ph: 0674-2303765; Fax; 0674-2303755/56

**Sub: Expansion of existing Coal Based Thermal Power Plant by addition of 2x660 MW (Unit 3 & 4) at Village Banaharpalli, in Jharsuguda Distt., in Orissa by M/s Odisha Power Generation Corporation Ltd. – reg. Amendment and Extension of validity of Environmental Clearance.**

Sir,

This has reference to your letters dated 05.06.2013 and 18.09.2013 requesting for amendment and extension of validity of environmental clearance accorded for the above mentioned project.

2. The matter was placed before the Expert Appraisal Committee (Thermal Power) in its 4<sup>th</sup> Meeting held during November 18-19, 2013. In acceptance of the recommendation of the Expert Appraisal Committee (Thermal Power) and in view of the information/clarification furnished by you, with respect to the above mentioned power project, the following amendments are made in two conditions i.e. (xii) & (xviii) specified in the earlier EC accorded to you vide our letter of even no. dated 04.02.2010.

- a) The condition no. (xii) of Para No.4 shall be read as "Closed cycle cooling system with induced draft cooling towers shall be provided. The Effluents shall be treated as per the prescribed norms" **instead of**

"Closed cycle cooling system with natural draft cooling towers shall be provided. The Effluents shall be treated as per the prescribed norms."

- b) The condition no. (xviii) of Para No.4 shall be read as "Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil" **instead of**

"Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil."

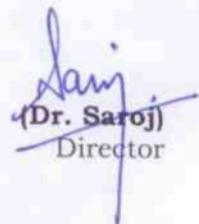
3. Further, under Para no.4 of this Ministry's letter of even no. dated 04.02.2010, after the condition no. (xl), the following conditions shall be inserted:

- (xli) A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Thereafter, mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.
- (xlii) Continuous monitoring for heavy metals in and around the existing ash pond area shall be immediately carried out by reputed institutes like IIT Kanpur.
- (xliiii) Harnessing solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of implementation shall be submitted periodically to the Regional Office of the Ministry.
- (xliv) Fugitive emissions shall be controlled to prevent impact on agricultural or non-agricultural land.
- (xliv) No ground water shall be extracted for use in operation of the power plant even in lean season.
- (xlvi) Minimum required environmental flow suggested by the Competent Authority of the State Govt. shall be maintained in the Channel/ Rivers (as applicable) even in lean season.
- (xlvii) No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up/operation of the power plant.
- (xlviii) Fly ash shall not be used for agricultural purpose. No mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the State Pollution Control Board and implementation done in close co-ordination with the State Pollution Control Board.
- (xlix) Three tier green belt shall be developed all around Ash Pond over and above the Green Belt around the plant boundary.
  - (i) A common **Green Endowment Fund** shall be created and the interest earned out of it shall be used for the development and management of green cover of the area.
  - (ii) It shall be ensured that in-built monitoring mechanism for the schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time.
  - (iii) An Environmental Cell shall be created at the project site itself and shall be headed by an officer of the company of appropriate seniority and

qualification. It shall be ensured that the head of the Cell shall directly report to the Head of the Organization.

- (liii) The project proponent shall formulate a well laid Corporate Environment Policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with the conditions stipulated in this clearance letter and other applicable environmental laws and regulations.
4. All other conditions mentioned in this Ministry's letter of even no. dated 04.02.2010 shall remain the same.
5. Regarding the extension of validity of environmental clearance, since the validity will only expire in Feb, 2015, you may request this Ministry along with updated Form-I only before 6 months from expiry of the validity of EC, if required.

This issues with the approval of the Competent Authority.

  
(Dr. Saroj)  
Director

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Secretary (Environment), Environment Department, Government of Orissa, Bhubaneshwar.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Orissa State Pollution Control Board, A-118, Nilkanta Nagar, Unit - VIII, Bhubaneshwar- 751 012.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi- 110032.
6. The Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment & Forests, A/3, Chandesekhapur, Bhubaneswar - 751023.
7. The District Collector, Jharsuguda District, Orissa.
8. Guard file.

  
(Dr. Saroj)  
Director



No. J-13011/59/2008-IA.II (T)

Government of India

Ministry of Environment, Forests and Climate Change

3<sup>rd</sup> Floor, Vayu Block,

Indira Paryavaran Bhawan, Jor Bagh Road,

Aliganj, New Delhi-110003



Dated: 16.01.2015

To

M/s Odisha Power Generation Corporation Ltd.  
Zone-A, 7<sup>th</sup> Floor, Fortune Towers,  
Bhubaneswar- 751 023,  
Odisha.  
Ph: 0674-2303765; Fax: 0674-2303755/56

**Sub: Expansion of existing Coal Based Thermal Power Plant by addition of 2x660 MW (Unit 3 & 4 ) at Village Banaharpali, District Jharsuguda in Odisha by M/s Odisha Power Generation Corp. Ltd. (OPGC) – reg. extension of validity of EC.**

Sir,

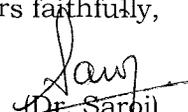
This has reference to your letters dated 07.11.2014, 03.12.2014 and 04.12.2014 on the above subject. It is noted that EC was accorded for the above project on 04.02.2010 and an amendment in the EC conditions was accorded on 22.01.2014.

2. The matter was placed before the EAC (Thermal Power) in its 26<sup>th</sup> Meeting held during 27<sup>th</sup> & 28<sup>th</sup> November, 2014. In acceptance of the recommendation of the EAC and in view of the information/clarification furnished by you with respect to the implementation of the above mentioned power project, the validity of the EC and its amendment is extended for a period of five years i.e. till 03.02.2020 to start the production operations by the power plant.

3. All the conditions mentioned in this Ministry's letter of even no. dated 04.02.2010 and its amendment dated 22.01.2014 shall remain the same.

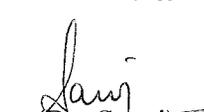
4. This issues with the approval of the Competent Authority.

Yours faithfully,

  
(Dr. Saroj)  
Scientist 'F'

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Secretary (Environment), Environment Department, Government of Orissa, Bhubaneswar.
3. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
4. The Chairman, Orissa State Pollution Control Board, A-118, Nilkanta Nagar, Unit - VIII, Bhubaneswar- 751 012.
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi- 110032.
6. The Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment & Forests, A/3, Chandesekhapur, Bhubaneswar - 751023.
7. The District Collector, Jharsuguda District, Orissa.
8. Guard file.

  
(Dr. Saroj)  
Scientist 'F'

Issued  
19/1/15

J/C



भारत सरकार / Government of India

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय / Ministry of Environment, Forest & Climate Change

क्षेत्रीय कार्यालय, भुवनेश्वर / Regional Office, Bhubaneswar

ए/३, चंद्रसेखरपुर / A/3, Chandrasekharpur

भुवनेश्वर - ७५१ ०२३ / Bhubaneswar - 751 023

~~80~~ Annexure-R/5



580  
आज़ादी का  
अमृत महोत्सव



Telephone: 0674 - 2301213, 2301248, 2302452, 2302453. E-mail: roez.bsr-mef@nic.in

File No. 101- 361 /08/EPE

Date: 09.09.2024

To

Dr. Bhardwaj Adiraju,  
Scientist-D, (IA Division)  
Ministry of Environment, Forest and Climate Change,  
Indira Paryavaran Bhawan, Jorbagh Road,  
Aliganj, New Delhi – 110 003.

Sub: Monitoring Report in respect of 2x210 MW and 2x660 MW Coal Based Thermal Power Plant at village Banaharpalli, in Jharsuguda Distt., in Orissa by M/s Odisha Power Generation Corporation Ltd –reg

Ref: (i) MoEF&CC letter No. 14/13/83-EM I/I.A dated 30.01.1987, J-13011/59/2008-IA. II (T) dated 04.02.2010 J-13012/59/2008-IA-II(T) dated 22.01.2014 J-13012/65/2008-IA-II(T) dated 16.01.2015.

(ii) MoEF&CC letter no. L-11011/43/2024-IA-I dated 31.07.2024

Sir,

I am directed to draw your kind attention to the subject and reference letter cited above and to state that the above project has been monitored on 08.08.2024. Based on the observations made during monitoring, documents submitted and discussion held, the factual status (**Annexure-A**) and the Monitoring report (**Annexure-B**) attached for kind information and further needful action.

Encl : As above

Yours faithfully,

(डॉ. टी. एच. महतो /Dr. T. H. Mahato)

बैज्ञानिक-ई/ Scientist 'E'

Copy to:

1. The PPS to Director General of Forest & Special Secretary, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, Aliganj, New Delhi – 110 003 (Email: [dgfindia@nic.in](mailto:dgfindia@nic.in))
2. Inspector General of Forests (FC), Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, Aliganj, New Delhi-110 003, Email: [ramesh.pandey@nic.in](mailto:ramesh.pandey@nic.in)
3. Mrs. Shruti Rai Bhardwaj, Scientist-E, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, Aliganj, New Delhi – 110 003, Email: [shruti.rai@nic.in](mailto:shruti.rai@nic.in)
4. Shri Manas Ranjan Rout, Director (Operations) & MD I/c, M/s Odisha Power Generation Corporation Ltd, Ib Thermal Power Station, At/Po-Banaharpali, District Jharsuguda-768234
5. Compliance and Monitoring Division (CMD), Ministry of Environment, Forest and Climate Change, Paryavaran Bhawan, Jor bagh Road, Aliganj, New Delhi – 110 003, (Email: [moefcc-monitoring@gov.in](mailto:moefcc-monitoring@gov.in))

बैज्ञानिक-ई/ Scientist 'E'

**ANNEXURE -A****OA no 89 of 2024/EZ titled as Gopinath Majhi vs State of Odisha & others before the Hon'ble National Green Tribunal.**

The Monitoring of the project (M/s Odisha Power Generation Corporation Ltd) was conducted by Dr. T. H. Mahato, Scientist 'E', Regional Office Bhubaneswar on 08.08.2024. Shri Sitaram Sahu, AGM, EHS, Shri Partha Sarathi Panda, Sr Manager Environment, and other officers joined during visit time to time. Based on the site visit and documents submitted and discussion held with the officials, observations made are submitted below:

**OBSERVATIONS:**

1. Ministry of Environment Forests and Climate Change has accorded Environmental Clearance (EC) to IB Thermal Power Project 4x210MW of M/s Orissa Power Generation Corporation Ltd for 4x210MW coal based thermal power plant vide letter no 14/13/83-EM I/I.A dated 30.01.1987. Subsequently environmental clearance has been accorded for Expansion of existing Coal Based Thermal Power Plant by addition of 2x660 MW Coal Based Thermal Power Plant at village Banaharpalli, in Jharsuguda Distt., in Orissa vide letter no J-13011/59/2008-IA. II(T) dated 04.02.2010. The EC dated 04.02.2010 amendment vide letter no. dated 22.01.2014 and validity of the accorded EC dated 04.02.2010 extended vide letter dated 16.01.2015.
2. M/s Orissa Power Generation Corporation Ltd operating a coal based thermal power plant of total capacity 1740MW. Two bi flue stacks has been provided. The project has ash pond in two areas, i.e. Tilia and Rengali. Ash pond at Tilia divided into two lagoons. Ash pond area at Rengali divided into 3 laggons namely Ash Pond A, Ash Pond B and Ash pond C. During visit Ash pond height increase has been observed at the site. PP submitted that CTE has been obtained from SPCB for height raising of ash pond A and C.



**Photo 1: Ash pond height increase**



**Photo 2: Reclaimed ash pond B**

3. Ash pond at Tilia was found to be with HDPE lining. Fly ash pond B at Rengali has been reclaimed. During visit fly ash disposal at pond C was under process. PP stated that ash pond C was lined with HDPE and ash pond B and ash pond A construed earlier was without HDPE lining. There was an incident of breach of fly ash pond C on 09.12.2023. During visit remnant fly ash observed on the incidental land area.



**Photo 3: HDPE lining at the ash pond at Tilia**

*Prakash*



**Photo 4: Repaired portion of the bund**



**Photo 5: Repaired portion of the bund**

4. The ash pond A, B and C are in close proximity to Hirakund reservoir. PP submitted start of ash disposal to ash Pond A, Ash Pond B and Ash Pond C as 31.08.2007, 03.06.95 and 17.04.2017 respectively is prior to the date of Office memorandum of MoEF&CC dated 28.08.2019.
  
5. A joint committee constituted by Hon'ble National Green Tribunal consisting of representative from CPCB, MOEFCC and DM Jharsuguda visited the site on 12.06.2024. As per the report "it was estimated by the industry that around 4.0 to 4.5 lakhs tons of ash has been washed away in to the nearby areas (154.24 acre). Till 11.06.2024 around 4.2 lakh MT of ash had been recovered and has been disposed back at ash pond C". PP submitted that fly ash lifted from the impact zone is 439500m<sup>3</sup>. During visit fly ash was observed as remnants in the incident area. Total fly ash yet to be removed from the incident area. The report of the committee is attached herewith as **Annexure A/1**.

*Mahesh*



**Photo 6: Fly ash observed at the incidental area during visit**



**Photo 7: Fly ash observed at the incidental area during visit**



**Photo 8: Fly ash observed at the incidental area during visit**



**Photo 9: Fly ash observed at the incidental area during visit**

(Dr. T. H. Mahato)  
Scientist 'E'

**Joint Inspection Report in the Hon'ble NGT matter OA No – 89/2024/EZ (Gopinath Majhi Vs State of Odisha) order dated 02/05/2024**

---

As per the direction of Hon'ble NGT in the matter of OA No- 89/2024/EZ (Gopinath Majhi Vs State of Odisha) order dated 02/05/2024, a committee was constituted comprising of the following members:

1. Senior Scientist, Central Pollution Control Board;
2. Senior Scientist, Ministry of Environment, Forests and Climate Change (MoEF&CC), regional officer Bhubaneswar;
3. District Magistrate, Jharsuguda or his representative Officer not below the rank of Additional District Magistrate (A.D.M).

Committee was directed to visit the site, and submit the report in regards to the allegation. Accordingly, the committee had its meeting via VC on 27<sup>th</sup> May 2024. It was decided to carry out the site visit on 12/06/2024. Following officials were present during the site visit.

1. Sri Sandeep Roy, Senior Scientist, Central Pollution Control Board;
2. Sri Sandeep Nandi, Senior Scientist, Ministry of Environment, Forests and Climate Change (MoEF&CC), Regional Office Bhubaneswar;
3. Sri Brajabandhu Bhoi, Additional District Magistrate (General), Jharsuguda.

The following officials from M/s OPGC Ltd were present during inspection: -

1. Mr. Sukanta Mohapatra (Sr. VP Operations)
2. Mr. P. Koreshu Patra ( GM Projects)
3. Dr. Ratikanta Das (Head HR & Admin)
4. Mr. Sitaram Sahu (Head EHS)
5. Mr. Parthasarathi Panda (Sr. Manager Environment)
6. Himansu Bhusana Behera (Sr. Manager PR/CSR/Land)

The Committee members gone through the allegations made in original Application.

Following points are highlighted by the applicant in his application.

1. Breach of Ash Pond in the month of December, 2023 and spillage of ash in adjoining areas.
2. Reclamation of affected area due to ash spillage and repairing work of ash pond.
3. Construction of ash pond to the proximity of Hirakud reservoir, a notified RAMSAR Site.

**Observations on the day of inspection:**

- I. The Ash Pond complex constituted of 3 Nos of Ash Ponds of which **Ash Pond- A** was commissioned on 31.08.2007, **Ash Pond- B** was commissioned on 03.06.1995 and **Ash Pond- C** was commissioned on 17.04.2017 . Thus, the ash ponds were commissioned before the MoEF & CC's notification of 19.08.2019 which states minimum distance of Ash Pond should be 500 m from HFL of larger water bodies.
- II. The breach/ incident had occurred on the Northern side of Ash Pond-C on 09.12.2023 at 8.30 AM. It was found that 20 m width of entire starter dyke along with raised embankment was washed-out. It was estimated by the industry that around 4.0 to 4.5 lakh tons of ash has been washed away into the nearby areas (154.24 Acre). As on date i.e. till 11.06.2024 around 4.2 Lakh MT of ash had been recovered and has been disposed back at Ash Pond-C. As informed the balance quantity of ash will be recovered within 7 -10 days of time period.
- III. It was found that the Pond-C was operational during the time of visit and the industry has all necessary safety measures as directed by OSPCB .
- IV. During visit, it was observed that the restoration and reclamation work of the affected and breached area has been completed up to RL 208 m and grass turffing on the downstream bund was in progress (Photograph enclosed). The committee members also visited periphery of the ash ponds (i.e. Ash Pond #A, B, C) as well as the backwater area of Hirakud reservoir side (Southern side of ash pond). Any type of ingress of Ash water/ Supernatant into Hirakud reservoir was not observed. The dyke restoration work has been completed as per recommendation, design & drawing of IIT Chennai. The design & drawing has been enclosed for reference.
- V. The industry has paid necessary compensation of amount Rs 53,98,400/- to the affected families and Rs 6,50,000/- to affected SHG group (copy enclosed).

**Action Taken by the OSPCB: -**

As soon as the information of breach in Ash Pond-C was received by the Odisha Pollution Control Board, a team from Head Office, Bhubaneswar along with the Officials of Regional Office, Jharsuguda visited the affected area on 09.12.2023 & the team remained on 10.12.2023 to ascertain the situation. Based upon that report, a direction U/s. 33A of Water (PCP) Act, 1974 and U/s. 31A of Air (PCP) Act, 1981 was issued to M/s OPGC Ltd on dtd. 11.12.2023.

In compliance to this, the industry has submitted a status/progress report to OSPCB (copy of the same enclosed).

They have also submitted a short term and a long-term action plan for restoration of breached portion of Pond-C as well as overall ash management and reclamation of affected land area due to spillage of Ash.

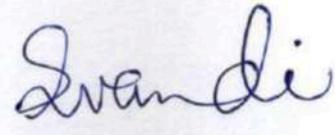
**Remedial Measures Taken by OPGC:**

- 1) The industry has instantly initiated restoration of the breached portion of Pond-C under the guidance and supervision of expert from IIT Chennai. The drawings enclosed for reference.
- 2) The industry has prepared SOP for stability, safety, operation, maintenance & inspection of ash pond area and embankment.
- 3) The industry has installed AAQMS at Rengali village (towards affected Side). The photograph & monitoring data has been enclosed.
- 4) The industry has engaged TERI-SAS for carrying out an Environment damage assessment study. The study will be carried out in 3 seasons i.e. Pre-Monsoon, Monsoon & Post-Monsoon. The final study report will be available by 31<sup>st</sup> March 2025 & the Pre-Monsoon report will be available by August 2024.



**(Sandeep Roy)**

Scientist D, Central  
Pollution Control Board,  
Kolkata



**(Sandeep Nandi)**

Scientist B, (MoEF&CC),  
Regional office  
Bhubneswar



**(Brajabandhu Bhoi)**

Nodal Officer-cum-Additional  
District Magistrate (General),  
Jharsuguda

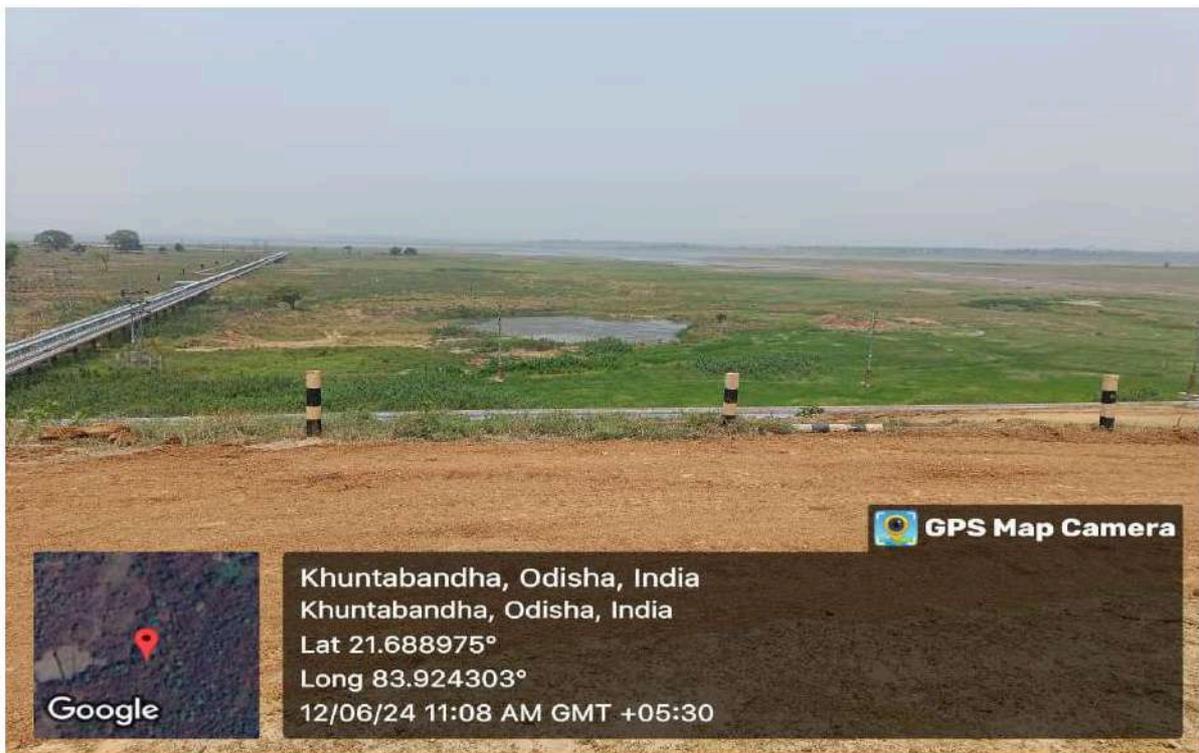
**Photographs**



**Reclamation of Affected area and Ash Pond C**



**AAQMS at Rengali Village**



**Hirakud Reservoir near Ash pond**



Government of India  
Ministry of Environment, Forests and Climate Change (MoEF&CC)  
Regional Office – Bhubaneswar

**MONITORING REPORT**  
**PART I**  
**DATA SHEET**

File No: 101-361/08/EPE

1	Project Type River valley / Mining / Industry / Thermal / Nuclear / Other Specify	:	1(d) Coal Based Thermal Power Plant.
2	Name of the project	:	4x210MW and 2X660 MW IB Thermal Power Station
3	Clearance letter(s) / OM No. and dated	:	1. 14/13/83-EM I/I.A dated 30.01.1987 2.J-13011/59/2008, dated 04.02.2010, 3. J-13012/59/2008-IA-II(T) dated 22.01.2014 4. J-13012/65/2008-IA-II(T) dated 16.01.2015
	CTE		14266/IND/22/NOC-5037, dated 28.08.2010
	CTO		4590/IND-I-CON-104, dated 30.03.2024
4	Locations	:	Banharpali
	a. Taluk(s) District	:	Jharsuguda
	b. State (s)	:	Odisha
	c. Latitudes / Longitudes	:	Latitude - 21°41'26.46"N Longitude - 83°51'46.95"E.
5	Address of correspondence		IB Thermal Power Station, At/Po-Banharpali, Dist Jharsuguda, Odisha-768234
	a. Address of concerned project Chief Engineer (with Pin Code & telephone / telex / fax numbers		Shri. Manas Ranjan Rout Director (Operations) & MD I/c M/s Odisha Power Generation Corporation Ltd. Ib Thermal Power Station At/Po-Banharpali, District Jharsuguda Contact No.9777296075
	b. Address of Executive Project Engineer/ Manager (with Pin Code/fax numbers)	:	Shri. Manas Ranjan Rout Director (Operations) & MD I/c M/s Odisha Power Generation Corporation Ltd. Ib Thermal Power Station At/Po-Banharpali, District Jharsuguda Contact No.9777296075
6	Salient features:		
	a. Salient features of the project		Coal Based Thermal Power Plant of capacity2x210MW and 2X660 MW situated at Banharpali Village of District Jharsuguda.
	b. of the environmental management plans		Covered in EIA/EMPs submitted to the Ministry of Environment Forest and Climate Change (MoEF&CC) for approval at the time of grant of Environmental Clearance (EC)
7	Breakup of the project area:		

*J. Prakash*

	a	Project area	: Main Plant & Township Area-1227.39 Acres Ash Ponds-357 Acres (As reported by PP)
8		Break up of project affected population with enumeration of those losing houses / dwelling units only, agricultural land only, both dwelling units and agricultural land and landless labourers / artisans	NA
	a	SC,ST/Adivasis	: NA
	b	Others	: NA
9		Financial Details:	
	a	Project cost as originally planned and subsequent revised estimates and the years of price reference	: Rs.10000 Crores (as reported by PP)
	b	Allocations made for environmental management plans, with item wise and year wise breakup	: Rs. 34150 Lakhs i. Air Pollution Control- Rs. 16000 Lakhs ii. Water Pollution Control- Rs. 15500 Lakhs iii. Environment Monitoring & Management- Rs. 800 Lakhs iv. Occupational Health- Rs. 200 Laks v. Green Belt- 1650 Lakhs (as reported by PP)
	c	Benefit cost ratio / internal rate of return and the years of assessment	: Details has not been furnished
	d	Whether (c) includes the cost of environmental management as shown in (b) above	: Details has not been furnished
	e	Total expenditure on the Project so far	: Rs.10466.99 Crores (as reported by PP)
	f	Actual expenditure incurred on the environmental management plans so far	: Details has not been furnished
10		Forest land requirement:	
	a	The status of approval for a diversion of forest land for non-forestry use	: NA
	b	The status of compensatory afforestation, if any	: NA
	c	The status of clear felling	: NA
	d	Comments on the viability and sustainability of compensatory afforestation programme in the light of actual field experience so far	: Rs.386196.00 deposited in CAMPA Account, New Delhi for compensatory afforestation for tree felling in Non-Forest Area. (as reported by PP)

*Sanahat*

11		The status of clear felling in non-forest area (such as submergence area of reservoir, approach road), if any, with quantitative information	:	Permission granted by DFO for felling 2757 Nos of Trees and tree felling done during project activity. (as reported by PP)
12		Status of construction:		
	a	Date of commencement	:	Details has not been furnished
		Date of completion (actual and / or planned)	:	02.03.2019 (as reported by PP)
13		Reasons for the delay if the project is yet to start.	:	NA
14		Date of site visit:		
	a	The dates on which the project was monitored by the Regional Office on previous occasions, if any	:	26.07.2023
	b	Date of site visit for this monitoring report		08.08.2024

**Photographs**



**Photo 1: Fly ash silo**



**Photo 2: Reclaimed ash pond B**



**Photo 3: Ash pond height increase**



**Photo 4: Green belt inside the premises**

*Mahesh*



Photo 5: Fly ash brick plant



Photo 6: covered conveyor



Photo 7: Dust suppression system at coal unloading area



Photo 8: Rain water harvesting pond



Photo 9: use of solar power



Photo 10: Display board at the entrance



Photo 11: HDPE lining at the ash pond



Photo 12: Arrangement for water spray

*Prakash*



**Photo 13: Fly ash observed at the incidental area during visit**



**Photo 14: Fly ash observed at the incidental area during visit**



**Photo 15: Fly ash observed at the incidental area during visit**



**Photo 16: Fly ash observed at the incidental area during visit**



**Photo 17: Repaired portion of the bund**



**Photo 18: Repaired portion of the bund**

*Prakash*

**PART-II&III**  
**DESCRIPTIVE REPORT ON STATUS OF COMPLIANCE TO THE**  
**CONDITIONS OF THE ENVIRONMENTAL CLEARANCE AND**  
**ENVIRONMENTAL MANAGEMENT**

Subject:	2x210 MW and 2x660 MW Coal Based Thermal Power Plant at village Banaharpalli, in Jharsuguda Distt., in Orissa -reg.
Reference:	MoEF&CC letter No. 14/13/83-EM-I/A dated 30.01.1987, J-13011/59/2008-IA. II (T) dated 04.02.2010 J-13012/59/2008-IA-II(T) dated 22.01.2014 J-13012/65/2008-IA-II(T) dated 16.01.2015 at village Banaharpalli, in Jharsuguda Distt., in Orissa

**PRESENT STATUS OF THE PROJECT:**

Ministry of Environment Forests and Climate Change has accorded Environmental Clearance (EC) to IB Thermal Power Project 4x210MW of M/s Orissa Power Generation Corporation Ltd for 4x210MW coal based thermal power plant vide letter no 14/13/83-EM I/A dated 30.01.1987. Subsequently environmental clearance has been accorded for Expansion of existing Coal Based Thermal Power Plant by addition of 2x660 MW Coal Based Thermal Power Plant at village Banaharpalli, in Jharsuguda Distt., in Orissa vide letter no J-13011/59/2008-IA. II (T) dated 04.02.2010. The EC dated 04.02.2010 amendment vide letter no. dated 22.01.2014 and validity of the accorded EC dated 04.02.2010 extended vide letter dated 16.01.2015.

The above project was monitored by Dr. T. H. Mahato, Scientist-E, Integrated Regional Office, Bhubaneswar on 08.08.24 along with;

1. Shri Sitaram Sahu, AGM, EHS
2. Shri Partha Sarathi Panda Sr Manager Environment,

The report is submitted on the basis of the field visit and as per the information provided by the PP. The status of compliance on the stipulated conditions contained in the EC cited above is given below:

SI No	Condition stipulated	Status of Compliance
<b>As per the MoEF&amp;CC letter no. J-13011/59/2008 -IA.II (T) dated 04/02/2010</b>		
i.	It shall be ensured that natural drainage in the area is not disturbed due to any activity associated with operation or development of the power plant.	<b>BEING COMPLIED</b> PP submitted that the original natural drainage status has been maintained in the project area and will not be disturbed in future.
ii.	The height of the existing ash pond shall not be increased to accommodate fresh disposal of ash slurry.	<b>NOT COMPLIED</b> The project has ash pond in two areas, i.e. Tilia and Rengali. During visit Ash pond height increase has been observed at the site. PP submitted that CTE has been obtained from SPCB for height raising of ash pond A and C. It was also submitted that height of the existing ash pond will not be increased to accommodate fresh disposal of ash slurry from the expansion and has constructed dedicated ash pond for unit 3 and unit 4 at Tilia. Ministry may like to take a view in the matter.





Sl No	Condition stipulated	Status of Compliance
iii.	Wildlife conservation plan prepared in consultation with the office of the concerned Chief Wildlife Warden shall be implemented before any expansion activity is undertaken. The status of implementation shall be submitted to the Regional Office of the Ministry within six months and from time to time.	<b>BEING COMPLIED</b> PP submitted that the Site-Specific Wild Life Conservation Plan (SSWLCP) for the power plant has been prepared and got approved from Chief Wildlife Warden, Odisha on dated 12th June 2014. An amount of Rs 6, 62, 92,000 for execution of SSWLCP was made on 18.07.2014 to Odisha CAMPA account. PP also submitted that OPGC has also spend Rs 66 lakh towards plantation activities against the plantation requirement mentioned in approved wild life management plan and has planted additional saplings of forest and indigenous species in the FY 2023-24.
iv.	Hydro-geological study of the area shall be reviewed annually, and results submitted to the Ministry and concerned agency in the State Govt. In case adverse impact on ground water quantity and quality is observed, immediate mitigating steps to contain any adverse impact on ground water shall be undertaken.	<b>PARTIALLY COMPLIED</b> PP submitted that first hydrogeological study carried out in the year 2014-15. It was also submitted that a comprehensive detailed Hydrogeological study covering the plant and ash pond area was carried out during 2018-19 and 2019-20. PP also furnished latest study report carried out in May'23/June'23 carried out by M/s Visiontek Consultancy Services which concludes that "Hydraulic conductivity is very poor due to which there will be no effect on ground water quality and ground water resources. Ground water quality is portable and also suitable for all purpose".
v.	A twin flue stack of 275 m height shall be provided with continuous online monitoring equipment's for SO <sub>x</sub> , NO <sub>x</sub> and RSPM (PM <sub>2.5</sub> & PM <sub>10</sub> ). Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack shall also be monitored on periodic basis.	<b>BEING COMPLIED</b> A twin flue stack of reportedly 275 meters height have been constructed. CEMS have been installed at the twin flue stack for monitoring of SO <sub>2</sub> , NO <sub>x</sub> and PM parameters. Exit velocity of flue gas has been reported to be more than 22 m/sec.
vi.	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm <sup>3</sup> .	<b>BEING COMPLIED</b> High efficiency ESPs has been installed and particulate data for unit 3 and 4 was less than 50 mg/Nm <sup>3</sup> .
vii.	Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	<b>PARTIALLY COMPLIED</b> Rain Gun type water sprinkling systems have been installed at Coal stock yard to control fugitive emission during stacking and reclamation of coal. Dust Suppression Systems have been installed at Track hopper, Transfer towers. PP submitted that dust extraction systems have been provided at Crusher House, Boiler Bunkers, and vents of Ash Silos to control the fugitive dust emission. Dust suppression system at the ash pond A and C yet to be provided. Water spraying arrangement provided at the ash pond situated at Tilia.
viii.	Utilization of 100% Ash generated shall be made	<b>PARTIALLY COMPLIED</b>

*Tanahat*

SI No	Condition stipulated	Status of Compliance
	from 4th year of operation of the plant. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	Ash utilization reported to be less than 100% .
ix.	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed of in the ash pond in the form of slurry form. Mercury and other heavy metals (As, Hg, Cr, and Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed of in low lying area.	<p style="text-align: center;"><b>PARTIALLY COMPLIED</b></p> <p>Pneumatic conveyer system with 3 nos of dry ash storage silos have been constructed with reported capacity of 2300 M3 each for storage of ash and for its further utilisation and disposal. PP submitted that unutilised fly ash is being disposed in the ash pond through HCSD system and Bottom ash is being disposed through LCSD system. It was also submitted that effluent emanating from the existing ash pond is being recycled and reused for fresh slurry making. No ash pond effluent is being discharged outside. Heavy metal analysis data of bottom ash has been furnished. PP furnished heavy metal analysis data of nearby ground water and surface water from ash pond C. As per the fly ash utilization details furnished, fly ash utilized for low lying area filling. PP submitted CTE and CTO for low land area filling. It was submitted that no ash shall be disposed in low lying area without taking consent from OSPCB. Ministry may like to take a view on the issue.</p>
x.	Ash pond shall be lined with HDP/LDP lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	<p style="text-align: center;"><b>NOT COMPLIED</b></p> <p>The project have ash pond in two locations. Two ash pond at Tilia and Three ash pond at Rengali. Ash pond at Tilia was found to be with HDPE lining. It was submitted that Dyke safety measures has been addressed during design and construction of ash pond to protect the ash dykes from getting breached. Fly ash pond B at Rengali has been reclaimed. During visit fly ash disposal at pond C was under process. PP stated that ash pond C was lined with HDPE and ash pond B and ash pond A construed earlier was without HDPE lining. However, there was an incident of breach of fly ash pond C on 09.12.2023. During visit Fly ash observed on the incidental land area. PP submitted that fly ash removal from the impact zone is 439500m3. During visit fly ash was observed as remnants in the incident area. Total fly ash yet to be removed from the incident area.</p>
xi.	For disposal of Bottom Ash in abandoned Manoharpur mines it shall be ensured that the bottom and sides of the mined-out areas are adequately lined with clay before Bottom Ash is filled up. The project proponent shall inform the State Pollution Control Board well in advance	<p style="text-align: center;"><b>AGREED UPON</b></p> <p>PP submitted that disposal at Manoharpur mine yet to be started. PP agreed to abide by the condition during disposal of ash in mine.</p>

*Malet*



SI No	Condition stipulated	Status of Compliance
	before undertaking the activity.	
xii.	Closed cycle cooling system with natural draft cooling towers shall be provided. The Effluents shall be treated as per the prescribed norms. The condition has been amended vide letter dated 22.01.2024 to <b>Closed cycle cooling system with induced draft cooling towers shall be provided. The Effluents shall be treated as per the prescribed norms.</b>	<b>BEING COMPLIED</b> Induced draft cooling system has been provided. PP submitted that the blow down of the IDCT is being utilized in ash handling and dust suppression purpose.
xiii.	COC 5.0 will be adopted.	<b>BEING COMPLIED</b> The monthly avg COC data reported to be varies from 4.93 to 6.6 during Apr23 to July 24 with an avg of 5.42.
xiv.	The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements shall be made that effluents and storm water do not get mixed.	<b>BEING COMPLIED</b> Capacity of ETP reported to be 200X2 m3/hour has been installed for treatment and utilisation of waste water generated from the plant. PP submitted that effluent drains have been segregated from the Storm water drains.
xv.	A sewage treatment plant shall be provided, and the treated sewage shall be used for raising greenbelt/plantation.	<b>BEING COMPLIED</b> Sewage Treatment Plant of 1 MLD reported capacity has been provided for treatment of sewage generated from colony and office buildings of OPGC. PP submitted that treated sewage is being used for raising greenbelt/plantation.
xvi.	Rainwater harvesting should be adopted. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of clearance and details shall be furnished.	<b>BEING COMPLIED</b> During visit a rain water harvesting pond was observed. PP submitted that after getting the approval of the technology, the rain harvesting pond design was carried on and construction completed in May'22.
xvii.	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.	<b>BEING COMPLIED</b> Fire hydrant system has been installed in the Coal stock yard to control spontaneous fire. It was also submitted that coal stock yard is being managed through first in first out method to reduce spontaneous combustion.
xviii.	Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil. <b>The condition has been amended vide letter dated 22.01.2024 to Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives,</b>	<b>BEING COMPLIED</b> PP Submitted that storage facilities for auxiliary liquid fuel have been made in consultation with Dept. of Explosive, Nagpur. Emergency command structure for fire and explosion and for toxic gases has been furnished. PP furnished a copy of approval of onsite emergency plan from Director of Factories and Boiler

*Jonahab*

Sl No	Condition stipulated	Status of Compliance
	<b>Nagpur. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil</b>	
xix.	Regular monitoring of ground water (especially around ash pond and plant areas) shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr, As, Pb) and records maintained and submitted to the Regional Office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.	<b>PARTIALLY COMPLIED</b> PP furnished ground water quality monitoring data of Budapali Village tube well, Rengali village tube well, Kantatikara village open well of dated 20.09.24 and from Sansaratikira village of dated 05.07.23. Data reported for 29 parameter including Hg, As and Pb. Monitoring data of Cr has not been mentioned. Piezometric monitoring data has not been furnished. A network of existing wells and constructing new piezometers yet to be established.
xx.	Monitoring surface water quantity and quality shall also be regularly conducted, and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.	<b>BEING COMPLIED</b> Surface water and ground water quality monitoring data has been furnished for one location. PP reported that the points for monitoring in the direction of flow of ground water has been determined from the Hydro geological report and monitoring is being carried out accordingly. Monitoring data of heavy metal in ground water has been furnished.
xxi.	Green Belt consisting of 3 tiers of plantations of native species around plant and at least 100 m width shall be raised. Wherever 100 m width is not feasible a 50 m width shall be raised, and adequate justification shall be submitted to the Ministry. Tree density shall not less than 2500 per ha with survival rate not less than 70 %.	<b>PLEASE REFER BELOW</b> PP reported plantation of 324749 no with a survival of 245004 nos and the percent of green belt area reported to be 34.81%. Dense plantation observed at the plant site.
xxii.	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	<b>PLEASE REFER BELOW</b> During visit project was in operation. PP submitted that fully equipped 18 bedded Hospital has been established inside the campus for health care of workers.
xxiii.	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dBA. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non-noisy/less noisy areas.	<b>BEING COMPLIED</b> Noise level monitoring data furnished along with the submitted six monthly compliance. The data reported was within the stipulated norms. PP also submitted that 464 nos. of audiometric test have been carried out in the FY 2023-24 for worker working in high noise areas like Ball mill area, crusher house and TG building.
xxiv.	Regular monitoring of ground level concentration of SO <sub>2</sub> , NO <sub>x</sub> , RSPM (PM <sub>2.5</sub> & PM <sub>10</sub> ) and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed	<b>PARTIALLY COMPLIED</b> Six online CAAQMA monitoring stations to monitor PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> & CO has been installed. The online SO <sub>2</sub> data exceeds at AAQMS5 and PM <sub>10</sub> data exceeds for

Sl No	Condition stipulated	Status of Compliance
	limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.	AAQMS6. PP submitted that, Ambient Air Quality is also being monitored through five permanent offline ambient air quality stations and the location of the stations are decided earlier in consultation with the Regional Office. Ambient Hg analysis data has not been furnished.
xxv.	A good action plan for R&R (if applicable) with package for the project affected persons be submitted and implemented as per prevalent R&R policy within three months from the date of issue of this letter.	<b>PLEASE REFER BELOW</b> PP submitted that R & R plan is not applicable as there is no displacement of people due to establishment of the project.
xxvi.	An amount of Rs 24.36 Crores shall be earmarked as one-time capital cost for CSR programme. Subsequently a recurring expenditure of Rs 4.87 Crores per annum shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within one month along with road map for implementation.	<b>PARTIALLY COMPLIED</b> PP submitted in its report that a revised /updated list of projects amounting to Rs. 26.91 Crores has been approved by the CSR committee in its 22nd meeting dated 06th April 2019. PP reported an expenditure of Rs440.81 lakhs on Health, education, Livelihood Enhancement and Vocational Skill Development, Rural Development, Safe Drinking Water, Rural Sports Training, Development of community Infrastructure, Animal Welfare, environment during 2019-20 to 2023-24. The recurring expenditure reported was less than the condition stipulated.
xxvii.	As part of CSR programme the company shall conduct need based assessment for the nearby villages to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community' development activities and income generating programmes. This will be in addition to vocational training for individuals imparted to take up self-employment and jobs.	<b>BEING COMPLIED</b> PP submitted that need based assessment have been conducted by CSR team of OPGC which was followed by a baseline survey taken up by a professional agency. The project list of Rs. 26.91 Crores provides the details of projects to be undertaken for development of local people as per their expressed needs and priorities. PP reported an expenditure of Rs440.81 lakhs on Health, education, Livelihood Enhancement and Vocational Skill Development, Rural Development, Safe Drinking Water, Rural Sports Training, Development of community Infrastructure, Animal Welfare, environment during 2019-20 to 2023-24.
xxviii.	The project proponent shall also adequately contribute in the development of the neighboring villages. Special package with implementation schedule for providing fluoride free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.	<b>BEING COMPLIED</b> PP reported an expenditure of Rs440.81 lakhs on Health, education, Livelihood Enhancement and Vocational Skill Development, Rural Development, Safe Drinking Water, Rural Sports Training, Development of community Infrastructure, Animal Welfare, environment during 2019-20 to 2023-24.
xxix.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe	<b>PLEASE REFER BELOW</b> During visit the project was in operation. The condition can't be verified at present.

*Freehat*

SI No	Condition stipulated	Status of Compliance
	drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	
xxx.	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> .	<b>REPORTEDLY COMPLIED</b> PP submitted that advertisement regarding accord of Environmental clearance has been published in Sambad (Odiya) and New India Express (English) in March 2010. The EC accorded in 04.02.2010. <b>The clause of seven days has not been followed.</b>
xxxii.	A copy of the clearance letter shall be sent by the proponent to concern Panchayat, Zila Parisad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	<b>REPORTEDLY COMPLIED</b> PP submitted in the report that the condition Complied in March 2010. The clearance letter has been uploaded on the website.
xxxiii.	A separate Environment Management Cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	<b>BEING COMPLIED</b> Environment Management Cell structure has been furnished.
xxxiiii.	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely, RSPM, S02, NOx (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.	<b>BEING COMPLIED</b> Six monthly compliance for the period oct23 to mar24 has been submitted to Regional office. Six monthly compliance has been uploaded. During visit criteria pollutants levels NOx (from ambient air and stack) displayed at the main gate of the power plant.
xxxiv.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well by e-mail) to the respective Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB.	<b>BEING COMPLIED</b> Six monthly compliance for the period Oct23 to Mar24 has been submitted to Regional office.
xxxv.	The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be	<b>BEING COMPLIED</b> Annual Environment Statement (Form-V) of 2X660 MW has been submitted along with the six-monthly compliance. Environmental statement has been uploaded.



Sl No	Condition stipulated	Status of Compliance
	sent to the respective Regional Offices of the Ministry by e-mail.	
xxxvi.	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same bye-mail to the Regional Office, Ministry of Environment and Forests.	<b>BEING COMPLIED</b> Six monthly compliance for the period Oct23 to Mar24 has been submitted to Regional office. Six monthly compliance has been uploaded.
xxxvii.	Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will upload the compliance status in their website and up-date the same from time to time at least six monthly bases. Criteria pollutants levels including NOx (from stack & ambient air) shall be displayed at the main gate of the power plant	<b>BEING COMPLIED</b> Six monthly compliance has been uploaded on the website. During visit criteria pollutants levels NOx (from ambient air and stack) displayed at the main gate of the power plant.
xxviii.	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These costs shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year wise expenditure should be reported to the Ministry.	<b>PARTIALLY COMPLIED</b> Environmental protection measure such as ESP, ETP, STP, Water sprinkling arrangement etc has been implemented in the site. PP submitted that the project cost includes the provision for implementation of environmental protection measures. However, year wise expenditure as mentioned in the condition has not been furnished.
xxxix.	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.	<b>COMPLIED</b> PP submitted that the financial closure of the project was done on 23rd November 2012. NTP was issued to BHEL and BGR on 26th March 2014.
xl.	Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bangalore / CPCB/ SPCB who would be monitoring the compliance of environmental status.	<b>Agreed Upon</b> PP agreed to abide by the condition.
<b>Additional Recommendations by MoEF&amp;CC in EC No. J-13011/59/2008 -IA.II (T) dated 22.01.2014.</b>		
xli.	A long-term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Thereafter, mechanism for an inbuilt	<b>BEING COMPLIED</b> Heavy metal content analysis data of Coal and Ash through Institute of Minerals and Materials Technology Bhubaneswar has been furnished.

*Imahab*

Sl No	Condition stipulated	Status of Compliance
	continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.	PP also furnished radiological analysis data of coal, Fly ash and bottom ash from BRIT, Department of Atomic Energy. Radiation data in the sample reported on dated 30.01.2024 to be below the clearance level of radio nucleotides of natural origin in bulk solids.
xlii.	Continuous monitoring for heavy metals in and around the existing ash pond area shall be immediately carried out by reputed institutes like IIT Kanpur.	<b>PARTIALLY COMPLIED</b> PP submitted heavy metal analysis data as a part of ground water analysis data from tube well of one location reported to be near to the ash pond C. the monitoring has been carried out by Visiontek Consultancy Services. Monitoring data of heavy metal analysis in and around the ash pond by reputed institute has not been furnished.
	Harnessing solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of implementation shall be submitted periodically to the Regional Office of the Ministry.	<b>BEING COMPLIED</b> Roof top solar power facility has been implemented within the premises.
xliii.	Fugitive emissions shall be controlled to prevent impact on agricultural or non-agricultural land.	<b>PARTIALLY COMPLIED</b> Dust suppression systems (water sprinklers & Dry Fog) have been installed to suppress fugitive dust in coal handling area. Fugitive dust emission control arrangement at the ash pond C and A needs to be provided. Fugitive emission monitoring data has not been furnished.
xliv.	No ground water shall be extracted for use in operation of the power plant even in lean season.	<b>BEING COMPLIED</b> During visit ground water abstraction has not been observed. PP submitted that all requirement of water is met from Hirakud reservoir.
xlv.	Minimum required environmental flow suggested by the Competent Authority of the State Govt. shall be maintained in the Channel/ Rivers (as applicable) even in lean season.	<b>REPORTEDLY COMPLIED</b> PP submitted that minimum required environmental flow is being maintained as per the water agreement with Water Resource Department.
xlvi.	No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up/operation of the power plant.	<b>REPORTEDLY COMPLIED</b> PP submitted in the report that no water bodies have been disturbed due to project and will not be disturbed in future due to operation.
xlvii.	Fly ash shall not be used for agricultural purpose. No mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the State Pollution Control Board and	<b>BEING COMPLIED</b> As per the fly ash utilization details furnished ash utilized on cement, low land area filling, construction of road, road and fly over and embankment. PP submitted that for mine void filling of ash, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute.

*Tanahat*

SI No	Condition stipulated	Status of Compliance
	implementation done in close co-ordination with the State Pollution Control Board.	
xlviii.	Three tier green belts shall be developed all around Ash Pond over and above the Green Belt around the plant boundary.	<b>PARTIALLY COMPLIED</b> Green belt has been observed along the plant however, green belt around the ash pond yet to be developed.
xlix.	A common Green Endowment Fund shall be created, and the interest earned out of it shall be used for the development and management of green cover of the area.	<b>PARTIALLY COMPLIED</b> PP reported that condition as complied but details in this regard have not been furnished.
l.	It shall be ensured that in-built monitoring mechanism for the schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time.	<b>PARTIALLY COMPLIED</b> PP submitted that baseline Survey has been completed by Sutra Consultancy Services, Bhubaneswar and monitoring is regularly done by OPGC CSR team. However, annual social audit from the nearest government institute of repute yet to be carried out.
li.	An Environmental Cell shall be created at the project site itself and shall be headed by an officer of the company of appropriate seniority and qualification. It shall be ensured that the head of the Cell shall directly report to the Head of the Organization.	Same as condition no xxxii
lii.	The project proponent shall formulate a well laid Corporate Environment Policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with the conditions stipulated in this clearance letter and other applicable environmental laws and regulations.	<b>BEING COMPLIED</b> PP submitted a copy of the occupation health and safety, Environment and quality and energy policy of OPGC. PP also furnished a copy of environment cell structure.
<b>As per the MoEF&amp;CC letter No. 14/13/83-EM I/I.A dated 30.01.1987</b>		
<b>1. Air Pollution</b>		
i.	A common stack height not less than 200 meters should be provided for two units of 210 MW. Similarly, for other two units a common chimney of 200 meters height should be provided.	<b>COMPLIED</b> A bi flue common stack of reported height 220 meters has been provided for U#1&2 of 2x210 MW. Out of four unit of 210MW two has been implemented.
ii.	ESP of having operational efficiency of not less than 99.7% should be provided and extra fields made part of the design. The efficiency of ESPs should be monitored and recorded. Adequate training should be given to the persons engaged in the operations and maintenance of ESPs.	<b>BEING COMPLIED</b> ESP has been provided. Operational efficiency reported to be 99.82% (designed value). PP reported that ESP being repaired during annual overhauling and Routine maintenance practice has been followed for ensuring healthiness of ESP. It was also reported that ESP retrofitting job for both the units had been taken up to achieve the particulate emission norm of 100 mg/Nm <sup>3</sup> by addition of a parallel pass consisting of 6 fields for each unit. Particulate matter monitoring data furnished along with six monthly compliance.
iii.	Emission and ambient air quality monitoring should be done after the commissioning of the	<b>PARTIALLY COMPLIED</b> Stack emission monitoring data furnished along

*mahat*

SI No	Condition stipulated	Status of Compliance
	units and data recorded and should not exceed the standards set by the Central and State Pollution Control Boards.	with the submitted six monthly compliance. It was found that online stack emission data for Unit 1 and unit2 was within 100 mg/Nm <sup>3</sup> , SO <sub>2</sub> exceeds the norms of 600 mg/Nm <sup>3</sup> and NO <sub>x</sub> was within 600 mg/Nm <sup>3</sup> . PM <sub>10</sub> data exceeds the daily norms of 100µg/m <sup>3</sup> and SO <sub>2</sub> exceeds the norms of 80 µg/m <sup>3</sup> for AQMS 6 and 5 respectively.
iv.	Adequate space for FGD plant should be part of the design so that they could be installed if required at a later stage.	<b>AGREED UPON</b> During visit construction activity for FGD for newer units has been found to be in progress. It was reported that adequate space available for older units for construction of FGD.
v.	Dust suppression / control equipment should be installed in wagon tipping area, transfer points, crushers etc.	<b>BEING COMPLIED</b> Dry fog system has been installed for dust suppression at railway siding, crusher area, etc.
<b>2. WATER POLLUTION</b>		
i.	Closed cooling system for condensers should be provided instead of once-through cooling system as proposed.	<b>BEING COMPLIED</b> PP submitted that the process has been operated with the closed cooling system. Cooling Tower blow down water as well as the drift loss water is recycled back in ash handling.
ii.	Liquid effluents emanating from the different plants such as DM plant, Boiler blow down, Ash Pond/dyke sewage etc. should be properly treated as per the standards stipulated by the State Pollution Control Board.	<b>BEING COMPLIED</b> Sewage Treatment Plant of 1 MLD reported capacity has been provided for treatment of sewage generated from colony and office buildings of OPGC. PP submitted that treated sewage is being used for raising greenbelt/plantation. Effluents from ash pond is recycled 100% for reuse as make up water in wet ash handling system after necessary treatment. DM plant regeneration effluent is being reuse as cooling system make up. Boiler and turbine effluents are being reuse as ash handling make up after necessary treatment. CT drift overflow water is recycled back in cooling tower basin. Gravity sand filter backwash water of WTP is recycled back in clarifier.
iii.	Hot water coming from the condenser should be properly cooled so as to ensure to keep the temperature of the receiving surface water as per the standard stipulated by the state Board.	<b>BEING COMPLIED</b> PP submitted that hot water coming from the condenser is being cooled through cooling tower and reused for condenser cooling in close loop. Cooling water blow down is being reused as make up water in ash slurry discharge system. Hot water from the condenser has not been discharged.
<b>3. SOLID WASTE MANAGEMENT</b>		
i.	Fly ash and bottom ash should be collected in the ash dykes/ponds. The supernatants water should not contain suspended matters more than 100ppm. Dry disposal of fly ash should	<b>BEING COMPLIED</b> Unutilized fly ash and bottom ash is being collected in Ash Ponds. Total suspended solid in ash pond C surface water reported to be

*Pralab*

Sl No	Condition stipulated	Status of Compliance
	also be planned including the disposal in abandoned mines after mixing with the OB.	8.2mg/l. As per the fly ash utilization details furnished ash utilized on cement, low land area filling, construction of road, road and fly over and embankment.
ii.	Green belt should be raised on the ash disposal areas filled by fly ash to check the dispersion by fly ash into the air. Additional land (Pvt. Land) should be acquired for compensatory afforestation.	<p align="center"><b>BEING COMPLIED</b></p> PP reported plantation of 324749 no with a survival of 245004 nos and the percent of green belt area reported to be 34.81%. Dense plantation observed at the plant site. PP reported that Compensatory afforestation has been done by OPGC over 260 Ha of non-forest land in Deogarh, Odisha, through forest department, Govt. of Odisha.
iii.	Trees plantation work should be taken up all around the Thermal Power Plant. The species to be planted may be decided in consultation with the Forest Department.	<p align="center"><b>BEING COMPLIED</b></p> PP reported plantation of 324749 no with a survival of 245004 nos and the percent of green belt area reported to be 34.81%. It was also reported that species are selected consulting Forest Department. Dense plantation observed at the plant site.
iv.	Effort should be made to utilize fly ash in bricks, blocks, building materials etc.	<p align="center"><b>BEING COMPLIED</b></p> OPGC is having its own fly ash brick plants of reported capacity-15000 bricks/day. As per the fly ash utilization details furnished ash utilized on cement, low land area filling, construction of road, road and fly over and embankment
v.	A comprehensive re-settlement package of rehabilitation of dispersed families should be made including providing of job to at least one person per family, apart from giving cultivable land for land to those who were possessing the same.	<p align="center"><b>PARTIALLY COMPLIED</b></p> PP reported in the submitted six monthly compliance that "the condition was already complied earlier as per our status report no ITPS/241/WE/21.01.2001 submitted in MoEF &CC regional office". The said report has not traceable in the Regional Office. Details of re-settlement package of rehabilitation of dispersed families including providing of job to at least one person per family, apart from giving cultivable land for land to those who were possessing the same has not been furnished.
vi.	A master plan should be prepared taking into account the requirement of power plant, township, fuel requirement, human settlements, etc. in consultation with District authorities.	<p align="center"><b>REPORTEDLY COMPLIED</b></p> PP submitted in the report that it was compiled at the time of the project construction and commissioning stage during the period from the year 1989 to 1995.
vii.	Timber required for the project should be procured through the Forest Corporation and not by private contractor/dealers and the former should not abrogate this responsibility by contracting the supply out and adding its handling charges. If the corporation is not equipped to handle this themselves the project authorities should negotiate the best terms,	<p align="center"><b>REPORTEDLY COMPLIED</b></p> PP submitted in the report that it was compiled at the time of the project construction and commissioning stage during the period from the year 1989 to 1995.

*Prakash*

SI No	Condition stipulated	Status of Compliance
	price and environment-wise with contractors by obtaining bids.	

**Observations:**

The PAs have complied or are in process of complying the conditions stipulated by the Ministry. In this context, information/action plans have been sought on following points:

**As per the MoEF&CC letter no. J-13011/59/2008 -IA.II (T) dated 04/02/2010**

**The following non-compliance to the Environmental Clearance conditions were observed.**

1. The project has ash pond in two areas, i.e. Tilia and Rengali. During visit Ash pond height increase has been observed at the site. PP submitted that CTE has been obtained from SPCB for height raising of ash pond A and C. It was also submitted that height of the existing ash pond will not be increased to accommodate fresh disposal of ash slurry from the expansion and has constructed dedicated ash pond for unit 3 and unit 4 at Tilia. Ministry may like to take a view in the matter. (Condition No ii).
2. The project have ash pond in two locations. Two ash pond at Tilia and Three ash pond at Rengali. Ash pond at Tilia was found to be with HDPE lining. It was submitted that Dyke safety measures has been addressed during design and construction of ash pond to protect the ash dykes from getting breached. Fly ash pond B at Rengali has been reclaimed. During visit fly ash disposal at pond C was under process. PP stated that ash pond C was lined with HDPE and ash pond B and ash pond A construed earlier was without HDPE lining. However, there was an incident of breach of fly ash pond C on 09.12.2023. During visit Fly ash observed on the incidental land area. PP submitted that fly ash removal from the impact zone is 439500m<sup>3</sup>. During visit fly ash was observed as remnants in the incident area. Total fly ash yet to be removed from the incident area. (Condition no. x)

**The following partially compliance to the Environmental Clearance conditions were observed.**

1. PP submitted that first hydrogeological study carried out in the year 2014-15. It was also submitted that a comprehensive detailed Hydrogeological study covering the plant and ash pond area was carried out during 2018-19 and 2019-20. PP also furnished latest study report carried out in May'23/June'23 carried out by M/s Visiontek Consultancy Services which concludes that "Hydraulic conductivity is very poor due to which there will be no effect on ground water quality and ground water resources. Ground water quality is portable and also suitable for all purpose". (Condition No iv).
2. Rain Gun type water sprinkling systems have been installed at Coal stock yard to control fugitive emission during stacking and reclamation of coal. Dust Suppression Systems have been installed at Track hopper, Transfer towers. PP submitted that dust extraction systems have been provided at Crusher House, Boiler Bunkers, and vents of Ash Silos to control the fugitive dust emission. Dust suppression system at the ash pond A and C yet to be provided. Water spraying arrangement provided at the ash pond situated at Tilia. (condition no. vii)
3. Ash utilization reported to be less than 100%. (Condition No viii)
4. Pneumatic conveyer system with 3 nos of dry ash storage silos have been constructed with reported capacity of 2300 M<sup>3</sup> each for storage of ash and for its further utilisation and disposal. PP submitted that unutilised fly ash is being disposed in the ash pond through HCSD system and Bottom ash is being disposed through LCSD system. It was also submitted that effluent emanating from the existing ash pond is being recycled and reused for fresh slurry making. No ash pond effluent is being discharged outside. Heavy

*Tanab*

- metal analysis data of bottom ash has been furnished. PP furnished heavy metal analysis data of nearby ground water and surface water from ash pond C. As per the fly ash utilization details furnished, fly ash utilized for low lying area filling. PP submitted CTE and CTO for low land area filling. It was submitted that no ash shall be disposed in low lying area without taking consent from OSPCB. Ministry may like to take a view on the issue. (Condition no. ix)
5. PP furnished ground water quality monitoring data of Budapali Village tube well, Rengali village tube well, Kantatikara village open well of dated 20.09.24 and from Sansaratikira village of dated 05.07.23. Data reported for 29 parameter including Hg, As and Pb. Monitoring data of Cr has not been mentioned. Piezometric monitoring data has not been furnished. A network of existing wells and constructing new piezometers yet to be established. (Condition no. xix)
  6. Six online CAAQMA monitoring stations to monitor PM10, PM2.5, SO2, NOx & CO has been installed. The online SO2 data exceeds at AAQMS5 and PM10 data exceeds for AAQMS6. PP submitted that, Ambient Air Quality is also being monitored through five permanent offline ambient air quality stations and the location of the stations are decided earlier in consultation with the Regional Office. Ambient Hg analysis data has not been furnished. (Condition no. xxiv)
  7. PP submitted in its report that a revised /updated list of projects amounting to Rs. 26.91 Crores has been approved by the CSR committee in its 22nd meeting dated 06th April 2019. PP reported an expenditure of Rs440.81 lakhs on Health, education, Livelihood Enhancement and Vocational Skill Development, Rural Development, Safe Drinking Water, Rural Sports Training, Development of community Infrastructure, Animal Welfare, environment during 2019-20 to 2023-24. The recurring expenditure reported was less than the condition stipulated. (Condition no. xxvi)
  8. Environmental protection measure such as ESP, ETP, STP, Water sprinkling arrangement etc has been implemented in the site. PP submitted that the project cost includes the provision for implementation of environmental protection measures. However, year wise expenditure as mentioned in the condition has not been furnished. (Condition no. xxxviii)

**As per the MoEF&CC in EC No. J-13011/59/2008 -IA.II (T) dated 22.01.2014.**

**The following partially compliance to the Environmental Clearance conditions were observed.**

1. PP submitted heavy metal analysis data as a part of ground water analysis data from tube well of one location reported to be near to the ash pond C. the monitoring has been carried out by Visiontek Consultancy Services. Monitoring data of heavy metal analysis in and around the ash pond by reputed institute has not been furnished. (Condition no. xlii)
2. Dust suppression systems (water sprinklers & Dry Fog) have been installed to suppress fugitive dust in coal handling area. Fugitive dust emission control arrangement at the ash pond C and A needs to be provided. Fugitive emission monitoring data has not been furnished. (Condition no. xliii)
3. Green belt has been observed along the plant however, green belt around the ash pond yet to be developed. (Condition no. xlvi)
4. PP reported that condition as complied but details in this regard have not been furnished. (Condition no. xlix)
5. PP submitted that baseline Survey has been completed by Sutra Consultancy Services, Bhubaneswar and monitoring is regularly done by OPGC CSR team. However, annual social audit from the nearest government institute of repute yet to be carried out. (Condition no. l)

*Mahab*

As per the MoEF&CC letter No. 14/13/83-EM I/I.A dated 30.01.1987

The following partially compliance to the Environmental Clearance conditions were observed.

1. Stack emission monitoring data furnished along with the submitted six monthly compliance. It was found that online stack emission data for Unit 1 and unit2 was within 100 mg/Nm<sup>3</sup>, SO<sub>2</sub> exceeds the norms of 600 mg/Nm<sup>3</sup> and NO<sub>x</sub> was within 600 mg/Nm<sup>3</sup>. PM<sub>10</sub> data exceeds the daily norms of 100µg/m<sup>3</sup> and SO<sub>2</sub> exceeds the norms of 80 µg/m<sup>3</sup> for AQMS 6 and 5 respectively. (Air pollution Condition no. iii)
2. PP reported in the submitted six monthly compliance that "the condition was already complied earlier as per our status report no ITPS/241/WE/21.01.2001 submitted in MoEF&CC regional office". The said report has not traceable in the Regional Office. Details of re-settlement package of rehabilitation of dispersed families including providing of job to at least one person per family, apart from giving cultivable land for land to those who were possessing the same has not been furnished. (Solid waste Management condition no. v)



(डॉ टी. एच. महतो /Dr. T. H. Mahato)

बैज्ञानिक-ई/ Scientist 'E'



**F. No. 22-13/2019-IA.III**

Government of India

Ministry of Environment, Forest and Climate Change  
(Impact Assessment Division)

\*\*\*\*\*

Indira Paryavaran Bhawan  
Aliganj, Jorbagh Road  
New Delhi-110 003

Dated: 28<sup>th</sup> August, 2019

## Office Memorandum

**Sub: Change in conditions stipulated in the Environmental Clearances of Thermal Power Plants and Coal Mines in line with the Fly Ash Notification and subsequent amendments - reg.**

The Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986 mandates the requirement of prior environmental clearance to the projects/activities listed in the schedule to the said Notification. These projects/activities have been categorized under category A or B and require appraisal/and approval by the respective regulatory authorities (MoEF&CC/SEIAAs) at the Central/State level.

2. As per the provisions of the EIA Notification, 2006, read with subsequent amendments, mining of minerals is covered under Category A/B of the Schedule to the EIA Notification, 2006 based on their areal extent, and thus requiring prior environmental clearance from the concerned regulatory authority.

3. Based on the proposals submitted by the project proponent and recommendations of the sectoral Expert Appraisal Committee, mining projects and thermal power plants were granted Environmental Clearance by the Ministry/State Environment Impact Assessment Authorities (SEIAAs) from time to time, subject to compliance of certain terms and conditions as environmental safeguards necessitated at that stage, which also included the condition for backfilling of mines voids, use/disposal of fly ash in low lying areas, etc.

4. In order to address the environmental concerns of fly ash and to improve its utilization, MoEF&CC has issued a Notification on 14<sup>th</sup> September, 1999 and subsequent amendments issued vide Notifications dated 27<sup>th</sup> August, 2003, 3<sup>rd</sup> November, 2009 and 25<sup>th</sup> January, 2016 from time to time.

The Fly Ash Notification issued vide S.O.2804 (E) dated 3<sup>rd</sup> November, 2009 provides for mandatory use of fly ash in the external overburden dump, backfilling or stowing of mines. The main concern is poor fly ash utilization by the pithead power plants mainly because of limited potential in cement industries/road projects and non-utilization of fly ash in stowing and overburden in coal mines.

5. An Expert Committee was constituted for developing a focussed strategy for best utilization of flyash to manufacture end products. The Committee has made recommendations for enhanced utilization of flyash in various sectors viz. mines, roads, bricks manufacturing, cement manufacturing, etc. During an Inter-ministerial consultation held on 21<sup>st</sup> January, 2019 under the Chairmanship of Secretary (EF&CC), recommendations of the Expert Committee were accepted, which *inter-alia* included the following:-

- a) MoEF&CC should revisit the conditions stipulated in the existing environmental clearances of Thermal Power Plants for flyash utilization and modify them in consonance with the flyash notification.
- b) Appropriate conditions need to be incorporated in the environmental clearances for utilization of flyash in mines backfilling/stowing.

6. The matter has been examined in the Ministry. Further, the matter has been also been referred to the EAC (Thermal Power Projects) in its meeting held on 28.5.2019 and 12.7.2019. The EAC mentioned that though the Flyash Notification, 1999 and subsequent amendments allow the unrestricted use of flyash in abandoned mines, low lying areas, soil conditioner in agriculture, there are no specific guidelines/methodology available for safe disposal of flyash so as to minimize the damage to the environment. In absence of methodology, EAC has been examining the proposals on case to case basis and recommending for disposal of flyash in abandoned mines. Further, the EAC has also expressed the concerns over the long term impacts of flyash disposal on groundwater, soil quality and impact on associated flora and fauna. Now, the guidelines for disposal of fly ash utilisation in low lying areas and mine voids have been prepared by the Central Pollution Control Board and placed before the EAC (Thermal Power and Coal Mining) in its meeting held on 12.7.2019.

7. In view of the recommendations of the EAC (Thermal Power) in its meeting held on 12.7.2019, after careful examination of the matter and to meet the objectives of the Fly Ash Notification, 1999 & its amendments, the Ministry hereby stipulates the following conditions in the existing Environmental Clearances of Thermal Power Plants and Coal mines which have valid Environmental Clearance accorded by the Ministry/SEIAA, that will replace the existing conditions (Specific & General) which prohibited the use of fly ash in abandoned mines/low lying areas/soil conditioner in agriculture:

- i. The guidelines prepared by CPCB for disposal of flyash for reclamation of low lying areas and in stowing/backfilling of abandoned mines/quarries shall be followed during disposal of ash in abandoned or working mines, as annexed.
- ii. There should at least be clearance of 500 m of safe distance be maintained from River and water body in case of ash disposal in abandoned mines to prevent embankment failures and flyash flowing into the nearby water body.
- iii. The top layer of the flyash disposal area in the abandoned mines shall be kept moist during disposal.
- iv. Top layer of the disposed area should have 70 cm overburden or gravels/stones and then 30 cm sweet soil cover. Subsequently, the vegetation shall be raised on the soil cover.
- v. Bioaccumulation and bio-magnification tests shall be conducted on surrounding flora and fauna (tree leaves, vegetation, crop yields and cattle population) during pre-monsoon and post monsoon to find out any trace metals escaped through groundwater or runoff.
- vi. Surface runoff and supernatant water, in any case shall not be let into the surrounding areas. It shall be collected by providing adequate drains around the mine. The supernatant water along with surface runoff shall be treated and re-used for mixing ash and plant operations.
- vii. To the extent possible, only decanted water from mine, make up water from treated effluents such as cooling tower blow down and treated sewage water shall be used for making ash slurry.

- viii. Flyash to be used as soil conditioner in agriculture needs and to be applied in controlled manner to limit excessive application so as to prevent soil degradation. The optimize proportion of ash to be applied which is to be certified by the State Agricultural Universities/Colleges based on the soil testing.
  - ix. Approval from DGMS shall be obtained before disposing the ash in the mine voids.
  - x. Technology for conversion of fly ash into coarse granules for stowing in the underground mines to be explored.
  - xi. All the power plants should install different silos for dry collection of flyash.
  - xii. Records pertaining to details of month-wise quantity of flyash disposed and water consumption along with nature/source of water shall be maintained and submitted to Ministry/Regional Office annually.
  - xiii. Before starting the disposal of ash into mine voids, the NOC/Permission from the mine owner is to be obtained incase the mine closure activities are not completed or State Government incase the mine has been handed over to the State Govt. after its closure. A copy of such NOC/Permission is to be submitted to the Ministry and its Regional Offices.
8. This issues with the approval of the Competent Authority.



**(Dr. S. Kerketta)**  
**Director, IA Division**

To

1. The Chairman, Central Pollution Control Board (CPCB)
2. The Chairman/Member Secretaries all the Expert Appraisal Committees
3. The Chairman /Member Secretaries of all the SEIAAs/SEACs
4. The Chairman/Member Secretaries of all SPCBs/UTPCCs
5. All the Power Plant Operators/ Coal Mining Operators who were accorded Environmental Clearance.
6. All the ROs of MoEF&CC.
7. All the Officers of I.A. Division

**Copy for information to:**

1. PS to Hon'ble Minister for Environment, Forest and Climate Change
2. PS to Hon'ble MoS (EF&CC)
3. PPS to Secretary(EF&CC)
4. PPS to SS(AKJ) / AS (RSP)
5. Sr.PPS to JS (GM)/ JS(NK)
6. Website of MoEF&CC.
7. Guard file.

Speed Post/Online

**F. No. IA-L-11011/43/2024-IA-I**

Government of India

Ministry of Environment, Forest and Climate Change  
(Compliance & Monitoring Division-IA Division)

\*\*\*\*\*

Indira Paryavaran Bhavan  
Jor Bagh Road, Aliganj  
New Delhi-110 003

**Email: moefcc-monitoring@gov.in**

**Dated: 26<sup>th</sup> September, 2024**

**Sub: Show Cause Notice under Section 5 of Environment (Protection) Act, 1986 for Non- Compliances observed with respect to the project "Expansion of existing Coal Based Thermal Power Plant by addition of 2x660 MW (Unit 3 & 4) at village Banaharpalli, in Jharsuguda Distt., in Orissa by M/s Orissa Power Generation Corportaion Ltd." -reg.**

**Ref: i. Ministry's EC No.14/13/83-EMI/IA dated 30.01.1987, EC No.IA-J-13011/59/2008-IA.II(T) dated 04.02.2010. and 22.01.2014**  
**ii. RO Bhubaneswar Monitoring report No. 101- 361/08/EPE dated 09.09.2024**

WHEREAS, Environmental Clearance (EC) was granted to M/s Orissa Power Generation Corportaion Ltd. located at village Banaharpalli, in Jharsuguda Distt., in Orissa vide letter No 14/13/83-EMI/IA dated 30.01.1987, EC No.IA-J-13011/59/2008-IA.II(T) dated 04.02.2010 and 22.01.2014, subject to implementation of various conditions and environmental safeguards contained therein, and

2. WHEREAS, the project was monitored for ascertaining compliance to the conditions stipulated in the aforesaid environmental clearance by the Regional Office of the Ministry at Bhubaneswar on 08.08.2024. The report was submitted to the Ministry vide letter No. 101-361/08/EPE dated 09.09.2024. **(Copy enclosed).**

3. WHEREAS, the inspection report dated 09.09.2024 was examined in the Ministry and following are the observed significant non-compliance with respect to EC issued by the Ministry:

- i. The height of the existing ash pond has been increased without prior intimation to the Ministry. (Specific condition-ii of EC dated **04.02.2010**)
- ii. Dust suppression system at the ash pond A and C has not been provided. (Specific condition-vii of EC dated **04.02.2010**, Specific condition-xliii of EC dated 22.01.2014)
- iii. 100% ash utilization has not been achieved by PP. (Specific condition-viii of EC dated **04.02.2010**)
- iv. Adequate safety measure has not been taken by PP to protect the ash dyke from getting breached and HDPE lining not there in ash pond A and ash pond C (Specific condition-x of EC dated **04.02.2010**)

- v. Cr has not been monitored, Piezometric monitoring data has not been furnished. A network of existing wells and constructing new piezometers has not been established. (Specific condition-xix of EC dated **04.02.2010**)
- vi. SO<sub>2</sub> and PM<sub>10</sub> exceeded the standard. Hg analysis data has not been furnished by PP. (Specific condition-xxiv, Specific Condition-iii of EC dated 30.01.1987)
- vii. Expenditure on the CSR programme has not been done as per the stipulated condition. (Specific condition-xxvi of EC dated **04.02.2010**)
- viii. Year wise expenditure on the implementation of environmental protection has not been furnished. (Specific condition-xxviii of EC dated **04.02.2010**)
- ix. Heavy metal analysis in and around the ash pond by reputed institute has not been furnished. (Specific condition-xlii of EC dated **22.01.2014**)
- x. Green belt around the ash pond has not been developed. (Specific condition-xlviii of EC dated **22.01.2014**)
- xi. Details of the common Green Endowment Fund as stipulated in EC condition has not been provided. (Specific condition-xlix of EC dated **22.01.2014**)
- xii. Annual social audit from the nearest government institute of repute has not been carried out. (Specific condition-l of EC dated **22.01.2014**)
- xiii. Details of resettlement package of rehabilitation of dispersed families. (condition-v Solid Waste Management of EC dated 30.01.1987)

4. WHEREAS, breach/incident had occurred on the Northern side of Ash Pond-C on 09.12.2023 at 8.30 AM wherein, 20 m width of entire starter dyke along with raised embankment was washed-out thus impacting 439500m<sup>3</sup> (apprx 356 acre) area and the remanent of fly ash still not removed from the incident area and details of rehabilitations of those impacted by the breach not available.

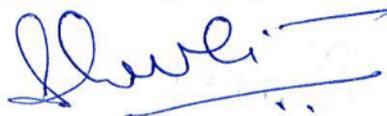
5. In the above context, your attention is drawn to provision of Section 5 of the Environment (Protection) Act, 1986 which is as reproduced below:

*"For the avoidance of doubts, it is hereby declared that the power to issue directions under this section includes power to direct-*

- a. *The closure, prohibition or regulation of any industry, operation or process; or*
- b. *Stoppage or regulation of the supply of electricity or water or any other service."*

**6. Now, therefore, you are directed to submit your point-wise response to the aforesaid non-compliance of EIA Notification, 2006, causative reasons for the accident, remediation actions, and the future action plan to avoid such incidents and explain as to why this Ministry should not take action against you under the provisions of Environment (Protection) Act, 1986 for the non-compliance of the environmental conditions mentioned above. The action plan shall *inter-alia* encompass point-wise impact of the breach of ash pond, the associated mitigation/remediations measures implemented/under implementation, the cost of the mitigation/remediation measures and timeline in tabulated format.**

**7. You are advised to submit your reply within 30 (Thirty) days of the receipt of this Notice, failing which the Ministry will be constrained to initiate action, as**



deemed fit and appropriate under the provision of Section 5 of the Environment (protection) Act, 1986 and in the circumstances of the case, with or without any further notice to the Project. In your response, it may also be clearly stated whether a hearing is required by the project proponent before a final order is passed by this Ministry. Further, this Show Cause is without prejudice to any other legal action which may be taken against you.

This issues with the approval of the Competent Authority.

To,

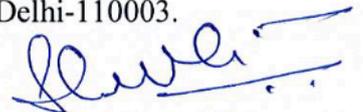
Director (Operations) & MD,  
M/s Odisha Power Generation  
Corporation Ltd, 1b Thermal Power Station,  
Po-Banharpali, District Jharsuguda-768234



(Dr. Shruti Rai Bhardwaj)  
Director/Scientist 'F'

Copy to:

1. The Chairman, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032.
2. The Deputy Director General of Forests (C), Integrated Regional Office, Bhubhaneshwar, A/3, Chandersekharpur, Bhubhaneshwar-751023.
3. The Member Secretary, State Pollution Control Board Odisha, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit – VIII, Bhubaneswar – 751012, Odisha
4. The Member Secretary, IA, Thermal Sector, Ministry of Environment, Forest & Climate Change, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi-110003.



(Dr. Shruti Rai Bhardwaj)  
Director/Scientist 'F'

# ODISHA POWER GENERATION CORPORATION LTD.

(A Government Company of the State of Odisha)  
CIN: U40104OR1984SG001429

## 1b Thermal Power Station

Banharpali, Dist.: Jharsuguda, Odisha - 768 234, India  
Plant Manager : (+916645) 289266, Fax: (+916645) 222-230  
Factory Manager : (+916645) 222224, Fax: (+916645) 222-230

# Annexure-R/86



Letter No. ITPS/6238/WE  
October 21, 2024

**The Director (Scientist-F)**  
Ministry of Environment Forest & CC  
Indira Paryavaran Bhawan  
New Delhi-110003

Sub.: **Reply to show cause under Section 5 of Environment Protection Act-1986.**

Ref.: i. F. No-IA-L-11011/43/2024-IA-I  
ii. Ministry'EC No-14/13/83-EMI/IA, dated 30.01.1987 & EC. No- IA-I-13011/59/2008-IA (T), dated 04.02.2010 & 22.01.2014  
iii. RO Bhubaneswar Monitoring Report 101-361/08/EPE dated 09.09.2024

Dear Sir,

This has reference to the above subject and cited references.

Kindly find enclosed the point wise compliance to the Show Cause Notice vide the above referred letter.

Thanking you

Sincerely yours,

*Sukanta Mohapatra*

**Sukanta Mohapatra**  
Sr. VP (O&M)

Enclosures as above

CC:

1. The Chairman, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032
2. The Deputy Director General of Forest (C), Integrated Regional Office, Bhubaneswar, A/3 Chandrasekharpur, Bhubaneswar-751023.
3. The Member Secretary State Pollution Control Board Odisha, Paribesh Bhawan, Nilakantha Nagar, Unit VIII, Bhubaneswar-751012
4. The Member Secretary, IA, Thermal Sector, Ministry of Environment Forest & Climate Change Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi-110003

**Reply To Show Cause Notice under Section 5 of Environment (Protection)  
Act, 1986 for Non-Compliances observed**

Sl. No	Condition	Reply
1.	The height of the existing ash pond has been increased without prior intimation to the Ministry, (Specific condition-ii of EC dated <b>04.02.2010</b> )	<ul style="list-style-type: none"> <li>➤ The height of the then existing ash pond (Ash Pond- A &amp; Ash Pond-B in the year 2010) has not been increased to accommodate fresh disposal of ash slurry from the expansion units (Unit 3 &amp; 4).</li> <li>➤ Ash from Units 3 &amp; 4 <u>had not been disposed at that time existing ash ponds i.e. (Ash Pond A &amp; B).</u> OPGC has constructed a dedicated Ash Pond for its Unit#3 &amp; Unit#4 at Tilia (Phase-1 &amp; Phsase-2 Ash Ponds), which are in operation.</li> <li>➤ Recently, the height raising work of Ash Pond-A is in progress after obtaining CTE from OSPCB and the volume that will be created in Ash Pond-A will be used to fill up dry ash from Ash Pond-C which in turn will create space in ash pond C for further disposal of ash slurry from Unit#1 &amp; Unit#2. Since Ash Pond A is an old ash pond commissioned on 31.08.2007, OPGC has decided to fill up the ash pond by dry disposal considering the safety of the ash dyke.</li> <li>➤ Ash Pond B has been capped &amp; reclamation certificate is awaited from OSPCB.</li> </ul> <p><b><i>Thus, considering the above points, OPGC is complying to the stipulated condition of EC date 04.02.2010.</i></b></p>
2.	Dust suppression system at the ash pond A and C has not been provided. (Specific condition-vii of EC dated <b>04.02.2010</b> , specific condition-xliiii of EC dated <b>22.01.2014</b> ).	<ul style="list-style-type: none"> <li>➤ At the time of visit i.e. in 1<sup>st</sup> week of August 2024, the height raising work of Ash Pond C &amp; Ash Pond A from RL 208 m to RL 211 m &amp; the ring header for the dust suppressing points was in RL 208 m. It has already been explained to the Regional Office of the Ministry that once height raising work is complete, the ring header will be shifted to RL 211 m before the onset of summer.</li> <li>➤ The RO office of MoEF &amp; CC has already expressed its happiness for the dust suppressing system of Tilia Ash Pond (ForUnit#3 &amp; Unit#4). Moreover, OPGC will ensure exactly the same system for Ash Pond-</li> </ul>

		<p>A &amp; Ash Pond -C (For Unit#1 &amp; Unit#2) once height raising work is completed.</p>
<p>3.</p>	<p>100% ash utilization has not been achieved by PP. (Specific condition-viii of EC dated 04.02.2010)</p>	<p>OPGC has taken the following steps for increasing ash utilization%</p> <ul style="list-style-type: none"> <li>➤ With state of art technology OPGC has developed railway rake loading system directly from ash silos. This system can load conditioned ash &amp; thus do not require any siding &amp; it is very Environmentally friendly.</li> <li>➤ OPGC has tied up an agreement with Ambuja Cement &amp; Dalmia Cement for offtake of 1 million MT ash/ Year through rakes with each vendor.</li> <li>➤ OPGC has identified many abandoned stone quarries within lead of 100 Kms for disposal of ash</li> <li>➤ OPGC is supplying ash to NHA1 projects (NH-42) &amp; for filling up of Railway Overbridges.</li> <li>➤ OPGC has set up its own fly ash brick manufacturing plant and can manufacture up to ten thousand bricks in a day. OPGC also supplies ash to private bricks &amp; asbestos plants.</li> </ul> <p>Due to the following reasons OPGC has not been able to achieve 100% ash utilization.</p> <ul style="list-style-type: none"> <li>➤ Remote location of the Plant and unavailability of good road infrastructure for dispatch of ash through roads.</li> <li>➤ Unavailability of Indian Railways Rakes.</li> <li>➤ Faraway from the nearest port (&gt;500 Km)</li> <li>➤ Unavailability of Coal mine voids &amp; MCL consistently denying handing over of mine void to OPGC.</li> <li>➤ Obtaining CTE for low lying area filling &amp; Quarry filling from OSPCB is a tedious, complicated &amp; time taking process</li> <li>➤ Outrage of stakeholders due to unauthorized disposal of ash of major players of the area &amp; OPGC although being compliant Plant, faces the resistance from local stakeholders.</li> </ul> <p><b>Note: The compliance cycle of OPGC has started from 01.04.2022 &amp; is up to 31.03.2027 as per Fly Ash Notification of December 2021. OPGC is optimistic in achieving the target within the compliance cycle.</b></p>
<p>4.</p>	<p>Adequate safety measure has not been taken by PP to protect the ash dyke from getting breached and HDPE lining not there in ash pond A and ash pond C (Specific condition-x of EC dated 04.02.2010)</p>	<p>The design &amp; drawing of the ash pond has been provided by IIT Chennai. OPGC has provided all safety measures for protection of Ash Ponds like Sand Chimney, Rock Toe, Garland Drain, Grass turffing, full-fledged decanted ash water recirculation system etc. OPGC has provided 1.5</p>

		<p>mm HDPE membrane as liner for Ash Pond-C, however since Ash Pond-A is an old ash pond commissioned in 2007 and at that time there was no stipulation of fixing liner i.e. neither from OSPCB nor in EC condition of Unit#1 &amp; Unit#2 (EC-30.01.1987), hence HDPE lining has not been provided. This has also been explained to the RO office of MoEF &amp; CC during the site visit on 08.08.2024.</p> <p><i>Note: The drawing of the starter dyke &amp; photograph of the Ash Pond C just before commissioning as a proof for the liner system has been enclosed for reference. (Enclosed as Annexure 1 A &amp; 1 B)</i></p>
5.	Cr has not been monitored, piezometric monitoring data has not been furnished, A network of existing wells and constructing new piezometers has not been established. (Specific condition-xix of EC dated <b>04.02.2010</b> )	<p>The Heavy metal analysis report tested by IMMT; Bhubaneswar has been enclosed as <b>Annexure-2</b> for reference.</p> <p>We are trying to find out a party, who can supply and install the piezometer in ash pond. we have contacted the parties, but they are not willing for installation in operational Ash Pond. However, we are further exploring to identify a party to complete the work by Jan 2025.</p>
6.	SO2 and PM10 exceeded the standard. Hg analysis data has not been furnished by PP. (Specific condition-xxiv, specific condition-iii of EC dated <b>30.01.1987</b> )	The stipulated condition refers to ground level PM10 & SO2 concentration. There have been occasional incidents wherein we have taken immediate corrective actions and have brought down below permissible limits.
7.	Expenditure on the CSR programme has not been done as per the stipulated condition. (Specific condition-xxvi of EC dated <b>04.02.2010</b> )	The updated CSR programme list & expenditure has been enclosed as <b>Annexure-3 (Expenditure from Project Cost)</b>
8.	Year wise expenditure on the implementation of environmental protection has not been furnished. (Specific condition-xxviii of EC dated <b>04.02.2010</b> )	OPGC is giving assurance to furnish the same in Half Yearly Return of November 2024. Further, OPGC seeks support from Ministry to provide a Framework/Guideline/format in furnishing the same.
9.	Heavy metal analysis in and around the ash pond by reputed institute has not been furnished. (Specific condition-xxlii of EC dated <b>22.01.2014</b> )	The Heavy metal analysis report tested by IMMT; Bhubaneswar has been enclosed as <b>Annexure-2</b> for reference.
10.	Green belt around the ash pond has not been developed. (Specific condition-xxlviii of EC dated <b>22.01.2014</b> )	OPGC has already achieved Green Belt % of 34.81% against the stipulation of 33%. Further, OPGC has earmarked an area of 49 Acres near Tilia Ash Pond for development of green belt. OPGC has made the budget provision for the FY 2025-26 and the plantation activity will be undertaken during Monsoon-2025.
11.	Details of the common green Endowment Fund as stipulated in EC condition has not been provided. (Specific condition-xxlix of EC dated <b>22.01.2014</b> )	OPGC has already achieved Green Belt % of 34.81% against the stipulation of 33% and has been carrying out plantation activity by keeping budget provision in its Revenue Budget. The ultimate purpose is for green belt development.

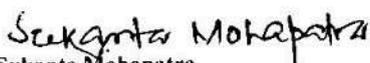


		<p>The last 5 years expenditure in Green Belt Development are as below 2018-19-24 Lakhs 2019-20-34 Lakhs 2020-21- Nil (Due to COVID-19) 2021-22- 0.5 Lakhs 2022-23-18 Lakhs (17.5 Lakhs to District Administration for development of a Nursery) 2023-24-1.17 Lakhs 2024-25- 10 Lakhs (Plantation is ongoing)</p>
12.	<p>Annual social audit from the nearest government institute of repute has not been carried out. (Specific condition-1 of EC dated <b>22.01.2014</b>)</p>	<p>Baseline Survey has been completed by Sutra Consultancy Services, Bhubaneswar and the Final report is already available with OPGC. Monitoring is regularly being done by OPGC CSR team.</p> <p>Projects are currently under execution and effectiveness of implementation will be audited through Govt. Institute.</p> <p>Note: Annual Social Audit has been planned in the FY 2025-26</p>
13.	<p>Details of resettlement package of rehabilitation of dispersed families. (condition-v solid waste Management of EC dated <b>30.01.1987</b>)</p>	<p>Enclosed as <b>Annexure-4</b></p>
14.	<p>WHEREAS, breach/incident has occurred on the Northern side of Ash Pond-C on <b>09.12.2023</b> at 8.30 AM wherein, 20 m width of entire starter dyke along with raised embankment was washed-out thus impacting 439500m<sup>3</sup> (apprx 356 acre) area and the remnant of fly ash still not removed from the incident area and details of rehabilitations of those impacted by the breach not available.</p>	<p>A total of 5.56 Lakh m<sup>3</sup> of spilled ash had been removed by 8<sup>th</sup> August 2024 i.e. before the day of visit of the ministry (Initial estimation was 4.39 Lakh m<sup>3</sup> and actual was found to be 5.56 Lakh m<sup>3</sup>). The detailed data was also shared with the RO office of the ministry during the visit. Only a small fraction (0.3 Lakh m<sup>3</sup>) of ash which was used to construct the ramp for the trucks to descend and pick up the spilled ash had not been removed at the time of visit. The same has been removed now after withdrawal of monsoon and the ramp has been reconstructed with soil as it is used for transportation of soil to the site of ash pond for bund construction works.</p> <p>The Photograph has been enclosed as <b>Annexure-5</b></p>

Prepared By:

  
Parthasarathi Panda  
Sr. Manager-Environment

Approved By:

  
Sukanta Mohapatra  
Sr. VP (O&M)

ANEXURE - 1(A)  
**SHIVALIK AGRO POLY PRODUCTS LTD**  
 PRODUCT APPLICATION DIVISION

1403, 13th Floor, R.G. Trade Tower  
 B-7, Netaji Subhash Place  
 Pitampura, New Delhi-110034 (INDIA)  
 Ph.: 011-32907618, 32907620  
 Fax : 011-42470477  
 E-mail: sapldelhi@shivathene.com

621

GST No.: AACCS1454 K ST003  
 PAN: AACCS1454 K

**JOB WORK INVOICE**

M/s. ODISHA POWER GENERATION CORPN. LTD.  
Ib Thermal Power Station  
Bamhazpali, Distt. Jharsuguda  
ODISHA-768 234, India

Invoice No. SAPL/DEL/PAD 005  
 Date 26-05-2016  
 Customer's Order No. ITPS/CC-CL-495/15-K/116/NE  
 Date 11-03-16  
 Job Work No. \_\_\_\_\_

SI.No.	DESCRIPTION & SPECIFICATION	Area / Qty. Sq.m.	RATE		AMOUNT	
			Rs.	P.	Rs.	P.
1	Laying of HDPE Liners for Ash Pond 'c' at ITPS. Laying of 1.5 mm thick HDPE Geo-membrane Sheet as per the detailed Specification given in the tender.  12/5/2016 to 21/5/2016	79686/	16-	60	13,22,787-	60
					Service Tax @ 14%.	1,85,190-26
					Switch Board Cost @ 0.5%.	6,613-93
						15,14,591-79
						15,14,591-79

(Rates shown here for one thousand Sq. Mtr. & above only)

For & on Behalf of  
**SHIVALIK AGRO POLY PRODUCTS LIMITED**

Authorised Signatory

4th R/A bill

Name of work : Laying of HDPE liners for Ash Pond 'e' at I.T.P.S.

Name of agency : M/s Shivalik Agro Poly Products Ltd.

Work order NO : ITPS/CC-CL - 495/15-16/176 dt. 11.2.16.

Date of commencement : 2-12-15.

Stipulated dt. of completion : 1.9.16.

Actual date of commencement : 18-1-16.

Date of completion : Work in Progress.

Period of bill : 12-5-16 to 21-5-16.

Date of entry : 28.6.2016.

Certified that the bill has been entered in M.B. No - 62, page - 122 to 124.

LA 28/6/16.

4th R/a Bill (Laying of HDPE Liners for Ash Pond 'C' at ITPS.)

Date:-27/05/12

Name of Work:-Laying of HDPE Liners for Ash Pond 'C' at ITPS.

Name of Agency:- M/s Shivalk Agro Poly Products Ltd.

Order No:-ITPS/CC-CL-495/15-16/176/WE Dt.11/02/2016

SI No.	Description	Unit	Rate	Work order Qty			Bill Qty			Bill Amount			
				Order Qty	1st Deviation	Total Qty	Previous Qty	This bill	Updated Qty	Previous Amt	This Bill	Update Amt	
1	Laying of 1.5mm thick HDPE Geo membrane sheet both side plain/smooth and having minimum 7.0M width rolls as per the specification given in the tender. Installation of Geo membrane including laps & cuttings, all cost of handling, laying, preparation of anchor trench, welding, labour, T&P, all applicable taxes etc. complete as per the detailed specification given in the tender and as per direction of Engineer-in-charge.	Sqm	16.60	450000	100000	550000	397070.55	79686	476756.55	6591371.13	1322788	791415	
Total Rs.							6591371.13			1322788			791415
4th R/a Bill Amount Rs.							1322788						
Service tax 14.5%							191804						
Total Bill Amount							1514592						

*Handwritten notes:*  
 Corrected. This quantity and quantity  
 measured at site pond (P)  
 HDPE liner length =  
 79686 sqm.

**For Shivalk Agro-Poly Products Ltd**  
*Shankar*  
 (Authorised Signatory)

*Handwritten notes:*  
 19109116  
 (For work continuation)

*Handwritten signature and date:*  
 28/6/12

Annexure-1 B (HDPE Membrane Lining of Ash Pond-C)





सीएसआईआर - खनिज एवं पदार्थ प्रौद्योगिकी संस्थान  
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद)  
भुवनेश्वर-751013, ओडिशा, भारत  
**CSIR - INSTITUTE OF MINERALS & MATERIALS TECHNOLOGY**  
(Council of Scientific & Industrial Research)  
Bhubaneswar - 751013, Odisha, INDIA



## TEST REPORT

Ref. No. LT02-CCD/24/20(1)

Date: 24.05.2024

Your Ref.: E-mail Dated. 07.05.2024

Name & Address of the Party: Mr. Parthasarathi Panda  
Sr. Manager (Env.)  
IB Thermal Power Station  
Odisha Power Generation Corporation  
Banharpalli, Jharsuguda  
PIN.768234  
Mobile: 7682854512

Sample Details: Five water samples  
Date of Receiving: 09.05.2024  
Date of Conducting Test: 13.05.2024  
Date of Completion of Test: 15.05.2024  
Method Adopted/ Standard: ICP-OES, AAS & ISE

### Detail Report:

Sl. No.	Parameters	Concentration in test water samples, (mg/L)				
		Sardhapali Pond - 1	Hirakud Reservoir	Sardhapali Tube well	Bhaludol/Budapali Primary School	Sardhapali (Lotus Pond)
1	As	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2	Hg	0.0006	0.0005	0.0003	0.0004	0.0002
3	Zn	0.002	0.014	0.084	2.371	BDL
4	Cu	0.006	0.034	0.027	0.011	0.004
5	Pb	0.001	0.016	BDL	BDL	BDL
6	Sr	0.105	0.262	0.847	0.396	0.061
7	Ni	0.003	0.003	0.003	0.002	0.001
8	Se	0.007	0.030	0.053	0.046	0.022
9	Cr	0.001	0.001	BDL	0.001	0.001
10	Cd	BDL	BDL	BDL	BDL	BDL

*(Signature)*  
(Dr. B. Nayak)  
Chief Scientist  
& Head, CCD

*(Signature)*  
24/05/2024  
(Dr. J. Das)  
Pr. Technical Officer  
Central Characterization Dept.

N.B.: - The samples are not drawn by CSIR-IMMT. Liability, if any, for the institute arising in connection with the Testing shall be subject to ceiling of amount received by the institute from the client. The report should not be interpreted in part.

**Annexure-3A**

Sl.no.	Name of the Project	Amount
1	Supply Installation Community LED Steet Light	15903975.00
2	Baseline Survey in periphery Villages of ITPS	859215.00
3	Construction of Bathing Ghat at different villages of Kushraloi	825245.57
4	Construction Of Bus stop at Kushraloi	323184.00
5	Pond renovation at different village of Kushraloi Panchayat	1650870.00
6	Construction Of community Center at Adhapara	405566.00
7	Construction of Community center at Sargipali village	706137.00
8	Construction Of community Center at Kantatikra	752184.00
9	Construction of two class room at Banharpali High School	1382915.80
10	Kumarband police station sanitation Project	434670.00
11	Installation of LED street light at Banharpali	293899.00
12	Construction of canal from asthai kanta to goucharmal	1643813.69
13	Production of video films	536798.00
14	Water body & Bath Ghat construction work at different villages Tilia, Kumarbandh & Telenpali GP	2546338.31
15	Construction of High school building at Remenda	1459023.00
16	Construction of training hall at PHC Adhapara	647240.00
17	Construction of sanitation Complex Reserve Police Jharsuguda	833261.00
18	Construction of School Building & Anganwadi at Telenpali	990837.03
19	Construction of 10(TEN) nos community centre	1861676.20
20	Implementation of WASH project in villages near ITPS by Gram Vikas	16739200.00
21	Implementation of WASH project by FINISH society	35979264.60
22	Electrification of Banharpal High school building, Electrification of Sargipali Community centre, Electrification of Kantatikra Community centre	113185.06
23	Drinking water facility for Phalsamunda School	10046.00
24	Construction of Cycle stand at Phatapali School	452711.00
25	Repairing of Community Centre at Phalsamunda	500012.00
26	Electrification of Sahareipada village	600373.00
27	6 nos pond renovation & 3 nos Bathing ghat construction different villages of Chandinimal, Goudamal, Rajpur, Kanaktura & Sanghumunda GP of Jharsuguda & Sundergarh Dist.	4858193.00
28	Construction of Toilet for Phatapali Girls High School	202070.00
29	Talikanta irrigation project at Telenpali	608440.00

30	Kumarbandh School & College Drinking water Project	196895.00
31	Pond renovation at different village of Kushraloi	580110.00
32	Construction Of community Centre at Adhapara	580657.92
33	Implementation of WASH project in Tilia GP & Rengali Village	63266361.48
34	Kumarbandh School & College Drinking water Project	471639.00
35	Internal Electrification for School Building at Bargad & Telenpali, Community centre Phalsamuinda, toilet complex Reserve police Jharsuguda	693258.82
36	Construction of School Building & Anganwadi at Telenpali	659038.00
37	Construction of Toilet for Phatapali Girls High School	369311.13
38	Construction of High school building at Remenda	2007528.00
39	Talikanta irrigation project at Telenpali	614374.00
40	Construction of 10(TEN) nos community centre	5580046.64
41	Construction of sanitation Complex Reserve Police Jharsuguda	1273574.92
42	Water body & Bath Ghat construction work at different location	5347532.02
43	Construction of School Building at Baragada	878483.45
44	LED street light for Belpahar Municipality	2702431.00
45	Supply of LED street light in Tilia	4541083.00
46	Construction of Cycle stand Banharpali school	275645.83
47	Construction of Bus Stop at Telenapali	383271.98
48	Construction of training hall at PHC Adhapara	515959.00
49	Electrification of Adhapara community Centre	37054.00
50	Construction Of Kalyan mandap at Tilia	2599450.40
51	Renovation of Saradhapali pond and levelling of Pathway of Kantatikira School	338955.00
52	Construction of concrete road at gourmal village	892599.00
53	Provision of sports material (Football, Carom board Big, Ludo, Ring ball, Skipping Rope & School Bag) for Sarandamal, Pandari, Adhapara, Kumbharbandh, Binka, Sapali, Lechhuapada and Kusuraloi.	118188.00
54	Electrification of Sahapali village, Electrification of Dhobadera village	2946924.00
55	Construction of Kalyan Mandap Telenpali	3232812.74
56	Construction of Kalyan Mandap at Kechobahal	3036158.46
57	Supply of Drinking water to Beleituda village	841668.00
58	Basic materials to Primary School Hostel (PSH) at Kanaktura (Sundargarh District)	103800.50
59	Construction of New School Building at Surbahar	1222135.40
60	Production of Video film of CSR activities	446040.00

61	Implementation of WASH project by Gram Vikas	6548922.00
62	Repair & Maintenance of LED street Light periphery of OPGC	12744.00
63	Internal electrification Sarbahal School Building, Kalyan mandap Telenpali, Tilia & kechobahal	475988.00
64	Capacity building training to community memebbers	128361.00
65	Supply of sapling for plantation	73500.00
66	Covid-19 expense	1939300.00
67	Cricket training camp for students	60859.00
68	Drinking water supply project	1085103.00
69	Installation of LED High Mast light	869219.00
70	Construction of new office for the Principal, P.S. (Jr) College, new office and classroom furniture	350000.00
71	Financial support to PKPM High School & Arjun Gupta Girls High School, Tilia	45000.00
72	Miscellaneous CSR expenses	2318362
73	Admin overhead	124642.00
	<b>Total</b>	<b>214780687.95</b>

(SM) -96/PB. 35318 / R., D., D., D., D. 2.6.88

B. C. Pattnaik,  
 Secretary to Government.

The Collector,  
 Sambalpur / Dhenkanal.

Subj: Uniform guidelines for rehabilitation of the  
 displaced persons / families due to S.E.C.I. Projects  
 at Sambalpur and Dhenkanal districts.

Sir,

I am directed to say that Government after careful  
 consideration have been pleased to approve the following  
 guidelines for rehabilitation of families/persons displaced  
 due to acquisition of land for Coal Mining Operation in the  
 districts of Sambalpur and Dhenkanal.

2. A family / person shall be eligible for rehabili-  
 tation benefit if ;

- (a) all the lands of the family have been acquired.
- (b) more than 1/3 rd agricultural lands alongwith  
 homestead land has been acquired.
- (c) only homestead land has been acquired.
- (d) homesteadless persons residing in the village.

This is to be ascertained through joint enquiry by a  
 committee consisting of representative of the South Eastern  
 Coal Fields Ltd. and the Government, (Collector of the District).

3. A family in the aforesaid context shall include  
 the husband and wife as the case may be and their un-married  
 children but does not include a major son who has been  
 separated from the family on or before the date of notification  
 under section 4(1) of the Land Acquisition Act, 1894 in respect of  
 area, village. He shall be treated as a separate family.

4. Employment:

(a) One member from each family sustaining loss of  
 dwelling houses, homestead land and agricultural land not less  
 than 1/3 rd of the total holding shall be provided with  
 employment on a priority basis.

(b) One member of each family having sustained loss  
 of 3 acres of non-irrigated land or 2 acres of irrigated land  
 shall be provided with employment on second priority.

(c) In case of families having lost only homestead  
 land, one member from each family shall be provided with  
 employment according to availability.

(d) Besides contractors working under the S.E.C.I., provide employment according to their requirement to the families of displaced families according to eligibility. S.E.C.I. prepare a list of such persons to be provided with employment and supply the same to the contractors working under them with the Collector of the District.

(e) Rehabilitation of other displaced families shall be made through self employment schemes.

5. Each displaced family shall be allotted / reclaimed Government land upto 10 dec. for homestead purpose free of cost.

6. In the rehabilitation colonies facilities like road, street lights, school, building, health centre, provisions of drinking water, recreation centres, ponds, tanks, play ground, veterinary centres, tree plantation, shopping centre shall be provided according to necessity.

7. Each displaced family shall be given assistance at the rate of Rs. 2000/- for construction of temporary shed.

8. Expenditure in respect of para 5, 6 and 7 shall be borne by the S.E.C.I.

9. If any rehabilitation package is finalized by Government of India, Department of Social towards compensation in lieu of loss of earnings, it would automatically apply to the rehabilitation schemes.

Yours faithfully,

*[Signature]*  
SECRETARY TO GOVERNMENT

Memorandum No. 35319 /R., Dated, the 2.6.88  
Copy forwarded to the Revenue Divisional Commissioner (Northern Division) Sambalpur / Irrigation & Power Department for information and necessary action.

*[Signature]*  
JOINT SECRETARY TO GOVERNMENT

Memorandum No. 35320 /R., Dated, the 2.6.88  
Copy forwarded to the General Manager, S.E.C.I. Bhubaneswar, Charsuguda / Talcher for information and necessary action.

*[Signature]*  
JOINT SECRETARY TO GOVERNMENT

Memorandum No. 35321 /R., Dated, the 2.6.88  
Copy to Land Acquisition Branch for information and necessary action.

*[Signature]*  
JOINT SECRETARY TO GOVERNMENT

Government of Odisha  
Investigation and Control Commission

No. 2843 /I&P.,  
El.I. 14/39

Dated Bhubaneswar, the 21<sup>st</sup> January, 89.

Shri B.C. Patro, O.A.S. (I),  
Deputy Secretary to Government.

The Managing Director,  
Orissa Power Generation Corporation.

Sub:- Implementation of the Rehabilitation  
Scheme in respect of Ib Thermal Power  
Station.

Sir,

With reference to this Deptt. memo No. 32259  
dt. 22.7.88 on the above subject, I am directed to say that  
Revenue & Excise Deptt. have made some modifications in their  
lett. No. 70230 dt. 8.11.88 and No. 71 dt. 2.1.88 <sup>(copy enclosed)</sup> in the Uniform  
guide lines framed in their letter No. 35318 dt. 2.5.88 for rehabi-  
litation of the displaced persons/families due to S.E.C.L. Projects  
in Sambalpur and Chenkanal districts.

As you have confirmed the same guide lines  
framed for the displaced persons/families of S.E.C.L. Projects  
are also applicable to that of Ib Thermal Power Station.

You are, therefore requested to please make  
suitable modifications in the Rehabilitation Scheme, framed for  
the displaced persons/families of Ib Thermal Power Station for  
its implementation.

Encl: As above.

Yours faithfully,

*[Signature]*  
Deputy Secretary to Government.

Memo No. \_\_\_\_\_ /I&P., Dated.,

Copy forwarded to the Collector, Sambalpur  
for information with reference to this Deptt. letter No. 3227  
dt. 22.7.88.

O.P.G.C. LTD.  
Bhubaneswar  
21/1/89

4/1/89  
16/1/89

Ministry of Orissa  
Immigration and Police Department.

No. Pl.-1-34/81-  
From

/Dated.

P.O.C. LTR	
Recd No.	2290
DATE	25-7-88
FILE/SECTION	W-2

Sri B. C. Patro, O.A.S.(D),  
Deputy Secretary to Government.

To

The Collector,  
Sambalpur.

Sub:-

Implementation of Rehabilitation Scheme in  
respect of Ib Thermal Power Station.

Sir,

I am directed to say that Revenue & Excise Department have issued a Uniform Guidelines in their letter No-35313 dt.2.6.83 for the rehabilitation of the displaced persons/families affected by implementation of S.S.C.L. Projects in Sambalpur and Jharkanal districts(Copy enclosed). These guidelines are also applicable in respect of persons/families proposed to be displaced due to establishment of Ib Thermal Power Station in Ib Valley in Sambalpur district.

You are, therefore, requested to please take necessary action for implementation of the rehabilitation scheme in respect of Ib Thermal Power Station.

Yours faithfully,

Deputy Secretary to Government.

Hemo No. \_\_\_\_\_

/Dated.

Copy forwarded to the Revenue & Excise Department for information.

Deputy Secretary to Government.

Hemo No. \_\_\_\_\_

/Dated.

Copy forwarded to the Managing Director, Orissa Power Generation Corporation for information.

Rehabilitation  
file

Sim  
25/7/88

Deputy Secretary to Government.

BKM/18.7.



70230 dt:8.11.88

The Collector,  
Sambalpur/dhenkanal.

Sub- Uniform guidelines for rehabilitation of the displaced  
persons families due to S.E.C.L. projects at Sambalpur and  
Dhenkanal sistricts.

Ref- Revenue & Excis Deptt letter No Gc(SDI)9/88-35318/R dt 2.6.88  
Sir,

I am direvted to invite a reference to the correspondence  
cited above and to say that in the light of certain facts  
subsequently brought to the notice, Govt have been please to modify  
paragraph 4(c) as follows.

4(c) In case of families having lost; only homestead land  
or the total agricultural holding one member from each  
family shall be provided with employment according to  
availability.

Yours faithfully.

Sd -  
Secretary to Govt.

Memo No 70231 dt 3.11.88

Copy forwarded to the Revenue Divisional  
Commissioner (Northern Division) Sambalpur/Irrigation and Power  
Department for information and necessary action, in continuation  
of this Deptt memo No. 35319/R dt. 2.6.88.

Sd:  
Addl Secretary.

Memo No. 70232 dt 8.11.88

Copy forwarded to the General Manger S.E.C.L. Ib-valley  
Dharsuguda/Talcher for inforation and necessary action in continut.  
ion of this Deptt memo no 35320/R dt 2.6.88

Sd-  
Addl Secretary. -

Memo No. 70233 dt 5.11.88

Copy to Land Acquisition Branch for information and  
necessary action in continuation of Revenue Deptt memo No. 35321/R  
dt. 2.6.88.

Mo No. 70234 dt. 8.11.53

Copy to Special Land Acquisition Officer,  
S.C.C.L. Dhenkanal. for information. While preparing the list of  
candidates to be considered for employment facilities, he is  
requested to indicate against each the category to which that  
person belongs. In other words in another column against  
each it should be noted as to under which category out of  
'a' 'b' or 'c' of paragraph-4 the candidate belongs.

Sd-

Addl Secretary.

Department of Revenue and Excise

No. 11. - 1-34/34- /Dated.

S.S.C. LTD.	
REG. NO.	2990
DATE	25-7-88
FILE/SECTION	W24

Sri B. C. Patra, O.A.S. (I),  
Deputy Secretary to Government.

To

The Collector,  
Sambalpur.

Sub: - Implementation of Rehabilitation Scheme in  
respect of Ib Thermal Power Station.

Sir,

I am directed to say that Revenue & Excise Department have issued a Uniform Guidelines in their letter No.35313 dt.2.6.83 for the rehabilitation of the displaced persons/families affected by implementation of S.S.C.L. Projects in Sambalpur and Oberkarnal districts (Copy enclosed). These guidelines are also applicable in respect of persons/families proposed to be displaced due to establishment of Ib Thermal Power Station in Ib Valley in Sambalpur district.

You are, therefore, requested to please take necessary action for implementation of the rehabilitation scheme in respect of Ib Thermal Power Station.

Yours faithfully,

Deputy Secretary to Government.

Home No. /Dated.  
Copy forwarded to the Revenue & Excise Department for information.

Deputy Secretary to Government.

Home No. 32259 /Dated. 22.7.88  
Copy forwarded to the Managing Director, Orissa Power Generation Corporation for information.

Deputy Secretary to Government.

Rehabilitation file  
S.M. 23/7/88

BKM/18.7.

gm 22/7/88

DRAFT FOR APPROVAL

ସଂଖ୍ୟା

62285

୬/୫/୮୯

୦୧୩୮

୭/୫/୮୯

ସିବିଏସ୍

To

The Collector, Sambalpur/Dhenkanal.

Sub:

Uniform guidelines for rehabilitation of displaced persons/families due to S.E.C.L. Projects at Sambalpur and Dhenkanal districts.

Ref:

- (i) Government letter no. 71-R, Dt. 2.1.89
- (ii) Govt. letter no. 7630-R, Dt. 3.2.89
- (iii) Govt. letter no. 28501-R, Dt. 9.5.89 to the address of Collector, Dhenkanal.

Sir,

I am directed to invite a reference to

the subject cited above and to say that instances have come to the notice of Government where the oustee families have no adult members suitable for employment and who are dependant on other relatives. After careful consideration Government have been pleased to decide that where an oustee has no adult member in his family, who is suitable for employment, even his son-in-law would be eligible for employment in accordance with paragraph-4 of the Government letter Dt. 2.1.89 cited at (i) above, provided that the oustee is dependant on his son-in-law. For this limited purpose, the son-in-law of the concerned oustee would be treated as a member of his family. The oustee can nominate his dependant son-in-law for the purpose of employment.

2.

Further, Government have also been pleased

contd... 2p

DRAFT FOR APPROVAL

ମୁଦ୍ରା

ଉତ୍କଳ

- 2 -

ପ୍ରାବେଶ

to decide that an adopted son of an oratee would also be eligible for assistance provided that such adoption has been done in accordance with law.

Yours faithfully,

Secretary to Government.

Memo No. 62286 /R, dt. Copy forwarded to R.D., N.D., Sambalpur/ Irrigation and Power Department in continuation of Govt. Memo No. 72-R, Dt. 2.1.89 and Memo No. 7641-R, Dt. 3.2.89 for information and necessary action.

Secretary to Government.

Memo No. 62287 /R, dt. Copy forwarded to E. & G. Deptt. for information and necessary action in continuation of Memo No. 7644-R, Dt. 3.2.89

Secretary to Government.

Memo No. 62288 /R, dt. Copy to General Manager, S.A.C.L. Projects, Ib Valley Jharsuanda/ Talcher for information in continuation of Govt. Memo No. 73-R, Dt. 2.1.89 and Memo No. 7642-R, Dt. 3.2.89

Secretary to Government.

Memo No. 62289 /R, dt. Copy to Director in charge, South-eastern Coalfields Ltd., Seepat Road, P. N. No. 60, Bilaspur-495001 (E.P.) in continuation of Govt. letter No. 17350-R, Dt. 10.3.89.

Secretary to Government.

No. GE (Coal) -5/91 5408 /R.,

Dated, Bhubaneswar the 30/11/92

From

Shri P.B. Das, O.A.S.,  
Under Secretary to Government.

To

The Collector, Dhenkanal.

Sub:-

Clarification on Uniform Guidelines for rehabilitation of persons displaced due to acquisition of land for S.E.C.L. Project.

Ref:-

Your D.O. letter No. 327 dt. 27.4.91 and 583 dt. 29.7.91.

Sir,

I am directed to invite a reference to your correspondence on the subject cited above and to say that in your D.O. letter No. 327/SECL dt. 27.4.91, you have raised the following two issues in connection with Uniform Guidelines issued by Government for rehabilitation of the displaced persons/families due to acquisition of land for S.E.C.L. Projects :-

- i) Whether persons belonging to areas outside the State of Orissa/Dist. of Dhenkanal/Talcher Tahasil, who have purchased small patches of lands on or before publication of notification under section 4(i) of the L.A. Act with a view to getting employment can be considered eligible to get rehabilitation benefit, and
- ii) Whether a family of a major married daughter can be taken into consideration in the matter of rehabilitation.

2. After careful consideration of the above issues raised in your letter under reference, Govt. have been pleased to decide as follows :-

- 1) In the matter of rehabilitation of persons losing land due to execution of S.E.C.L. Projects, a distinction should be made between a genuine inhabitant of the area and an outsider. A person may be made eligible to get a job under the existing policy only if he or his family loses the land which he or his family had held at least for a period of 12 years. However, in case of a person who, being landless, had

contd...2

--: 2 :-

been given Govt. land on lease, the stipulation of 12 years will not be applicable,

11) Further, in the guideline regarding rehabilitation assistance, the term family has been defined to include husband, wife and unmarried children. Therefore, the question of the family of a married daughter being eligible for employment under rehabilitation assistance does not arise.

3. Besides, you are requested to make a survey regarding purchase of land in these areas by outsiders and furnish a report in this regard to this Deptt. early. The instructions issued in this Deptt. G.O.N. 71/R., dt. 2.1.89, 7640-R., dt. 3.2.89 28501-R., dt. 9.5.89 and 62285-R., dt. 6.10.89 are modified to the above extent.

Yours faithfully,

Memo No.

5409 /Rdt. 30/1/92

*P. N. D. 30.1.92*  
Under Secretary to Government.

Copy forwarded to

1. Secretary, Board of Revenue, Orissa, Cuttack.
2. Irrigation Deptt.
3. Energy Department.
4. Steel and Mines Department.
5. Secretary to R.D.C. (ND) Sambalpur.
6. Collector, Sambalpur for information and necessary

action.

Memo No.

5410 /R., dt. 30/1/92

*P. N. D. 30.1.92*  
Under Secretary to Government.

Copy forwarded to L.A. Branch for information and

necessary action.

*P. N. D. 30.1.92*  
Under Secretary to Government.

SOUTH EASTERN COALFIELDS LIMITED

Office of the Chief General Manager  
Ib Valley Area, Brajrajnagar.

Ref.No. SECL:CGM:IBV:DY.GM(OC):G-42:24/98 Dt. 21.02.92.

Copy to :-

1. The Addl. District Magistrate (Rehabilitation), P.O. - Banharpali.
2. The Zone Officer, SECL Works, Brajrajnagar.
3. The Dy. Estate Manager, SECL, Ib Valley.
4. The Area Planning Officer, Ib Valley.
5. Shri U.S. Gonela, Sr.P.O., Ib Valley.
6. Sri S.B. Bhuyan, Asst. Survey Officer, Ib Valley.

*(B.N. Mishra)*  
DY. GENERAL MANAGER (OC)  
IB VALLEY AREA

~~90~~  
~~100~~  
GOVERNMENT OF ORISSA  
REVENUE AND EXCISE DEPARTMENT

640

No. 56785 /A. 24/12/93  
REV-67/93

From:

Sri S.K. Habada, O.A.S.,  
Under Secretary to Government.

To:

The Collector, Angul/Sambalpur.

Sub:

Uniform guideline for rehabilitation of the displaced persons/families due to S.E.C.L. Project at Sambalpur and Ehenkanal districts.

Sir,

I am directed to say that Government after careful consideration have been pleased to relax the restriction imposed by G.O. No. 5109 dt. 30.1.92 in connection with uniform guidelines for rehabilitation of the displaced persons/families due to acquisition of land for mining operation in the districts of Sambalpur and Angul.

In the aforementioned G.O. it was stipulated that a person may be made eligible to get a job under the existing policy only if he or his family loses the land which he or his family hold it at least for 12 years. Now it is decided that a person may be given employment opportunities who held the land prior to the publication of notification u/s 4(1) of L.A. Act. The employment opportunity need not be given to the persons who purchase the land after notification u/s 4(1) of the L.A. Act. The other stipulations in the G.O. remain unchanged.

Yours faithfully,

*S. K. Habada*

Under Secretary to Government  
24/12/93

No.

56786

/A. Dt. 24/12/93

Copy forwarded to the Secretary, Board of Revenue/  
Irrigation Deptt./ Energy Deptt./ Steel & Mines Deptt./ B.D.C. (ND)  
Sambalpur for information and necessary action.

Memo No.

56787

/A. Dt. 24/12/93

*S. K. Habada*  
Under Secretary to Government  
24/12/93

Copy forwarded to L.A. Branch for information and necessary action.

*S. K. Habada*  
Under Secretary to Government  
24/12/93

## FORMAT-R&amp;R Entitlements

Name of Revenue Division: Sambalpur												
Name of District: Jharsuguda												
Name of Project: Ib Thermal Power Station												
R&R Entitlements (as per R&R, 1988/89 Policy)	No. of eligible families identified for R&R		No. of Families/ Beneficiaries provided with R&R assistance (item wise upto previous month)		No. of Families/ Beneficiaries provided with R&R assistance (item wise during the month)		Balance families to be provided with R&R assistance (item wise)		Timeline for completing delivery of R&R benefits (item wise)			
	No. of displaced families	No. of affected families	No. of displaced families	No. of affected families	No. of displaced families	No. of affected families	No. of displaced families	No. of affected families	No. of displaced families	No. of affected families	No. of affected families	
Employment provided	114	2	3	4	5	6	7	8	9			
	114	54	114	54	Nil	Nil	Nil	Nil	12	12		12 Affected Families whose whereabouts is not known since 1986. Land was Acquired between 1986 - 1989. All the displaced family has been provided with R&R assistance as per 1989 Guideline applicable to OPGC for the land acquired in the year 1986-89. Besides displaced family, 83 Affected family have also been provided rehabilitation assistance.
Cash in lieu of Employment	5	29	4	27	Nil	Nil	1	2				The perons in interest i.e. 2 nos. are not turning to receive the benefit and other (Samari Oram) is dead.
Training for self Employment	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil		Nil
Allotment of Homestead Land	142	Nil	142	Nil	Nil	Nil	Nil	Nil	Nil	Nil		Nil
Assistance for self relocation	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil		Nil
House building Assistance	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil		Nil
Allotment of shops and service units	Nil	26	Nil	26	Nil	Nil	Nil	Nil	Nil	Nil		Nil
Assistance for agricultural land	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil		Nil
Assistance for temporary shed	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil		Nil
Transportation allowance	142	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil		Nil
Maintenance allowance	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil		Nil
Any other items	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil		Nil
Total Award in respect of compensation paid (as per R & R, 1988/89 Policy)				23245095.52								
Total Award in respect of R&R (as per R & R, 1988/89 Policy)				1784000.00								

NB:-

Rehabilitation and Resettlement as per 1989/90 R&amp;R guideline

## Annexure-5



**The Ramp Made of Ash has been Removed completely and made of Soil.**

**True Copy**  
ANNEXURE – 4(A)

Government of Odisha  
Department of Revenue & Excise Department

Letter no. 96/RE. 35318/R. , dated the 2.6.88

From

B.C Patnaik,  
Secretary to Government,

To

The Collector,  
Sambalpur/ Dhenkanal.

Subj: Uniform guidelines for rehabilitation of the displaced persons/ families due to S.E.C.L Projects at Sambalpur and Dhenkanal districts.

Sir,

I am directed to say that Government after careful consideration have been pleased to approve the following guidelines for rehabilitation of families / persons displaced due to acquisition of land for coal mining operation in the districts of Sambalpur and Dhenkanal.

2. A family / person shall be eligible for rehabilitation benefit if;
- all the lands of the family have been acquired.
  - more than 1/3<sup>rd</sup> agricultural lands alongwith homestead land has been acquired.
  - only homestead land has been acquired.
  - homesteadless persons residing in the village.

This is to be ascertained through joint enquiry by a committee consisting of representative of the South Eastern Coal Fields Ltd. and the Government, (Collector of the District).

3. A family in the aforesaid context shall include the husband and wife as the case may be and their un-married children but does not include a major son who has been separated from the family on or before the date of notification under section 4(1) of the land Acquisition Act, 1984 in respect of area village. He shall be treated as a separate family.

4. Employment:

- One member from each family sustaining loss of dwelling houses, homestead land and agricultural land net less than 1/3<sup>rd</sup> of the total holding shall be provided with employment on a priority basis.
- One member of each family having sustained loss of 3 acres of non-irrigated land or 2 acres of irrigated land shall be provided with employment on second priority.
- In case families having lost only homestead land, one member from each family shall be provided with employment according to availability.
- Besides contractors working under the S.E.C.L provide employment securing to their \_\_\_\_\_ of displaced families according to eligibility. S.E.C.L shall prepare a

list of such person to be provided with employment and supply the same to the contractors working them with to Collector of the District.

(e) Rehabilitation of other displaced families shall made through self employment schemes.

5. Each displaced family shall be allotted / reclaimed Government land upto 10 dec. for homestead purpose free of cost.

6. In the rehabilitation colonies facilities like road, street lights, school, building, health center, provisions of drinking water, recreation centers, ponds, tanks, play ground, veterinary centers, tree plantation, shopping center shall be provided according to necessity.

7. Each displaced family shall be given assistance at the costs of Rs. 2000/- for construction of temporary shed.

8. Expenditure in respect of para 5,6 and 7 shall be borne by the S.E.C.L.

9. If any rehabilitation package is finalized by Government of India, Department of Coal towards compensation in lieu of loss of earnings, it would automatically apply to the rehabilitation schemes.

Yours Faithfully,

-Sd-

Secretary to Government.

Memo No. 35319/R dated the 2.6.88

Copy forwarded to the Revenue Divisional Commission (Northern Division) Sambalpur/ irrigation & power department for information and necessary action.

-Sd-

Joint secretary to government

Memo No. 35320/R dated the 2.6.88

Copy forwarded to the General Manager, S.E.C.L Ib valley, Jharsuguda/ Talcher for information and necessary action.

-Sd-

Joint secretary to government

Memo No. 35321/R dated the 2.6.88

Copy forwarded to the General Manager, S.E.C.L Ib valley, Jharsuguda/ Talcher for information and necessary action.

-Sd-

Joint secretary to government

True Copy

Government of India  
Irrigation and Power Department

No. 2843/ I & P  
ED 10/39

Dated Bhubaneswar, the 2187/ January,89.

From

Shri B.C. Patra, O.A.S (I).,  
Deputy Secretary to Government.

To,

The Managing Director,  
Orissa Power Generation Corporation.

Sub: Implementation of the rehabilitation scheme in respect of Ib Thermal Power Station.

Sir,

With reference to this Deptt. Memo no. 32259 dt. 22.7.88 on the above subject, I am directed to say that Revenue & Excise Deptt, have made some modifications in their letter no. 70230 dt. 8.11.88 and no. 71 dt. 2.1.88 (copy enclosed). In the uniform guidelines framed in their letter no. 35318 dt. 2.5.88 for rehabilitation of the displaced persons/ families due to S.E.C.L Projects in Sambalpur and Dhenkanal districts.

As you have confirmed the same guidelines framed for the displaced persons/ families of S.E.C.L Projects are also applicable to that of Ib Thermal Power Station.

You are, therefore requested to please make suitable modifications in the Rehabilitation Scheme, framed for the displaced persons/ families of Ib Thermal Power Station for its displacement.

Encl: As above.

Yours faithfully,

-Sd-

Deputy Secretary to Government

Memo No. \_\_\_\_\_/I & P dated the

Copy forwarded to the Collector, Sambalpur for information with reference to this Deptt. Letter no. 3227 dt. 22.7.88.

True Copy

Government of India  
Irrigation and Power Department

From

Shri B.C. Patra, O.A.S (I),  
Deputy Secretary to Government.

To,

The Collector,  
Sambalpur.

Sub: Implementation of Rehabilitation Scheme in respect of Ib Thermal Power Station.

Sir,

I am directed to say that Revenue & Excise Department have issued a Uniform Guidelines in their letter no. 35318 dt. 2.6.88 for the rehabilitation of the displaced persons/ families affected by implementation of S.E.C.L Projects in Sambalpur and Dhenkanal district (copy enclosed). These guidelines are also applicable in respect of persons/ families proposed to be displaced due to establishment of Ib Thermal Power Station in Ib valley in Sambalpur district.

You are, therefore requested to please take necessary action for implementation of the rehabilitation scheme in respect of Ib Thermal Power Station.

Yours faithfully,

-Sd-

Deputy Secretary to Government

Memo No. \_\_\_\_\_/ dated.

Copy forwarded to the Revenue & Excise Department for information.

-Sd-

Deputy Secretary to Government

Memo No. 32259/ dated. 22.7.88

Copy forwarded to the Managing Director, Orissa Power Generation Corporation for information.

-Sd-

Deputy Secretary to Government

Letter No.: 70230 , Date: 08.11.88

To:

The Collector,  
Sambalpur / Dhenkanal

Sub: Uniform guidelines for rehabilitation of the displaced persons/families due to S.E.C.L. projects at Sambalpur and Dhenkanal districts.

Ref: Revenue & Excise Dept. letter No. GC(SDI)9/88-35318/R dated 2.6.88

Sir,

I am directed to invite a reference to the correspondence cited above and to say that in the light of certain facts subsequently brought to the notice, Govt have been please to modify paragraph 4(c) as follows.

4(c) In case of families having lost only homestead land or the total agricultural holding one member from each family shall be provided with employment according to availability.

Yours faithfully,  
Sd-  
Secretary to Govt.

Memo No 70231 dt 8.11.88

Copy forwarded to the Revenue Divisional Commissioner (Northern Division) Sambalpur/ Irrigation and Power Department for information and necessary action, in continuation of this Deptt memo No. 35319/R dt. 2.6.88.

Sd-  
Addl Secretary

Memo No. 70232 dt 8.11.88

Copy forwarded to the General Manger S.E.C.L. Ib-valley Jharsuguda/Talcher for information and necessary action in continuation of this Deptt memo no 35320/R dt 2.6.88.

Sd-  
Addl Secretary

Memo No. 70233 dt 8.11.88

Copy to land acquisition Branch for information and necessary action in continuation of Revenue Deptt. memo no. 35321/R dt 2.6.88.

Memo No. 70234 dt 8.11.88

Copy to Special Land Acquisition Officer, S.C.C.L. Dhenkanal for information While preparing the list of candidates to be considered for employment facilities, he is requested to indicate against each the category to which that person belong. In other words in another column against each it should be noted as to under which category out of 'a' 'b' or 'c' of paragraph-4 the candidate belongs.

Sd-  
Addl Secretary

True Copy

Government of India  
Irrigation and Power Department

No. ML-1-34 ID ...../ I & P

From

Shri B.C. Patra, O.A.S (I),  
Deputy Secretary to Government.

To,

The Collector,  
Sambalpur

Sub: Implementation of rehabilitation Scheme in respect or Ib Thermal Power Station.

Sir,

I am directed to say that Revenue & Excise Department have issued a Uniform guidelines in their letter No. 35313 dt. 2.6.88 for the rehabilitation of the displaced person/ families affected by implementation of , S.E.C.L. Projects in Sambalpur/ Dhenkanal district (Copy enclosed). These guidelines are also applicable in respect of persons/ families proposed to be displaced due to establishment of Ib Thermal Power Station in Ib Valley in Sambalpur district.

You are, therefore, requested to please taken necessary action for implementation of the rehabilitation Scheme in respect of Ib Thermal Power station.

Yours faithfully,

-Sd-

Deputy Secretary to Government

Memo No. \_\_\_\_\_/ Dated.

Copy forwarded to the Revenue & Excise Department for information.

Memo No. 32259/ dated. 22.07.88

Copy forwarded to Manging Director, Orissa Power Generation Corporation for information.

-Sd-

Deputy Secretary to Government

ଅନୁମୋଦନ ଜମିର ଚିଠା  
DRAFT FOR APPROVAL  
ସଂଖ୍ୟା-62285

Date: 6.10.89

ବିଭାଗ

ପ୍ରାପ୍ତପୁଷ୍ଟ

To,

The collector, Sambalpur/ Dhenkanal

Sub: uninform guidelines for rehabilitation of displaced persons/ families due to S.E. C.L. Projects at Sambalpur and Dhenkanal districts.

Ref: (i) Government letter no 71-R dt:2.1.89  
(ii) Govt Letter No. 7640-R dt: 3.2.89  
(iii) Govt Letter No. 28501-R dt:9.5.89 to the address of Collector Dhenkanal.  
(iv) .....

Sir,

I am directed to invite a reference to the subject cited above and to say that instances have come to the notice of Government where the oustee families have no adult members suitable for employment and who are dependent on other relatives. After careful consideration Government have been pleased to decide that where an oustee has no adult member in his family, who is suitable for employment, ..... his Son-in-law would be eligible for employment in accordance with paragraph-4 of the Government letter dt. 2.1.89 cited at (i) above ..... for this Limited purpose, the Son-in-law of the concerned oustee would be treated as a member of his family. The oustee can nominate his..... son -in -law for the purpose of employment.

Further, Government have also been pleased

ଅନୁମୋଦନ ଜମିର ଚିଠା

## DRAFT FOR APPROVAL

ସଂଖ୍ୟା

ବିଭାଗ

ପ୍ରାପ୍ତପୁସ୍ତକ

to decide that an adopted son of an oustee would also be illegible for assistance provided that, such adopting has been done in accordance with law.

Yours faithfully,

-Sd-

Secretary to Government.

Memo No. 62286/H

Date: 6.10.89

Copy forwarded to R.D. C. .... Sambalpur/irrigation and power Department in continuation of Govt. memo no. 72-R, Dt. 2.1.89 and memo no. 7641-R, Dt. 3.2.89 for information and necessary action.

-Sd-

Secretary to Government.

Memo No. 62287/R, Dt. 6.10.89

Copy forwarded to E. C. G. Deptt. for information and necessary action to continuation of Memo No.7644-R, Dt. 3.2.89

-Sd-

Secretary to Government.

Memo No. 62288/R, Dt. 6.10.89

Copy to General Manager, S.A.C.L. Projects, IB valley Jharsuguda/ Talcher for information in continuation of Govt. Memo No.73-R, Dt.2.1.89 and Memo No.7642-R, Dt. 3.2.89

-Sd-

Secretary to Government,

Memo No. 62289/R, Dt. 6.10.89

Copy to Director in charge Southeastern coalfields Ltd. Seepat .... P.B. No. 60, Biluspur-195001 (UP) in continuation of Govt. Letter No. 17350-R, Dt.10.3.89

Government of Orissa  
Revenue & Excise Department.

No. GE (Coal)-5/91 5408/R.  
Dated, Bhubaneswar the 30/1/92

From

Shri P.B. Das, O.A.S.  
Under Secretary to Government.

To

The Collector, Dhenkanal.

Sub: Clarification on Uniform Guidelines for rehabilitation of persons displaced due to acquisition of Land for S.E.C.L. Project.

Ref:- Your D.O.letter No.327 dt. 27.4.91 and 583 dt.29.7.91

Sir,

I am directed to invite a reference to your correspondence on the subject cited above and to say that in your D.O. letter No.327/SECL dt.27.4.91, you have raised the following two issues in connection with Uniform Guidelines issued by Government for rehabilitation of the displaced persons/families due to acquisition of land for S.E.C.L. Projects: -

- i. Whether persons belonging to areas outside the State of Orissa/Dist. of Dhenkanal/Talcher Tahasil, who have purchased small patches of lands on or before publication of notification under section 4(1) of the L.A. Act with a view to getting employment can be considered eligible to get rehabilitation benefit, and
- ii. Whether a family of a major married daughter can be taken into consideration in the matter of rehabilitation

2. After **careful** consideration of the above issues raised in your letter under reference, Govt. have been pleased to decide as follows:-

- i. In the matter of rehabilitation of persona losing land due to execution of S.E.C.L. Projects, a distinction should be made between a genuine inhabitant of the area and an outsider. A person may be made eligible to get a job under the existing policy only if he or his family loses the land which he or his family had held at least for a period of 12 years. However, in case of a person who, being landless, had been given Govt. land on lease, the stipulation of 12 years will not be applicable.
- ii. Further, in the guideline regarding rehabilitation assistance, the term family has been defined to include husband, wife and unmarried children. Therefore, the question of the family of a married daughter being eligible for employment under rehabilitation assistance does not arise.

Contd...2

3. Besides, you are requested to make a survey regarding purchase of land in these areas by outsiders and furnish a report in this regard to this Deptt. early. The instructions issued in this Deptt. G.O.N. 71/R., dt.2.1.89, 7640-R., dt.3.2.89 28501-R., dt. 9.5.89 and 62285-R.,dt. 6.10.89 are modified to the above extent.

Yours faithfully.

-Sd-

Under Secretary to Government.

Memo No. 5409/R, Dt. 30/1/92

Copy forwarded to:

1. Secretary, Board of Revenue, Orissa, Cuttack.
2. Irrigation Deptt.
3. Energy Department.
4. Steel and Hines Department.
5. Secretary to R.D.C. (ND) Sambalpur.
6. Collector, Sambalpur for information and necessary action.

-Sd-

Under Secretary to Government

Memo No. 5410/R, Dt. 30/1/92

Copy forwarded to L.A. Branch for information and necessary action.

-Sd-

Under Secretary to Government.

SOUTH EASTERN COALFIELD LIMITED

Office of the Chief General Manager  
Ib Valley Area, Brajrajnagar.

Ref. No. SECL:CGM:IBV:DY.GM(OC):G-42: 24198 Dt.24.02.92.

Copy to :-

1. The Addl. District Magistrate (Rehabilitation), P.O. Banharpali.
2. The Zone Officer, SLCL Works, Brajrajnagar.
- 4: The Planning Officer, in Valley.
3. The Dy. Estate Manager, SECL, Ib Valley.
5. Shri U.S. Gonela, Sr. P.O., ib Valley
6. Sri 3.B. Bhuyan, Asst. Survey Officer Ib' Valley.

-Sd-

(B.N. Mishra)  
IB VALLEY AREA  
DY. GENERAL MANAGER(OC)  
IB VALLEY AREA

GOVERNMENT OF ORISSA  
GOVERNMENT PLASA REVENUE AND ESTATE DEPARTMENT

No. 56785/r, Dt. 24/12/93

From:

Shri S.K. Habala, O.A.S.  
Under Secretary to Government.

To,

The Collector, Angul/Sambalpur

Sub: Uniform guideline for rehabilitation of the displaced persons/families due to S.E.C.L. Project at Sambalpur and Dhenkanal districts,

Sir,

I am directed to say that Government after careful consideration have been pleased to relax the restriction imposed G.O., 5108 dt. 30.1.92. In connection with uniform guidelines, acquisition of land for mining operation in the districts of Sambalpur and Angul.

In the aforementioned G. O. it was stipulated that a person may be made eligible to get a job under the existing policy only if he or his family loses the land which he or his family hold it at least for 12 years, Now it is decided that a person may be given employment opportunities who held the land prior to the publication of notification u/s 4(1) of L.A. Act. The employment opportunities need not be given to the person who purchase the land after notification u/s 4(1) of the L.A. Act. The other stipulation in the G.O. remain unchanged.

Yours faithfully,

-Sd-

Under Secretary to Government

Memo no. 56786/R, Dt. 24/12/93

Copy forwarded to the Secretary, Board of Revenue/Irrigation Deptt./ Energy Deptt./Steel & Mines Deptt./ R.D.C. (ND) Sambalpur for information and necessary action.

-Sd-

Under Secretary to Government

Memo no. 56787/R, Dt. 24/12/93

Copy forwarded to L.A. Branch for information and necessary action.

-Sd-

Under Secretary to Government.

F.No. IA-L-11011/43/2024-IA-I  
Government of India  
Ministry of Environment, Forest and Climate Change  
(Compliance & Monitoring Division- IA Division)  
\*\*\*\*\*

Indira Paryavaran Bhavan  
Jor Bagh Road, Aliganj  
New Delhi-110 003  
Email: moefcc-monitoring@gov.in  
Dated: 28<sup>th</sup> November, 2024

To,

Deputy Director General of Forests (C),  
Ministry of Environment, Forest & Climate Change  
Bhubhaneshwar, A/3, Chandersekharpur,  
Bhubhaneshwar-751023

**Sub: Non- Compliances observed with respect to the project "Expansion of existing Coal Based Thermal Power Plant by addition of 2x660 MW (Unit 3 & 4) at village Banaharpalli, in Jharsuguda Distt., in Orissa by M/s Orissa Power Generation Corpotaion Ltd." -reg.**

**Ref : i. Ministry's EC No.14/13/83-EMI/L.A dated 30.01.1987, EC No.IA-J-13011/59/2008-IA.II(T) dated 04.02.2010. and 22.01.2014**  
**ii. RO Bhubaneswar Monitoring report No. 101- 361/08/EPE dated 09.09.2024**  
**iv. Ministry's Show Cause Notice dated 26.09.2024.**  
**v. PP's response the SCN vide letter no. ITPS/62.38/WE dated 21.10.2024**

Sir,

This refers to the response from PP vide letter no.ITPS/62.38/WE dated 21.10.2024, to the Show Cause Notice issued to M/s Orissa Power Generation Corpotaion Ltd. on 26.09.2024.

2. The project was monitored by Regional Office of the Ministry at Bhubaneshwar on 08.08.2024. The report was submitted to the Ministry vide letter No. 101-361/08/EPE dated 09.09.2024.

3. The inspection report was examined in the Ministry, and based on the non-compliance observed, Show Cause Notice has been issued to the project vide letter dated 26.09.2024. Now, PP has submitted its response to the SCN vide letter no.ITPS/62.38/WE dated 21.10.2024.

4. In view of the above, the Regional Office (RO) is requested to verify the response submitted by the PP in reference to observations of RO on the issue of non-compliance and submit SCN response review report to the Ministry at the earliest.

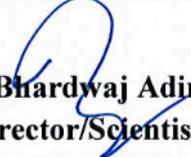
This issues with the approval of the Competent Authority.

*Encl.As above*

(Dr. Bhardwaj Adiraju)  
Joint Director/Scientist 'D'

**Copy to:**

1. Director (Operations) & MD, M/s Odisha Power Generation Corporation Ltd, 1b Thermal Power Station, Po-Banharpali, District Jharsuguda-768234
2. The Member Secretary, <sup>Thermal</sup>~~Industry~~ Sector, Ministry of Env., Forest and Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi-110 003.

  
**(Dr. Bhardwaj Adiraju)**  
**Joint Director/Scientist 'D'**



भारत सरकार / Government of India

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय / Ministry of Environment, Forest & Climate Change

क्षेत्रीय कार्यालय, भुवनेश्वर / Regional Office, Bhubaneswar

ए ३, चंद्रसेखरपुर / A/3, Chandrasekharpur

भुवनेश्वर - ७५१ ०२३ / Bhubaneswar - 751 023

Annexure-R/107



आज़ादी का  
अमृत महोत्सव



Telephone: 0674 - 2301213, 2301248, 2302452, 2302453. E-mail: [roez.bsr-mef@nic.in](mailto:roez.bsr-mef@nic.in)

File No: 101- 361 /08/EPE

Date: 10.12.2024

To

Dr. Bhardwaj Adiraju,  
Scientist 'D' (Compliance & Monitoring Division)  
Ministry of Environment, Forest & Climate change.  
Indira Paryavaran Bhavan, Jor Bagh Road,  
Aliganj, New Delhi – 110003

Subject: Comment on Action taken report submitted by M/s Orissa Power Generation Corporation Ltd located village- banaharipalli, dist. Jharsuguda, Odisha reg.

- Ref: (i) Ministry EC letter No. 14/13/83/EMI/IA date 30.01.1987, J11013/59/2008-IA-II (T) dated 04.02.2010 and 22.01.2014  
(ii) Monitoring report of RO, Bhubaneswar letter no. 101- 361 /08/EPE dated 09.09.2024  
(iii) Ministry letter no. IA-L-11011/43/2024-IA-I dated 28.11.2024

Sir,

I am directed to draw your kind attention to the subject and reference letter cited above, and to inform that the action taken report reviewed by this office and comment of the Regional Office attached as **Annexure-A**.

Yours faithfully,

Encl : As above

(डॉ. टी. एच. महतो/Dr. T. H. Mahato)

वैज्ञानिक-ई / Scientist 'E'

Copy to:

1. The PPS to Director General of Forest & Special Secretary, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, Aliganj, New Delhi – 110003 (Email: [dgfindia@nic.in](mailto:dgfindia@nic.in))
2. The Inspector General of Forests (FC), Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, Aliganj, New Delhi–110003, Email: [ramesh.pandey@nic.in](mailto:ramesh.pandey@nic.in)
3. Mrs. Shruti Rai Bhardwaj, Scientist-F, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, Aliganj, New Delhi – 110003, Email: [shruti.rai@nic.in](mailto:shruti.rai@nic.in)
4. Shri Manas Ranjan Rout, Director (Operations) & MD I/c, M/s Odisha Power Generation Corporation Ltd, Ib Thermal Power Station, At/Po-Banharipali, District Jharsuguda-768234
5. Compliance and Monitoring Division (CMD), Ministry of Environment, Forest and Climate Change, Paryavaran Bhawan, Jorbagh Road, Aliganj, New Delhi–110 003, (Email: [moefcc-monitoring@gov.in](mailto:moefcc-monitoring@gov.in))

वैज्ञानिक-ई / Scientist 'E'

## ANNEXURE-A:

COMMENTS OF REGIONAL OFFICE, BHUBANESWAR ON ACTION TAKEN REPORT SUBMITTED BY PP FOR SHOW-CAUSE NOTICE ISSUED BY MINISTRY VIDE LETTER DATED 26.09.2024 FOR M/S ORISSA POWER GENERATION CORPORATION LTD LOCATED VILLAGE- BANAHARIPALLI, DIST. JHARSUGUDA, ODISHA.

Sr. No.	Non-compliance/partially compliance reported by the Ministry vide letter dated 26.09.2024	Project proponent reply on compliance/Action taken on observation.	Comment of the Regional Office, MoEF&CC, Bhubaneswar
1.	The height of the existing ash pond has been increased without prior intimation to the Ministry, (Specific condition-ii of EC dated 04,02.2010)	<ul style="list-style-type: none"> <li>➤ The height of the then existing ash pond (Ash Pond- A &amp; Ash Pond-B in the year 2010) has not been increased to accommodate fresh disposal of ash slurry from the expansion units (Unit 3 &amp; 4).</li> <li>➤ Ash from Units 3 &amp; 4 had not been disposed at that time existing ash ponds i.e. (Ash Pond A &amp; B). OPGC has constructed a dedicated Ash Pond for its Unit#3 &amp; Unit#4 at Tilia (Phase-1 &amp; Phsase-2 Ash Ponds}, which are in operation.</li> <li>➤ Recently, the height raising work of Ash Pond-A is in progress after obtaining CTE from OSPCB and the volume that will be created in Ash Pond-A will be used to fill up dry ash from Ash Pond-C which in turn will create space in ash pond C for further disposal of ash slurry from Unit#1 &amp; Unit#2. Since Ash Pond A is an old ash pond commissioned on 31.08.2007, OPGC has decided to fill up the ash pond by dry disposal considering the safety of the ash dyke.</li> <li>➤ Ash Pond B has been capped &amp; reclamation certificate is awaited from OSPCB.</li> </ul> <p><b>Thus, considering the above points, OPGC is complying to the stipulated condition of EC date 04.02.2010.</b></p>	<p>Condition stipulated vide Environment Clearance dated 04.02.2010, accorded for expansion of existing coal based thermal power plant by addition of 2x660 MW (Unit 3&amp; Unit 4) “the height of the existing ash pond shall not be increased to accommodate fresh disposal of ash slurry”. PP submitted that at the time of accord of environmental clearance on 04.02.2010 there was two ash pond , i.e A and B and ash from unit 3 &amp; 4 had not been disposed at that time existing ash pond, i.e. (ash pond A &amp; B). Details of height raising activity of ash pond B after 04.02.2010 has not been furnished. During visit ash pond B was in capped condition. PP also submitted that height raising work of ash pond A is in progress after obtaining CTE from OSPCB. Ministry may like to take view regarding issuance of consent to establish by State Pollution Control Board Odisha when the environmental clearance restricted the height increase of the ash pond.</p>
2.	Dust suppression system at the ash pond A and C has	1. At the time of visit i.e. in 1 <sup>o</sup> week of August 2024, the height raising	All though ring header provided at the ash pond,



Sr. No.	Non-compliance/partially compliance reported by the Ministry vide letter dated 26.09.2024	Project proponent reply on compliance/Action taken on observation.	Comment of the Regional Office, MoEF&CC, Bhubaneswar
	not been provided. (Specific condition-vii of EC dated 04.02.2010, specific condition-xliii of EC dated 22.01.2014).	<p>work of Ash Pond C &amp; Ash Pond A from RL 208 m to RL 211 m &amp; the ring header for the dust suppressing points was in RL 208 m. It has already been explained to the Regional Office of the Ministry that once height raising work is complete, the ring header will be shifted to RL 211 m before the onset of summer.</p> <p>2. The RO office of MoEF&amp;CC has already expressed its happiness for the dust suppressing system of Tilia Ash Pond (For Unit#3 &amp; Unit#4). Moreover, OPGC will ensure exactly the same system for Ash Pond-A &amp; Ash Pond -C (For Unit#1 &amp; Unit#2) once height raising work is completed.</p>	water sprinkling arrangement was not observed during visit at ash pond A and C. PP has not reported the arrangement of water sprinkler on the existing ash pond. The condition may be treated as partially complied.
3.	100% ash utilization has not been achieved by PP. (Specific condition-viii of EC dated 04.02.2010)	<p>OPGC has taken the following steps for increasing ash utilization%.</p> <ul style="list-style-type: none"> <li>➤ With state of art technology OPGC has developed railway rake loading system directly from ash silos. This system can load conditioned ash &amp; thus do not require any siding &amp; it is very Environmentally friendly.</li> <li>➤ OPGC has tied up an agreement with Ambuja Cement &amp; Dalmia Cement for offtake of 1 million MT ash/ Year through rakes with each vendor.</li> <li>➤ OPGC has identified many abandoned stone quarries within lead of 100 Kms for disposal of ash » OPGC is supplying ash to NHAI projects (NH-42) &amp; for filling up of Railway Overbridges.</li> <li>➤ OPGC has set up its own fly ash brick manufacturing plant and can manufacture up to ten thousand bricks in a day. OPGC also</li> </ul>	As per the condition stipulated in the Environmental Clearance 100% utilization to be achieved from 4 <sup>th</sup> year of operation. As per the data furnished 100% utilization yet to be achieved. PP reported that the compliance cycle of OPGC has started From 01.04.2022 and is up to 31.03.2027 as per Fly Ash Notification of December 2021. OPGC is optimistic in achieving the target within the compliance cycle. The condition may be treated as agreed upon.

Sr. No.	Non-compliance/partially compliance reported by the Ministry vide letter dated 26.09.2024	Project proponent reply on compliance/Action taken on observation.	Comment of the Regional Office, MoEF&CC, Bhubaneswar
		<p>supplies ash to private bricks &amp; asbestos plants.</p> <p>Due to the following reasons OPGC has not been able to achieve 100% ash utilization.</p> <ul style="list-style-type: none"> <li>➤ Remote location of the Plant and unavailability of good road infrastructure for dispatch of ash through roads.</li> <li>➤ Unavailability of Indian Railways Rakes.</li> <li>➤ Faraway from the nearest port (500 Km)</li> <li>➤ Unavailability of Coal mine voids &amp; MCL consistently denying handing over of mine void to OPGC.</li> <li>➤ Obtaining CTE for low lying area filling &amp; Quarry filling from OSPCB is a tedious, complicated &amp; time taking process.</li> <li>➤ Outrage of stakeholders due to unauthorized disposal of ash of major players of the area &amp; OPGC although being compliant Plant, faces the resistance from local stakeholders.</li> </ul> <p><b>Note: The compliance cycle of OPGC has started Front 01.04.2022 &amp; is up to 31.03.2027 as per Fly Ash Notification of December 2021. OPGC is optimistic in achieving the target within the compliance cycle.</b></p>	
4.	Adequate safety measure has not been taken by PP to protect the ash dyke from getting breached and HDPE lining not there in ash pond A and ash pond C (Specific condition-x of EC dated 04.02.2016)	The design & drawing of the ash pond has been provided by IIT Chennai. OPGC has provided all safety measures for protection of Ash Ponds like Sand Chimney, Rock Toe, Garland Drain, Grass turffing, full-fledged decanted ash water recirculation system etc. OPGC has provided 1.5 mm HDPE	PP submitted that the design & drawing of the ash pond has been provided by IIT Chennai and OPGC has provided safety measure such as sand chimney, rock toe, Garland drain, grass turffing ash water recirculation



Sr. No.	Non-compliance/partially compliance reported by the Ministry vide letter dated 26.09.2024	Project proponent reply on compliance/Action taken on observation.	Comment of the Regional Office, MoEF&CC, Bhubaneswar
		<p>membrane as liner for Ash Pond-C, however since Ash Pond-A is an old ash pond commissioned in 2007 and at that time there was no stipulation of fixing liner i.e. neither from OSPCB nor in EC condition of Unit#1 &amp; Unit#2 (EC-30.01,1987), hence HDPE lining has not been provided. This has also been explained to the RO office of MoEF &amp; CC during the site visit on 08.08.2024.</p> <p><b>Note: The drawing of the starter dyke &amp; photograph of the Ash Pond C just before commissioning as a proof for the liner system has been enclosed for reference. (Enclosed as Annexure 1 A &amp; 1 B)</b></p>	<p>system. However, there was an incident of breach of ash dyke. PP also submitted that ash pond A is an old ash pond commissioned in 2007 and that time there was no stipulation of fixing liner, nor from OSPCB not in EC condition. Ministry may like to take a view on the submission of PP regarding ash pond A as old ash pond.</p>
5.	<p>Cr has not been monitored, piezometric monitoring data has not been furnished, A network of existing wells and constructing new piezometers has not been established. (Specific conditionix of EC dated 04.02.2010)</p>	<p>The Heavy metal analysis report tested by IMMT; Bhubaneswar has been enclosed as Annexure-2 for reference.</p> <p>We are trying to find out a party, who can supply and install the piezometer in ash pond. we have contacted the parties, but they are not willing for installation in operational Ash Pond. However, we are further exploring to identify a party to complete the work by Jan 2025,</p>	<p>Heavy metal analysis data including Cr for dated 07.05.2024 has been furnished. Network of existing wells and construction of piezometer yet to be established. The condition may be treated as partially complied.</p>
6.	<p>S02 and PM10 exceeded the standard. Hg analysis data has not been furnished by PP. (Specific condition-xxiv of EC dated 04.02.2010, specific condition-iii of EC dated 30.01.1987)</p>	<p>The stipulated condition refers to ground level PM10 &amp; SO2 concentration. There have been occasional incidents wherein we have taken immediate corrective actions and have brought down below permissible limits.</p>	<p>Hg analysis data has not been furnished. Online AQMS data for ambient air quality for dated 08.12.2024 indicated exceedance for PM<sub>10</sub> and PM<sub>2.5</sub> in AQMS 5 station. The condition may be treated as partially complied.</p>
7.	<p>Expenditure on the CSR programme has not been done as per the stipulated condition. (Specific</p>	<p>The updated CSR programme list &amp; expenditure has been enclosed as <b>Annexure-3 (Expenditure from</b></p>	<p>PP reported an expenditure of 214780687.95 on CSR programme. Capital and recurring expenditure as per</p>



Sr. No.	Non-compliance/partially compliance reported by the Ministry vide letter dated 26.09.2024	Project proponent reply on compliance/Action taken on observation.	Comment of the Regional Office, MoEF&CC, Bhubaneswar
	condition-xxvi of EC dated 04.02.2010)	<b>Project Cost)</b>	the condition has not been furnished. The condition may be treated as partially complied.
8.	Year wise expenditure on the implementation of environmental protection has not been furnished. (Specific condition-xxxviii of EC dated 04.02.2010)	OPGC is giving assurance to furnish the same in Half Yearly Return of November 2024. Further, OPGC seeks support from Ministry to provide a Framework/Guideline/format in furnishing the same.	In the submitted six monthly compliance dated 22 Nov 2024, PP reported an expenditure of Rs 32.11 Cr expenditure during 1 <sup>st</sup> April 24 to 31 <sup>st</sup> Oct 24 on ETP and cooling tower operation and maintenance cost, ESP operation and maintenance cost, STP operation, general plant house keeping cost, ash silo area house keeping cost, Ash utilization cost etc. The condition may be treated as being complied.
9.	Heavy metal analysis in and around the ash pond by reputed institute has not been furnished. (Specific condition-xlii of EC dated 22.01.2014)	The Heavy metal analysis report tested by IMMT; Bhubaneswar has been enclosed as Annexure-2 for reference.	PP furnished Heavy Metal analysis report of five locations i.e. Sardhapali ash pond, Hirakund reservoir, Sardhapali tube well, Bhaludol primary school, Sardhapali (Lotus Pond). The condition may be treated as being complied.
10.	Green belt around the ash pond has not been developed. (Specific condition-xlvi of EC dated 22.01.2014)	OPGC has already achieved Green Belt % of 34.81% against the stipulation of 33%, Further, OPGC has earmarked an area of 49 Acres near Tilia Ash Pond for development of green belt. OPGC has made the budget provision for the FY 2025-26 and the plantation activity will be undertaken during Monsoon-2025,	Green belt around the ash pond yet to be developed. PP submitted that OPGC has made budget provision for FY 2025-26. The condition may be treated as partially complied.
11.	Details of the common green Endowment Fund as stipulated in EC condition has not been provided. (Specific condition-xlix of EC dated 22.01.2014)	OPGC has already achieved Green Belt % of 34.81% against the stipulation of 33% and has been carrying out plantation activity by keeping budget provision in its Revenue Budget. The ultimate purpose is for green belt development.	PP furnished the details of expenditure on green belt development. The details of common green endowment fund has not been furnished. The condition may be treated as partially complied.



Sr. No.	Non-compliance/partially compliance reported by the Ministry vide letter dated 26.09.2024	Project proponent reply on compliance/Action taken on observation.	Comment of the Regional Office, MoEF&CC, Bhubaneswar
		The last 5 years expenditure in Green Belt Development are as below 2018-19-24 Lakhs 2019-20-34 Lakhs 2020-21- Nil (Due to COVID-19) 2021-22- 0.5 Lakhs 2022-23-18 Lakhs (17.5 Lakhs to District Administration for development of a Nursery) 2023-24-1.17 Lakhs 2024-25- 10 Lakhs (Plantation is ongoing)	
12.	Annual social audit from the nearest government institute of repute has not been carried out. (Specific condition-1 of EC dated 22.01.2014)	Baseline Survey has been completed by Sutra Consultancy Services, Bhubaneswar and the Final report is already available with OPGC. Monitoring is regularly being done by OPGC CSR team.  Projects are currently under execution and effectiveness of implementation will be audited through Govt. Institute.  <b>Note: Annual Social Audit has been planned in the FY 2025-26</b>	As submitted by PP annual social audit has been planed in the FY 2025-26. The condition may be treated as partially complied.
13.	Details of resettlement package of rehabilitation of dispersed families. (condition-v solid waste Management of EC dated 30.01.1987)	Enclosed as Annexure-4	Annexure attach as Annexure- 4 lack in clarity w.r.t. the condition stipulated in the environment clearance dated 30.01.1987. The submitted documents indicate allotment of homestead land to 142 No, Employment provided 114 No and cash in lieu of employment provided to 4 out of 5 eligible. 54 affected families employment provided, 27 out of 29 eligible family provided with cash in lieu of employment, 26 No of affected families provided with allotment of shops and service units. As per the document furnished



Sr. No.	Non-compliance/partially compliance reported by the Ministry vide letter dated 26.09.2024	Project proponent reply on compliance/Action taken on observation.	Comment of the Regional Office, MoEF&CC, Bhubaneswar
			12 No of affected families (whose whereabouts is not known since 1986) yet to be provided with employment and cash in lieu of employment yet to provided to 1 No of displaced family and 2 No of affected family {2 no affected family are not turning to receive the benefits and other (Samari Oram) is dead}. The condition may be treated as partially complied.
14.	WHEREAS, breach/incident has occurred on the Northern side of Ash Pond-C on 09.12.2023 at 8.30 AM wherein, 20 m width of entire starter dyke along with raised embankment was washedout thus impacting 439500m <sup>3</sup> (apprx 356 acre) area and the remnant of fly ash still not removed from the incident area and details of rehabilitations of those impacted by the breach not available.	A total of 5.56 Lakh m <sup>3</sup> of spilled ash had been removed by 8 <sup>th</sup> August 2024 i.e. before the day of visit of the ministry (Initial estimation was 4.39 Lakh m <sup>3</sup> and actual was found to be 5.56 Lakh m <sup>3</sup> ). The detailed data was also shared with the RO office of the ministry during the visit. Only a small fraction (0.3 Lakh m <sup>3</sup> ) of ash which was used to construct the ramp for the trucks to descend and pick up the spilled ash had not been removed at the time of visit. The same has been removed now after withdrawal of monsoon and the ramp has been reconstructed with soil as it is used for transportation of soil to the site of ash pond for bund construction works. The Photograph has been enclosed as Annexure-5	Committee constituted by Central Pollution Control Board visited the ash pond on 28.11.2024 wherein undersigned is a member of the committee. PP reported that the ramp constituted for the trucks has been constructed with soil. However, the remnant fly ash still observed on the impacted area.



(डॉ. टी. एच. महतो/Dr. T. H. Mahato)

वैज्ञानिक-ई/Scientist 'E'