

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

ORIGINAL APPLICATION NO. 883 OF 2024

IN THE MATTER OF:

**NEWS ITEMS TITLED “EXPERTS FLAG LARGE-SCALE CLEARING OF VEGETATION IN
MIRZAPUR FOREST” APPERARING IN THE HINDUSTAN TIMES DATED 03.07.2024**

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THROUGH



RESPONDENT No.5

FOR TRUST LEGAL, ADVOCATES & CONSULTANTS

Ritwika Nanda & Petal Chandhok,

Counsels for Respondent No. 5

C-324, II & III Floor, Defence Colony,

New Delhi – 110 024

Date : 13.02.2025

Place : New Delhi

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BEFORE THE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 883 OF 2024

IN THE MATTER OF:

NEWS ITEMS TITLED "EXPERTS FLAG LARGE-SCALE CLEARING OF VEGETATION IN MIRZAPUR FOREST" APPEARING IN THE HINDUSTAN TIMES DATED 03.07.2024

REPLY ON BEHALF OF RESPONDENT NO 5/ MIRZAPUR THERMAL ENERGY (UP) PVT. LTD

MOST RESPECTFULLY SHOWETH:

1. The instant Reply is being filed on behalf of Mirzapur Thermal Energy (UP) Pvt. Ltd. which has been impleaded as Respondent No. 5 vide the order dated 25.10.2024 passed by this Hon'ble Tribunal.

A copy of the Notice and Order dated 25.10.2024 passed by this Hon'ble Tribunal is attached herewith and marked as "**Annexure R-5/1**".

2. The instant Reply is being signed, verified and filed by Mr. Rajesh Sehgal, being duly authorized vide Board of Resolution dated 05.08.2024 to sign, verify and file the present Reply before this Hon'ble

Tribunal for and on behalf of the Respondent No. 5 and to take all necessary action in connection therewith or incidental and ancillary.

True copy of the Board of Resolution dated 05.08.2024 is annexed and marked as "**Annexure R-5/2**".

3. At the outset, the contents, allegations and the averments made in the News Item Titled "Experts Flag Large-Scale Clearing Of Vegetation In Mirzapur Forest" appearing in the Hindustan Times Dated 03.07.2024 are denied ad seriatim as though traversed, save and except as are matters of record and/or as are specifically admitted herein. It is stated that the contentions of the aforesaid newspaper article are baseless, incorrect and are liable to be rejected are the threshold.

BRIEF BACKGROUND

4. Sometime in 2010/2011, M/s Welspun Energy Uttar Pradesh Pvt. Ltd. (hereinafter referred to as "**M/s Welspun**") proposed the setting up of a 2*660 MW Super Critical Coal based Thermal Power Project at Village Dadri Khurd, Tehsil Mirzapur Sadar, District Mirzapur, Uttar Pradesh. The Terms of Reference was issued by the Ministry of Environment, Forest and Climate Change, Government of India (hereinafter referred to as "**MoEFCC**") on 15.06.20211.

5. Thereafter, on 21.08.2014, the MoEFCC vide the letter bearing no. J-13012/12/2011-IA.II(T) granted Environment Clearance to the aforementioned project to M/s Welspun.

A copy of the Letter / Environment Clearance dated 21.08.2014 by MoEFCC to M/s Welspun is attached herewith and marked as **“Annexure R-5/3”**.

6. Thereafter, the aforementioned Environmental Clearance dated 21.08.2014 was challenged before this Hon'ble Tribunal in the matter titled as “Debadityo Sinha & Ors. Vs. Union of India & Ors.” [Appeal No. 79/2014].

7. On 21.12.2016, this Hon'ble Tribunal vide a judgment was pleased to allow the aforementioned appeal titled as “Debadityo Sinha & Ors. Vs. Union of India & Ors.” [Appeal No. 79/2014], with the following directions:

“61. Cumulatively, therefore, the entire process of consideration and appraisal of the proposal to grant EC is found tainted so as to render it less credit worthy than the one expected by law and as such makes it even more difficult to suggest the safeguards in order to render the project sustainable one. We, therefore, answer the

question raised herein above negatively. In our opinion, it is advisable to go through the entire process of EC afresh before green signal is given to the project.

We, therefore, allow this Appeal and pass the following directions:

- 1. The Appeal is allowed and EC dated 21.08.2014 is set aside.*
- 2. Respondent no. 4 shall no carry out any developmental work at the project site.*
- 3. The respondent no. 4 shall restore the area to its original condition.*
- 4. Work of restoration is stayed for a period of two months."*

A copy of the Judgment dated 21.12.2016 passed by this Hon'ble Tribunal in "Debadityo Sinha & Ors. Vs. Union of India & Ors." [Appeal No. 79/2014] is attached herewith and marked as "**Annexure R-5/4**".

8. The aforementioned Judgment dated 21.12.2016 passed in "Debadityo Sinha & Ors. Vs. Union of India & Ors." [Appeal No. 79/2014], was challenged in three separate Review petitions.
9. On 01.05.2017, this Hon'ble Tribunal vide a judgment disposed off the review petitions. Vide the judgment, this Hon'ble Tribunal directed as under :

“3. However, for proper implementation of the judgement, a clarification needs to be issued which we do hereby issue, that the project proponent is at liberty to approach the MoEFCC or any other competent authority for processing of the application for grant of EC upon making up for/ rectifying the defects and deficiencies pointed out in the judgement. However, the authorities concerned are at liberty to process the same in accordance with law while strictly adhering to the content of the judgement.”

A copy of the Judgment dated 01.05.2017 passed by this Hon'ble Tribunal is attached herewith and marked as **“Annexure R-5/5”**.

10. Thereafter on 17.06.2017, M/s Welspun submitted a proposal for the amendment of the Environmental Clearance dated 21.08.2014.

11. On 22.02.2019, the aforementioned proposal was considered in the 25th meeting of the Expert Appraisal Committee on Environmental Impact Assessment of Thermal Power Projects. The Expert Appraisal Committee after due deliberation and consideration of the proposal, recommended for amendment in the Environmental Clearance dated 21.08.2014.

A copy of the 25th Minutes of Meeting dated 22.02.2019 of the Expert Appraisal Committee on Environmental Impact Assessment of Thermal Power Projects is attached herewith and marked as “**Annexure R-5/6**”.

12. On 27.03.2019, the conditions of aforementioned recommendation was modified in the 26th meeting of the Expert Appraisal Committee on Environmental Impact Assessment of Thermal Power Projects.

A copy of the 26th Minutes of Meeting dated 27.03.2019 of the Expert Appraisal Committee on Environmental Impact Assessment of Thermal Power Projects is attached herewith and marked as “**Annexure R-5/7**”.

13. It is pertinent to state that on 10.07.2019, an Extraordinary General Meeting of the members of Welspun Energy UP Private Limited was conducted. In the meeting a Special Resolution was passed wherein it was decided that the name of the original proponent, ‘Welspun Energy UP Private Limited’ would be changed to ‘Mirzapur Thermal Energy (UP) Private Limited’.

A Copy of the Special Resolution dated 10.07.2019 passed in the Extraordinary General Meeting of the Member of the Welspun Energy

UP Private Limited is attached herewith and marked as “**Annexure R-5/8**”.

14. It is further stated that the Articles of Association and Memorandum of Association of Welspun Energy UP Private Limited were amended pursuant to the Special Resolution passed on 10.07.2019 at the Extraordinary General Meeting which was held at Ahmedabad.

A Copy of the amended Articles of Association of Mirzapur Thermal Energy (UP) Private limited is attached herewith and marked as “**Annexure R-5/9**”.

A Copy of the amended Memorandum of Association of Mirzapur Thermal Energy (UP) Private limited is attached herewith and marked as “**Annexure R-5/10**”.

15. On 16.08.2019, a Certificate of Incorporation pursuant to the name change was issued to Mirzapur Thermal Energy (UP) Private Limited by the Registrar of Companies (Mumbai), Ministry of Corporate Affairs, Government of India.

A Copy of the Certificate of Incorporation dated 16.08.2019 of Mirzapur Thermal Energy (UP) Private limited is attached herewith and marked as “**Annexure R-5/11**”.

16. Thereafter on 20.12.2019, MoEFCC issued the letter bearing no. J 13012/122011-IA.II(T), inter alia directing the original proponent of the aforesaid project to file the clear response clarifying the status/ details of the present proponent along with the Stage-I Forest Clearance for further consideration may be provided to the proponent. It is stated that the aforesaid letter was issued in furtherance of the online application no. IA/UP/THE/10331/2010 dated 17.06.2017 and meetings of Expert Appraisal Committee (Thermal Power) held on 24.07.2017 and 22.02.2019 for recommendation of grant of amendment in Environment Clearance for the 2*660 MW Super Critical Coal based Thermal Power Project at Village Dadri Khurd, Tehsil Mirzapur Sadar, District Mirzapur, Uttar Pradesh by M/s Welspun Energy Uttar Pradesh Private Limited.

17. Vide the Letter dated 20.12.2019, it was also stated that M/s Welspun Energy Uttar Pradesh Private Limited (original proponent) has been changed to M/s Mirzapur Thermal Energy Uttar Pradesh Private Limited. Furthermore, it was stated that the Respondent has attended the EAC meeting held on 22.02.2019.

18. On 08.05.2024, the Respondent No. 5 submitted an application for the grant of Terms of Reference in respect of the proposed project i.e., 1600

(2x800) MW coal based Ultra Super Critical Technology Thermal Power Project (USCTPP) in village Dadri Khurd, District Mirzapur in the State of Uttar Pradesh. The said Application was considered in the 10th EAC meeting held on 10.06.2024.

19. Accordingly, on 29.07.2024, the MoEFCC has granted the Terms of Reference to the Respondent No. 5 for conducting the EIA / EMP report in respect of the proposed project i.e., 1600 (2x800) MW coal based Ultra Super Critical Technology Thermal Power Project (USCTPP).

A copy of the Terms of Reference dated 29.07.2024 issued by the MoEFCC to the Respondent No 5 is attached herewith and marked as **“Annexure R-5/12”**.


20. It is stated that on 10.10.2024, the land / area admeasuring 335.272 hectares (hereinafter referred to as “Land”) has been transferred in the name of Respondent No. 5 in the revenue records. It is stated that the Land is not a forest land.

21. It is stated that the Respondent No. 5 has not been engaged in any tree felling in the area as alleged in the newspaper report. The Respondent No. 5 is law abiding company and is only engaged with preparation of

an Environment Impact Assessment study roadmap for the project in question.

22. It is stated that the Respondent No. 5 verily believes that motivated interest groups have instigated the newspaper report with bald and incorrect allegations. It is reiterated that the Respondent No. 5 has not engaged in any tree - felling and moreso, not in any forest land / area.

23. It is stated that the instant Reply is being filed on a limited issue and the Respondent No. 5 craves leave of this Hon'ble Tribunal to place on record additional documents / submissions to respond to any queries of the Hon'ble Tribunal.



Respondent No. 5

Through



Trust Legal, Advocates & Consultants
Ritwika Nanda & Petal Chandhok
C-324, 3rd Floor, Defence Colony
New Delhi - 110024
Ph: +91 9711721923
E-mail : ritwikananda@trustlegal.in
petalchandhok@trustlegal.in

Date : 13.02.2025
Place: New Delhi

Verification

Verified at New Delhi on 13th February, 2025 that the contents of the above Reply are true and correct to the best of my knowledge and nothing material has been concealed therefrom and no part thereof is false. It is stated that the contents of paragraph 2 are based on personal knowledge, paragraph 1, 3- 24 are on the basis of the documents maintained in the ordinary course of business.



Respondent No. 5

BEFORE THE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 883/2024

IN REF: NEWS ITEMS TITLED "EXPERTS FLAG LARGE-SCALE CLEARING
OF VEGETATION IN MIRZAPUR FOREST" APPEARING IN THE
HINDUSTAN TIMES DATED 03.07.2024

AFFIDAVIT

I, Rajesh Sehgal S/o Late S.P Sehgal, aged about 51 years, residing at C1-201, Water Liliy, Shantigram, Ahmedabad, presently at New Delhi employed as the Chief Legal Officer, Mirzapur Thermal Energy (UP) Private Limited (MTEUPPL) do hereby on solemn affirmation state and declare as under:

1. I am the Authorized Representative of the Respondent No. 5 namely Mirzapur Thermal Energy (UP) Private Limited (MTEUPPL) being duly authorised vide the Board Resolution dated 05.08.2024.
2. I state that I am acquainted with the facts and circumstances of the present case on the basis of the documents maintained by the Respondent No. 5 company and competent and authorized to swear and depose this affidavit.
3. That I have read and understood the contents of the accompanying Reply and I say that the contents thereof are true to my knowledge and derived from the official records and nothing material has been concealed therefrom.
4. That the annexures annexed to the Reply herein are true copies of their respective originals.








DEPONENT

13 FEB 2025


VERIFICATION:

Verified at New Delhi on this 13th day of February, 2025 that the contents paragraphs 1 - 4 of the above affidavit are true and correct and no part of it is false and nothing material has been concealed therefrom.


I identified the deponent who has signed in my presence



DEPONENT


The Seal of Oath Commissioner
SI. No. 73105
NEELAM SHARMA
App. Secy of
NCT of Delhi
New Delhi

solemnly sworn before me read over & explained to the deponent
Admitted to be correct

Oath Commissioner, New Delhi

13 FEB 2025

BY SPEEDPOST A.D./EMAIL

BEFORE THE NATIONAL GREEN TRIBUNAL, NEW DELHI

Original Application No.883/2024

News Item titled "Experts flag large-scale clearing of vegetation in Mirzapur forest"
appearing in The Hindustan Times dated 03.07.2024

To

1. **Mirzapur Thermal Energy (UP) Pvt. Ltd. Adani Corporate House, Shantigram**, through its Administrative Head,
Near Vaishno Devi Circle, SG highway, Khodiyar,
Ahmedabad, Gujarat, India, 382421.

Respondent no.5

NOTICE

Whereas the above titled Application was listed before the Hon'ble Tribunal on 25.10.2024 (copy of order & petition are enclosed), when the Tribunal inter-alia passed the following order (reproduced relevant extracts only):-

- "2. Learned Counsel appearing for respondent nos. 1, 2 and 4 has made a prayer for impleadment of the project proponent which appears to be justified. Hence, project proponent is impleaded as respondent no.5 in the matter:*
- 5. Mirzapur Thermal Energy (UP) Pvt. Ltd. Adani Corporate House, Shantigram, through its Administrative Head, Near Vaishno Devi Circle, S G Highway, Khodiyar, Ahmedabad Ahmedabad, Gujarat, India, 382421.*
- 3. Let notice be issued to newly added respondent for filing the response by way of affidavit at least one week before the next date of hearing.*
- 4. List on 19.02.2025."*

-*****-

2. Now, take further notice that the above matter will be listed for further consideration before the Hon'ble Tribunal on 19.02.2025, at **Faridkot House, Copernicus Marg, New Delhi-110001** through physical hearing (with hybrid option), when you may appear before the Hon'ble Tribunal either in person or by a pleader duly instructed, and file reply/response, as per directions of the Hon'ble Tribunal vide Order dated 25.10.2024.
3. Take further notice that in default of your appearance on the date above mentioned, the said Application will be heard and determined in your absence.
4. Given under my hand and the seal of this Hon'ble Tribunal, on this 16th November, 2024.

Note: (For Orders, Cause Lists & other information, please visit our website www.greentribunal.gov.in)

Consultant (Judicial), NGT



Item No.17

Court No. 1

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

Original Application No.883/2024

News Item titled "Experts flag large-scale clearing of vegetation in Mirzapur forest" appearing in The Hindustan Times dated 03.07.2024

Date of hearing: 25.10.2024

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE MR. JUSTICE ARUN KUMAR TYAGI, JUDICIAL MEMBER
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Respondent: Mr. Bhanwar Pal Singh Jadon, Adv. for R - 1, 2 & 4
Mr. Ravinder Kumar Gupta & Mr. Varun Gupta, Advs. for MoEF & CC

ORDER

1. Learned Counsel for respondent nos. 1, 2 and 4 seeks four weeks' time to file reply. A letter to this effect was also circulated in advance. Prayer is allowed.

2. Learned Counsel appearing for respondent nos. 1, 2 and 4 has made a prayer for impleadment of the project proponent which appears to be justified. Hence, project proponent is impleaded as respondent no.5 in the matter:

5. **Mirzapur Thermal Energy (UP) Pvt. Ltd. Adani Corporate House, Shantigram**, through its Administrative Head, Near VaishnoDevi Circle, S G Highway, Khodiyar, Ahmedabad Ahmedabad, Gujarat, India, 382421.

3. Let notice be issued to newly added respondent for filing the response by way of affidavit at least one week before the next date of hearing.

4. List on 19.02.2025.

Prakash Shrivastava, CP

Arun Kumar Tyagi, JM

Dr. A. Senthil Vel, EM

October 25, 2024
Original Application No.883/2024
JG..

CERTIFIED TRUE COPY OF THE RESOLUTION PASSED BY THE BOARD OF DIRECTORS OF MIRZAPUR THERMAL ENERGY (UP) PRIVATE LIMITED AT ITS MEETING HELD ON MONDAY, 05TH AUGUST, 2024 AT 10:00 A.M. AT ADANI CORPORATE HOUSE, SHANTIGRAM, NEAR VAISHNO DEVI CIRCLE, S. G. HIGHWAY, KHODIYAR, AHMEDABAD.

"RESOLVED THAT Mr. Rajesh Sehgal, Chief Legal Officer, and Shri Omprakash R, Manager, Legal, be and are hereby severally authorized on behalf of the Company to sign, execute, file and institute all applications, affidavits, plaints, petitions, suits, appeals, written statements, rejoinders, etc. in the matter of suit / complaint filed / to be filed by or against the Company before any court of law or authority, tribunals, National Company Law Tribunals ("NCLT"), National Company Law Appellate Tribunals ("NCLAT"), consumer forum or State Consumer Commission, or National Consumer Commission;

RESOLVED FURTHER THAT Mr. Rajesh Sehgal, Chief Legal Officer, and Shri Omprakash R, Manager, Legal, be and are also authorized severally to engage, appoint, or remove any pleader or advocates, and to sign vakalatnamas and power of attorney for such engagement or appointment and to file appeal and defend the interest of the Company as deemed necessary for the aforesaid purpose **AND THAT** any action taken by Mr. Rajesh Sehgal, Chief Legal Officer, and Shri Omprakash R, Manager, Legal, pursuant to this authority shall be deemed to have been ratified by the Company;

RESOLVED FURTHER THAT the certified true copy of the aforesaid Resolution, duly signed by any one Director of the Company, be forwarded to the concerned authority(ies), as may be necessary with a request to act thereon."

Certified True Copy

For Mirzapur Thermal Energy (UP) Private Limited

Sunil Tokarawat
Director
(DIN: 09486893)

Mirzapur Thermal Energy (UP) Private Limited
(Formerly Known as Welspun Energy UP Private Limited)
"Adani Corporate House"
Shantigram, Near Vaishno Devi Circle,
S. G. Highway, Khodiyar,
Ahmedabad 382 421, Gujarat India
CIN: U40300GJ2010PTC117810

Tel +91 79 2656 7555
Info@adani.com
www.adani.com

Registered Office: "Adani Corporate House", Shantigram, Near Vaishno Devi Circle, S. G. Highway, Khodiyar, Ahmedabad - 382421

TRUE COPY
\$



J 13012/12/2011-IA.II (T)

Government of India

Ministry of Environment, Forests and Climate Change

3rd Floor, Vayu Block,
Indira Paryavaran Bhawan, Jor Bagh Road,
Aliganj, New Delhi-110003

Dated: 21st August, 2014

To

M/s Welspun Energy UP Pvt. Ltd.,
Welspun House, 7th Floor, Kamala City,
Senapati Bapat Marg, Lower Parel,
Mumbai- 400 013.

Tel. 022-66136000, Fax: 022-24908020.

Sub: 2x660 MW super critical coal based Thermal Power Project at Village Dadri Khurd, Tehsil Mirzapur Sadar, District Mirzapur, Uttar Pradesh by M/s Welspun Energy UP Pvt. Ltd. - reg. Environmental Clearance

Sir,

The undersigned is directed to refer to your letters dated 31.12.2010, 12.05.2011, 29.06.2012, 14.01.2013, 11.02.2013, 06.02.2014, 21.02.2014 and 06.05.2014 on the subject mentioned above. The Ministry of Environment & Forests has examined the application. The ToR for preparation of EIA/EMP report was accorded by MoEF on 15.06.2011.

2. It is noted that the proposal is for setting up of 2x660 MW Super critical Coal Based Thermal Power Project at village Dadri Khurd, in Tehsil Mirzapur Sadar, in District Mirzapur, in Uttar Pradesh. The proposal was earlier proposed to be set up based on domestic coal but due to non-availability of the domestic coal, it has been decided to go ahead with imported coal from Indonesia for an interim period until domestic coal is available. The land required will be 875 acres, out of which 15.63 acres will be single crop agriculture land; 853.74 acres will be barren Land; 5.44 acres will be water body; and 0.19 comprises of human settlements. The co-ordinates of the site are located within Latitude 24°58'41.645" N to 25°00'16.887" N and Longitude 82°39'50.425" E to 82°41'03.728" E. Imported Coal requirement will be 5.27 MTPA. Coal will be obtained from Indonesia. Coal supply agreement had been signed with M/s Sirdi Sai Goodearth International PTE Ltd. Ash and sulphur contents in imported coal will be 14% and 0.34% respectively. Gross Calorific value of the coal will be 4400 kcal/kg. About 0.59 MTPA of fly ash and 0.15 MTPA of bottom ash will be generated. Ash will be supplied for manufacturing of Cement and MoU have been signed with M/s ABG Cement Ltd. Ash pond area will be 180 acres and co-ordinates of the ash pond site will be within Latitude 24°59'46.8" N to 25°0'14.5" N and Longitude 82°40'8.2" E to 82°40'57.8" E. Lean concentration slurry fly ash disposal system will be adopted. Bi-flue Stack of 275m will be provided. Water requirement of 36 MCM will be sourced from the River Ganga through a pipeline at a distance of about 17 km from the project site. Irrigation Department Govt. of U.P has accorded water allocation vide its letter dated 09.09.2011. CWC has also approved the water allocation of 36 MCM from River Ganga vide its letter dated 12.10.2011. R.O System will be installed and zero discharge will be adopted as far as practically possible. Induced draft cooling system will be installed. There are no National Parks, Wildlife Sanctuaries, Heritage Sites, Tiger/Biosphere reserves etc. within ten km of the project site. Public Hearing was held on 07.04.2012. Cost of the project will be Rs.7500 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 and presentations made by you and your consultant viz. M/s J. M. Enviro Net Pvt. Ltd. before the Expert Appraisal Committee (Thermal Power) in its 70th, 4th and 13th Meetings held during *March 26, 2013, November 18-19, 2013 and March 25-26, 2014* respectively, 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 Specific and General conditions:

A. Specific Conditions:

- (i) Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within **six months**.
- (ii) *A firm commitment/approval from Railway Authorities for transportation of imported coal shall be submitted to this Ministry and its Regional Office.*
- (iii) Harnessing solar power within the premises of the plant particularly at available roof tops shall be carried out and status of implementation including actual generation of solar power shall be submitted along with half yearly monitoring report.
- (iv) A stack of 275 m height shall be provided with continuous online monitoring equipments for SO_x, NO_x and PM_{2.5} & PM₁₀. Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack shall also be monitored on periodic basis.
- (v) *Sulphur and ash contents in the imported coal to be used in the project shall not exceed 0.34 % and 14.0 % respectively at any given time. In case of variation of coal quality at any point of time, fresh reference shall be made to the Ministry for suitable amendments to environmental clearance wherever necessary.*
- (vi) High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm³. 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.
- (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) COC of atleast 5.0 shall be adopted.
- (ix) Monitoring of 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

also be undertaken and results/findings submitted along with half yearly monitoring report.

- (x) A well designed rain water harvesting system shall be put in place within six months, which shall comprise of rain water collection from the built up and open area in the plant premises and detailed record kept of the quantity of water harvested every year and its use.
- (xi) 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.
- (xii) Hydrogeology of the area shall be reviewed annually from an institute/ organization of repute to assess impact of surface water and ground regime (especially around ash dyke). In case any deterioration is observed specific mitigation measures shall be undertaken and reports/ data of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry.
- (xiii) Wastewater generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB/CPCB.
- (xiv) Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.
- (xv) 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. 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.
- (xvi) 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.
- (xvii) Fugitive emission of fly ash (dry or wet) shall be controlled such that no agricultural or non-agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided in consultation with the local Panchayat.
- (xviii) Ash pond shall be lined with HDPE/LDPE 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.
- (xix) A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute and results thereof analyzed every two year and reported along with monitoring reports. 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.

- (xx) Green Belt consisting of three tiers of plantations of native species around plant and at least 50 m width shall be raised. Wherever 50 m width is not feasible a 20 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not be less than 2500 per ha with survival rate not less than 80 %.
- (xxi) *The Wildlife conservation plan formulated in consultation with the Wildlife Department of the State and duly vetted by the concerned Chief Wildlife Warden shall be duly implemented. An in-built monitoring mechanism shall also be put in place.*
- (xxii) CSR schemes identified based on need based assessment shall be implemented in consultation with the village Panchayat and the District Administration starting from the development of project itself. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Company shall provide separate budget for community development activities and income generating programmes.
- (xxiii) *A minimum amount of Rs 30.0 Crores as one time capital investment shall be earmarked for activities to be taken up under CSR during construction phase of the Project. Recurring expenditure for CSR thereafter shall be Rs 6.0 Crores per annum or as per CSR guidelines of Govt. of India, whichever is more till the life of the plant.*
- (xxiv) The project proponent shall also adequately contribute in the development of the neighbouring villages. Special package with implementation schedule for free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.
- (xxv) For proper and periodic monitoring of CSR activities, a CSR committee or a Social Audit committee or a suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final.
- (xxvi) An Environmental Cell comprising of at least one expert in environmental science/ engineering, ecology, occupational health and social science, shall be created preferably at the project site itself and shall be headed by an officer of appropriate superiority and qualification. It shall be ensured that the Head of the Cell shall directly report to the Head of the Plant who would be accountable for implementation of environmental regulations and social impact improvement/mitigation measures. *The environmental cell shall also work in close coordination with BHU.*

B. General Conditions:

- (i) The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed.
- (ii) A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation.

- (iii) 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.
- (iv) Storage facilities for auxiliary liquid fuel such as LDO/ 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.
- (v) First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
- (vi) Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 85 dB(A) from source. 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.
- (vii) Regular monitoring of ambient air ground level concentration of SO₂, NO_x, PM_{2.5} & PM₁₀ 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.
- (viii) Provision shall be made for the housing of construction labour (as applicable) 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.
- (ix) 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>.
- (x) 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, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
- (xi) The proponent shall upload the status of compliance of the stipulated environmental clearance 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; SPM, RSPM (PM_{2.5} & PM₁₀), SO₂, NO_x (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.

- (xii) 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 environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.
- (xiii) **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 by e-mail to the Regional Office, Ministry of Environment and Forests.**
- (xiv) 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_x (from stack & ambient air) shall be displayed at the main gate of the power plant.**
- (xv) 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.
- (xvi) 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.
- (xvii) Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry / CPCB/ SPCB who would be monitoring the compliance of environmental status.

5. 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.

6. The environmental clearance accorded **shall be valid for a period of 5 years** from the date of issue of this letter to start operations by the power plant.

7. 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.

8. 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.

9. 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, Handling & Transboundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.

10. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Yours faithfully,

(Dr. Saroj)
Scientist 'F'

Copy to:

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. The Secretary, Department of Environment, Government of U.P.
5. The Chairman, U.P. Pollution Control Board, PICUP Bhawan, 3rd Floor, B-Block, Vibhuti Khand, Gomti Nagar, Lucknow-226010.
6. The Chief Conservator of Forests (C), Ministry of Environment and Forests, Regional Office (Central Region), Kendriya Bhavan, 5th Floor, Sector – H, Aliganj, Lucknow.
7. The Collector, District Mirzapur, U.P.
8. Guard file.

(Dr. Saroj)
Scientist 'F'

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

Appeal No. 79 of 2014

(M.A. Nos. 694/2014 & 511/2015)

In the matter of:

1. Debadityo Sinha
R/o III Floor, 943A/8,
Govindpuri, Kalkaji,
New Delhi- 110019
 2. Shiv Kumar Upadhyay
R/o 36/30, Shivpuri Colony,
Station Road, Mirzapur,
Uttar Pradesh- 231001
 3. Mukesh Kumar
Room No. 65, Aravalli Hostel,
Rajiv Gandhi South Campus-Banaras Hindu University
Village- Barkachha, District Mirzapur,
Uttar Pradesh
- Appellants

Versus

1. Union of India
Through the Secretary
Ministry of Environment, Forests & Climate Change
Indira Paryavaran Bhavan
Jor Bagh Road,
New Delhi- 110 003
 2. Government of Uttar Pradesh
Through its Chief Secretary
Lal Bahadur Shastri Bhavan
UP Secretariat
Lucknow- 226001
 3. Uttar Pradesh Pollution Control Board
Through its Member Secretary
Vibhuti Khund, Gomti Nagar
Lucknow- 226010
 4. M/s Welspun Energy (U.P) Pvt. Ltd.
III Floor, PTI Building, Parliament Street
New Delhi- 110001
- Respondents

Counsel for appellants:

Ms. Parul Gupta, Advocate for applicant

Counsel for Respondents:

Mr. Vishwendra Verma and Ms. Shivali, Advs.
for respondent no. 1 with Dr.M. Ramesh, Scientist 'D'
Ms. Savitri Pandey, Adv. for respondent nos. 2
Mr. Pradeep Misra, Mr. Manoj Kr. Sharma and
Mr. Daleep Dhayani, Advs for respondent no.3
Mr. Dhruv Mehta, Mr. Sanjeev Kumar, Mr. Varun
Shankar, Mr. Abhishek Puri and Mr. Anshul Seghal,
Advs. for respondent no. 4

Present:

Hon'ble Mr. Justice U.D. Salvi (Judicial Member)

Hon'ble Mr. Ranjan Chatterjee (Expert Member)

JUDGMENT

Per U.D. Salvi J.(Judicial Member)

Reserved on: 5th April, 2016

Pronounced on: 21st December, 2016

1. Environment Clearance dated 21st April, 2014 bearing no. J 13012/12/2011-IA.II (T) granted by the respondent no. 1- Ministry of Environment, Forest and Climate Change (for short MOEF&CC) to the respondent no. 4- M/s Welspun Energy (U.P) Pvt. Ltd. for setting up 2x660 MW Super Critical Coal based Thermal Power Project at Village Dadri Khurd, Teshil Mirzapur, Uttar Pradesh is assailed in the present Appeal.
2. The appellant no. 1-Debadityo Sinha, alumnus of Banaras Hindu University, holding a Masters in Environment Science and Technology, claims to be an Environmentalist working in the field of protection and conservation of environment individually and as a founder of Vindhya Bachao Abhiyan.

The appellant no. 2-Shiv Kumar Upadhyay, states that he is a senior journalist based in Mirzapur and is a co-founder of Vindhya Bachao Abhiyan. The appellant no. 3- Mukesh Kumar states that he is a student of M.Sc.(Tech.) Environmental Science and Technology from Banaras Hindu University at Rajiv Gandhi South Campus of the University in Mirzapur and he is a member of students 'ECO One' organisation specifically formed for active involvement of the students and staff members of the campus in conservation measures in the region.

3. According to the appellants, the Project Proponent suppressed facts to obtain Environment Clearance and there have been violations of the provisions of EIA Notification, 2006 from the beginning of process of grant of clearance till the end; and crucial aspects have been over-looked by the Expert Appraisal Committee and MoEF&CC.
4. Initially, the appellants submit, a proposal for setting up of the project in question was proposed to be located near villages- Hazipur- Katya, Pahai Goura and Katya, Tehsil Jakhnia and Saidpur, District Ghazipur, UP with land requirement of 850 acres for power plant, green belt and ash pond as per Form-1 dated 31st December, 2010 annexure A-2. However, when the proposal came up for consideration for grant of TOR before the 22nd meeting of the reconstituted Expert Appraisal Committee of Thermal Power and Coal Mine projects held on 4th -5th April, 2011, the information regarding the changed location-District

Mirzapur situate at 140Km from the previous location- was submitted as follows:-

“The proposal is for setting up of 2x660 MW Super Critical Coal based Thermal Power Plant at villages Dadri Khurd, in Mirzapur Sadar Taluk, in Mirzapur Distt. in Uttar Pradesh.....

Coal requirements will be 6.4 MTPA. Coal will be obtained from domestic coal block through SECL/NCL/CCL mines.....

There are no National Parks, Wildlife Sanctuaries, Tiger/Biosphere Reserves etc. within 10 Km of the site. Danti RF, Mirzapur RF, Patehra RF and Gorthara RF is situated within 10 Km from the project site.”

5. The EAC did not ask the project proponent to re-file the information in Form 1 and after considering the said facts found the site suggested in District Mirzapur as unsuitable for the development of the proposed project and accordingly deferred the consideration of the proposal with the direction to the project proponent to look for more acceptable alternative sites in the following terms:

“The proposed site may be in the flood plain of river or very close to it and has forests in the vicinity. The Committee also noted that the other sites identified were rejected by the project proponent itself. The Committee therefore, decided that the project proponent shall identify more alternative acceptable sites and accordingly deferred the proposal for re-consideration at a later stage.”

6. In the 24th meeting of re-constituted EAC (Thermal) held on 2nd May, 2011 the project proponent along with his consultant M/s J.M Environet Pvt. Ltd. gave a presentation and provided the following information as per the minutes of the meeting-
 “The proposal is for setting up 2x660 MW Super Critical Coal based Thermal Power Project at villages Dadri Khurd, Mirzapur Sadar Taluk in UP. Land requirement will be 1100 acres, out

of which 798 acres is un-irrigated barren land and 77 acres is waste land. 875 acres land will be used for plant and 225 acres land will be used for railway and pipeline corridor..... The project proponent submitted that the Ganges River is about 22Kms from the proposed site and site is not in flood plain of the Ganges. The project proponent also submitted survey of India toposheet in confirmation of their submission. It was also informed that M/s Welspun Energy (U.P) Pvt. Ltd. had conducted pre-feasibility for availability and route of water pipeline from Upper Khajuri Dam till the proposed project site.....The project proponent informed that they have started collection of AAQ data since April and completed monitoring before onset of monsoon. The Committee decided the same can be used for preparation of EIA Report.”

7. The appellants submit that the location of the project possibly lying in the flood plain or close to it and in the vicinity of the forest- had prompted the EAC to seek alternative site for the project; but the EAC did not discuss the issue of forest land involved in the project and proceeded to prescribe detailed Terms of Reference even when the collection of baseline data was already started prior thereto- vide copy of the minutes of 24th meeting of EAC held on 2nd and 3rd May, 2011 annexure A-4 and TOR letter dated 15th June, 2011 annexure A-5.
8. Finding fault with this scoping project as aforesaid, the appellants further submit that a fresh Form-1 mentioning the

project location at District Mirzapur was submitted by the project proponent on 3rd December, 2011 annexure A-6 well after the grant of TOR and preparation of draft EIA report.

9. According to the appellants the public consultation process the main component of EIA process suffered from many lacunae:

A. Inadequate publicity of public hearing. No means other than publishing notice of the public hearing in Amar Ujala, Mirzapur and Hindustan Times, New Delhi were adopted by the authorities, which consequently lead to unawareness of public hearing among the local rural folk, thereby preventing real participation of the locals in the public consultation process.

B. Public hearing was conducted on 7th April, 2012 at Village Dadri Khurd, Tehsil Sadar, Mirzapur under influence of political leaders, police force and armed private individuals and the locals were denied entry to the public hearing premise.

C. Summary EIA and draft EIA were not made electronically available.

10. The appellants submit that the EAC recommended project for EC overlooking its own observations, siting guidelines and without considering the representations/responses of the affected people, namely Banaras Hindu University and site visit report dated 15th September, 2013. The appellants referred to the following siting criteria laid down by the respondent no.1-MoEF&CC:

- A. Availability of adequate uncultivable and unused land for erecting power plant structures;
 - B. Vicinity to the railway line for laying railway siding for coal transportation;
 - C. Suitability of land from topography, geological aspects;
 - D. Environmentally suitable, absence of sensitive areas and major settlements.
11. The appellants further submitted that the EAC did not verify facts at ground level, particularly, the facts: that the major area of the project site is fertile prime agricultural land used for agriculture grazing purpose surrounded by reserved forest, and the railway line proposed to carry coal from 20 Km distance would pass through forest land requiring forest clearance under Forest (Conservation) Act, 1980. EIA report- Chapter III, Section 3.5.2.1 submitted by the project proponent reveals, the appellants pointed out, that the project is located in a valuable Kaimur sand stone reserve. The appellants submit that the EAC overlooked these facts. As regards the location at Mirzapur, the project proponent had advocated for its selection due to NCL coal reserves within 100 km and presented the EIA report on assumption that coal source was from Kaimur NCL mines. However, the EAC in its meeting held on 20th March, 2013 decided to go ahead with imported coal from Indonesia until domestic coal was available without giving thought to reconsideration of the location of the project. The appellants submitted that the EAC did not consider economic and

environmental impacts of transporting water from River Ganga to Upper Khajuri reservoir and then to the project site. The appellants added that the EAC had previously decided to send a sub-group comprising of C.R. Babu, Shri T.K. Dhar, Shri N.K. Verma and a representative of MoEF to carry out site inspection and yet without conducting the site inspection as previously decided it had dealt with Appraisal Process in a most casual manner.

12. The appellants submit that the EAC did not deal with the representation made by the affected people and blindly relied upon the statement of the project proponent claiming that the several critical issues and deficiencies in the EIA, suppression of the existence of forest land, non assumption of the water resources and human health raised by the affected persons particularly, the Banaras Hindu University were resolved in the meeting with the BHU.

13. The respondent no. 1-MoEF&CC filed brief affidavit dated 15th January, 2015 making a claim that the Environment Clearance in question was granted after following due procedure as laid down under EIA Notification, 2006 and amendments thereto with reference to the EAC meetings held on April 4th and 5th 2011 and May, 2nd and 3rd, 2011 for grant of Term of Reference-EACs consenting to use of baseline data collected from April, 2011 and to three EAC meetings held in March, November, 2013 and March, 2014 to highlight deliberations involved in the process of grant of Environment Clearance. The respondent

no.1- MoEF further explained that since a sub-group of EAC could not visit the site, the EAC delegated the said task to State Government officials of Irrigation Department and further extensively deliberated upon the issue of firm water availability for the project and the impact of water drawl by the project.

14. Despite service of notice to respondent no.2- State of Uttar Pradesh and respondent no.3-Uttar Pradesh Pollution Control Board choose not to file their replies. According to them they had very limited role in the entire process and therefore, no replies are necessary.

15. The respondent no.4-the project proponent filed a detailed reply, dated 24th December, 2014(page 272-546 Vol-I-A) with voluminous documents annexure R-1 to R-48. Respondent no. 4 admitted that the project proponent had filed Form-1 dated 31st December, 2010 annexure R-30 for grant of EC to the project proposed to be setting up at District Ghazipur. However, it contended that the project proponent has chosen to re-file the Form 1 dated 31st March, 2011 annexure R-2 changing the proposed project site to district Mirzapur on 31st March, 2011 and intimated all the Members and Member Secretary of the EAC regarding the change of proposed project site from District Ghazipur to District Mirzapur through an e-mail, along with pre-feasibility report annexure R-3 and the UP Power Corporation Limited as well as Ministry of Coal had granted approval to such changes vide letters dated 1st April, 2011- annexure R-4 and letter dated 24th August, 2011- annexure R-6

respectively. The respondent no. 4 further submitted that the EAC was informed by the project proponent in the 24th meeting held in May, 2011 that it has started collection of the AAQ data since April, 2011 in order to complete the monitoring before the onset of the monsoon and this was approved by the EAC. According to the respondent no.4 as per the MoEF guideline the project proponent was required to collect baseline data for one season except for the monsoon season and as such the collection of baseline data for the purpose and April, 2011 and June, 2011 was started and the MoEF was informed of the same and its use for formulating the EIA report vide letter dated 12th May, 2011.

16. The respondent no.4 further submitted that the project site is located well beyond the highest recorded flood level of River Ganga situated at a distance of 17 km from the project. According to the respondent no. 4 there has been no concealment of any material facts, particularly as regards the presence of reserved forests and wildlife; and this fact has been acknowledged by the District Forest Officer and MoEF vide letters dated 20th April, 2011- annexure R-11 and letter dated 11th October, 2013- annexure R-12 respectively. The respondent no. 4 made reference to the EIA report (annexure R-13) in that regard. Respondent no. 4 in its reply referred to the minutes of the 13th meeting dated 25th March, 2015 and 26th March, 2014 wherein the biodiversity and conservation plan prepared by the consultant of the project proponent was found

to be forwarded to the MoEF and to the Expert Member from Wildlife Institute of India, Dehradun and approved by the MoEF thereafter as well as by the Chief Conservator of Forest (Wildlife). The respondent no. 4 further submitted that the MoEF has duly taken into account the impact on the water resources and approved the project after all the concerns were satisfactorily replied by all the senior officials of the Government of UP as recorded in the minutes of the EAC dated 26th March, 2014. The respondent no. 4 further submitted that the EIA report reveals the efforts and arrangements made to recycle the waste water to attain zero discharge and in inescapable scenario to discharge the quantity of waste water in the nearest drain after meeting the CPCB standards; and as such there will be no significant impact on the surface water quality and discharges shall be curbed to the maximum extent. The respondent no. 4 submits that due care has been taken for dust emission and commercial use of the fly ash generated by the Thermal Power Plant. According to respondent no. 4 the public consultation process was duly conducted as per EIA Notification, 2006; and the public hearing was conducted in the presence of Additional District Magistrate, Regional Officer of the UPPCB, Deputy Superintendent of Police, SDM District Sadar and other top police and administrative officers of District Mirzapur and the proceedings were videographed and the minutes were recorded annexure R-24 and R-25.

17. As regards the concerns raised by the Banaras Hindu University and Vindhya Bachao Manch, the respondent no. 4 submitted that the meeting was held with the BHU on 8th October, 2014 and 10th October, 2014 wherein after deliberations the respondent no. 4 gave its commitment to the installation of the ESP's with 99.9% efficiency, to the compliance with conditions of CWC ash utilization plan etc. and has adequately dealt with it by settling the issue. The respondent no. 4 further submitted that it had submitted a detailed point wise clarification to the points raised in the site inspection report by the Vindhya Bachao Manch on 6th February, 2014. Respondent no. 4 further submitted that the proposed Thermal Power Plant would be a boost to sustainable development in the power deficit State of UP and would generate both electricity and employment to improve the socio-economic standards of the locals in the District of Mirzapur. Generally the respondent no.4 controverted the case of the appellants regarding violations of the EIA Notification and suppression/misrepresentation of the material facts with reference to the proceedings in the Appeal and solicited dismissal of the present Appeal.

18. Rival pleadings warrant answers to the following question:

1. Whether the proposal moved for grant of Environment Clearance by the respondent no.4- M/s Welspun Energy (U.P) Pvt. Ltd to the proposed thermal power project in

question was duly appraised and considered by the concerned authorities.

19. We have heard the parties at length and considered the record of the case including the written submissions tendered by the appellants dated 11th April, 2016 and the respondent no. 4 dated 8th April, 2016. State players in the contest, namely, MoEF and Uttar Pradesh Pollution Control Board played supplementary role in support of their roles played in the present case.

20. It is true that there is ever growing demand for the power/electricity for the development and to meet this demand the UP Power Corporation Ltd. entered into a power purchase agreement with respondent no.4- M/s Welspun Energy (U.P) Pvt. Ltd. However, any decision over the issue involving environmental concerns needs to be taken as warranted by the Section 20 of the National Green Tribunal Act, 2010. Principles of Sustainable Development, Precautionary Principle and Polluter's Pay Principle are guiding stars in a journey towards such decision as rightly pointed out in M.C. Mehta's Case [(2004) 12 SCC 118: M.C. Mehta vs. Union of India and Ors.] referred to by the respondent no. 4- M/s Welspun Energy (U.P) Pvt. Ltd. The development has to be a sustainable one for ensuring intergenerational equity. The respondent no. 4- M/s Welspun Energy (U.P) Pvt. Ltd has quoted only a part of the para 48 of the Judgment delivered by the Hon'ble Apex Court in M.C. Mehta's Case (Supra) to highlight its submissions. For

making complete sense of what the Hon'ble Apex Court has to say. One needs to read the entire para. We, therefore, reproduce the entire para 48 herein below for ready reference:

48. Development and the protection of environment are not enemies. If without degrading the environment or minimising adverse effects thereupon by applying stringent safeguards, it is possible to carry on development activity applying the principles of sustainable development, in that eventuality, development has to go on because one cannot lose sight of the need for development of industries, irrigation resources and power projects etc. including the need to improve employment opportunities and the generation of revenue. A balance has to be struck. We may note that to stall fast the depletion of forest, a series of orders have been passed by this Court in T.N. Godavarman case regulating the felling of trees in all the forests in the country. Principle 15 of the Rio Conference of 1992 relating to the applicability of precautionary principle, which stipulates that where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation, is also required to be kept in view. In such matters, many a times, the option to be adopted is not very easy or in a straitjacket. If an activity is allowed to go ahead, there may be irreparable damage to the environment and if it is stopped, there may be irreparable damage to economic interest. In case of doubt, however, protection of Precautionary principle requires anticipatory action to be taken to prevent harm. The harm can be prevented even on a reasonable suspicion. It is not always necessary that there should be direct evidence of harm to the environment.

21. A great caution has, therefore, to be exercised before any developmental activity is allowed to go ahead in order to ensure protection of the environment, which in the words of the Hon'ble Apex Court seeks precedence over economic interest. While concluding the submissions, Learned Counsel appearing

on behalf of the respondent no.4- M/s Welspun Energy (U.P) Pvt. Ltd, fairly made a submission that the project proponent is also open and willing to comply with any additional safeguards in addition to the safeguards stipulated under the EC. We have, therefore, have to cautiously tread our course and reach a balanced decision in the present case.

22. Having realised the need to take such measures necessary for the purpose of preventing and improving the quality of environment and protecting, controlling and abating environmental pollution, the Central Government in exercise of its power under Section 3 of the Environment (Protection) Act, 1986 read with clause d sub-section 3 Rule 5 of the Environment (Protection) Rules, 1986 devised an elaborate mechanism/ procedure to grant prior EC to the projects or the activities as per the EC Regulations, 2006. Environment Clearance Regulations, 2006 categorized the projects and activities into Category A and Category B based on the spatial extent of potential impacts and potential impacts on human health, natural and manmade resources. Admittedly, the project in question is a Category A project and EC Regulations, 2006 envisage in the process of grant of EC therefor the following material stages:

1. Scoping,
2. Public Consultation,
3. Appraisal and
4. Decision for acceptance or rejection of the proposal.

23. In the stage of scoping the Expert appraisal Committee determines detailed and comprehensive Terms of Reference (ToR), addressing all relevant environmental concerns for the preparation of an Environmental Impact Assessment (EIA) report in respect of the project for which prior EC is sought on the basis of information furnished in the prescribed application Form-I/I-A including Terms of Reference proposed by the applicant, outcome of site visit if considered necessary and other information that may be available with the Expert Appraisal Committee. The Terms of Reference so determined are required to be conveyed to the appellants/project proponent by Expert Appraisal Committee within 60 days of the receipt of Form-I. Pertinently, the EAC at this stage itself is conferred with the discretion to recommend to the regulatory authority the rejection of the application for environment clearance and the regulatory authority i.e. MoEF has a discretion to accept such recommendation of the EAC or to reject the application for prior EC. This mechanism build in the EC, Regulations, 2006 emphasises the importance of this stage of scoping, particularly of Form-I therein, which lays the foundation of the Environmental Impact Assessment of the proposed project for its objective appraisal that follows.

24. Next in the chain of the process of evaluation of the potential impacts of the project on environment is the stage of public consultation, a process by which the concerns of the locally affected persons and others, who have plausible stake in the

environmental impact of the project are ascertained. The public Consultation has two components 1) Public hearing and 2) obtaining responses in writing from other concerned persons having a plausible stake in the environmental aspects of the project. Appendix IV to the EC Regulations, 2006 prescribes the manner in which its one of the components- a public hearing has to be carried out. At the outset Appendix IV to the EC Regulations, 2006 prescribes that the public hearing shall be arranged in a systematic, time bound and transparent manner ensuring widest public participation at the project site(s) or in its close proximity district wise, by the concerned State Pollution Control Board. Needless to reiterate that the public hearing is carried out for ascertaining concerns of locally affected persons. Response in writing from other concerned persons having a plausible stake in environment or activity are also required to be obtained as a part of another component of public consultation and as such responses are invited by placing on the website of the concerned State Pollution Control Board, the summary of EAC report prepared in the format given in Appendix III-A by the applicant along with a copy of the application in the prescribed form. After completion of the public consultation the appellants is under obligation to address all the material environmental concerns expressed during this process, and make appropriate changes in the draft EIA and EMP, and prepare a final EIA report and submit it to the concerned regulatory authority for appraisal.

25. Following the public consultation the Expert Appraisal Committee is required to carry out appraisal of the proposal for grant of environment clearance before it categorically recommends to the regulatory authority concerned either the grant or rejection of the application for environment clearance. Appraisal involves detailed scrutiny by the Expert Appraisal Committee of the application and other documents, like the final EIA report, outcome of public consultations including public hearing proceedings in a transparent manner in a proceeding to which the applicant is invited for furnishing necessary clarification in person or through authorized representative. Thus, a conspectus of things previous to the appraisal is taken by the Expert Appraisal Committee for the purpose of objective evaluation of merits of the proposal for grant of EC and the recommendations are made thereupon.

26. The regulatory authority, para 8(ii) of the EC Regulations, 2006 stipulates, shall normally accept the recommendations of the Expert Appraisal Committee; and in case where it disagrees with the recommendations of Expert Appraisal Committee, it shall request reconsideration by the Expert Appraisal Committee while giving the reasons for the disagreement within 45 days of the receipt of the recommendations from the Expert Appraisal Committee. The Expert Appraisal Committee in turn has to consider the observations of the regulatory authority and furnish its view on the same within a further period of 60 days and the decision taken by the regulatory authority after

considering the view of Expert Appraisal Committee is regarded as final. This shows an amount of discretion that is also vested with the regulatory authority-in the present case MoEF and the regulatory authority is expected to exercise such discretion in reasonable manner. Para 8 (vi) of the EC Regulations, 2006 voices the sanctity of information or data material to screening or scoping or appraisal or decision on the application in following terms:

“Deliberate concealment and or submission of false or misleading information or data which is material to screening or scoping or appraisal or decision on the application shall make the application liable for rejection, and cancellation or prior environment clearance granted on that basis”.

The reason for such information or data to be sacrosanct is evident from the entire mechanism which is so interconnected that one false or misleading information and/or its deliberate concealment data in the process necessarily has cascading effect on rest that follows.

27. Keeping this process in mind we have to examine the submissions made by the rival parties. The environment clearance dated 21st August, 2014 makes reference to the letters dated 31st December, 2010, 12th May, 2011, 29th June, 2012, 14th January, 2013, 11th February, 2013, 6th February, 2014, 21st February, 2014 and 6th May, 2014 vide copy of the EC at annexure A-1 to the application. Communication dated

31st December, 2010 is a Form-I submitted by the respondent no.4- project proponent seeking prior EC for setting up the thermal power plant in question at Hazipur- Katya, Pahai Goura and Katya, Teshil Jakhnia and Saidpur, District Ghazipur, UP under the hand of Mr. Abhinav Mayank authorized signatory for project proponent. This fact is not disputed, however, respondent no.4- submitted that the project proponent had duly filed the Form-I for the proposed project site to be located at District Mirzapur on 31st March, 2011 and had also intimated all the Members and the Member Secretary of Expert Appraisal Committee regarding the change of the project site from District Ghazipur to District Mirzapur through an email along with the pre-feasibility report on 31st March, 2011 as per annexure R-2 and R-3 to the reply. Reading of annexure R-3 to the reply reveals that it is a copy of email send by Suranjan Sarkar on behalf of the respondent no.4- M/s Welspun Energy (U.P) Pvt. Ltd. enclosed therewith soft copy of the duly filed Form-I and PFR in respect of 2x660 MW Thermal Power Project in UP to various addresses. According to respondent no. 4 there is mere denial of the email dated 31st March, 2011 by the appellants without there being any basis whatsoever. The respondent no.4 to buttress its contentions referred to the reply filed by the MoEF which makes reference to the proposal for District Mirzapur being considered by the EAC in its 22nd and 24th meeting held on April 4th and 5th, 2011 (erroneously referred to as 4-5) and May 2-5, 2011 for grant of

ToR and to the minutes of the EAC meeting dated May 4th and 5th, 2011 at annexure A-4 (page 80).

28. The respondent no.4 also made reference to disclosure made by Dr. M. Ramesh, Scientist 'D' from MoEF before the Tribunal on 5th April, 2016 in support of the fact that the project was assessed on basis of Form-I dated 31st March, 2011 and the acknowledgment of Mr. C.R. Babu of having acknowledged the consideration of the project on the basis of Form-I dated 31st March, 2011 sent by E-mail. Dr. M. Ramesh, Scientist 'D' produced a file containing Note sheets from pages 1 to 11- authenticated copies of which find place on our record at vol-II (documents). We have perused the Note sheet pages 1 to 11. At page 11 a reference is found made to the communication received from respondent no.4 in respect of the present appeal and passing on the information that the appellants could not access revised Form-I from MoEF record and the respondent no.4-company having already submitted revised Form-I and circulated it amongst all EAC Members and Member Secretary through E-mail dated 31st March, 2011. Dr. M. Ramesh appeared to have made endorsement on the said Note sheet for checking the records for the same and nothing more. However, our scrutiny has not revealed any reference to revised Form-I dated 31st March, 2011 in the said Note sheet except one on page 11 as disclosed herein above and placing of the proposal of respondent no.4 for setting up of thermal power plant at Village Dadri Khurd, Teshil Mirzapur, Uttar Pradesh in 24th meeting of

EAC held on May 2nd and 3rd, 2011 for determination of ToRs at page 2 of the said Note sheet dated 10th June, 2011.

29. Material portion of the minutes of EAC meeting dated May 4th and 5th, 2011 at annexure A-4 (page80) reads as under:

“2.10 2x660 MW Super Critical Coals Based Thermal Power Plant of M/s Welspun Energy UP Private Ltd. at villages Dadri Khurd, in Mirzapur Sadar Taluk, in Mirzapur Distt. in Uttar Pradesh- reg. TOR.

“The proposal was earlier placed for consideration in the 22nd meeting held during April 4-5, 2011 wherein the Committee noted that the proposed site may be in the flood plain of river or very close to it and has forests in the vicinity. The Committee also noted that the other sites identified were rejected by the project proponent itself. The Committee therefore decided that the project proponent shall identify more alternative acceptable sites and accordingly deferred the proposal for re-consideration at a later stage.

The proposal was again placed for re-consideration for determination of terms of reference for undertaking EIA/EMP study as per the provisions of EIA Notification, 2006. The project proponent along with its consultant M/s J.M Environet Pvt. Ltd. gave a presentation and provided the following information:

The proposal is for setting up of 2x660 MW Super Critical Coal Based Thermal Power Plant at Villages Dadri Khurd, in Mirzapur Sadar Taluk, in Mirzapur Distt. in Uttar Pradesh. Land requirement will be 1100 acres, out of which 798 acres is unirrigated barren land and 77 acres is waste land. 875 acres land will be used for plant and 225 acres land will be used for railway and pipeline corridor. The co-ordinates of the plant site are at Latitude 24°58’51.2’’N to 25°00’5.43’’N and Longitude 82°39’34.1’’E to 82°40’52.71’’E. Coal requirements will be 6.4 MTPA. Coal will be obtained from domestic coal block through SECL/NCL/CCL mines. Area requirement for ash/pond dyke will be 225 acres including green belt. Water requirement will be 45 MCM/annum, which will be sourced from the Upper Khajuri Dam and Ganga River through a pipeline about a distance of 4km and 17 km respectively from project site. There are no National parks, Wildlife sanctuaries, Tiger/Biosphere reserves etc. within 10 km of the site. Danti RF, Mirzapur RF, Patehra RF and Gorthara RF are situated within 10 km from the project site.

The project proponent submitted that Ganges River is about 22 Kms from the proposed site and site is not in the flood plain of the Ganges. The project proponent also submitted Survey of India toposheet in confirmation to their submission. It was also informed that M/s WAPCOS has conducted pre-feasibility for availability and route of water pipeline from Upper Khajuri Dam till the proposed project site.

The Committee noted that details of water availability need to be extensively examined and a detailed source of water sustainability study shall be submitted.

The project proponent informed that they have started collection of AAQ data since April and complete monitoring before onset of monsoon. The Committee decided that the same can be used for preparation of EIA report.

Based on the information provided and presentation made, the Committee prescribed the following specific ToRs for undertaking detailed study and preparation of EMP.....”

30. Nowhere in the minutes of the 22nd and 24th EAC meeting held on April 4th and 5th, 2011 and May 2nd and 3rd, 2011 respectively we find reference to revised Form-I dated 31st March, 2011 except the fact that it referred to thermal power project at Village Dadri Khurd, Teshil Mirzapur, Uttar Pradesh.
31. In the sur-rejoinder filed by the respondent no.4 (page 2070) the respondent no.4 submitted that in addition to E-mail sent by the project proponent to the EAC and revised Form-I was submitted to the MoEF by hand on 31st March, 2011 which was duly signed by Mr. Ravikant Verma, General Manager, Corporate Affairs with proper verifications; and letter of MoEF had informed that the revised Form-I by hand on 31st March, 2011 was misplaced and as such MoEF made a request to the project proponent to provide a copy of the revised Form-I and as such the revised Form-I was submitted by hand to the MoEF on

3rd December, 2011. A copy of the Board resolution dated 25th March, 2011 authorizing Mr. Ravikant Verma to sign Form-I is annexed to sur-rejoinder at annexure R-48 a copy of the Basic Information Form signed by the authorized signatory Mr. Ravikant Verma dated 31st March, 2011 is also produced along with sur-rejoinder at annexure R-49.

32. The appellants specifically contends in the backdrop of the aforesaid facts as disclosed that the determination of ToR was done on the basis of a basic information- a concise document circulated for the convenience of EAC and not Form-I dated 31st March, 2011. Learned Counsel appearing on behalf of the appellants compared the data furnished through basic information document annexure R-49 (Page 2092), copy of the Form-I dated 31st March, 2011 at page no. 2362 and fresh Form-I dated 3rd December, 2011 submitted after grant of ToR dated 15th June, 2011 (Page 86) and pointed the following discrepancies.

<i>Basic Information</i>	<i>Form-I along with pre-feasibility report</i>	<i>Fresh Form-I</i>
<i>Land Requirement- 1100 acres, out of total land 798 acres is unirrigated barren land, 77 acres is waste land, 875 acres for plant and 225 acres is for railway and pipeline corridor.</i>	<i>Total area of land is 850 acres. Government land: 9.88%, private land 90.12% unirrigated land 93.88%, barren land 5.25% water bodies 0.87%.</i>	<i>Land 875 acres, Government land 11.1% private land 88.9%, single cropped agricultural land 1.78% barren land 97.50%, water bodies 0.62% human settlement 0.02%.</i>

33. Learned Counsel appearing on behalf of the appellants further pointed out that the signatures of the authorised signatory in all the documents, namely, Form-I dated 31st March, 2011 (page 383), Basic Information (page 2094) and Form-I dated

31st December, 2011(page112) vary and lacks proper verification as per EIA amendment dated 1st December, 2009. Learned Counsel appearing on behalf of the respondent no.4 submitted in counter that there is no bar on the EAC to consider the basic information form as the source of information and the project proponent stands by the information submitted in the Form-I dated 31st March, 2011 sent vide e-mail to the EAC Members and as submitted during the course of the arguments as the true facts available to it at the relevant times, and the verification is merely a procedural defect which can be cured and cannot be held fatal to the credibility of the Form-I. In support of his submission Learned Counsel appearing on behalf of respondent no.4 quoted the observations made by the Hon'ble Apex Court as follows:

Kiran Shankar Kathore V Arun Dattaray Sawant (2014) 14 SCC 162

Para34. "... The Court, however upheld the view of the High Court holding that on perusal of the affidavit, there was substantial compliance with the prescribed format. Even when some defect was found in the verification of the election petition, it was held that the said defect is also curable and cannot be held fatal to the maintainability of the Election Petition. In the present case we are concerned with the affidavit which a candidate seeking election is required to file along with his nomination form. At the same time, we proceed on the basis that if there is a substantial compliance with the requirements contained in the said affidavits, in the sense that there is a disclosure of required particulars including assets/liabilities it can be treated as adequate compliance with the provisions of the Act, Rules and Orders."

Shaikh Sail Haji Abdul Khayumsab V Kumar and others (2006) 1 SCC 46

Para 10. "All the rules of procedure are handmaid of justice. The language employed by the draftman of

processual law may be liberal or stringent, but the fact remains that the object of prescribing procedure is to advance the cause of justice.”

Para 13: “... A procedural law should not ordinarily be constructed as mandatory, the procedural law is always subservient to and is in aid to justice. Any interpretation which eludes or frustrates the recipient of justice is not to be followed.”

Para 14: “Processual law is not a tyrant but a servant, not an obstruction but an aid to justice. Procedural prescriptions are the handmaid and not the mistress, a lubricant, not a resistant in the administration of justice.”

Learned Counsel appearing on behalf of the respondent no.4 added that the Form-I is initiation of the entire process and acts as a guide and cannot bind the EAC. In support he quoted from the Judgment delivered in R. Vermani’s case (R. Veeramani vs. Secretary, Public Works Department and Ors.: Appeal No. 31 of 2012) by the Southern Zone Bench of Tribunal as follows:

Para 56: “....The application is merely an expression of the desire of the proponent to commence a particular project and Form IA is intended for the mentioning of the safeguards necessary for the said new project. Thus the application is only initiation of the entire process. It can only be a guide; but it is neither conclusive nor decisive on the project and cannot control the EC. The contents in Form I can only be one of the guiding factors, but they cannot bind either of the committees, Appraisal or Assessment. The Appraisal Committee is an independent body consisting of experts from different fields and equally, the Assessment Committee. They have to consider all available materials before taking a decision to grant or reject the request. They have to make an independent study and decide the necessary parameters and safeguards for a given project.

Thus the EC is wisdom driven of the Members of the Committees and no doubt, it is not driven by the data and particulars furnished by the proponent in the forms alone. The authority cannot base their decision on the application alone or the contents of the Form. After the application is made along with the safeguards stated by the proponent in Form I and Form IA, the Appraisal Authority at the time of appraisal, can add number of safeguards for the project...”

34. If one looks at para 7(i) stage II of the EC Regulations, 2006 dealing with the process of scoping it is not difficult to find that all the information furnished in the prescribed application Form-I, forms the basis of detailed and comprehensive Terms of Reference addressing all relevant environmental concerns for the preparation of Environmental Impact Assessment Report in respect of the project for which prior EC is sought in as much as potential impacts of the project are assessed with reference to the information revealed in Form-I. Though, there is no bar on the EAC to consider basic information as a source of information, the EAC has to consider details of the activity in relation to:

- (i) Construction, operation or decommissioning of the project, involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies).
- (ii) Use of natural resources for construction or operation of the project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply)
- (iii) Use, storage, transportation, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.
- (iv) Production of solid wastes during construction or operation or de-commissioning.

- (v) Release of pollutants or any hazardous, toxic or noxious substances to air.
- (vi) Generation of Noise and Vibration, and Emissions of Light and Heat.
- (vii) Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, ground water, coastal waters or the sea.
- (viii) Risk of accidents during construction or operation of the project, which could affect human health or the environment.
- (ix) Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality.
- (x) Environmental sensitivity.

Furnished in Form-I

Before detailed and comprehensive Terms of Reference addressing all relevant Environmental concerns for the preparation of Environmental Impact Assessment Report are determined, it is worthwhile to note, the EAC is expected to be pro-active in as much as to look for other information as to would be available, and secondly it has discretion to reject the application at the stage of scoping upon the total view of the material before it and in that context observations made by the Southern Zone Bench of this Tribunal in R. Veeramani's Case

regarding the role of the EAC and its authority to vet the information furnished and be bound by it are misplaced as regards the present case. However, in view of the discrepancies pointed out in basic information, Form-I and fresh Form- I furnished by the respondent no.4 as pointed earlier, legitimate questions as regards the objective consideration of the information furnished to the EAC for determining the detailed and comprehensive ToRs arise,. In our view all the information furnished and considered by the EAC for the determination of ToR is a raw material for the Terms of Reference determined from which the draft EIA report takes shape- a material step for further stages of public consultations, appraisal, recommendations of EAC and ultimately for grant of EC.

35. Learned Counsel appearing for the appellants submitted that the EIA Notification, 2006 makes it mandatory that all the projects which requires EC need to undergo the scoping process and the appraisal not done on the basis of proper scoping process on the basis of Form-I is a substantial non-compliance. He invited our attention to the observations made by this Tribunal at para 120 of the Judgment delivered in S.P. Muthuraman's case (O.A. No. 37 of 2015): S.P. Muthutraman vs. Union of India & Ors.0 Judgment dated 7th July, 2015 reported in Manu/GT/0016/2015 "that the provisions of this enactments are substantive and mandatory.....if compliance is not made to the provisions of this enactments it will totally frustrate the Polluters Pay Principle and thus Polluters Pay

Principle adversely affect the environment, protection of which is the sole objective of the Act of 1986.....” Thus, we have no hesitation in holding that the provisions of Notification 2006 are mandatory and procedural simplicitor”. We do subscribe to this view in relation to the present case for the simple reason that even the smallest lapse in furnishing the information or data material to screening or scoping or appraisal or decision on the application would leave lasting effects possibly adverse impacts on the environment or sustainable development, if information or data is misleading.

36. Nature of the land involved in the project and its expanse are material aspects in determination of adverse impacts of any project on the environment which going by its definition at Section 2(a) of Environment (Protection) Act, 1986 includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings and other living creatures, plants micro-organism and property. According to the appellants from the stage of scoping to the final stage of appraisal the project proponent projected a misleading picture about the nature and expanse of the land involved as follows:

- (i) Form I dated 3.12.2011- In response to query at sl. 2.1- **Barren land 97.58 %** (pg 99)
- (ii) Final EIA report- (1) sl no. 9 Present land use at the site- **“mostly barren”** pg 565
(2) para 2.4.1- Factors considered for site selection- **“Availability of adequate uncultivable and unused land for erecting power plant structures”**(pg 579)
- (iii) Letter dated 12.07.2011- Reasons given to Ministry of Coal for change of site from Dist. Gazipur to District Mirzapur

which states **“barren and single crop land”** and **“No forest land involved”**(pg 412)

He further pointed out that use of such wrong terms on which the impugned EC is based found its expression in the EC dated 21st August, 2014 in the following terms “land required will be 875 acres, out of which 15.63 acres will be single cropped agricultural land; 859.37 acres will be barren land”. In support of its contentions that it is not a barren land the applicant invited our attention to the following:

- (i) Study report of project site under taken by WAPCOS.
- (ii) Revenue records of project site in village Dadri Khurd, Teshil Mirzapur, Uttar Pradesh.
- (iii) Additional affidavit filed by the appellants on 5th April, 2016
- (iv) Photographs of irrigation structures check dams, grazing and agricultural lands.

Para 3.1 of Area Drainage Study Report of the project site undertaken by WAPCOS for the project in question reveals that from the observations made by the WAPCOS team upon the site visit and from Study of survey data of plant area, the team observed that most of the plant area was found covered with trees/vegetation and grass; and though no agricultural activity was noticed on entire plant area, the team found that most of the land was being used for grazing and tree plantations and thus dense forest was noticed at South-eastern part of the plant area at higher elevation of about 220 to 233m. Revenue records

of the project site produced by the appellants during hearing on 2th April, 2016 describe the land as 'Parti Bhumi' i.e. fallow land and not a barren land. Additional affidavit of the appellants dated 5th April, 2016 placed before us the relevant extracts from National Resource Census Project Report 2004-2005 of Indian Space Research Organization and Wasteland Atlas of India titled "Control Sheet". Definition of fallow land as found in the National Resource Census Project Report is as under:

Fallow land: These are the lands, which are taken up for cultivation but are temporarily allowed to rest, un-cropped for one or more seasons, but not less than one year"

Barren land from its very description conveys a meaning that it is unfertile not supportive of any vegetation. Definition of barren land in "Wasteland Atlas of India" describes it as: The rock exposures of varying lithology often barren and devoid of soil and vegetation cover. Thus absence of any vegetation is hallmark of a barren land. Description of the land for the project as a 'barren land' is therefore, a misleading description.

37. Learned Counsel appearing on behalf of the appellants further invited our attention to IL&FS Technical EIA Guidelines Manual for thermal power plant- August, 2010 prepared for the MoEF, Government of India. Purpose of developing such sector specific technical guideline manual is to provide clear information on EIA to all the stakeholders. It gives guidelines

for site selection of coal based thermal power station and general siting factors (page 2748 to 2749). At the outset it exhorts the stakeholders to recognise that no forest land shall be used for non-forest activity and no prime agricultural land shall be converted into industrial site. As regards the site selection for thermal power station, it makes reference to the Guidelines of Central Electricity Authority, Government of India for site selection of coal based thermal power station which advice the selection of site near to coal source, accessibility by road and rail. These guidelines spells out the priorities for site selection as follows:

First priority is given to the sites those are free from forest, habitation and irrigated/agricultural land. Second priority is given to those sites that are barren, i.e. wasteland, intermixed with any other land type, which amounts to 20% of the total land identified for the purpose.

38. Guidelines for site selection of coal thermal power station set by MoEF are made available in the said manual as under:

- *Locations of thermal power stations are avoided within 25km of the outer periphery of the following:*
 - metropolitan cities;
 - National park and wildlife sanctuaries;
 - Ecologically sensitive areas like tropical forest, biosphere reserve, important lake and coastal areas rich in coral formation;
- *The sites should be chosen in such a way that chimneys of the power plants do not fall within the approach funnel of the runway of the nearest airport;*
- *Those sites should be chosen which are at least 500m away from the flood plain of river system;*
- *Location of the sites are avoided in the vicinity (say 10km) of places of archaeological, historical, cultural/religious/tourist importance and defense installations;*
- *Forest or prime agriculture lands are avoided for setting up of thermal power houses or ash disposal.*

39. In this backdrop the contentions raised by the appellants that there was deliberate concealment of forest land by the appellants in the present case gains significance. Learned Counsel appearing on behalf of the appellants submitted that the project proponent concealed the presence of forest within the plant boundary in Form-I dated 3rd December, 2011 as well as in the EIA Report (Page 621) with the statement that there is no forest land within plant boundary.

40. Perusal of the Form -1 dated 03-12-2011 (page no. 93) reveals clear statement of the fact at entry in serial no. 21-23 of the Form-1 that no forest land is involved and as such, the proposal does not call for clearances under the Forest Conservation Act, 1980. Perusal of the EIA Report (page no. 621) also reveals a categorical assertion that no forest land is within the plant boundary. It is pointed out by the Appellants from the Form-1 that the project envisages approach road connecting SH-5, 15.5 kms distance railway line from Sarsogram railway station and 17 kms of pipeline (31kms as per the EIA Report page no. 601) to fetch water from River Ganga and all this passes through the Reserve Forest.

41. To highlight this fact the Appellants drew our attention to the table no. 3.18 in the EIA Report (page no. 668) which is reproduced herein below:

S. No.	Name of R. F.	Distance from Project boundary	Direction from Project Boundary
1	Danti RF	Adjacent to the project site	N
2	Barkachha RF	8.5 km	NW
3	Mirzapur RF	Adjacen	S
4	Sarson RF	5.5km	SE
5	Malua RF	8.5km	SW

6	Karaunda RF	5km	SW
7	Patehra RF	5km	SW
8	Bahuti RF	6.5 km	W
9	Newaria RF	10 km	SW
10	Nanutu RF	7 km	E
11	Golhanpur RF	6.5 km	E

42. It is very clear from the aforesaid table that project site is surrounded by reserved forest from all sides. The Appellants also invited our attention to the photographs at page no. 159-159A of the actual site to point out that the SH-5 passes through the reserved forest area as could be noticed from the signboard of forest department ("this road belong to Forest Department Regional Forest Officer Madihan DFO, Mirzapur, Forest Division").

43. The project Proponent relied upon the site visit reports dated 01-08-2008 and 19-11-2012 to contend that the area where the power plant is proposed is not a notified reserved forest/protected forest and/or forest like area. As against this the Appellants have relied upon the area drainage study report of the project site undertaken by WAPCOS. Photographs (page no. 159-159A), satellite imagery- particularly National land use and land cover mapping using multi-temporal AWiFS data available at Bhuvan website.

44. It is noticed that the WAPCOS team upon visit to the project site (30-09-2011) at Dadri Khurd Village found dense vegetation/forest at Southern-Eastern part of the plant area (page 165). It is also correct that Land Use/Land Cover (LULC) map of District Mirzapur (page no. 2990-2992) shows project area mostly occupied by deciduous forest and part of it by

agriculture, plantation. On the other hand, the Project Proponent relies upon the judgments delivered in Application No. 19(T_{HC})/2013 dated 08-08-2014 titled as Nisraga Vs. Assistant Conservator of Forests as well as in New Okhla Bird Sanctuary case [(2011) 1 SCC 744: in In Re construction of park at Noida near Okhla Bird Sanctuary]. The Hon'ble Apex Court in In Re-construction of park at Noida near Okhla Bird Sanctuary case observed as follows:

“In support of the applicant’s case that there used to be a forest at the project site he relies upon the report of the CCF based on site inspection and the Google Image and most heavily on the FSI Report based on satellite imagery and analyzed by GSI application. A satellite image may not always reveal the complete story. Let us for a moment come down from the satellite to the earth and see what picture emerges from the government records and how things appear on the ground. In the revenue records, none of the khasras (plots) falling in the project areas was ever show as jungle or forest..”

Moreover, the Appellants admit in their affidavit dated 05-04-2016 (page no. 2974) that satellite image per se cannot be relied upon as 100% accurate evidence for forest area. However, it proceeds further to state that the time when the said judgments were passed Google Earth Imagery was most common and Bhuvan Application Services were not developed; and Bhuvan Satellite imagery is based on advance technologies like Multi-temporal(satellite images collected repeatedly over a long time for a year or more), multi-layered(superimposing images from different satellites and sensors) and multi-spectral (involving different radiations other than IR radiation), which when collaborated with ground data gives fairly accurate information

about the present land use and land cover. Even accepting this statement to be correct its collaboration with the ground data is indispensable for giving fairly accurate information. Ground data collection is, therefore, a key to answer the question whether the land was a forest or forest like area.

45. We have therefore to see what site inspection reports have procured for the benefit of decision making. Site visit report dated 01-08-2008 makes a reference to the piece of land in Village Kushiyara and Sangra as having been identified in Thesil Lalganj, Haliya, District Mirzapur and having being identified as a forest like area having specified number of trees mentioned therein. It does not say anything about Village Dadri Khurd. Site Inspection Report dated 19-11-2012 (page no. 508) reveals that the inspection of the project site was purportedly carried out by team of Forest Officials, Scientist from MoEF, Project Proponent, Villagers from Mirzapur and Sh. Balram Singh, President, Van Upvan Conservation of Nature Environment Society. The team after going through the reports of the DFO Mirzapur dated 16-08-2013 and 13-09-2013 as well as revenue records of Village Dadri Khurd drew conclusions as follows:

1. *Thus from the records available the proposed Welspum Thermal Power Plant site plan included no notified reserved forest/protected forest and forest like area recognized in Mirzapur district in compliance of Hon'ble Supreme Court order.*
2. *The two Gatas 180 and 216 jha with an area of 1.5 ha included in proposed site plan of Welspum Thermal Power Plant is revenue recorded Jhari (forest). The ownership belongs to UP Govt. and it is in process of transfer to the*

company. If this is used for non-forestry purpose, it requires approval of Central Govt. under Forest (Conservation) Act.

46. Poking holes in this report, the Appellants pointed out that the report is signed only by two officials namely: Dy. Conservator of Forest (Central) and Chief Conservator of Forest (Central) almost a year after and not by all the members of the team.

47. It is further pointed out that Mr. S. N. Mishra, DFO, Mirzapur Forest Division who was the member of the site inspection team addressed a letter dated 16-08-2013 (page no.2051) to the Chief Conservator of Forest(Central) , MoEF making a statement that the project site has 50% of forest like area (page no. 2052). However, there is also a communication dated 13-09-2013 written by the same DFO Mirzapur to the CCF Central, MoEF with reference to list of forest like area prepared by District Level Committee mentioning that no land from the project area has been identified as forest like area. Pertinently, we do not find any collection of ground data in relation to forest density in the area inspected by site inspection team. This leaves us in wilderness of assumptions and presumptions with no categorical answer as to the nature of the area based on ground data collections.

48. Undoubtedly, the approach road, rail line and water line have to pass through forest lands, and these being material components of the project, the Project Proponent ought to have revealed the involvement of the forest land, in Form-1 filed for the purposes of getting EC Paragraph 8 (v) of the EC Regulation, 2006 stipulates that clearances from other regulatory bodies or

authorities shall not be required prior to receipt of applications for prior environmental clearance of project or activities, or screening, scoping and appraisal or decision by regulatory authority concerned, unless any of these is sequentially dependent on such clearance either due to requirement of law, or for necessary technical reasons.

49. Office Memorandum dated 09-09-2011 issued by MoEF stipulates that EC is issued only after stage -1 forest clearance has been submitted by Project Proponent and if same is not submitted within time limit prescribed under the said Office Memorandum proposal of the EC would stand rejected and the entire process of obtaining EC will have to be initiated *de novo*. With reference to the guidance document for taking up of non-forest activity in forest dated 19-12-2012, learned Counsel appearing on behalf of the Appellants submitted that the Project Proponent has to apply simultaneously for Environment and Forest and NBWL clearances and a complete clearance is obtained only when requisite clearances are obtained by Project Proponent. As observed above the proposal for grant of EC involves forest land. It is therefore, not correct to submit that the forest clearance is not a criteria for grant of EC under the EIA Notification.

50. Learned Counsel appearing on behalf of the appellants further brought to our notice that not only the project involves use of forest land for coal transportation, water pipeline but there is no discussion in the EIA report regarding the potential impact

of the fragmentation of the forest and disturbance of wildlife due to the passing of the railway line for coal transportation, construction of transmission line, water pipeline and approach road. From the facts noticed herein above, it is evident that the project is surrounded by forest and involves 'Parti Bhumi' (fallow land) thereby signifying least anthropogenic activity at or around the project site and, thus the issue of wildlife in the area deserves serious consideration. EIA report (page 668) and the table provided therein (Page 669, 675) make mention of having not noticed any endangered species within the area of project site and the area lying in 10 km of the radius therefrom. However, the appellants pointed out to the response received by them to the RTI query dated 27th August, 2013 (page 161, 162) providing the list of Schedule I species- Sloth Bear, Chinkara, Black Buck, Bengal Monitor, Peafowl, crocodile (Magar) etc. within the project site and 10 km radius area. The project proponent relied upon the bio-diversity assessment and conservation plan and submitted that the EAC in its meeting dated 23rd March, 2014 had found the site report/plan in order. It has been pointed out that the site plan was prepared after the EIA report and public hearing and no study was undertaken to assess the impact of the project and its ancillary activity like coal transportation, water pipeline, approach road, ash ponds and such other impacts on the wildlife in the region. Para 4.3.1.3 (page 1058) of the report adds credence to this contention in following terms: *"this survey needs to be carried*

out with the wildlife experts and the State Authority, Department to identify the areas or forest need all the conservation and management interventions which are highly crucial.” Facts revealed before us do not show that any member of the EAC or Expert member of WII conducted any site visit of the project to assess the gravity of exception taken to the project upon the issues raised in relation to the forest and wildlife. Appraisal of the project in this regard, therefore, becomes questionable.

51. Water being important component of environment appraisal of the project for accessing its potential impacts on water resources in course of the process of appraisal is also of material importance for answering the question before us. The project envisages drawl of 36 mcl of water from Ganga and its transportation through 24 km of pipeline to upper Khajuri reservoir and thereafter to make supply of the water through 7 km of pipe line to the project site. Upper khajuri reservoir is a rain fed reservoir which according to the project proponent is meant for irrigation purposes. However, the appellants contend that the water in the upper Khajuri reservoir is not only for irrigation purposes but also used for human consumption and caters to the needs of the wildlife in or around the said reservoir. In this context Learned Counsel appearing on behalf of the appellants submitted that upper Khajuri reservoir feeds water to lower khajuri reservoir lying on the River Khajuri- a tributary of Ganga and there has been representation made by Banaras Hindu University regarding the potential impacts of

taking of untreated contaminated water from Ganga to upper Khajuri reservoir and thereafter to the lower Khajuri reservoir which is catering to the need of Banaras Hindu University; and the EAC had completely over looked the critical issues raised by the Banaras Hindu University in that regard and blindly relied upon the misstatement made by the project proponent that the issue with BHU had been resolved.

52. We find from the record, a letter dated 18th September, 2013 (page 174) addressed by Registrar of the Banaras Hindu University to the Secretary, Government of India, MoEF, New Delhi voicing concerns of the University in following words:

I would like to inform you that a Thermal Power Project with capacity 1320 MW Coal based is going to be installed at nearby Village-Dadari Khurd in District-Mirzapur which is 10 km. away from Rajiv Gandhi South Campus of BHU at Barkachha. It is pointed out that the Rajiv Gandhi South Campus is constituent of BHU having running more than 20 self-financing undergraduate and post-graduate courses and other academic activities. A good number of students, teaching and non-teaching staff and their family members are residing in the campus.

In this connection, we have received a letter of General Secretary, a NGO-“Vindhya Environmental Society” and representation of resident of that area. Further, we have also examined by our Faculty Member who belongs to field of Environmental Science & Technology and he has submitted an Environment Impact Assessment Report of 1320 MW bout proposed Coal based Thermal Power Project, which are self explanatory(copy enclosed).

It is needless to mention here that the negative impact of this project may adversely affect their health of students, teachers and other staff residing in the Rajiv Gandhi South Campus. We would like to highlight the fact that entire drinking water supply of the RGSC is from lower Khajur Dam which is fed by upper Khajuri Dam. Any industrial activity in the upper khajuri Dam will jeopardize our water supply.

Keeping in view of the above fact, I request you to kindly consider for reviewing the shifting of place much ahead from the premises of Rajiv Gandhi South Campus,

Barkachha so that the ambiance and environment of this area may keep intact.

This communication from the Registrar enclosed Environment Impact Assessment Report concerning the project in question prepared by Dr. A.K. Pandey, Assistant Professor, Environment Science and Technology, Rajiv Gandhi South Campus, BHU. The respondent no. 4, it appears, made a presentation before the EAC that the issues raised by BHU were resolved in the meeting held on 8th March, 2014 and 10th March, 2014. In that regard our attention has been invited to minutes of the meeting conducted by the project proponent, BHU Faculty and Campus Members on 8th and 10th March, 2014. Reading of these minutes would persuade a reader to believe that discussion was held on following major points:

1. Air Impact and dispersion modelling
2. Water withdrawal scheme
3. Water utilization
4. Waste water management system
5. Coal Quality
6. Coal Transportation.

and after three hours of deliberations it was decided that Welspun Energy UP Pvt. Ltd-Project proponent would be forwarding the following commitments to BHU:

1. Installing of ESP with 99.9% efficiency and operating the ESP
2. Commitment to comply all condition stipulated by CWC on water withdrawal
3. Comply with the commitment of ash utilisation plan
4. Commitment to operate ETP

It is further revealed that BHU desired to be part of environmental and social management review during the operational phase of the project and the project proponent should submit six monthly compliance report along with online

data as per EC condition to the University along with other stakeholders. Significantly, the minutes of meeting do not disclose what exactly the discussions were in the meeting for thrashing out technical issues involved in the major topics purportedly discussed. The EAC also did a lip service to the process of appraisal by merely recording its nod to the presentation made by the project proponent in following terms:

6. The pp has submitted point wise response to BHU vide their letter dated 29th January, 2014 reg. The adverse impacts on the residents of Rajiv Gandhi South Campus due to the project. The same were presented before the Committee. The PP held meetings with BHU on 08.03.2014 and 10.03.2014 and detailed discussions were held on all the issues and provided satisfactory replies. The issues raised by the NGO, Vindhya Environmental Society in their letter to BHU were also discussed in the said meetings in detail. The Minutes of the said meeting were also submitted before the Committee. As desired by BHU, the commitments regarding installation and operation of ESP (with 99.9% efficiency) and ETP, complying with all conditions stipulated by CWC on water withdrawal and complying with proposed ash utilization plan shall be submitted to BHU. The committee recommended that the environmental cell of the PP shall also work in close coordination with BHU.

To compound this issue further the appellants have pointed out that the persons who raised their concerns did not participate in the meeting nor they authorize any person to hold the meeting on their behalf; and Professor Dr. Vijay Kishna who is shown to have attended the meeting held on 8th and 10th March, 2014 in the minutes annexure R-26 (page 1183) asserted vide email dated 23rd April, 2014 that the said meetings were not authorized by Banaras Hindu University and he participated in his personal capacity (page 2061) annexure

R-30; and this fact was brought to the notice of Secretary, MoEF by appellants no. 3 vide email dated 25th April, 2014 annexure R-31. It was therefore, incumbent upon the MoEF to have thoughtfully considered the relevant record and sought clarification from EAC before proceeding to grant the EC. Nothing of this sort is done in the present case.

53. Learned Counsel appearing for the appellants submitted that transporting the massive quantity of Gangetic untreated/contaminated water to the rain fed upper Khajuri reservoir is bound to change the water quality of upper Khajuri reservoir and consequently have impact on the people downstream using the water for human needs. It is further submitted that water withdrawal of 36,000,000,000 litres annually would undoubtedly affect the ecological flow of Ganga and severely affect the Gangetic Biodiversity including Gangetic Dophins found in Mirzapur stretch; and it is wrongly presumed that water withdrawal during monsoon from Ganga would leave no impact on Gangetic environment when there is a record of decline in rainfall in past year with no sufficient water in river in monsoons vide statistical data of rainfall in District Mirzapur annexure A-28 (page 2058). According to Learned Counsel appearing for the appellants both competitive use of water from river Ganga and upper khajuri reservoir and its comulative impact on upstream and downstream have not been discussed in the EIA report. We do find substance in the submission made.

54. It is further pointed out that the Project Proponent revealed in Form-1 dated 03-12-2011 (entry serial no. 10, page no. 110) that the area in question does not fall in any important high quality or scarce resources zone (ground water resource, surface resource, forestry, agriculture, fishery, tourism and minerals), and the EIA report (page no. 633 and 634) disclosed that the project site does not fall in any economically viable zone as per Regional GSI map.

55. The Appellants further points out that the respondent no. 4 in its reply (page no. 342) made reference to the Geological and Mineral Map of District Mirzapur annexure R-47 to state that the District Mirzapur has presence of Alluvium rather than Kaimur sand stone. Coloured map produced at annexure R-58 (page no. 2924) shows that the project area is adjacent to Marihan identified as a Kaimur sand stone area which is an important mineral resource.

56. The record reveals that the Public Hearing was conducted by UPPCB on 07-04-2012 in village Dadri Khurd, District Mirzapur, after publishing the notice of the public hearing in a National Daily- 'Hindustan Times' Delhi edition on 04-03-2012 and in the local Daily- 'Amar Ujala' of the same date, and the meeting was attended by about 190 persons (page 121-127). Two fold exceptions is taken to this public consultation process firstly, that the notice ought to have been publicized in the National Daily published from Allahabad/Varanasi in order to ensure maximum publicity, and secondly, public hearing was

not conducted in free and fair manner there being presence of men holding guns in the meeting as evident from a video clipping.

57. Perusal of the provision prescribing procedure for conduct of public hearing in Appendix IV of EC Regulations, 2006 reveals that notice of public hearing has to be advertised in one major National Daily and one Regional Vernacular Daily/State official language. The procedure stipulated does not say that it needs to be publicised in National Daily published from a particular place.

58. Learned Counsel for the appellants invited our attention to the purpose of public consultation of which the public hearing is one of the important component as mentioned at para 7 (III)(ii)(a). It is correct that public hearing is held for ascertaining concerns of local affected persons. However, the process of public consultation also envisages obtaining of responses in writing from other concerned persons having plausible stake in environmental aspects or project activity. Keeping in mind the procedure prescribed in clear terms at 3.0 under Appendix IV of EC Regulation, 2006. We are of the considered view that the procedure adopted for publication of notice of public hearing has been duly followed in the present case by its advertisement in national daily and local daily.

59. Additional Affidavit (page no. 2936-2944) with photographs filed by respondent no. 4-Project Proponent points out that other mode for publicity was resorted to by the Project

Proponent with the speaker mounted van/jeep for making announcement regarding the public hearing. Exception taken on this ground, therefore, has no merit. However, as regards the conduct of the public hearing itself the videography has revealed the presence of gun toting men amongst the members attending the public hearing. Learned Counsel appearing on behalf of the respondent no. 4 submitted that Village Dadri Khurd being situated in backward Forest area, it is not unusual to find the locals moving with guns. Assuming this to be true it was necessary for policemen on duty to have dis-armed them before they entered the venue of the public hearing. Arms like guns are bound to strike fear in the hearts of men around and dominate their free will. It is, therefore, difficult to call this public hearing as a free and fairly conducted public hearing.

60. EC Regulations, 2006 lay down a chain of interconnected processes to make a complete mechanism required to assess the potential impacts of the project or activities on the environment made of several components. Every piece of information/data furnished and/or collected at every stage of the process is expected to be wholesome free from any twist or turn in order to truly aid the correct appraisal of the potential impacts of the project. This expectation of law is evident from the checks and balances provided in EC Regulations, 2006.

61. Cumulatively, therefore, the entire process of consideration and appraisal of the proposal to grant EC is found tainted so as to render it less credit worthy than the one expected by law and

as such makes it even more difficult to suggest the safeguards in order to render the project sustainable one. We, therefore, answer the question raised herein above negatively. In our opinion, it is advisable to go through the entire process of EC afresh before green signal is given to the project.

We, therefore, allow this Appeal and pass the following directions:

1. The Appeal is allowed and EC dated 21-08-2014 is set aside.
2. Respondent no. 4 shall not carry out any developmental work at the project site.
3. The respondent no. 4 shall restore the area to its original condition.
4. Work of restoration is stayed for a period of two months.

62. In view of the above directions Appeal No. 79 of 2014 stands disposed of. M.A. Nos. 694 of 2014 and 511 of 2015 also stand disposed of.

....., JM
(U.D. Salvi)

....., EM
(Ranjan Chatterjee)

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

.....

**REVIEW APPLICATION NO. 02 OF 2017
(M.A. NO. 110/2017)
IN
APPEAL NO. 79 OF 2014
AND
REVIEW APPLICATION NO. 04 OF 2017
(M.A. NO. 325/2017)
IN
APPEAL NO. 79 OF 2014
AND
REVIEW APPLICATION NO. 06 OF 2017
(M.A. NO. 330/2017 & M.A. NO. 331/2017)
IN
APPEAL NO. 79 OF 2014**

IN THE MATTER OF:

Debadityo Sinha & Ors.

..... Applicant

Versus

Union of India & Ors.

..... Respondents

IN THE MATTER OF:

UNION OF INDIA
Through the Secretary,
Ministry of Environment,
Forests & Climate Change
Indira Paryavaran Bhavan
Jor Bagh Road,
New Delhi-110003

..... Review Applicant

// Versus //

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3. MUKESH KUMAR
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Village – Barkachha,
District Mirzapur,
Uttar Pradesh – 231001
 4. GOVT. OF UTTAR PRADESH
Through its Chief secretary,
Lal Bahadur Shastri Bhavan
UP Secretariat,
Lucknow-226001.
 5. UTTAR PRADESH POLLUTION CONTROL BOARD
Through its Member Secretary
Vibhuti Khund, Gomti Nagar,
Lucknow, Uttar Pradesh -226010
 6. M/S WELSPUN ENERGY (U.P) PVT. LTD.
Through its Authorized Representative
Having its office at:
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New Delhi – 110001
- Respondents

COUNSEL FOR REIEW APPLICANTS:

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Mr. Sanjeev Kumar & Mr. Anshul Sehgal, Advocate

COUNSEL FOR RESPONDENTS :

Ms. Parul Gupta, Adv. for R-1 to 3
Mr. Neeraj Kishan Kaul, ASG for R-4
Mr. Pradeep Misra, Adv. for UPPCB
Mr. Pinaki Misra, Sr. Adv. for R-6
Mr. Tarunvir Singh Khehar, Adv.
Mr. Tushar Mehta, ASG for R-1
Mr. Abhishek Yadav, Adv. for State of UP

JUDGMENT**PRESENT:****Hon'ble Mr. Justice Swatanter Kumar (Chairperson)****Hon'ble Mr. Justice U.D. Salvi (Judicial Member)****Hon'ble Mr. Bikram Singh Sajwan (Expert Member)****Hon'ble Mr. Ranjan Chatterjee (Expert Member)****Reserved on: 28th April, 2017****Pronounced on: 1st May, 2017**

1. Whether the judgment is allowed to be published on the net?
2. Whether the judgment is allowed to be published in the NGT Reporter?

JUSTICE SWATANTER KUMAR, (CHAIRPERSON)

Appeal No. 79 of 2014 was directed against the Environmental Clearance (for short, "EC") dated 21st August, 2014. A Bench of the Tribunal vide judgment dated 21st December, 2016 set aside the EC granted to the project.

Three different review applications have been filed by different respondents seeking review/modification of the judgment dated 21st December, 2016 on different grounds.

2. We have heard the learned Counsel appearing for the respective parties, including the non-applicant, at length. After hearing the parties and perusing the records before us, we are of the considered view that the grounds raised in the present applications for review have no merit and fall within the Appellate Jurisdiction in contradistinction to Review Jurisdiction.

3. However, for proper implementation of the judgement, a clarification needs to be issued which we do hereby issue, that the project proponent is at liberty to approach the MoEF&CC or any other competent authority for processing of the applications for grant of EC

upon making up for/rectifying the defects and deficiencies pointed out in the judgment. However, the authorities concerned are at liberty to process the same in accordance with law while strictly adhering to the content of the judgment.

4. In view of the above, the Review Application Nos. 02 of 2017, 04 of 2017 and 06 of 2017 stand disposed of with no order as to cost. However, the parties would be free to approach the Tribunal if the occasion so arises.

5. M.A. Nos. 110/2017, 325/2017, 330/2017 & 331/2017 do not survive for consideration as the Review Applications have been disposed of. Accordingly, they stand disposed of.

Swatanter Kumar
Chairperson

U.D. Salvi
Judicial Member

Bikram Singh Sajwan
Expert Member

Ranjan Chatterjee
Expert Member

New Delhi
1st May, 2017

Minutes of the 25th meeting of the re-constituted Expert Appraisal Committee (EAC) on Environmental Impact Assessment (EIA) of Thermal Power Projects held on 22nd February, 2019

The 25th meeting of the re-constituted EAC (Thermal Power) was held on 22nd February, 2019 in the Ministry of Environment, Forest & Climate Change at Narmada Meeting Hall, Jal Wing, Ground Floor, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi under the Chairmanship of Dr. Navin Chandra. The following members were present:

- | | | | |
|----|----------------------|---|-----------------------|
| 1. | Dr. Navin Chandra | - | Chairman |
| 2. | Shri Suramya D. Vora | - | Member |
| 3. | Dr. N.P. Shukla | - | Member |
| 4. | Shri G.P. Kundargi | - | Member |
| 5. | Dr. J.K. Pandey | - | Member |
| 6. | Dr. R.K. Giri | - | Member (Rep. of IMD) |
| 7. | Shri N.S. Mondal | - | Member (Rep. of CEA) |
| 8. | Dr. S.K. Paliwal | - | Member (Rep. of CPCB) |
| 9. | Dr. S. Kerketta | - | Member Secretary |

A Special Invitee, Dr. P.V. Murugan, Scientific Officer-D was requested to present during this meeting to discuss the issue on Item No. 25.4 and the Director, Institute of Plasma Research, Gandhinagar has nominated him for the same. Shri N. Mohan Karnat, Dr. S. Lele, Dr. (Mrs). Manjari Srivasta and Dr. S.K. Gupta (Representative of ISM/IIT Dhanbad) could not be present due to pre-occupation.

Item No.25.0: CONFIRMATION OF THE MINUTES OF THE 24thEAC MEETING.

The minutes of the 24th EAC (Thermal Power) meeting held on 23.01.2019 were confirmed in presence of members present during the meeting.

Item No. 25.0: CONSIDERATION OF PROJECTS

(25.1) Proposed 1x660 MW (Phase-III & Unit-5) Coal based Supercritical Sagardighi Thermal Power Project, Villages Manigram, Chandpara, Kanchanpara, Harirampur, District Murshidabad, West Bengal by M/s The West Bengal Power Development Corporation Ltd. -reg. ToR.

(F.No. J-13012/01/2019-IA.I (T) & Proposal No. IA/WB/THE/94262/2019)

(25.1.1) Project Proponent submitted online proposal on 5.2.2019 for consideration for grant of ToR. The Project Proponent along with the EIA Consultant, M/s. Development Consultants Private Limited have made the presentation *inter-alia* submitted the following information:

- i. The Terms of Reference was earlier given by the Ministry on 15.01.2015 for expansion project with capacity of 500 MW Power generation which was valid for three years, i.e. 14.01.2018. Subsequently, it has been amended for increasing the capacity from 500 MW to 660 MW vide Ministry's letter dated 11.07.2016. Project Proponent conducted EIA studies during March-June, 2015 and submitted the EIA/EMP report to WBPCB. The Public Hearing has been conducted by WBPCB on 03.10.2016. Project Proponent has applied for grant of environmental clearance on 5.2.2019. The Ministry examined their application and noted that the proposal was submitted after expiry of ToR

validity. Further, the baseline data is older than three years. Accordingly, Project Proponent has been advised to initiate the process of environmental clearance process *de-novo* vide Ministry's letter dated 4.2.2019.

- ii. The proposed Unit-5: 1x660 MW is to be setup within the premises of existing Sagardighi Power Station (Unit-3 & 4: 2x500 MW). The following units are under operations or in proposal stage:

Unit No.	Phase	Capacity	Date of Commissioning	Remarks
1.	Phase-I	300 MW	7.9.2008	EC issued on 6.10.2004 for 2x250 MW and amended on 4.9.2008 for changing the configuration to 2x300 MW
2.		300 MW	6.11.2008	
3.	Phase-II	500 MW	1.6.2015	EC issued on 18.5.2011
4.		500 MW	20.12.2017	
5.	Phase-III	660 MW	Proposed Project	ToR issued on 15.1.2015 and validity expired on 14.1.2018. PP could not submit the application for grant of EC within the validity period.

- iii. Presently, WBPDC have 365 ha (900 acres) of land under possession for Phases I, II & III of the plant and another 184 ha for ash disposal. This area would be sufficient for setting up proposed Unit-5: 660 MW.
- iv. The main power plant would be built at an elevation of 34.5 m above mean sea level (MSL). The plot is well above highest flood level (HFL) of the area.
- v. There are no national parks, wildlife sanctuaries and other protected areas/wildlife corridors under Wildlife (Protection) Act, 1972 and no eco-sensitive areas/zones under Environment (Protection) Act, 1986 within 10 km radius of the project.
- vi. Coal consumption for 1x660 MW (Phase-III) is estimated to be around 453 TPH in TMCR condition and 497 TPH in BMCR running condition. Considering an average GCV of 3300 kcal/kg and average station heat rate of 2151 kcal/kWh approximate annual coal requirement of for Phase-III station at 90% PLF works out to be 3.39 million MT per Annum. Coal will be sourced from Pachwara (North) Coal Block, Jharkhand being developed by WBPDC through Bengal EMTA. The geological reserve of the block is about 609.35 MMT whereas mineable reserve of the block is estimated as 392.84 MMT.
- vii. The Coal block is located at a distance of 140 km from the power plant. The coal is brought by road from coal mine to Pakur Railway siding by road. From Pakur railways siding, it is transported by rail mode through existing Pakur-Tildanga-Dhulian-Monigram broad gauge line or through Pakur-Nalhati (proposed)-Takipara-GosaingramPoradanga-Monigram broad gauge line. The coal would be carried in rake loads of BOBR/BOX-N wagons. The coal handling plant of existing power plant will be used for proposed project also. Suitable extension from the end of Transfer Point (TP-19) will be done.
- viii. The design parameters for coal intake would be GCV: 3300 kcal/kg, Total Moisture: 15%; Ash: 40%; Sulphur: 0.5%, Volatile Matter: 19%, Fixed Carbon: 26%.

- ix. The existing two (2) Nos. of LDO tanks of 2000 m³ each and two (2) Nos. of HFO tanks of 2000 m³ each for the Phase-I and additional two (2) Nos. of HFO tanks of 2000 m³ each being constructed under Phase-II project, will cater for storage of LDO and HFO which will be required for start-up and coal firing support purpose of the Phase-II & III units also.
- x. The water withdrawal of 60 cusecs (6116 m³/h) from river Bhagirathi has been permitted by Irrigation and Waterways Department, Govt. of West Bengal vide letter dated 10.9.2009. Presently, the estimated use of water for Phase-I and II (2x300 MW & 2x500 MW) is 34 cusecs (3466 m³/h @ 2.17 m³/MWh). The water requirement for the proposed unit is 16.2 cusecs (1,650 m³/h @ 2.5 m³/MWh). The existing water allotment would be sufficient for the proposed unit. The water will be sourced from the Bhagirathi River located at approximately 5 km from the proposed project. Intake pump house and pipeline are already under implementation for Units-3 & 4.
- xi. Around 200 O & M personnel will be required during operation phase of the project. In addition, around 200 permanent staff shall be engaged in construction activities. The Estimated project Cost is Rs.4,402 Crores.

(25.1.2) Committee noted that the land requirement for the proposed 1x660 MW Unit is about 36 acres for main plant and the existing ash pond of 350 acres will be used for ash disposal in case of emergency. Committee noted that the available land is used for proposed project, achieving greenbelt in an area of 33% may not be possible. Presently, Committee has observed from the google satellite imagery that greenbelt is sparse in and around the plant area. Committee noticed that the ash is being disposed in lean slurry concentration system which consumes more fresh water from Bhagirathi river. Further, the installation of Flue Gas Desulphurisation System will also consume water. As informed, the tenders have been floated for selecting the contractor and it will be installed by April, 2023. Further, the zero effluent discharge concept is to be adopted. Committee noted that the Public Hearing for the project was conducted on 16.09.2016. It has been noted that Project Proponent has requested for exemption of Public Hearing as it is less than 3 years old. Committee noted that Ministry's Office Memorandum dated 29.8.2017 prescribes that the public consultation should not be older than 3 years at the time of submission of the proposal for grant of EC to the Ministry.

(25.1.3) Committee after detailed deliberations, recommended for the following ToRs in addition to the Standard ToR:

- i. Public Consultation shall be carried out by uploading the draft EIA/EMP report on West Bengal Pollution Control Board's website and publishing notice in newspapers (both in Bengali and English) for seeking comments from the general public. The comments received so shall be addressed in the final EIA report along with time bound action plan and financial budget allocation. The EAC opined that while submitting the final EIA/EMP report, the public hearing shall not be more than three years old from the date of public hearing conducted. In case, final EIA/EMP report is submitted after 3 years from the date of public hearing, a fresh public hearing is required to be conducted at the project site.
- ii. One season (non-monsoon) baseline data shall be collected for preparation of EIA report.
- iii. Time Bound Action Plan for conversion of existing ash disposal system from Lean Slurry System to High Concentrated Slurry System shall be provided.

- iv. Action plan for dry and pneumatic collection system for flyash shall be prepared for all the units (existing and proposed)
- v. 33% greenbelt around the periphery of the plant shall be clearly demarcated in the layout map along with the progress of greenbelt developed till date.
- vi. The time bound action plan for installation of Flue Gas Desulphurisation (FGD) Unit shall be submitted.
- vii. Permission from NMCG to withdraw water from Bhagirathi River shall be submitted.
- viii. Non-compliances observed of the environmental clearance conditions by the Regional Office of the Ministry shall be attended and complied. An action plan for full compliances shall be submitted within a month.
- ix. Online emissions and effluent monitoring systems are to be set up and the data is to be connected to the CPCB servers.
- x. Cumulative environmental impacts assessment is to be done in terms of impact on air quality, water quality, water consumption, ash utilisation and disposal.
- xi. Details of quantity of flyash generated from all units since commissioning of units and the utilisation/disposal shall be submitted. Details of total volume of ash pond and the volume utilised till date shall be submitted to examine the adequacy of the existing ash pond for the proposed project as well.

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**(25.2) 1x800 MW Sipat Advance Ultra Super Critical Technology Demonstration Project (Stage-III) at Village Sipat, Tehsil Masturi, Bilaspur District, Madhya Pradesh by M/s NTPC Limited - reg.ToR.
(F.No. J-13012/02/2019-IA.I (T) & Online no. IA/CG/THE/89473/2018)**

(25.2.1) Project Proponent submitted online proposal on 29.01.2019 for grant of ToR for establishing 1x800 MW (Stage-III) Ultra Supercritical Technology project in the existing premises of Sipat Power Plant (Stage-I: 3x660 MW & Stage-II: 2x500 MW).

(25.2.2) Project Proponent started the presentation. Committee in the first instance noticed that QCI-NABET consultants for conducting EIA report have not been engaged by the project proponent. Ministry's Office Memorandum dated 04.08.2009 stipulates that project proponents should indicate the name consultants/firm they propose to hire for preparing EIA/EMP reports along with their complete details including their accreditation, if any, by an organisation such as Quality Council of India/National Accreditation Board for Education and Training (NABET).

(25.2.3) M/s NTPC has submitted that the EIA consultants will be engaged after obtaining ToR. It is because, if the ToR is not granted for particular project, the financial contract with consultants may have to be cancelled and end up with losing time and money. Further, if the EIA consultants are engaged based on the standard ToR and the EAC/Ministry stipulates the additional ToR, the existing contract between M/s NTPC and consultant needs to be modified with increased scope. As the scope is increased, the contract value will also be increased. Further, the increased scope of work/studies will have additional financial burden and it cannot be assigned some other consultant as engaging two consultants will have difficulty in preparation of EIA/EMP and data sharing. Further, the existing consultants have to be engaged for increased scope and at the quoted price by the consultants. Once the consultants are technically acceptable based on the QCI-NABET certification and visits, the list of these consultants are given to Finance Department which

inturn will negotiate with technically accepted consultants and finalise the consultants with lowest price. This difficulty is being faced in all the Public Sectors.

- (25.2.4) Committee noted that Project Proponent have given the justification for engaging consultants after obtaining ToR. In this regards, the Member Secretary informed the Committee that in the recent past, the Policy Sector of IA Division of the Ministry has given a clarification that it cannot be relaxed to Public Sectors and the compliance of the Ministry's OM dated 04.08.2009 has to be uniformly followed by all the project proponents. Accordingly, Committee opined that the Project Proponent may approach Ministry for taking a view on this. Accordingly, the proposal has been **deferred**.

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- (25.3) 3x800 MW Super-Critical TPP at Village Annapurna Khamar, Taluk Kamakhyanagar, Dhenkenal District, Odisha by M/s. Odisha Thermal Power Corporation Ltd.- reg. reconsideration of grant of EC.
(F.No. 13012/43/2012-IA.II(T)& Proposal no. IA/OR/THE/10522/2012)**

- (25.3.1) Project Proponent has submitted the final EIA/EMP documents vide their online application dated 01.03.2017 for grant of environmental clearance. Earlier, the proposal was considered in the 5th EAC meeting held on 26.04.2017. However, PP could not be present in the meeting held on 26.04.2017. Subsequently, the proposal was appraised by the EAC in its meetings held on 29.05.2017 and 12.01.2018. The EAC in its meeting held on 12.01.2018 sought the following additional information:

- i. Water sustainability studies to be conducted for determining the demand of instream users and environmental flow. The study should clearly bring out the impacts on the downstream users and instream biota due to the water drawal for the proposed project.
- ii. Wildlife Management Plan be vetted by the Chief Wildlife Warden and a copy of the plan shall be submitted to the Ministry.
- iii. Prediction of Air quality impacts shall be carried out for worst case scenario (Failure of ESP or FGD or NOx control systems)
- iv. Status of Forest Clearance shall be submitted.

- (25.3.2) Project Proponent vide online submission dated 13.02.2019 submitted the above information. Accordingly, the proposal has been considered in the present EAC meeting. The Project Proponent along with M/s MECON Ltd. have made the presentation and *inter-alia*, provided the following information:

- i. M/s WAPCOS Ltd. has conducted the Water Sustainability Studies on River Brahmani to assess impacts on downstream users and instream biota due to water withdrawal for the proposed project.
- ii. As per the run off data available with Water Resources Department, State Government of Odisha, 90% dependable flow of the base year 2002-2003 has considered for the assessment of water availability down stream of Samal Barrage.
- iii. The proposed intake location is about 90 km down stream of Samal Barrage. The total flow available at proposed intake point considering the releases from Samal barrage and flow from intervening catchment is 2674.31 MCM. The total water requirement between Samal Barrage to intake location including irrigation, domestic and industrial allocations have been estimated to be as 1562 MCM and water requirement for

proposed Thermal Power Plant would be 80 MCM (2.3 cumecs), which is about 4.87% of the requirement for irrigation, domestic and other uses.

- iv. For sustenance of aquatic biota, sufficient water depth are available even after meeting the demand of M/s OTPCL project.
 - v. The water available in Brahmini river down stream of intake point for OTPCL project would be sufficient for maintaining the down stream ecology and other water requirements including industrial, agriculture and drinking purposes even in the lean season.
 - vi. Two months i.e. November and December are the harvesting season in Odisha and therefore irrigation requirement would be negligible, which will further enhance the water availability for sustaining the ecological needs during the lean season.
 - vii. Majority of fish species reported in the area falls in the least concern category as per IUCN red data list (2018.1). None of the species is categorised as 'critically endangered', 'endangered' and 'vulnerable'. A total of 7 species are evaluated as 'near threatened' category, of which *Wallago attu* is one of the species contributing to capture fishery in the region.
 - viii. The wildlife management plan has been prepared by M/s Team Grow Green Consortium Pvt. Ltd. and the same has been approved by the Chief Wildlife Warden vide letter dated 29.12.2018 with financial budge of Rs.15.59 Crores. The plan will be implemented for a period of five years. Subsequently, Project Proponent has been asked by the Wildlife Department to prepare the Wildlife Conservation Plan for a period of 10 years.
 - ix. In order to limit pollutant concentrations within specific norms, OTPCL has proposed for installation of high efficiency ESP, FGD system, Low NOx burners and SCR/SNCR system in each units separately. However, in order to predict the impacts on ambient air in worst case conditions because of failure of these PCEs, study has been conducted.
 - x. The FDP No. FP/OR/THE/29588/2017 for diversion of 38.098 ha of forest land has already been submitted to DFO, Dhenkanal by the Nodal Wing of the Office of the PCCF vide letter No.OR-062/2017. The DFO, Dhenkanal has already forwarded the proposal to RCCF, Angul vide his office Memo No.135 3F/Misc./96/2018, dated 05.01.2019.
- (25.3.3) Committee noted that the project proponent and EIA consultants could not explain the salient points of wildlife management plan and air quality modelling predictions for worst case scenario. There are three Schedule-I species under Wildlife (Protection) Act, 1972 are within the study area viz. Elephant, Pavo Cristatus and Python. Further, it is reported that there are 7 species under Schedule-II. The number and extent of these wildlife in the core area and buffer area is not available. Further, the wildlife which is mentioned in the plando not indicate the location/geographical extent and the distance from the proposed project location. Further, it was noted that project impact zone is part of Mahanadi Elephant reserve and Maulabhanja - Jiridamali- Anantapur identified elephant corridor passes through the northern fringe of the impact zone. The specific measures with respect to Elephant conservation shall be made available. Further, Wildlife Management Plan mentions developing of greenbelt in an area of 236.00 acres (95.507 ha.) and avenue plantation of 9 km. It is not clear that whether this is part of greenbelt already

proposed in the project area or separate area. A map showing the project area, greenbelt area along with co-ordinates is required for understanding the extent of greenbelt proposed. Committee noted that cloud cover in the meteorology data has not been considered. If cloud cover is not given as input to the AERMOD model, the stability classes will be varied and may not represent the real scenario. Further, it was informed that the air quality expert from EIA consultants who has conducted the modelling could not be present and accordingly, the details could not be presented.

(25.3.4) **Committee after detailed deliberations, deferred the project** for want of following information:

- i. The map showing distance between elephant corridor, project boundary, the geographical extent of Schedule-I and II species in and around the project area. Details of number of each species recorded in the impact zone.
- ii. Details of greenbelt proposed in the project and in the wildlife management plan along with the map indicating the length, width and coordinates of the proposed greenbelt.
- iii. Details of air quality modelling shall be presented. The emissions of SO_x in case of failure of FGD for three units may be re-calculated. Further, the emissions may be calculated for stack height of 275 m, 100 m and as per the formula provided in the Ministry's Notification dated 28.06.2018. It should also take into account of exit velocities of the flue gas.
- iv. Off set plan for cutting 13,264 trees in non-forest area and 2,829 trees in the forest area.

(25.4) 55 MW ha Proposed Solid Waste to Energy Facility (Using Cold Plasma Technology) to convert Green Power, Purified Water and Fuel at East Delhi Municipal Corporation Opposite to Gagan Theatre, Wazirabad Road, Mandoli Extension, Village Mandoli, Delhi by A.G. Dauters Waste Processing Private Limited- reg. reconsideration of ToR. (F.No. J-13012/13/2018-IA.I (T) & Proposal no. IA/DL/THE/84113/2018

(25.4.1) Project Proponent has submitted online application on 31.10.2018 for grant of ToR for establishing 55 MW Waste to Energy Power Project from 200 Tons per Day Municipal Solid Waste. The proposal is based on Cold Plasma Gasification Technology which will convert MSW into 55 MW of Green Power, 925 KLD Purified Water and 925 KLD fuel.

(25.4.2) The proposal has been considered by the EAC (Thermal Power) in its 23rd meeting held on 30.11.2018. The EAC has deferred the project for want of detailed project report along with the technology including the material balance. Project Proponent vide their letter dated 07.01.2019 submitted the information which has been placed before the EAC in the present meeting.

(25.4.3) Project Proponent along with their consultants M/s Perfact Envirosolutions Pvt. Ltd. made the presentation and submitted the following information:

- i. Cold Plasma Gassification will generate zero emission and zero residue. There will not be any startup power required for the project. The fuel is used in this technology is generated from the process itself which is LT UltraGas. The area required for the project is 1/20th of the area used for conventional power plants.
- ii. As waste enters the system its physical and chemical characteristics are identified, recorded and tracked in real time, allowing the master control unit to modify/monitor subsequent processing, including feedback loops to continually meet the output requirements. The waste stream is re-screened and separated into solids and liquids. The

solids are processed through multiple stages including grinding and liquefaction and further extraction of water/fluids. All particulate constituents are reduced, gasified and/or converted into LT fuels within the LT Plasma Unit.

- iii. The proposed project is based on the Langenburg Technologies Waste-to-Power and Water Purification Technology.
- iv. In the LT water purification process, liquid constituents are clarified through heat, pressure and proprietary processes leading to pure sterilized water. The remaining solids (down to microscopic level) are rerouted through the plasma unit. The resulting water is recalculated through a range of temperatures, pressure and catalyst processes that introduce and infuse oxygen from the LT Gas Extraction Unit, Balance pH and refine output water. Heat and electric power for this process comes from the LT turbine generator.
- v. A fraction of the water is sent to the LT gas extraction system where a proprietary low-input-energy form of electrolysis is used to develop hydrogen and oxygen. These gases are stabilized using proprietary processes and catalysts - made available on demand to the LT water treatment unit, the LT Plasma process and the LT Turbine.
- vi. The turbine powers up in 60 seconds or less. It includes multiple modifications from standard turbines allowing the use of LT fuels (from gas extraction and plasma fuel synthesis). It is also modified to recapture and recirculate much normally wasted energy (turbulence and heat) allowing cooler operation, reduced heat distortion and vibration resulting in minimal war of components for safe long-term performance. The LT generator is uniquely designed (materially mechanically and electrically) to neutralize the negative loads and resistance that standard generators encounter. Thus, it has a higher power density than any other systems and in tandem with the proprietary LT transformer it produces typical 3-phase alternating current (AC) at 50 Hz and 60 Hz and is fully compatible with international performance and power standards.
- vii. LT plasma is fully integrated into the treatment of all wastes and the production of proprietary, high energy, clean, hydrogen-based fuels.
- viii. All the molecules will be taken to atomic stage for converting into energy (Fuel & Gas) in the reactor of 6,000-14,000 °C. The molten Lava of approx.1% which does not get ionised is called Plasma Rock which will be used for construction purposes. The fuel generated in the process is highly enriched Hydrogen gas which can be used in fighter aircraft turbines. There is no plasma torch used in the process.
- ix. The company has tied up with various State Governments, Municipal Corporations in India for setting up waste to energy power plants based in this technology having total capacity of 1760 MW with the range of 15-550 MW power generation.
- x. The mass balance of the waste and wastewater conversion into energy and purified water is as below:

Input	Process	Outputs
200 TPD waste (30% moisture) 2000 KLD sewage/wastewater	Ultra Cold Plasma Gassification Process Waste to Energy 152 KLD water used in process	925 KLD potable water
		925 KLD zero carbon fuel
		25-30 KLD water vapors to atmosphere
		0.005 TPD recoverable material
		5-30 TPD Plasma rock (recoverable material)

(25.4.4) The committee noted that the waste to energy power plants less or equal to 15 MW do not require environmental clearance. It has been further noted that the project proponent is planning to set up several WtE Power Plants in different states of the country with total capacity of 1760 MW. Committee felt that this is the new technology and is not proven in India till date and the actual mass balance which was submitted is not very clear that how 200 TPD will generate 55 MW power along with fuel and purified water. Committee noted that if it recommends, it will become a precedence or clearance from Central EAC/MoEF&CC so that State Authorities can appraise and recommend these power plants confidently on pollution and safety related aspects. Accordingly, Committee felt that unless it is fully convinced with the technology, process, mass balance, conversion of materials into various states/stages, energy flow, it cannot recommend the proposal.

(25.4.5) Committee has made following observations:

- i. There is no clarity in the kind of plasma used in the proposed cold plasma gasification technique proposed.
- ii. The energy consumed in dissociation of water into hydrogen and oxygen, conversion of waste into syngas and all other processes involved in subsystems were not presented in detailed.
- iii. The mass and energy balance of the proposed waste disposal plant is not clearly available for evaluation. It only mentions the conversion of waste and wastewater into energy and purified water. But, it does not mention any process of how it is converted.
- iv. The details provided such as input waste characteristics, process reactions, process byproducts and plant output (55 MW power, water and fuel) are appearing superficial.
- v. A complete process and technical detail along with the working principle of each process involved, mass and energy balance are required for further evaluation.
- vi. Demonstration of the technology/waste disposal plant in the lower/pilot scale is appreciable before the establishment of the proposed 200 TPD capacity.

Accordingly, the Committee deferred the project.

(25.5) 1x800 MW (Stage-V) Dr. Narla Tata Rao Thermal Power Station, Village and Taluk Ibrahimpatnam, Krishna District, AP by APGENCO- reg. amendment in EC.

(F.No. J-13012/26/2012-IA-II(T) & Proposal No. IA/AP/THE/10488/2012)

(25.5.1) Project Proponent submitted online application on 04.02.2019 for changing the coal source from imported coal to domestic coal.

(25.5.2) The Environmental Clearance for establishing 1x800 MW Power Plant has been issued by this Ministry's vide letter 26.06.2015. As per the Environmental Clearance, the unit will be based on 100% imported coal. The coal requirement is 2.65 MTPA (8,088 TPD). The imported coal is supposed to be brought from Krishnapatnam port to the plant premises by rail. The Ash and Sulphur content in the imported coal has been restricted to 12% and 0.8% respectively as per EC condition. Further, an ash pond of 70 acres is to be acquired for proposed unit.

(25.5.3) Project Proponent has made the presentation inter-alia submitted the following information:

- i. Ministry of Coal vide letter dated 19.09.2017 granted long term coal linkage to Dr. NTPS, Stage-V (1x800 MW). M/s MCL issued Letter of Assurance (LOA) for supply of 3.548 MTPA coal of grade G11 to G15.
- ii. The imported coal requirement is 2.65 MTPA (8,088 TPD). If domestic coal is used the quantity will be increased to 3.39 MTPA (10,272 TPD). The ash generation will increase from 0.4 MTPA (1,294 TPD) to 1.27 MTPA (2,492 TPD).
- iii. APGENCO has already established Coal Washery Plant of 11 MTPA capacity at Balaram OCP, Talcher through M/s Spectrum Coal Power Limited on BOO basis to supply washed coal to Dr. NTPS. The washery will be used for beneficiation of the coal to be supplied for Stage-V power plant. M/s Mahanadi Coalfields Ltd. will deliver raw coal by road to washery set up by APGENCO. The washed coal will be transported to project site by rail.
- iv. The washed coal characteristics would be as below:

Parameter	Value
GCV	4200 kcal/kg
Ash	34%
Sulphur	0.62%

- v. The emission load for PM, SO₂ and NO_x for the proposed domestic washed coal are as below:

Parameter	Emission Load
PM (with outlet dust level of 30 mg/Nm ³)	24.9 g/sec
SO ₂ (with FGD of outlet SO ₂ level of 100 mg/Nm ³)	81.5 g/sec
NO _x (with furnace modification to 300 mg/Nm ³)	250 g/sec
NO _x (with installation of De-NO _x /SCR to limit NO _x level to 100 mg/Nm ³)	81.5 g/sec

- vi. The maximum ground level concentrations have been predicted and the details are as below:

Parameter	PM ₁₀	SO ₂	NO _x
Baseline Scenario	95	36	45
Predicted GLCs for design emissions of PM : 30 mg/Nm ³ ; SO ₂ : 100 mg/Nm ³ & NO _x : 300 mg/Nm ³	0.53	1.4	4.2
Post Project Scenario	95.53	37.4	49.2
NAAQS Standards	100	80	80

- vii. Post project ground level concentrations are found to be within the NAAQS standard.
- viii. The ash generation of existing 6x210 MW + 1x500 MW is in the range of 3.8 MTPA to 4.2 MTPA. The ash utilisation is in the range of 59.94-90.71%. The ash utilisation for the year 2018-19 (till January) is found to be 101.72%.
- ix. Even though the 70 acres was permitted for ash disposal for Unit-5, the land acquisition proposal submitted to Revenue Department has been withdrawn considering the encouraging trend in the ash utilisation.

(25.5.4) Committee noted that the proposed change in coal source will increase the ash generation from 0.4 MTPA to 1.27 MTPA. Further, it was informed that the ash pond area of 70 acres permitted under EC will not be used as the existing ash pond of 425 ha will be used. It was further informed that the existing ash pond of 425 Hectares has been almost filled with nearly 40 Million Tonnes of ash. Considering the increase in ash generation, the utilisation mechanism needs to be prepared. It was informed that the project is under construction. However, the detailed status of construction/ commissioning of proposed project has not been made available. The ground level emissions predicted from stack are based on the emission standards of the stack (PM: 30 mg/Nm³; SO₂: 100 mg/Nm³ & NO_x: 300 mg/Nm³). However, it was informed that the installation of FGD, SCR/SCNR to meet the compliance of new emission norms is in tendering stage. In case, the unit will be ready for commissioning and Flue Gas Desulphurisation System and NO_x control systems are not installed, the emission levels and respective ground level concentrations will increase.

(25.5.5) **Committee after deliberations, recommended for amendment in EC dated 26.06.2015 for change in coal source from imported coal to domestic coal with the coal quantity of 3.39 MTPA (10,272 TPD) subject to following additional conditions:**

- i. The details of quantities of ash generation, utilisation to various purposes such as brick manufacturing, constructions, soil condition & cement manufacturing and disposal shall be provided for six months (April-September & October-March) in the six monthly compliance report.
- ii. As proposed, 70 acres of ash pond which was permitted as part of EC will not be used for ash disposal. The unused ash generated from the proposed unit, if any will be disposed of in the existing ash pond. Greenbelt shall be developed in the 70 acres area. Progress report mentioning the number of saplings, details of saplings, density, survival rate, quantity and source of water, expenditure spent on maintenance shall be provided.
- iii. As per the Ministry's flyash amendment Notification vide SO.254 (E) dated 25.01.2016, the company shall upload the details of stock of each type of ash generated/available from

- all Stages (6x210, 1x500 MW and 1x800 MW) on Company's website and shall update the stock position at least once a Month.
- iv. As per the Ministry's flyash amendment Notification vide SO.254 (E) dated 25.01.2016, the flyash shall be supplied to various utilising units. The cost of transportation of ash for road construction projects or for manufacturing of ash based products or use as soil conditioner in agriculture activity within a radius of hundred kilometers from Dr. Narla Tata Rao Thermal Power Station shall be borne by M/s APGENCO and the cost of transportation beyond the radius of hundred kilometers and up to three hundred kilometers shall be shared equally between the user and M/s APGENCO.
 - v. For achieving compliance of flyash notification, a map and details of ash utilising units within 100 km radius and 100-300 km along with quantity of ash required for each unit shall be prepared and submitted to the Ministry within 3 months.
 - vi. A public notice in major daily newspapers shall be published in both vernacular and English that the fly ash/bottom ash will be supplied free of cost for ahs utilising units located within 100 km radius and the cost of transportation will be shared equally between user and M/s APGENCO for ash utilising units located in the radius of 100-300 km, in compliance to the flyash amendment notification dated 25.1.2016. A copy of newspaper notice shall be submitted to Regional Office.
 - vii. While commissioning the proposed project, the compliance of revised emission norms vide Notification dated 07.12.2015 for the parameters PM: 30 mg/Nm³; SO₂: 100 mg/Nm³; NO_x: 100 mg/Nm³ and Hg: 0.03 mg/Nm³ shall be achieved along with specific water consumption as per the notification vide dated 28.06.2018. The FGD System, NO_x control measures such as SCR/SCNR/De-NO_x burners shall be installed to achieve the revised emission norms.
 - viii. The status of installation of FGD and De-NO_x/SCR/SCNR control systems to comply with new emission norms for Stage-V (1x800 MW) and existing operating units shall be submitted.
 - ix. The detailed progress report of construction of proposed project shall be submitted to the Ministry and its Regional Office along with six monthly compliance report till the unit is commissioned.
 - x. As per the Revised Tariff Policy notified of Ministry of Power issued vide dated 28.01.2016, project proponent shall explore the use of treated sewage water from the Sewage Treatment Plant of Municipality/ local bodies/ similar organization located within 50 km radius of the proposed power project to minimize the water drawl from surface water bodies. The details of Sewage Treatment Plants located within 50 km radius along with the capacities shall be submitted.

(25.6) 2x660 MW Super critical coal based Thermal Power Project at Village Dadri Khurd, Tehsil Mirzapur Sadar, District Mirzapur, Uttar Pradesh by M/s Welspun Energy UP Pvt. Ltd. - reg. amendment in EC (F.No. J-13012/12/2011-IA.II(T) & Proposal no. IA/UP/THE/10331/2010)

(25.6.1) Project Proponent (PP) submitted the proposal online on 17.06.2017 for amendment of EC accorded vide dated 21.08.2014.

- i. Environmental Clearance for establishing of 2x660 MW Super critical coal based Thermal Power Project at Village Dadri Khurd, Tehsil Mirzapur Sadar, Dist. Mirzapur, Uttar Pradesh has been issued vide Ministry's letter dated 21.08.2014.

- ii. NGT, Principal Bench, Delhi in Appeal No.79/2014 in the matter of Debadityo Sinha vs Union of India in their judgment dated 21.12.2016 set aside the Environmental Clearance dated 21.8.2014 and directed the PP not to carry out any developmental work at the project site, restore the area to its original condition and work of restoration is stayed for a period of two months.
- iii. NGT vide their judgment dated 01.05.2017 directed that Project proponent is at liberty to approach the MoEF&CC or any other competent authority for processing of the applications for grant of EC upon making up for rectifying the defects and deficiencies pointed out in the judgment. However, the authorities concerned are at liberty to process the same in accordance with law while strictly adhering to the content of the judgment.
- iv. NGT vide their judgment dated 21.12.2016 mentioned the following defects in the EC process:
 - a. Deliberate concealment with regard to forest land within the proposed project site.
 - b. Non-submission of Form-1 dated 31.3.2011 for the project site at Mirzapur
 - c. Discrepancies in Form-1 dated 31.03.2011 and the Form-1 furnished later on vide dated 03.12.2011
 - d. Whether the project proponent required forest clearance before the grant of EC as the project site involve forest land
 - e. Concealment of presence of wildlife within the proposed project.
 - f. Usage of water in upper Khajuri Dam and withdrawal of water by the project proponent from the river Ganga to the upper Khajuri Dam would severely impact the nature of the water that is used for human consumption as well as irrigation.
 - g. Impact of the proposed project on Banaras Hindu University (BHU)
 - h. Presence of Kaimur, that is an important mineral resource to be found in the area of Mirzapur.
 - i. Whether the Public Hearing was conducted in a free and fair manner, in view of the fact that there was presence of men carrying arms in the video of the public hearing.

(25.6.2) The proposal was earlier considered in the EAC meeting held on 24.07.2017 and the EAC sought the following additional information:

- i. Hydro-geological study and impact on in-stream uses due to water withdrawal from Ganga river.
- ii. A certificate from State Mines and Geology Department regarding mineralogical map and presence of minerals in the project and surrounding areas.
- iii. Clarification report from District Collector regarding conduct of Public Hearing including law and order issues.
- iv. Recommendations from Standing Committee of National Board for Wildlife (SC-NBWL).
- v. Details of STP within 50 km radius from the project site.
- vi. Commitment for setting up of RO system for providing potable water to Banaras Hindu University.

(25.6.3) As the Project Proponent has not submitted the information within six months, the proposal has been delisted from the pendency list. Subsequently, on the request of project proponent, the proposal has been re-opened and the information sought by EAC was uploaded on 11.02.2019. Accordingly, the proposal has been re-considered in the present meeting. Project Proponent has made the presentation *inter-alia*, submitted the following information:

- i. The water requirement during construction phase is 500 KLD and operation phase is 36 MCM (1 Lakh m³/day or 100 MLD). The water during construction phase will be met from groundwater by installation of tube well at the site to meeting drinking and construction water requirement for a period of five years. The water during operation of phase will be sourced from the River Ganga through a pipeline at a distance of about 17 km from the project site for seven months (June-December).
- ii. Hydrogeological Study within 10 km radius area of proposed project has been conducted by IIT, Roorkee.
- iii. The entire study area consisted of Kaimur Sandstone and Alluvium deposits. The groundwater resources as per the CGWB report, 2012-13 indicates that out of 12 blocks in the study area, 7 blocks are in the safe category, 3 blocks are in the semi-critical category and 2 blocks are in the critical category as on 31.03.2009.
- iv. The groundwater simulations in the study area has shown as 'Safe' category. The groundwater usage for irrigation and domestic use is 13.89 MCM and the annual groundwater recharge is 51.96 MCM. The usage of groundwater is about 27% of the available groundwater.
- v. Groundwater quality has been analysed in the study area at 12 locations. The TDS levels in the groundwater at Villages Jhingura, Gopalpur and Agvar are 611 mg/l, 689 mg/land 877 mg/l, respectively and exceeding the BIS standard of 500 mg/l. Further, hardness in the groundwater at Villages Jaugarh, Jodhipur, Majhubani, Gopalpur, Chikesr, Agvar and Padari are 600 ppm, 610 ppm, 410 ppm, 360 ppm, 320 ppm, 480 ppm and 420 ppm, respectively and exceeding the BIS limit of 300 ppm.
- vi. The Heavy metals such as Cadmium is high at Villages Haritara and Jhingura (3.9787 ppb and 3.661 ppb) as against BIS standard of 0.003 ppb. Further, Magnesium levels at Villages Kathinai and Agvar (33.3096 ppm and 32.991 ppm) are also exceeding the BIS standards of 30 ppm.
- vii. The groundwater in the study area has enough potential to accommodate 500 KLD for five years during construction phase. It is recommended to replenish the extracted groundwater resources by recharging structures at suitable locations which can be constructed within or outside the plant boundary.
- viii. Further, Water source Sustainability Study for the proposed project has been carried out by the CSIR-Advanced Materials and Processes Research Institute (AMPRI), Bhopal.
- ix. Among the fish diversity, 10 species are catfishes which are the indicator of shallow and running water. The maximum species are under the 'Least Concern' category according to the International Union of Conservation of Nature (IUCN) category. One species belongs to the endangered category which needs immediate actions for protection. One species falls under near threatened category and six species fall under the vulnerable group.
- x. The discharge data from River Ganga during 1981-2011 is in the range of 352.96 cumecs in 2009-10 to 2881.353 cumecs in 1981-82. The water discharge for 2018-19 has been predicted using ARIMA (Autoregressive Moving Average) model. The predicted discharge observed to be minimum in month of May is 264.34 cumecs for the year 2018-19. The equivalent discharge is 685.17 MCM/month.
- xi. The water requirement for the proposed project is 36 MCM during June-December from Rive Ganga. The total requirement is 5% of the minimum monthly discharge. Therefore, it is safe to withdraw water in rainy season.
- xii. It is recommended that maximum water may be withdrawn in July, August and September i.e. during high discharge period. Further, comparing the annual required water for project (36 MCM) to the least monthly available water 685.167 MCM in month

of May shows withdrawal of 36 MCM over a period of 07 months will not have any adverse impact at the upstream and downstream of intake facility in Mirzapur.

- xiii. Study suggests that river flow upstream of intake point will not be affected by proposed withdrawal and there will be no significant impact at the downstream due to water withdrawal for the proposed Mirzapur TPP.
- xiv. District Mining Officer, Mirzapur vide letter dated 17.4.2018 stated that there is no mining lease issued in the past in the proposed project area and there is no proposal in future to carry out mining activities in the proposed project area.
- xv. District Collector, Mirzapur vide letter dated 10.4.2018 stated that the public hearing conducted for the proposed power project was concluded in undisputable manner with the Chairmanship of Additional District Magistrate.
- xvi. Recommendations of Standing Committee of National Board for Wildlife is not applicable for the proposed project as the project area neither falls within National Park nor any Wildlife Sanctuary notified under Wildlife (Protection) Act, 1972. No Eco-Sensitive Zone notified under Environment (Protection) Act, 1986 also.
- xvii. Regarding, use of treated Sewage Water for the proposed project, a technical feasibility study has been conducted to assess the availability of water for the proposed project.
- xviii. There are 8 Sewage Treatment Plants (STP) within 50 km radius of the project. The details of the capacities are as below:

Sl.No.	Name	Distance	Existing Capacity (MLD)	Proposed Expansion (MLD)	Total (MLD)	Assured Capacity (MLD) given by UP Jal Nigam
1	Pakka-Pokhara, Mirzapur	20 km	14	8.5	22.5	18
2	Bisunderpur, Mirzapur	23 km	-	8.5	8.5	
3	Vindhyachal	26 km	4	3	7	
4	Chunar	27 km	-	2	2	
5	Ramana, Varanasi	44 km	-	50	50	40
6	DLW, Varanasi	44 km	12	-	12	
7	Bhagwanpur, Varanasi	45 km	9.8	-	9.8	9.8
8	Dinapur, Varanasi	54.33 km	80	140	220	150
9	Goithara, Varanasi	54.61 km	-	120	120	40
10	Ramnagar, Right Bank of Ganga, Varanasi	~43 km	DPR under preparation			
Total Capacity (MLD)			119.8	332	451.8	257.8

- xix. These STPs are located at three places viz. Mirzapur, Chunar and Varanasi. The STPs near Varanasi are located on North Bank of Ganga River. A pipeline is to be laid across River Ganga to transport water to the plant premises. Several permissions are required to lay pipeline across Ganga. Further, Mirzapur and Chunar are located on Southern side of the Ganga River and pipelines can be laid by avoiding the Clearance from National Ganga River Basin Authority.
- xx. The Uttar Pradesh Jal Nigam vide their letter dated 01.10.2018 has assured to provide this treated Sewage Water of 257.8 MLD from Bhagwanpur, Dinapur, Goithaha, Ramana and Mirzapur STP. The water requirement for the proposed project is 100 MLD. The water assured by UP Jal Nigam would be sufficient to meet the water requirements during operation phase.
- xxi. It is technically feasibility for sourcing of treated Sewage from STPs located in and around Mirzapur Town. However, technical feasibility need to be established for sourcing sewage from Varanasi with environmental impact assessment. Crossing Ganga river with sewage pipeline be avoided and utilisation of sewage from STP on north side of Ganga be considered for industries located on North side only.
- xxii. The cost estimate for drawal of 18 MLD treated sewage from 3 STP located in around Mirzapur town will be Rs.83.00 Crores.
- xxiii. The company undertakes to install RO plant to supply drinking water to BHU in their campus.

(25.6.4) Committee noted that groundwater in some of the blocks in the study area is in Semi-critical and Critical zones. Further, Total Dissolved Solids, Hardness, Magnesium and Cadmium (Heavy Metal) are exceeding the BIS standards in some areas. Even though source sustainability study mentions availability of water, committee is of the opinion that treated Sewage shall be used as the assured quantity of about 258 MLD has been made available by Jal Nigam. Further, the water requirement for power project is only 100 MLD. Accordingly, treated Sewage Water would be sufficient to meet the requirement of power project. Further, Committee noted that District Collector, Mirzapur has certified that the public hearing has been concluded in undisputable manner. Further, District Mining Officer has also certified that there is no mining activity proposed in the project area. Project Proponent has given assurance that they will install and supply RO treated water to Banaras Hindu University. However, the capacity of RO treatment system and time bound action plan to implement this activity is yet to be made available.

(25.6.5) **Committee after detailed deliberations, recommended for amendment in Environmental Clearance dated 21.08.2014** subject to the following additional conditions:

- i. As the assurance from UP Jal Nigam for supplying treated Sewage Water of 257.8 MLD to the proposed project has been given vide letter dated 01.10.2018, only treated Sewage water shall be used during operations. Necessary pipelines in this regard shall be laid. Final layout of the pipelines starting from STPs to the power project shall be submitted.
- ii. No fresh water from Ganga River shall be drawn for the proposed project (Both construction and operation phase).
- iii. The capacity of RO treatment plant to be installed at BHU and timebound action plan for implementation shall be submitted within three months.

- iv. Before drawing the groundwater during construction phase (500 KLD), permission from Central Ground Water Board shall be obtained.

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(25.7) 1x350 MW (Phase-II) Imported Coal based Power Project, Village Kamalanga, Tehsil Odapada, District Dhenkanal, State Odisha by ` Kamalanga Energy limited-reg. extension of validity of EC.

(F.No. J-13012/73/2011-IA II (T) & Proposal no. IA/OR/THE/75/2011)

(25.7.1) Project Proponent submitted online application on 15.01.2019 for extension of validity of EC issued vide dated 05.12.2011 for further period of five years.

(25.7.2) The environmental clearance for 1x350 MW (Phase-II) Power Project has been accorded vide Ministry's letter dated 05.12.2011 which was valid for a period of five years, i.e. till 04.12.2016. The Ministry's notification dated 14.09.2016 has stipulated the validity of EC to seven years and can be maximum extendable for further period of three years. As the present EC is valid on the date of Ministry's Notification dated 14.09.2016, the existing validity of five years will automatically get extended to seven years, i.e. till 04.12.2019.

(25.7.3) Project Proponent has made the presentation and furnished the following information:

- i. The project work has been completed up to 30%, further extension is required to achieve financial closure and completion of project activities.
- ii. The detailed progress of the project is provided as below:

Sl. No	Plant Facilities	Status of implementation
1.	Boiler, Steam Turbine, Generator & Accessories and TG Building	Major Civil work completed, Coal Bunkers erected, rest to be done.
2.	Switch Yard	Civil work & Tower is erected, Electrical equipment to be installed.
3.	Cooling Towers & CW Pump house	Civil & building work of pump house completed, CT work to be done.
4.	River Water pump house and pipeline Reservoir & Pump House	Completed -Common facility
5.	Water treatment plant & accessories & ETP/STP/RO system	Completed-Common facility
6.	Ash Pond	Presently constructed in 212 Acres
7.	Coal handling Plant, Fuel Handling Plant and Ash handling plant with silo	Completed -Common facility
8.	Greenbelt	More than 320 Acres with 3,48,408 Nos. of Saplings planted till October 2018.

- iii. There will be no change in project capacity, configuration, fuel consumption and thus, incremental pollution load. The expected completion of project is by December, 2023. Hence, validity extension for further five years i.e. up to 04.12.2023 is requested.
- (25.7.4) Committee noted that 30% project work has been completed so far and some of them are common facilities for existing 3x350 MW and proposed 1x350 MW. Accordingly, EAC is of the opinion that the proposed unit can be commissioned within three years, if extended. However, committee noted that extension of five years cannot be recommended as the outer limit of validity is 10 years.
- (25.7.5) Committee after detailed deliberation, **the EAC recommended for extension of validity of EC granted vide dated 05.12.2011 for further period of three years, i.e. till 04.12.2021 subject to following additional conditions:**
- i. Progress of construction activities and expenditure incurred shall be submitted along with six monthly compliance report.
 - ii. While commissioning the proposed unit, the compliance of revised emission norms issued vide Notification dated 7.12.205 for the parameters PM: 30 mg/Nm³; SO₂: 100 mg/Nm³; NO_x: 100 mg/Nm³; and Hg: 0.03 mg/Nm³ shall be adhered along with specific water consumption as per the notification dated 28.6.2018. The Flue Gas Desulphurisation System, NO_x control measures such as SCR/SCNR/De-NO_x burners shall be installed to achieve the revised emission norms.
 - iii. As per the Revised Tariff Policy notified by Ministry of Power vide dated 28.01.2016, project proponent shall explore the use of treated sewage water from the Sewage Treatment Plant of Municipality/ local bodies/ similar organization located within 50 km radius of the proposed power project to minimize the water drawl from surface water bodies. The details of Sewage Treatment Plants located within 50 km radius along with the capacities shall be submitted.

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**(25.8) Expansion by addition of 2x660 MW (Stage-II) Coal based Tanda Super Thermal Power Project, Village Bahadurpur, Tehsil Tanda, District Ambedkar Nagar, Uttar Pradesh by M/s NTPC Ltd-reg. amendment in EC.
(F.No. J- 13012/96/ 2007-IA II(T) & Proposal No. IA/UP/THE/12047/2011)**

(25.8.1) Project Proponent submitted online application on 04.02.2019 for amendment in specific condition No. (xvi) of the EC condition issued vide dated 13.04.2011 regarding installation of continuous emission monitoring for PM_{2.5} and PM₁₀.

(25.8.2) The Environmental Clearance to the 2x660 MW (Stage-II) Tanda Super Thermal Power Project has been accorded vide Ministry's letter dated 13.04.2011. The Specific Condition Nos. (xiv), (xvi) and (xvii) are as below:

Specific Condition No. (xiv): Provision for installation of FGD shall be provided for future use.

Specific Condition No. (xvi): Stack of 275 m height shall be installed and provided with continuous online monitoring equipments for SO_x, NO_x, PM_{2.5} & PM₁₀. Exit velocity of flue gases shall not be less than 22 m/s. Mercury emissions from stack may also monitored on periodic basis.

Specific Condition No. (xvii): High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm³.

(25.8.3) Project Proponent has made the presentation *inter-alia*, submitted the following information:

- i. Online continuous monitoring instruments are available for PM_{2.5} and PM₁₀ in the ambient air. However, these instruments are not available for monitoring stack emissions for PM_{2.5} and PM₁₀ separately.
- ii. Further, the revised stack emissions vide notification dated 07.12.2015 also stipulates PM emissions standards of 30 mg/Nm³ but not PM_{2.5} and PM₁₀ separately.
- iii. The PP informed that several vendors have been consulted and confirmed that there are no instruments available as on date for measuring PM_{2.5} and PM₁₀ emissions from the stack.
- iv. In view of the above, the specific condition No. (xvi) may be suitably amended to "continuous online monitoring of PM in stack emissions."

(25.8.4) Committee noted that the condition regarding online monitoring of PM_{2.5} & PM₁₀ in the stack emissions may have been stipulated erroneously. Committee has no objection to suitably amend the condition.

(25.8.5) Committee after deliberations, recommended for amendment of the following specific conditions and stipulated additional conditions in the EC accorded vide dated 13.04.2011:

- i. Specific Condition No. (xiv): Provision for installation of FGD shall be provided for future use.
- ii. Specific Condition No. (xvi): Stack of 275 m height shall be installed and provided with continuous online monitoring equipments for SO_x, NO_x, PM emissions in the stack. Exit velocity of flue gases shall not be less than 22 m/s. Mercury emissions from stack may also monitored on periodic basis.
- iii. Specific Condition No. (xvii): High Efficiency ESP shall be installed to ensure meeting of latest emission norms.
- iv. Additional conditions:
 - a. While commissioning the proposed unit, the compliance of revised emission norms issued vide Notification dated 07.12.205 shall be achieved along with specific water consumption as per the notification dated 28.06.2018. The FGD System and NO_x control measures such as SCR/SCNR/De-NO_x burners shall be installed to achieve the revised emission norms.
 - b. As per the Revised Tariff Policy notified by Ministry of Power vide dated 28.01.2016, project proponent shall explore the use of treated sewage water from the Sewage Treatment Plant of Municipality/ local bodies/ similar organization located within 50 km radius of the proposed power project to minimize the water drawl from surface water bodies. The details of Sewage Treatment Plants located within 50 km radius along with the capacities shall be submitted.

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(25.9) 4x500 MW (Stage-II & III) Vindhyachal Super Thermal Power Project, Village & Tehsil Waidhan, District Singrauli, Madhya Pradesh by M/s NTPC Ltd.- reg. permission to dispose ash in an abandoned mine voids.

(F.No. J-13011/7/2001-IA.II(T)& Proposal No. IA/MP/THE/95055/2002)

(25.9.1) Project Proponent submitted online application on 08.02.2019 for permission to dispose fly ash generation from 4x500 MW (Stage-II & III) Vindhyachal Super Thermal Power Station in to an abandoned mine voids of Gorbi mines of M/s Northern Coalfields Ltd.

(25.9.2) M/s NTPC is operating Vindhyachal Super Thermal Power Station with capacity of 4760 MW at Vindhyanagar in the District of Singrauli of Madhya Pradesh state. The details of EC accorded by the Ministry are as follows:

Capacity	Date of grant of EC
Stage-I (6x210 MW)	25.11.1981
Stage-II (2x500 MW)	26.06.1990
Stage-III (2x500 MW)	19.07.2002
Stage-IV (2x500 MW)	05.02.2009
Stage-V (1x500 MW)	02.05.2012
Total: 4,760 MW	

(25.9.3) Project Proponent has made the presentation and inter alia provided the following information:

- i. The ash generation from Stage-II & III (4x500 MW) is about 2.97 Million Tonnes per annum. The details of breakup of ash generated per day are provided as below:

Power Plant	Flyash	Bottom ash	Total
Stage-II (2x500 MW)	4000	1000	5000
Stage-III (2x500 MW)	3600	900	4500
Total	7600	1900	9500

- ii. Presently, the ash is disposed in the existing ash ponds located adjacent to Rihand Reservoir/Gobind Ballabh Pant Sagar.
- iii. To reduce burden on existing ash ponds and reduce the load on additional ash ponds area, it is proposed to dispose the ash generated from Stage-II & III (4x500 MW) into the abandoned mine voids of Gorbi mines located about 38 km from the power plant.
- iv. The present proposal is also inline with the directions of Core Committee constituted by Hon'ble NGT in the case No.276/2013.
- v. NTPC has entered an MoU with M/s Northern Coalfields Ltd. for backfilling ash into Gorbi mines for 10 years. Initially, it was permitted to dispose 1 Million Tons in mine void by using closed tankers. After satisfactory filling of ash, the quantity can be further enhanced.
- vi. After filling of complete void, it will be reclaimed and vegetated with native species.
- vii. Currently, 25% ash generated from Stage-II & III (4x500 MW) is utilised in different industries like Flyash bricks, Cement, Asbestos, RMC and Dyke raising, etc.
- viii. It is proposed to transport one Million Ton of ash by road to dispose in Gorbi mines and subsequently, the ash will transported through pipeline in lean surry mode to the Gorbi mines for disposal.
- ix. The estimated volume of the acidic water filled in the mine void is approx.14 Million m³. The total volume of the mine void may be 10-15% higher than the volume of water.

- x. As per the MoU, NTPC will carry out treatment/management of acidic water in the mine. In case, the water needs to be discharged, appropriate treatment shall be done to meet the discharge standards.
- xi. As per MoU, NTPC Vindhyachal shall prepare a comprehensive scheme for flyash filling with a detailed methodology and mode of transportation in environmentally acceptable manner, acidic water treatment & management, safety and allied issues. Comprehensive EIA/EMP shall be prepared to obtain permission from MoEF&CC. Expert Body shall also ensure whether filling of soil over filled up flyash in the voids of Gorbi Mines is technically feasible. NTPC shall also ensure to avoid the groundwater contamination and seepage through ash bed.
- xii. The stability of the mine around the periphery shall also be ensured.
- xiii. The estimated cost of the proposed ash disposal system is Rs.40 Crores.

(25.9.4) Committee after seeing the google satellite imagery, in the first instance noted that the mine void of Gorbi mine is a water body nearly filled to its brim and surrounded by thick green vegetation/forest. Further, it was informed that the water is acidic. The quantity of water in the mine void is estimated to be 14 Million m³. The ash disposal will displace huge quantity of water. It appears that the surrounding vegetation/forest is dependent on groundwater recharge from the water pond of the Gorbi mine. If the ash disposal displaces the water, it has to be treated adequately and an alternative arrangement is to be made whether to reuse such large quantity of water or to dispose treated water. Further, adequate treatment arrangements would be required to neutralise the acid water. In case, the lean slurry ash is disposed into the mine void, it will not only increase the quantum of water but also increase the water levels in the void and may lead to spilling outside the pit area. The environmental impact assessment study, leachate studies and geotechnical studies are required for further examination. Further, the increase in water levels may weaken and destabilise the bund holding the water. Committee noted that traffic impact assessment is required for initial road transportation of 1 million Tons of ash by nearly 140 trucks. Committee has also noted that the present proposal is in the Singrauli Critically Polluted Area and the moratorium on developmental projects is still continued as the lifting of Moratorium vide Ministry's OM dated 10.04.2014 has been set aside by the NGT.

(25.9.5) Committee after deliberations, **recommended for prescribing the following Terms of Reference** for conducting detailed environmental impact assessment studies for comprehensive appraisal:

- i. The satellite image, topographical features including contours, spot levels, drainage network etc shall be submitted.
- i. Detail design, drawing for site preparation and stowing methodology including pipeline alignment for backfilling of ash in abandoned mines.
- ii. Details of quantity, source and quantity of water used for pumping flyash.
- iii. The details of quantity and quality of water available in the Gorbi mine voids, wastewater treatment methodology along with capacity of treatment plant, the reuse of treated water or alternate discharge mechanism.
- iv. Details of whether any aquatic life & wildlife is present in the water filled Gorbi mines.
- v. Details of number of trees, species, girth to be cut for the proposed ash disposal and laying of pipeline shall be provided.
- vi. Impact of water displacement on surrounding greencover shall be studied.

- vii. Assessment of geotechnical properties of OB dump material and fly ash with different mixing ratios and to arrive at optimum blending ratio for OB/Flyash to attend the maximum dry density and least permeability.
- viii. Stability study at the optimized ratio of OB and Flyash to the open cast mine of the proposed operating site. In case, only flyash is proposed to dispose, the study may take flyash disposal into account.
- ix. Base line data generation (AAQ, Water, Soil, plant and aquatic life) in and around abandoned mines including Bio magnifications study for the in and around abandoned mines/low lying area
- x. Leaching study and radio tracer studies of fly ash and OB dump are to be conducted, which is going to be dumped in abandoned mines.
- xi. Site specific piezometer design in and around abandoned mines area.
- xii. Feasibility study exploring the utilisation avenues such as construction of road embankments, brick manufacturing, cement manufacturing, etc within 100 km radius of the power plant.
- xiii. As the present proposal is located in the Singrauli Critically Polluted Area and moratorium is yet to be lifted on developmental projects, a certificate from Madhya Pradesh Pollution Control Board shall be submitted stating that there will not be any increase in pollution load due to proposed transportation of ash from Vindychal Power Plant and disposal into Gorbi mines in line with Ministry's OM dated 17.09.2013.

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(25.10) Expansion of Municipal Solid Waste based Power Plant from (Waste to Energy) 16 MW to 23 MW, at NDMC Compost Plant Site near Okhla STP, Okhla, New Delhi by Timarpur Okhla Waste Management Company Private Ltd.- reg. amendment in EC. (File No. J-13012/09/2018-IA.I(T) & Online No. IA/DL/THE/75480/2006)

- (25.10.1) Project Proponent submitted online application on 25.1.2019 for enhancing the power generation capacity from 16 MW to 23 MW without increasing the waste feed to the boiler as per the Environmental Clearances issued vide dated 21.03.2007 and 09.05.2007.
- (24.10.2) Project Proponent has made the presentation and *inter-alia*, submitted the following information:
 - i. Total plot area is 6.07 ha, out of which plant area is 2.44 ha, green area is 1.2 ha, office and utilities is 0.85 ha and Road/parking area is 0.97 ha.
 - ii. The plant is located at a distance of 2.36 km from Okhla Bird Sanctuary and 4.77 km from Asola Bhati Wildlife Sanctuary (from ESZ Boundary).
 - iii. The unit has been made fully operational. During the course of operations of the plant, the power generation was achieved from 16 MW to 23 MW. The augmentation of 6 MW has been achieved due to increase in Calorific value of incoming solidwaste. Accordingly, less RDF is being consumed.
 - iv. The augmentation of 7 MW is also due to addition of brush seals in the turbine, and resultant steam path from the turbine bleeds modification has reduced the steam consumption.
 - v. Operating under wide valve condition has also aided in achieving enhanced generation.
 - vi. Accordingly, amendment in the EC for augmenting the power generation capacity from 16 MW to 23 MW has been applied.

- vii. Existing fuel requirement for the power plant is 1,950 Tons per day. There are three boilers with intake waste capacity of 450 TPD. Cost of the project is Rs. 273 Crores and there is no additional cost for the augmentation.
- viii. Total water requirement is 875 KLD and is sourced from treated Sewage from Okhla STP. Further, leachate treatment plant with capacity of 110 KLD has been installed to treat the leachate generated from Municipal Solid Waste during storage for 5-7 days. There is a backup of 1x320 kVA incase of power failure.
- ix. Presently, there are two stacks with height of 60 m connected to three boilers. The details of flow rates and emissions are as follows:

Parameter	Stack-1	Stack-2
No. of flues connected	2	1
Stack height	60 m	60 m
Stack diameter	2 m	2 m
Volumetric flow rate	40 Nm ³ /sec	22 Nm ³ /sec
Fluegas Velocity	25 m/sec	19 m/sec
Temperature of flue gas	140 °C	140 °C
Emissions of NO _x	127 mg/Nm ³	143 mg/Nm ³
Dioxins & Furnace (ng TEQ/Nm ³)	0.0032	0.0030
Emission rate of SO ₂	96 mg/Nm ³	83 mg/Nm ³
Emission rate of PM	24 mg/Nm ³	19 mg/Nm ³

- x. The following air pollution control measures have been adopted:
- 60 m tall stack for two units and another 60 m tall stack for single unit connected for flue gas dispersion at high elevation to minimise the GLC within limits.
 - High efficiency bag house filters with filtration efficiency of 99.9% installed to reduce PM emissions to below 30 mg/Nm³.
 - Dust suppression of ash handling plant area to control fugitive emissions.
 - Greenbelt development and afforestation in the plant and ash disposal areas.
 - A minimum quenching water will be maintained in the bottom ash to prevent fugitive emissions.
 - Use of hydrated lime to control SO₂, HCl emissions, etc.
 - Use of Activated Carbon for reducing dioxins and furans as well as Heavy Metals.
 - Controlled temperature, maintaining low excess air and shortening the throughput time of the fuel which will reduce NO_x emissions.
- xi. A Civil Appeal No.13120/2017 is pending before the Hon'ble Supreme Court.

(24.10.3) Committee noted that as per the submissions of PP, there is no increase in municipal solid waste loading into the boilers as per the existing environmental clearance. Project Proponent informed that only calorific value in the waste has increased which will result in higher power generation. Project Proponent has informed that neither there is change in project configuration nor there is addition of equipment.

(25.10.4) **Committee after detailed deliberations, recommended for amendment in EC for increase in power generation from 16 MW to 23 MW without increasing any MSW load and without installing any additional equipment** subject to following additional conditions:

- i. Online emission monitoring equipment for all parameters provided in the 'Guidelines for Continuous Emission Monitoring Systems, CPCB' shall be installed and connected to CPCB and DPCC servers. The monitoring report of other parameters mentioned in the MSW Rules, 2016.
- ii. The daily quantities of waste feed to the boilers, calorific value of the waste, power generation, lime and activated carbon dosage, flyash and bottom ash generation, leachate generation, water requirement shall be submitted along with six monthly compliance report.
- iii. Online emission monitoring and periodic manual monitoring reports shall be submitted to Ministry as well as its Regional Office along with six monthly compliance reports.

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(25.11) 5x270 MW Coal based TPP at Sinnar Industrial Area, Dist. Nasik, Maharashtra by M/s RattanIndia Nasik Power Ltd.- reg. reconsideration of amendment of EC for temporary permission of coal transportation by road.
(F.No. J-13012/11/2008-IA.II (T) & Online no. IA/MH/THE/10301/2010)

(25.11.1) The Project Proponent submitted online application on 03.11.2017 for extension of temporary permission for grant of transportation of coal by road for another two years (till 31.08.2019).

(25.11.2) The proposal has earlier been considered by the EAC in its meetings held on 28.11.2017 and 19.04.2018. The EAC in its meeting held on 19.04.2018 recommended for road transportation for a period of three years as per the proposed the quantities and routes. However, the Ministry while processing the file found certain deficiencies in the traffic impact assessment report & progress of railway siding and also noted that Route No.4 (Kherwadi/Kasbe Sukane Railway siding) is inadequate to take the coal of 6400 TPD in 320 trucks (640 trips to and fro). Accordingly, the proposal has been referred to the EAC for further examination.

(25.11.3) The matter was placed before EAC in its meeting held on 25.10.2018. The EAC after deliberations, sought the following additional information as the Project Proponent sought some time to compile the information:

- i. Details of villages/habitations along the proposed routes. The impact of coal transportation on the habitation (rural/urban population) and mitigation measures thereof.
- ii. Justification and schedule for completion of the railway line by August, 2019.
- iii. Certification from Rail Authorities regarding the status of the rail line/siding and its expected completion.
- iv. The emission details from the proposed number of trucks, weather class and meteorology details along with the predicted concentrations for the proposed routes which would covered the total length.
- v. Details of whether the ambient air quality data which has been collected is from representative locations of the villages/habitations along the proposed routes,

accompanying a map showing the location of all the habitations (hamlets/villages) overlaid with the location of the baseline air quality monitoring stations and wind rose and habitation-wise population data.

- vi. An undertaking that PP would like to take out the Route No.4 (Kherwadi/Kasbe Sukhene Railway siding) from their proposal and transport only 9600 TPD (480 Trucks single side) from the remaining three routes. Further, an undertaking shall also clearly indicate that the transportation of coal by road has not been carried out since the COD of the plant.

(25.11.4) Project Proponent vide their letter dated 28.1.2019 submitted the information. Accordingly the proposal was placed before the EAC in the present meeting. Project Proponent along with EIA consultants M/s Greencindia Consulting Private Limited made the presentation and furnished the following information:

- i. The rail route length if Take off Point at Odha to Plant is around 30 km with track length of 52 km. There are 58 bridges at several crossings are planned to connect the railway line. The construction work is hampered due to rough terrain conditions, number of bridges involved in construction and monsoon rains during last year. The construction work is expected to be completed by September, 2019. Subsequently, another six months is required for electrical works, overhead electrification, signalling, trail run, safety approvals, etc. The target date of operations of rail transportation is by March, 2020.
- ii. The railway siding planned is owned by the private company. Railways only approve the relevant drawings and do not issue any certificate regarding expected date of completion. In principal approval for railway siding, engineering scale plan approval and approvals of various bridges received from Railways have been furnished.
- iii. The following are the number of villages falling along the proposed routes:

Route	No. of villages	Population range
Igatpuri Railway siding (70 km)	24	492-24,838
Khlahare railway siding (35 km)	8	1025-65,299
Rahuri Railway siding (90 km)	29	665-38,813

- iv. Among the proposed three routes the baseline air quality data has been collected at 5 locations and the details are as below:

Route	Village Name	Population
Igatpuri Railway siding (70 km)	Take	2,311
	Dhamangaon	3,613
Ekhlahare railway siding (35 km)	Sinnar	65,299
Rahuri Railway siding (90 km)	Guha	5,213
	Telegaon	1,136

- v. The baseline air quality data and incremental prediction of GLC were calculated based on infinite line source equation. The emission standards from vehicles were taken from CPCB, Automobile Association of India. Further, weather classes were considered for the calculation i.e. B (Moderately unstable), C (Slightly unstable) and D (Neutral). The meteorological data has been collected from IMD station at Ozha, Maharashtra which is 52 km from the project site. The average annual wind speed of the study area is 10.4 km/h (2.9 m/sec). For calculation purposes, it has been assumed that the wind is blowing perpendicular to the road. The details of baseline data and calculated GLC are as below:

Village Name	Baseline data PM ₁₀ /PM _{2.5} /SO ₂ /NO ₂ /CO (µg/m ³)	Incremental concentrations PM ₁₀ /PM _{2.5} /SO ₂ /NO ₂ /CO (µg/m ³)	Resultant concentrations PM ₁₀ /PM _{2.5} /SO ₂ /NO ₂ /CO (µg/m ³)	National Standard
Take	61.8/26/13.6/ 22.6/923	NC/NC/1.2/25/51	NC/NC/14.80/47. 6/974	100/60/80/80 /2000
Dhamangaon	62.5/26.3/15.6 /24.3/789	NC/NC/0.4/9/19	NC/NC/16/33.3/ 808	
Sinnar	64.5/28.4/15.2 /24.6/921	NC/NC/1.1/24/48	NC/NC/16.3/48.6 /969	
Guha	56.6/23.5/12.4 /20.5/840	NC/NC/0.6/13/26	NC/NC/13/33.5/ 866	
Telegaon	61.7/5.1/13/9 /23/1/880	NC/NC/0.5/11/22	NC/NC/14.4/34.1 /902	

- vi. Project Proponent has submitted an undertaking that the Road transportation of coal from Kherwadi/Kasbe Sukene railways siding (Route No.4) is being dropped. Further, the undertaking mentioned that total of 9600 tonnes per day through 480 trucks/day (960 trips) will be transported by the three routes.
- vii. Project Proponent has also mentioned in their undertaking that the plant was commissioned in May, 2017 and post commissioning, no coal transportation by road is done till date.

(25.11.5) Committee noted that the project proponent had already provided an undertaking to drop the Route No.4 and the quantity proposed earlier through that route 6400 TPD is also being dropped. Further, the air quality monitoring has been carried out at some of the representative locations along the routes. Committee also noted that the air quality impact assessment/prediction of ground level concentrations have been manually calculated by infinite line source equation. The justification provided for not using CALINE software, a line source model which is widely used for transportation impacts is that CALINE model is ideal for predicting CO but not for other parameters. Committee noted that CALINE model is proven for prediction of air quality on from linear sources. Further, the prediction of ground level concentrations has not been done for Particulate

Matter which is the main pollutant in unpaved roads and generated due to pulverisation of road dust by the movement of vehicles. Further, the stability classes selected for prediction of air quality impacts are B (Moderately unstable), C (Slightly unstable) and D (Neutral). However, the committee noted that the air quality impacts are to be predicted for the worst case scenario considering the Stability Class of F which is highly unstable as the average annual wind speed in the study area is 2.9 m/sec and moderate.

(25.11.6) **Committee after detailed deliberations, recommended for grant of temporary permission for transportation of 9,600 tonnes per day coal by road through 480 trucks/day (From Rahuri siding: 80; Ekahare siding: 320; and Igatpuri siding: 80 with truck capacity of 20 tonnes) till March, 2020** subject to the following conditions:

- i. Three water sprinklers along three routes shall be used continuously for dust suppression during transportation.
- ii. Avenue plantation along the road shall be carried out in consultation with Social Forestry Department. The details regarding number of trees planted along the road, species details, length of the road covered, expenditure and period of plantation shall be submitted to the Ministry and concerned Regional Office in the six monthly compliance report.
- iii. The daily quantity of coal transported through each route along with number of trucks used for transportation, number of trips made by each truck, and total number of trips shall be submitted to the Ministry and its concerned Regional Office in the six monthly compliance report.
- iv. Speed limit in the internal roads will be restricted to 25 km/hr. Log book shall be kept for maintaining the record of total trips carried out during the day, validity of PCU certificate, whether the vehicles are compliant with BS-III/IV/VI emission standards.
- v. The ambient air quality at the 5 stations for which baseline was collected shall be carried out once in quarter. The co-ordinates of the station along with the analysis report shall be submitted to the Ministry as well as Regional Office in the Six Monthly Compliance report.

25.12 ANY OTHER ITEM WITH THE PERMISSION OF THE CHAIR

As there being no agenda item left, the meeting ended with a vote of thanks to the Chair.

Standard Terms of Reference (TOR):

- i) The proposed project shall be given a unique name in consonance with the name submitted to other Government Departments etc. for its better identification and reference.
- ii) Vision document specifying prospective long term plan of the project shall be formulated and submitted.
- iii) Latest compliance report duly certified by the Regional Office of MoEF& CC for the conditions stipulated in the environmental and CRZ clearances of the previous phase(s) for the expansion projects shall be submitted.
- iv) The project proponent needs to identify minimum three potential sites based on environmental, ecological and economic considerations, and choose one appropriate site having minimum impacts on ecology and environment. A detailed comparison of the sites in this regard shall be submitted.
- v) Executive summary of the project indicating relevant details along with recent photographs of the proposed site (s) shall be provided. Response to the issues raised during Public Hearing and the written representations (if any), along with a time bound Action Plan and budgetary allocations to address the same, shall be provided in a tabular form, against each action proposed.
- vi) Harnessing solar power within the premises of the plant particularly at available roof tops and other available areas shall be formulated and for expansion projects, status of implementation shall also be submitted.
- vii) The geographical coordinates (WGS 84) of the proposed site (plant boundary), including location of ash pond along with topo sheet (1:50,000 scale) and IRS satellite map of the area, shall be submitted. Elevation of plant site and ash pond with respect to HFL of water body/nallah/River and high tide level from the sea shall be specified, if the site is located in proximity to them.
- viii) Layout plan indicating break-up of plant area, ash pond, green belt, infrastructure, roads etc. shall be provided.
- ix) Land requirement for the project shall be optimized and in any case not more than what has been specified by CEA from time to time. Item wise break up of land requirement shall be provided.
- x) Present land use (including land class/kism) as per the revenue records and State Govt. records of the proposed site shall be furnished. Information on land to be acquired including coal transportation system, laying of pipeline, ROW, transmission lines etc. shall be specifically submitted. Status of land acquisition and litigation, if any, should be provided.
- xi) If the project involves forest land, details of application, including date of application, area applied for, and application registration number, for diversion under FCA and its status should be provided along with copies of relevant documents.
- xii) The land acquisition and R&R scheme with a time bound Action Plan should be formulated and addressed in the EIA report.
- xiii) Satellite imagery and authenticated topo sheet indicating drainage, cropping pattern, water bodies (wetland, river system, stream, nallahs, ponds etc.), location of nearest habitations (villages), creeks, mangroves, rivers, reservoirs etc. in the study area shall be provided.
- xiv) Location of any National Park, Sanctuary, Elephant/Tiger Reserve (existing as well as proposed), migratory routes / wildlife corridor, if any, within 10 km of the project site

- shall be specified and marked on the map duly authenticated by the Chief Wildlife Warden of the State or an officer authorized by him.
- xv) Topography of the study area supported by toposheet on 1:50,000 scale of Survey of India, along with a large scale map preferably of 1:25,000 scale and the specific information whether the site requires any filling shall be provided. In that case, details of filling, quantity of required fill material; its source, transportation etc. shall be submitted.
- xvi) A detailed study on land use pattern in the study area shall be carried out including identification of common property resources (such as grazing and community land, water resources etc.) available and Action Plan for its protection and management shall be formulated. If acquisition of grazing land is involved, it shall be ensured that an equal area of grazing land be acquired and developed and detailed plan submitted.
- xvii) A mineralogical map of the proposed site (including soil type) and information (if available) that the site is not located on potentially mineable mineral deposit shall be submitted.
- xviii) Details of fly ash utilization plan as per the latest fly ash Utilization Notification of GOI along with firm agreements / MoU with contracting parties including other usages etc. shall be submitted. The plan shall also include disposal method / mechanism of bottom ash.
- xix) The water requirement shall be optimized (by adopting measures such as dry fly ash and dry bottom ash disposal system, air cooled condenser, concept of zero discharge) and in any case not more than that stipulated by CEA from time to time, to be submitted along with details of source of water and water balance diagram. Details of water balance calculated shall take into account reuse and re-circulation of effluents.
- xx) Water body/Nallah (if any) passing across the site should not be disturbed as far as possible. In case any Nallah / drain is proposed to be diverted, it shall be ensured that the diversion does not disturb the natural drainage pattern of the area. Details of proposed diversion shall be furnished duly approved by the concerned Department of the State.
- xxi) It shall also be ensured that a minimum of 500 m distance of plant boundary is kept from the HFL of river system / streams etc. and the boundary of site should also be located 500 m away from railway track and National Highways.
- xxii) Hydro-geological study of the area shall be carried out through an institute/ organization of repute to assess the impact on ground and surface water regimes. Specific mitigation measures shall be spelt out and time bound Action Plan for its implementation shall be submitted.
- xxiii) Detailed Studies on the impacts of the ecology including fisheries of the River/Estuary/Sea due to the proposed withdrawal of water / discharge of treated wastewater into the River/Sea etc shall be carried out and submitted along with the EIA Report. In case of requirement of marine impact assessment study, the location of intake and outfall shall be clearly specified along with depth of water drawl and discharge into open sea.
- xxiv) Source of water and its sustainability even in lean season shall be provided along with details of ecological impacts arising out of withdrawal of water and taking into account inter-state shares (if any). Information on other competing sources downstream of the proposed project and commitment regarding availability of requisite quantity of water from the Competent Authority shall be provided along with letter / document stating firm allocation of water.

- xxv) Detailed plan for rainwater harvesting and its proposed utilization in the plant shall be furnished.
- xxvi) Feasibility of near zero discharge concept shall be critically examined and its details submitted.
- xxvii) Optimization of Cycles of Concentration (COC) along with other water conservation measures in the project shall be specified.
- xxviii) Plan for recirculation of ash pond water and its implementation shall be submitted.
- xxix) Detailed plan for conducting monitoring of water quality regularly with proper maintenance of records shall be formulated. Detail of methodology and identification of monitoring points (between the plant and drainage in the direction of flow of surface / ground water) shall be submitted. It shall be ensured that parameter to be monitored also include heavy metals. A provision for long-term monitoring of ground water table using Piezometer shall be incorporated in EIA, particularly from the study area.
- xxx) Socio-economic study of the study area comprising of 10 km from the plant site shall be carried out through a reputed institute / agency which shall consist of detail assessment of the impact on livelihood of the local communities.
- xxxi) Action Plan for identification of local employable youth for training in skills, relevant to the project, for eventual employment in the project itself shall be formulated and numbers specified during construction & operation phases of the Project.
- xxxii) If the area has tribal population it shall be ensured that the rights of tribals are well protected. The project proponent shall accordingly identify tribal issues under various provisions of the law of the land.
- xxxiii) A detailed CSR plan along with activities wise break up of financial commitment shall be prepared. CSR component shall be identified considering need based assessment study and Public Hearing issues. Sustainable income generating measures which can help in upliftment of affected section of society, which is consistent with the traditional skills of the people shall be identified. Separate budget for community development activities and income generating programmes shall be specified.
- xxxiv) While formulating CSR schemes it shall be ensured that an in-built monitoring mechanism for the schemes identified are in place and mechanism for conducting annual social audit from the nearest government institute of repute in the region shall be prepared. The project proponent shall also provide Action Plan for the status of implementation of the scheme from time to time and dovetail the same with any Govt. scheme(s). CSR details done in the past should be clearly spelt out in case of expansion projects.
- xxxv) R&R plan, as applicable, shall be formulated wherein mechanism for protecting the rights and livelihood of the people in the region who are likely to be impacted, is taken into consideration. R&R plan shall be formulated after a detailed census of population based on socio economic surveys who were dependant on land falling in the project, as well as, population who were dependant on land not owned by them.
- xxxvi) Assessment of occupational health and endemic diseases of environmental origin in the study area shall be carried out and Action Plan to mitigate the same shall be prepared.
- xxxvii) Occupational health and safety measures for the workers including identification of work related health hazards shall be formulated. The company shall engage full time qualified doctors who are trained in occupational health. Health monitoring of the workers shall be conducted at periodic intervals and health records maintained. Awareness programme for workers due to likely adverse impact on their health due to working in non-conducive environment shall be carried out and precautionary measures like use of personal equipments etc. shall be provided. Review of impact of

various health measures undertaken at intervals of two to three years shall be conducted with an excellent follow up plan of action wherever required.

- xxxviii) One complete season site specific meteorological and AAQ data (except monsoon season) as per latest MoEF Notification shall be collected and the dates of monitoring shall be recorded. The parameters to be covered for AAQ shall include PM₁₀, PM_{2.5}, SO₂, NO_x, CO and Hg. The location of the monitoring stations should be so decided so as to take into consideration of the upwind direction, pre-dominant downwind direction, other dominant directions, habitation and sensitive receptors. There should be at least one monitoring station each in the upwind and in the pre-dominant downwind direction at a location where maximum ground level concentration is likely to occur.
- xxxix) In case of expansion project, air quality monitoring data of 104 observations a year for relevant parameters at air quality monitoring stations as identified/stipulated shall be submitted to assess for compliance of AAQ Standards (annual average as well as 24 hrs).
- xl) A list of industries existing and proposed in the study area shall be furnished.
- xli) Cumulative impacts of all sources of emissions including handling and transportation of existing and proposed projects on the environment of the area shall be assessed in detail. Details of the Model used and the input data used for modeling shall also be provided. The air quality contours should be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any. The windrose and isopleths should also be shown on the location map. The cumulative study should also include impacts on water, soil and socio-economics.
- xliv) Radio activity and heavy metal contents of coal to be sourced shall be examined and submitted along with laboratory reports.
- xlvi) Fuel analysis shall be provided. Details of auxiliary fuel, if any, including its quantity, quality, storage etc should also be furnished.
- xlvii) Quantity of fuel required, its source and characteristics and documentary evidence to substantiate confirmed fuel linkage shall be furnished. The Ministry's Notification dated 02.01.2014 regarding ash content in coal shall be complied. For the expansion projects, the compliance of the existing units to the said Notification shall also be submitted
- xlviii) Details of transportation of fuel from the source (including port handling) to the proposed plant and its impact on ambient AAQ shall be suitably assessed and submitted. If transportation entails a long distance it shall be ensured that rail transportation to the site shall be first assessed. Wagon loading at source shall preferably be through silo/conveyor belt.
- xlvi) For proposals based on imported coal, inland transportation and port handling and rail movement shall be examined and details furnished. The approval of the Port and Rail Authorities shall be submitted.
- xlvi) Details regarding infrastructure facilities such as sanitation, fuel, restrooms, medical facilities, safety during construction phase etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase should be adequately catered for and details furnished.
- xlvi) EMP to mitigate the adverse impacts due to the project along with item - wise cost of its implementation in a time bound manner shall be specified.
- xlix) A Disaster Management Plan (DMP) along with risk assessment study including fire and explosion issues due to storage and use of fuel should be carried out. It should take into account the maximum inventory of storage at site at any point of time. The risk contours should be plotted on the plant layout map clearly showing which of the proposed activities would be affected in case of an accident taking place. Based on the same, proposed safeguard measures should be provided. Measures to guard against

fire hazards should also be invariably provided. Mock drills shall be suitably carried out from time to time to check the efficiency of the plans drawn.

- l) The DMP so formulated shall include measures against likely Fires/Tsunami/Cyclones/Storm Surges/Earthquakes etc, as applicable. It shall be ensured that DMP consists of both On-site and Off-site plans, complete with details of containing likely disaster and shall specifically mention personnel identified for the task. Smaller version of the plan for different possible disasters shall be prepared both in English and local languages and circulated widely.
- li) Detailed scheme for raising green belt of native species of appropriate width (50 to 100 m) and consisting of at least 3 tiers around plant boundary with tree density of 2000 to 2500 trees per ha with a good survival rate of around 80% shall be submitted. Photographic evidence must be created and submitted periodically including NRSA reports in case of expansion projects. A shrub layer beneath tree layer would serve as an effective sieve for dust and sink for CO₂ and other gaseous pollutants and hence a stratified green belt should be developed.
- lii) Over and above the green belt, as carbon sink, plan for additional plantation shall be drawn by identifying blocks of degraded forests, in close consultation with the District Forests Department. In pursuance to this the project proponent shall formulate time bound Action Plans along with financial allocation and shall submit status of implementation to the Ministry every six months.
- liii) Corporate Environment Policy
 - a. Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - b. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
 - c. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions. Details of this system may be given.
 - d. Does the company has compliance management system in place wherein compliance status along with compliances / violations of environmental norms are reported to the CMD and the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.

All the above details should be adequately brought out in the EIA report and in the presentation to the Committee.

- liv) Details of litigation pending or otherwise with respect to project in any Court, Tribunal etc. shall invariably be furnished.

Standard EC Conditions for Thermal Power Sector:**A. Statutory compliance:**

1. Emission Standards for Thermal Power Plants as per Ministry's Notification S.O. 3305(E) dated 7.12.2015, G.S.R.593(E) dated 28.6.2018 and as amended from time to time shall be complied.
2. Part C of Schedule II of Municipal Solid Wastes Rules, 2016 dated 08.04.2016 as amended from time to time shall be complied for power plants based on Municipal Solid Waste.
3. MoEF&CC Notification G.S.R 02(E) dated 2.1.2014 as amended time to time regarding use of raw or blended or beneficiated/washed coal with ash content not exceeding 34% shall be complied with, as applicable.
4. MoEF&CC Notifications on Fly Ash Utilization S.O. 763(E) dated 14.09.1999, S.O. 979(E) dated 27.08.2003, S.O. 2804(E) dated 3.11.2009, S.O. 254(E) dated 25.01.2016 as amended from time to time shall be complied.
5. Thermal Power Plants other than the power plants located on coast and using sea water for cooling purposes, shall achieve specific water consumption of 2.5 m³/MWh and Zero effluent discharge.
6. The recommendation from Standing Committee of NBWL under the Wildlife (Protection) Act, 1972 should be obtained, if applicable.
7. No Objection Certificate from Ministry of Civil Aviation be obtained for installation of requisite chimney height and its siting criteria for height clearance.
8. Groundwater shall not be drawn during construction of the project. In case, groundwater is drawn during construction, necessary permission be obtained from CGWA.

B. Ash content/ mode of transportation of coal:

1. EC is given on the basis of assumption of ____% of ash content and ____km distance of transportation in rail/road/conveyor/any other mode. Any increase of %ash content by more than 1 percent, and/or any change in transportation mode or increase in the transport distance (except for rail) require application for modifications of EC conditions after conducting the 'incremental impact assessment' and proposal for mitigation measures.

C. Air quality monitoring and Management:

1. Flue Gas Desulphurisation System shall be installed based on Lime/Ammonia dosing to capture Sulphur in the flue gases to meet the SO₂ emissions standard of 100 mg/Nm³.
2. Selective Catalytic Reduction (SCR) system or the Selective Non-Catalytic Reduction (SNCR) system or Low NOX Burners with Over Fire Air (OFA) system shall be installed to achieve NO_x emission standard of 100 mg/Nm³.
3. High efficiency Electrostatic Precipitators (ESPs) shall be installed in each unit to ensure that particulate matter (PM) emission to meet the stipulated standards of 30 mg/Nm³.
4. Stacks of prescribed height ____m shall be provided with continuous online monitoring instruments for SO_x, NO_x and Particulate Matter as per extant rules.
5. Exit velocity of flue gases shall not be less than 20-25 m/s. Mercury emissions from stack shall also be monitored periodically.
6. Continuous Ambient Air Quality monitoring system shall be set up to monitor common/criteria pollutants from the flue gases such as PM₁₀, PM_{2.5}, SO₂, NO_x within the plant area at least at one location. The monitoring of other locations (at least three locations

outside the plant area covering upwind and downwind directions at an angle of 120° each) shall be carried out manually.

7. Adequate dust extraction/suppression system shall be installed in coal handling, ash handling areas and material transfer points to control fugitive emissions.
8. Appropriate Air Pollution Control measures (DEs/DSs) be provided at all the dust generating sources including sufficient water sprinkling arrangements at various locations viz., roads, excavation sites, crusher plants, transfer points, loading and unloading areas, etc.

D. Noise pollution and its control measures:

1. The Ambient Noise levels shall meet the standards prescribed as per the Noise Pollution (Regulation and Control) Rules, 2000.
2. Persons exposed to high noise generating equipment shall use Personal Protective Equipment (PPE) like earplugs/ear muffs, etc.
3. Periodical medical examination on hearing loss shall be carried out for all the workers and maintain audiometric record and for treatment of any hearing loss including rotating to non-noisy/less noisy areas.

E. Human Health Environment:

1. Bi-annual Health check-up of all the workers is to be conducted. The study shall take into account of chronic exposure to noise which may lead to adverse effects like increase in heart rate and blood pressure, hypertension and peripheral vasoconstriction and thus increased peripheral vascular resistance. Similarly, the study shall also assess the health impacts due to air polluting agents.
2. Baseline health status within study area shall be assessed and report be prepared. Mitigation measures should be taken to address the endemic diseases.
3. Impact of operation of power plant on agricultural crops, large water bodies (as applicable) once in two years by engaging an institute of repute. The study shall also include impact due to heavy metals associated with emission from power plant.
4. Sewage Treatment Plant shall be provided for domestic wastewater.

F. Water quality monitoring and Management:

1. Induced/Natural draft closed cycle wet cooling system including cooling towers shall be set up with minimum Cycles of Concentration (COC) of 5.0 or above for power plants using fresh water to achieve specific water consumption of 2.5 m³/MWhr. (Or) Induced/Natural draft open cycle cooling system shall be set up with minimum Cycles of Concentration (COC) of 1.5 or above for power plants using sea water.
2. In case of the water withdrawal from river, a minimum flow 15% of the average flow of 120 consecutive leanest days should be maintained for environmental flow whichever is higher, to be released during the lean season after water withdrawal for proposed power plant.
3. Records pertaining to measurements of daily water withdrawal and river flows (obtained from Irrigation Department/Water Resources Department) immediately upstream and downstream of withdrawal site shall be maintained.
4. Rainwater harvesting in and around the plant area be taken up to reduce drawl of fresh water. If possible, recharge of groundwater to be undertaken to improve the ground water table in the area.

5. Regular (at least once in six months) monitoring of groundwater quality in and around the ash pond area including presence of heavy metals (Hg, Cr, As, Pb, etc.) shall be carried out as per CPCB guidelines. Surface water quality monitoring shall be undertaken for major surface water bodies as per the EMP. The data so obtained should be compared with the baseline data so as to ensure that the groundwater and surface water quality is not adversely impacted due to the project & its activities.
6. The treated effluents emanating from the different processes such as DM plant, boiler blow down, ash pond/dyke, sewage, etc. conforming to the prescribed standards shall be re-circulated and reused. Sludge/ rejects will be disposed in accordance with the Hazardous Waste Management Rules.
7. Hot water dispensed from the condenser should be adequately cooled to ensure the temperature of the released surface water is not more than 5 degrees Celsius above the temperature of the intake water.
8. Based on the commitment made by the Project Proponent, Sewage Treatment Plants within the radius of 50 km from proposed project, the treated sewage ofKLD from STP (name) shall be used as an alternative to the fresh water source to minimize the fresh water drawl from surface water bodies.
9. Wastewater generation ofKLD from various sources (viz. cooling tower blowdown, boiler blow down, wastewater from ash handling, etc) shall be treated to meet the standards of pH: 6.5-8.5; Total Suspended Solids: 100 mg/l; Oil & Grease: 20 mg/l; Copper: 1 mg/l; Iron:1 mg/l; Free Chlorine: 0.5; Zinc: 1.0 mg/l; Total Chromium: 0.2 mg/l; Phosphate: 5.0 mg/l;
10. Sewage generation ofKLD will be treated by setting up Sewage Treatment plant to maintain the treated sewage characteristics of pH: 6.5-9.0; Bio-Chemical Oxygen Demand (BOD): 30 mg/l; Total Suspended Solids: 100 mg/l; Fecal Coliforms (Most Probable Number):<1000 per 100 ml.

G. Risk Mitigation and Disaster Management:

1. Adequate safety measures and environmental safeguards shall be provided in the plant area to control spontaneous fires in coal yard, especially during dry and humid season.
2. Storage facilities for auxiliary liquid fuel such as LDO and HFO/LSHS shall be made as per the extant rules in the plant area in accordance with the directives of Petroleum & Explosives Safety Organisation (PESO). Sulphur Content in the liquid fuel should not exceed 0.5%.
3. Ergonomic working conditions with First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
4. Safety management plan based on Risk Assessment shall be prepared to limit the risk exposure to the workers within the plant boundary.
5. Regular mock drills for on-site emergency management plan and Integrated Emergency Response System shall be developed for all kind of possible disaster situations.

H. Green belt and Biodiversity conservation:

1. Green belt shall be developed in an area of 33% of the total project with indigenous native tree species in accordance with CPCB guidelines. The green belt shall inter-alia cover an entire periphery of the plant.
2. *In-situ/ex-situ* Conservation Plan for the conservation of flora and fauna should be prepared and implemented.
3. Suitable screens shall be placed across the intake channel to prevent entrainment of life forms including eggs, larvae, juvenile fish, etc., during extraction of seawater.

I. Waste management:

1. Solid waste management should be planned in accordance with extant Solid Waste Management Rules, 2016.
2. Toxicity Characteristic Leachate Procedure (TCLP) test shall be conducted for any substance, potential of leaching heavy metals into the surrounding areas as well as into the groundwater.
3. Ash pond shall be lined with impervious liner as per the soil conditions. Adequate dam/ dyke safety measures shall also be implemented to protect the ash dyke from getting breached.
4. Fly ash shall be collected in dry form and ash generated shall be used in phased manner as per provisions of the Notification on Fly Ash Utilization issued by the Ministry and amendment thereto. By the end of 4th year, 100% fly ash utilization should be ensured. Unutilized ash shall be disposed off in the ash pond in the form of High Concentration Slurry. 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. Flyash utilization details shall be submitted to concerned Regional Office along with the six-monthly compliance reports and utilization data shall be published on company's website.
5. Unutilized ash shall be disposed off in the ash pond in the form of High Concentration Slurry/Medium Concentration Slurry/Lean Concentration Slurry method. Ash water recycling system shall be set up to recover supernatant water.
6. In case of waste-to-energy plant, major problems related with environment are fire smog in MSW dump site, foul smell and impacts to the surrounding populations. Therefore, the following measures are required to be taken up:
 - i) Water hydrant at all the dumpsites of MSW area to be provided so that the fire and smog could be controlled.
 - ii) Sprayer like microbial consortia may be provided for arresting the foul smell emanating from MSW area.

J. Monitoring of compliance:

1. Environmental Audit of the project be taken up by the third party for preparation of Environmental Statement as per Form-V & Conditions stipulated in the EC and report be submitted to the Ministry.
2. Resettlement & Rehabilitation Plan as per the extant rules of Govt. of India and respective State Govt. shall be followed, if applicable.
3. Energy Conservation Plan to be implemented as envisaged in the EIA / EMP report. Renewable Energy Purchase Obligation as set by MoP/State Government shall be met either by establishing renewable energy power plant (such as solar, wind, etc.) or by purchasing Renewable Energy Certificates.
4. Monitoring of Carbon Emissions from the existing power plant aswell as for the proposed power project shall be carried out annually from a reputed institute and report be submitted to the Ministry's Regional Office.
5. Energy and Water Audit shall be conducted at least once in two years and recommendations arising out of the Report should be followed. A report in this regard shall be submitted to Ministry's Regional Office.
6. Environment Cell (EC) shall be constituted by taking members from different divisions, headed by a qualified person on the subject, who shall be reporting directly to the Head of the Project.
7. The project proponent shall (Post-EC Monitoring):

- a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
- b. upload the clearance letter on the web site of the company as a part of information to the general public.
- c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forest and Climate Change (MoEF&CC) at <http://parviesh.nic.in>.
- d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
- e. monitor the criteria pollutants level namely; PM (PM₁₀& PM_{2.5} in case of ambient AAQ), SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company;
- f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
- g. submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company;
- h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project and the date of commencement of the land development work.

K. Corporate Environmental Responsibility (CER) activities:

1. CER activities will be carried out as per OM No. 22-65/2017-IA.II dated 01.05.2018 or as proposed by the PP in reference to Public Hearing or as earmarked in the EIA/EMP report along with the detailed schedule of implementation with appropriate budgeting.

L. Marine facilities:

1. As the seawater intake systems are required for the plant fall in CRZ area, recommendations from State Coastal Zone Management Authority (SCZMA) as per CRZ Notification shall be implemented.
2. Marine intake and outfall pipelines shall be located as per the recommendations State Coastal Zone Management Authority (SCZMA).

M. Sea Water Intake:

1. Seawater intake system shall be so designed and constructed to ensure sufficient seawater in terms of quantity and quality.
2. The withdrawal of seawater shall be preferably through a pipeline with a riser equipped with a velocity cap arrangement and bar screen to arrest the impingement of large marine organisms.

3. In all tide conditions (particularly at spring low tides) the riser head must be flooded with the required submergence of seawater above its top.

N. Effluent Release:

1. At the effluent release point, maximum temperature of the discharge water shall not be more than 5°C and salinity shall not exceed 50 ppt with respect to that of the ambient seawater.
2. Use of antifouling agents like chlorine / hypochlorite, shall be carefully controlled. The chlorine concentration shall not exceed 0.2 ppm at the effluent release point.
3. The effluent when released at the selected location shall attain sufficient dilution so that near ambient water quality (particularly temperature and salinity) is attained within 500 m from the release location, at low tide.
4. The location of the diffuser shall be marked with a solar lighted buoy to avoid accidents.
5. The site selected based on mathematical modeling shall ensure absence of recirculation of the effluent plume in the seawater intake area under all tidal conditions.
6. The effluent shall be released through a properly designed multiport diffuser above the seabed to facilitate its efficient initial mixing with the receiving seawater.
7. Efficacy of the diffuser shall be ascertained at least once in 2 years through scientific studies and corrective actions such as cleaning of the diffuser from marine growth, removal of silt deposits, etc. shall be taken up, if warranted.
8. Continuous online monitoring system for Temperature and Salinity shall be installed to monitor the quality of effluent.

O. Common to intake and effluent:


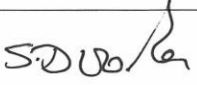




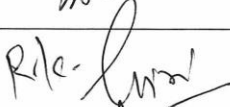
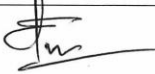
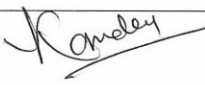


1. The pipeline shall be buried below the seabed at a depth to ensure its stability under rough sea conditions particularly during cyclone / tsunami. The depth of burial will depend on the seafloor strata but normally the top of the pipeline shall be at least 1 m below the bed level. In the surf and intertidal zones, the pipeline shall be buried below the maximum scour level.
2. In case of open channel, the channel shall be constructed as per the recommendations of State Coastal Zone Management Authority (SCZMA).
3. If the substratum is rocky the pipeline may be anchored to the rock provided the geology of the area satisfactorily supports the structure which shall be ascertained through geo-technical investigations.
4. Exposed pipeline section and riser shall be protected by armour stone from waves, boats anchoring, fishing activities etc.
5. The location of the riser & diffuser shall be marked with a solar lighted buoy to avoid accidents from boats.
6. Marine / Sea water quality shall be monitored at effluent release location at the center. Parameters to be monitored shall be as follows:
 - a. *Physico-chemical*: Temperature, Salinity, pH and Dissolved Oxygen.
 - b. *Biological*: Primary Productivity, Phytoplankton (Chlorophyll a, Phaeophytin, Population, Species), Zooplankton (Biomass, Population, Species) and Benthos (Biomass, Population, Species).
7. In case of Coastal Power Plants, the Mangrove plantation shall be taken up in an area ofha, along the coast/ on the banks of Estuary.

Attendance Sheet of EAC members

LIST OF MEMBERS (Attendance Sheet)

25th EXPERT APPRAISAL COMMITTEE MEETING (Thermal)DATE & TIME : 22nd February, 2019, 10:00 AM

VENUE : Narmada Meeting Hall, Jal Wing, Indira Paryavaran Bhawan, New Delhi

Sr.No.	Name of Member	Signature
1.	Dr. Navin Chandra Chairman	
2.	Shri Suramya D. Vora, IFS (Retd.) Member	
3.	Dr. Narmada Prasad Shukla Member	
4.	Sh. N. Mohan Karnat, IFS Member	
5.	Dr. Sharachchandra Lele Member	
6.	Sh. N.S. Mondal, CEA Member	
7.	Dr. R.K. Giri, IMD Member	
8.	Dr. S.K. Paliwal, CPCB Member	
9.	Prof. S.K. Gupta (ISM/ IIT Dhanbad) Member	Abs.
10.	Dr. Jai Krishna Pandey Member	
11.	Dr. Manjari Srivastava Member	abs
12.	Dr. Gururaj P Kundargi Member	
13.	Dr. S. Kerketta Member Secretary, MoEFCC	

14. P. Vadivel Mungam (IIPR, Gandhinagar)

Parting

Approval of Minutes of the 25th Meeting of the Re-constituted Expert Appraisal Committee (EAC) of Thermal Power Projects by the Chairman.

3/11/2019

https://mail.gov.in/iwc_static/layout/shell.html?lang=en&3.0.1.2.0_15121607

Subject: **Re: Draft MoM of 25th meetings of Thermal Power Plants- reg.**
To: Dr S Kerketta <s.kerketta66@gov.in>,
"N. Subrahmanyam" <n.subrahmanyam@gov.in>,
"N. Subrahmanyam" <n.subrahmanyam@nic.in>,
"Dr S. Kerketta" <s.kerketta66@nic.in>

Date: 03/10/19 12:40 PM
From: navin chandra <navinchandrarrl@yahoo.com>
Reply-To: navin chandra <navinchandrarrl@yahoo.com>

10/03/219

Dear Dr. Kerketta Ji,

I have gone through the final draft of the Minutes of the 25th meeting of EAC held in February, 2019. The Minutes are in order and ready for up-loading at the web-site of the MoEF&CC. Please do the needful.
Regard,

(NAVIN CHANDRA)

Dr. Navin Chandra,
Director General
M P Council of Science and Technology (MPCST),
Vigyan Bhawan, Nehru Nagar, Bhopal - 462003 (M.P.) India
Phone : 91-755- 2671800 (Office)
e-mail : dg@mpcost.nic.in
navinchandrarrl@yahoo.com, navinchandraampri@gmail.com

From: Dr S Kerketta <s.kerketta66@gov.in>
To: Dr Navin chandra <navinchandrarrl@yahoo.com>; Dr Navin chandra <navinchandraampri@gmail.com>
Cc: S Kerketta <suna1466@rediffmail.com>
Sent: Friday, 8 March 2019 5:29 PM
Subject: Draft MoM of 25th meetings of Thermal Power Plants- reg.

Sir,

PFA. Included the comments of the Members in the Minutes and forwarded for kind approval please.

--
regards,

Dr. S. Kerketta
Director- IA (Thermal, River Valley & HEP)
MoEF&CC, New Delhi
Phone: 011-24695314 (O), 26113096 (R)

https://mail.gov.in/iwc_static/layout/shell.html?lang=en&3.0.1.2.0_15121607

1/1

AGENDA OF 25th MEETING OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE ON THERMAL POWER PROJECTS

DATE : 22nd February, 2019

TIME : 10.30 A.M. ONWARDS

VENUE : NARMADA MEETING HALL, GROUND FLOOR, JAL WING, IPB, JORBAGH ROAD, NEW DELHI-110003.

ITEM	
Item No. 25.0	CONFIRMATION OF MINUTES OF 24 th EAC (THERMAL) MEETING
Item No.	CONSIDERATION OF PROJECTS
25.1	Proposed 1x660 MW based Coal Supercritical Sagardighi Thermal Power (Phase-III Extension Unit-5), Village Manigram, Chandpara, Kanchanpara, Harirampur, at District Murshidabad, West Bengal by M/s The West Bengal Power Development Corporation Ltd- reg. ToR. F.No. J-13012/01/2019-IA.I (T) & Proposal no. IA/WB/THE/94262/2019.
25.2	1x800 MW Sipat Advance Ultra Super Critical Technology Demonstration Project, (Stage-III) at Village Sipat, Tehsil Masturi, Bilaspur District. Madhya Pradesh by M/s NTPC Limited - reg.ToR. F.No. J-13012/02/2019-IA.I (T) & Online no. IA/CG/THE/89473/2018.
25.3	3x800 MW Super-Critical TPP at Village Annupurna Khamar, Taluk Kamakhyanagar, Dhenkanal Distt., Odisha by M/s. Odisha Thermal Power Corporation Ltd.- reg. reconsideration in Environmental Clearance. F.No. 13012/43/2012-IA.II(T)& Proposal no. IA/OR/THE/10522/2012.
25.4	55 MW ha Proposed Solid Waste to Energy Facility (Using Cold Plasma Technology to convert Green Power, Purified Water and Fuel at East Delhi Municipal Corporation Opp. Gagan Theatre, Wazirabad Road, Mandoli Extension, Village Mandoli, Delhi by M/s A.G. Dauters Waste Processing Private Limited.- reg. reconsideration of ToR. F.No. J-13012/13/2018-IA.I (T) & Proposal no. IA/DL/THE/84113/2018.
25.5	1x800 MW (Stage-V) Dr. Narla Tata Rao Thermal Power Station, Village and Taluk Ibrahimpatnam, Krishna District, Andhra Pradesh by M/s APGENCO reg- amendment in EC. F.No. J-13012/26/2012-IA-II(T)& Proposal No. IA/AP/THE/10488/2012.
25.6	2x660 MW Super critical coal based Thermal Power Project at Village Dadri Khurd, Tehsil Mirzapur Sadar, District Mirzapur, Uttar Pradesh by M/s Welspun Energy UP Pvt. Ltd. - reg. amendment in Environmental Clearance. F.No. J-13012/12/2011-IA.II(T)& Proposal no. IA/UP/THE/10331/2010.
25.7	1 x 350 MW Coal Based Power Project (Phase-II) in premise of Power Plant, Village Kamalanga, Tehsil Odapada N, District Dhenkanal, State Odisha by GMR Kamalanga Energy limited-reg. extension of validity of EC. F.No. J-13012/73/2011-IA II (T) & Proposal no. IA/OR/THE/75/2011.
25.8	Expansion by addition of 2x660 MW (Stage-II) Coal based Tanda Super Thermal Power Project, Village Bahadurpur, Tehsil Tanda, District Ambedkar Nagar, Uttar Pradesh by M/s NTPC Ltd-reg. amendment in EC. F.No. J- 13012/96/ 2007-IA II(T)& Proposal No. IA/UP/THE/12047/2011.
25.9	4x500 MW (Stage-II&III)Vindhyachal Super Thermal Power Project, Village& Tehsil Waidhan, at District Singrauli, Madhya Pradesh by M/s NTPC Ltd.- reg. permission to dispose ash in abandoned mine voids.

	F.No. J-13011/7/2001-IA.II(T)& Proposal No. IA/MP/THE/95055/2002.
25.10	Expansion of Municipal Solid Waste based Power Plant from (waste to Energy) 16 MW to 23 MW, at NDMC Compost Plant Site Near Okhla STP, Okhla, New Delhi by M/s Timarpur Okhla Waste Management Company Pvt. Ltd.- reg. ToR. File No: No. J-13012/09/2018-IA.I(T)&Online No.IA/DL/THE/75480/2006.
25.11	5x270 MW Coal based TPP at Sinnar Industrial Area, Dist. Nasik, Maharashtra by M/s RattanIndia Nasik Power Ltd.- reg. reconsideration of amendment of EC for temporary permission coal transportation by road. F.No. J-13012/11/2008-IA.II (T) & Online no. IA/MH/THE/10301/2010.
25.12	ANY OTHER ITEM WITH THE PERMISSION OF THE CHAIR.

Note: If project documents are not submitted to Committee Members on time along with brief summary/basic information as per pro-forma, it will be the Committee's discretion to consider the project. Project proponents shall bring shape file (.kml file) containing project boundaries & facilities and shall be saved on computer in the meeting hall. Project Proponents are required to bring hard copy (A0/A1 size) and soft copy (pdf) of a map showing project facilities superimposed on Survey of India Toposheet. Proponents shall submit the attendance form duly filled to the Member Secretary before starting the presentation.

Minutes of the 26th meeting of the re-constituted Expert Appraisal Committee (EAC) on Environmental Impact Assessment (EIA) of Thermal Power Projects held on 27th March, 2019

The 26th meeting of the re-constituted EAC (Thermal Power) was held on 27th March, 2019 in the Ministry of Environment, Forest & Climate Change at Narmada Meeting Hall, Jal Wing, Ground Floor, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi under the Chairmanship of Dr. Navin Chandra. The following members were present:

- | | | |
|----|--------------------------|------------------------|
| 1. | Dr. Navin Chandra | - Chairman |
| 2. | Shri Suramya D. Vora | - Member |
| 3. | Dr. N.P. Shukla | - Member |
| 4. | Shri G.P. Kundargi | - Member |
| 5. | Dr. J.K. Pandey | - Member |
| 6. | Shri N.S. Mondal | - Member (Rep. of CEA) |
| 7. | Dr. Sharatchchandra Lele | - Member |
| 8. | Dr. S. Kerketta | - Member Secretary |

A Special Invitee, Dr. P.V. Murugan, Scientific Officer-D was requested to present during this meeting to discuss the issue on Item Nos. 26.1-26.4 and the Director, Institute of Plasma Research, Gandhinagar has nominated him for the same. Dr. R.K. Giri, Member (Rep. of IMD), Dr. S.K. Paliwal, Member (Rep. of CPCB), Dr. (Mrs). Manjari Srivastava, Member and Dr. S.K. Gupta (Representative of ISM/IIT Dhanbad) and Shri Mohan Karnat, Member could not be present due to pre-occupation.

Item No.26.0: CONFIRMATION OF THE MINUTES OF THE 25th EAC MEETING.

The minutes of the 25th EAC (Thermal Power) meeting held on 22.02.2019 were confirmed in presence of members present during the meeting with the following modification:

- (25.6) 2x660 MW Super critical coal based Thermal Power Project at Village Dadri Khurd, Tehsil Mirzapur Sadar, District Mirzapur, Uttar Pradesh by M/s Welspun Energy UP Pvt. Ltd. - reg. amendment in EC. (F.No. J-13012/12/2011-IA.II(T) & Proposal No. IA/UP/THE/10331/2010)**

From

- (25.6.3) (XX) The Uttar Pradesh Jal Nigam vide their letter dated 1.10.2018 has assured to provide this treated Sewage Water of **257.8 MLD from Bhagwanpur, Dinapur, Goithaha, Ramana and Mirzapur STP**. The water requirement for the proposed project is 100 MLD. The water assured by UP Jal Nigam **would be sufficient to meet the** water requirements during operation phase.
- (25.6.4) Committee noted that groundwater in some of the blocks in the study area is in Semi-critical and Critical zones. Further, Total Dissolved Solids, Hardness, Magnesium and Cadmium (Heavy Metal) are exceeding the BIS standards in some areas. **Even though source sustainability study mentions availability of water, committee is of the opinion that treated Sewage shall be used as the assured quantity of about 258 MLD has been made available by Jal Nigam. Further, the water requirement for power project is only 100 MLD.**

Accordingly, treated Sewage Water would be sufficient to meet the requirement of power project. Further, Committee noted that District Collector, Mirazpur has certified that the public hearing has been concluded in undisputable manner. Further, District Mining Officer has also certified that there is no mining activity proposed in the project area. Project Proponent has given assurance that they will install and supply RO treated water to Banaras Hindu University. However, the capacity of RO treatment system and time bound action plan to implement this activity is yet to be made available.

(25.6.5) Committee after detailed deliberations, recommended for amendment in Environmental Clearance dated 21.8.2014 subject to the following additional conditions:

- I. As the assurance from UP Jal Nigam for supplying treated Sewage Water of 257.8 MLD to the proposed project has been given vide letter dated 1.10.2018, **only treated Sewage water shall be used during operations**. Necessary pipelines in this regard shall be laid. Final layout of the pipelines starting from STPs to the power project shall be submitted.
- II. **No fresh water from Ganga River shall be drawn for the proposed project (Both construction and operation phase).**
- III. The capacity of RO treatment plant to be installed at BHU and timebound action plan for implementation shall be submitted within three months.
- IV. Before drawing the groundwater during construction phase (500 KLD), permission from Central Ground Water Board shall be obtained.

to

(25.6.3)(XX) The Uttar Pradesh Jal Nigam Vide their letter dated 01.10.2018 has assured to provide this treated Sewage Water of **18 MLD from Pakka-Pokhara, Bisundepur and Vindhychal STP**. The water requirement for the proposed project is 100 MLD. The water requirement for the proposed project is 100 MLD. The water assured by UP Jal Nigam can replace part of fresh water requirements by 18 MLD during operation phase.

(25.6.4) The Committee noted that groundwater in some of the blocks in the study area is in semi critical and Critical Zones. Further, Total Dissolved Solids, Hardness, Magnesium and Cadmium (Heavy Metal) are exceeding the BIS standards in some areas. **M/s WEUPPL shall optimize the operational water requirement from the River Ganga by replacing the equal quantity of fresh water by available treated sewage from STPs in South of the River Ganga.** Further, Committee noted that District Collector, Mirzapur has certified that the public hearing has been concluded in undisputable manner. Further, District Mining Officer has also certified that there is no mining activity proposed in the project area. Project Proponent has given assurance that they will install and supply RO treated water to Banaras Hindu University. However, the capacity of RO treatment system and time bound action plan to implement t this activity is yet to be made available.

(25.6.5) Committee after detailed deliberations, recommended for amendment in Environmental Clearance dated 21.08.2014 subject to the following additional conditions:

- I. As the assurance from UP Jal Nigam for supplying treated Sewage Water of **18 MLD** to the proposed project has been given vide letter dated 01.10.2018. Necessary pipelines in this regard shall be laid. Final layout of the pipelines starting from STPs to the power project shall be submitted.
- II. **M/s WEUPPL shall optimize the operational water requirement from the River Ganga by replacing the equal quantity of fresh water by available treated sewage from STPs in South of the River Ganga.**
- III. The capacity of RO treatment plant to be installed at BHU and time bound action plan for implementation shall be submitted within three months.
- IV. Before drawing the groundwater during construction phase (500 KLD), permission from Central Ground Water Board shall be obtained.

Item No. 26.0: CONSIDERATION OF PROJECTS

(26.1) 55 MW Municipal Solid Waste Power Project (Using Cold Plasma Technology to convert Green Power, Purified Water and Fuel at East Delhi Municipal Corporation Opp. Gagan Theatre, Wazirabad Road, Mandoli Extension, Village Mandoli, Delhi by M/s A.G. Dauters Waste Processing Private Limited.- reg. reconsideration of ToR.

(F.No. J-13012/13/2018-IA.I (T) & Proposal no. IA/DL/THE/84113/2018)

- (26.1.1) Project Proponent has submitted online application on 31.10.2018 for grant of ToR for establishing 55 MW Waste to Energy Power Project from 200 Tons per Day Municipal Solid Waste. The proposal is based on Cold Plasma Gasification Technology which will convert MSW into 55 MW of Green Power, 925 KLD Purified Water and 925 KLD fuel.
- (26.1.2) The proposal has been considered by the EAC (Thermal Power) in its meetings held on 30.11.2018 and 22.2.2019. EAC in its meeting held on 22.2.2019 made following observations and sought the information for re-consideration:
 - i. There is no clarity on the type of plasma used in the proposed cold plasma gasification technique.
 - ii. The energy consumed in dissociation of water into hydrogen and oxygen, conversion of waste into syngas and all other processes involved in subsystems were not presented in detailed.
 - iii. The mass and energy balance of the proposed waste disposal plant is not clearly available for evaluation. It only mentions the conversion of waste and wastewater into energy and purified water. But, it does not mention any process of how it is converted.
 - iv. The details provided such as input waste characteristics, process reactions, process by-products and plant output (55 MW power, water and fuel) are appearing superficial.
 - v. A complete process and technical detail along with the working principle of each process involved, mass and energy balance are required for further evaluation.
 - vi. Demonstration of the technology/waste disposal plant in the lower/pilot scale is appreciable before the establishment of the proposed 200 TPD capacity.
- (26.1.3) Project Proponent has submitted the information 14.3.2019. Accordingly, the proposal has been considered in the present meeting. Project Proponent along with their EIA

consultant M/s. Perfact Envirosolutions Pvt. Ltd. made the presentation inter-alia furnished the following information:

- i. In our technology, it is not “medium”, but rather transient gaseous states/phases which are converted to plasma during/within the plasma-formulation process. Term “plasma” is the form of the fuel. The medium is aqueous plasma. There are many forms of the word “plasma”, but in our case, it’s an aqueous medium of dissolved solids that have been converted to hydrogen and oxygen in a stabilized form, which remains liquid and non-volatile at room temperature. Typical liquid hydrogen fuel needs to be chilled to remain as a liquid. In simple terms it can be described as : Water with enriched quantity of stabilized hydrogen, with built in oxidizer (similar to rocket fuel).
- ii. To start the turbine, small quantity (1-2 litres) of reserve liquid synthetic fuel (LT Ultra FUEL™) is used.
- iii. The fuel combusts only under high-enthalpy (pressure/temp) conditions. Fuel is injected as a pressurized, atomized spray into the turbine region that is down-flow of the compression stage. Fuel injection in the turbine is similar to conventional Electronic Fuel Injection (EFI) for piston engines.
- iv. A transient small electric current from a 12 V battery is used to stimulate the power generator, in which it continues to build its own rotational (angular) momentum, such that it functions as the “starter” for the turbine. Starting takes about 1 minute, depending on the power output (size) of the power unit.
- v. Langenburg waste to energy technology consists of five core process. Viz. a) Effluent/Wastewater Conversion b) Water Purification, c) Gas Extraction, d) Plasma/Fuel Synthesis, and e) Combustion Turbine/Electricity Production.
- vi. The pre-screened input stream is separated into a solid and a liquid fraction. Solids are treated in several stages (if necessary), like grinding, liquefaction and further extraction of water and/or fluids. This pre-treated water is routed to the waste water purification, separated particulate extracts that are dissolved in an aqueous solution, are routed to the plasma fuel synthesis.
- vii. The water is routed through a number of temperature, pressure and catalytic processes, which balance pH, infuse oxygen from the gas extraction unit. This leads to a refined water output - purified water. A part of this refined water is routed to the gas extraction unit and to the turbine.
- viii. A small amount of purified water is routed from the Langenburg Technologies water treatment unit to the Langenburg Technologies gas extraction unit (3). Using an ultra-efficient, proprietary Langenburg Technologies gas extraction/conversion method (replacing conventional electrolysis), hydrogen and oxygen is derived.
- ix. Extracted components of constituent slurries, sludge and solids from the Langenburg Technologies effluent treatment and the Langenburg Technologies water treatment unit are gasified and converted into Langenburg Technologies fuels and (optional) plasma rock in the plasma fuel synthesis unit. Unwanted components or elements are either chemically reduced or destroyed.
- x. Energy balance stage wise cannot be provided as it is Langenburg Proprietary and covered under the IPR.

(26.1.4) Committee prima facie noted that the process of conversion of waste into energy is still not clear. The energy required to increase temperature in the plasma reactor to nearly 10,000 °C is not known. Further, project proponent only mentioned the theory of science behind the technology. However, detailed stage wise conversion of waste

to energy is not available. Project Proponent cited that it is proprietary of Langenburg which cannot be shared. Further, it was informed that there was no patent filed in regard to this technology. In absence of clear details, it is difficult to comprehend the process and associated environmental and safety impacts. Additionally, there are no running plants either commercial or pilot scale available in the Country.

- (26.1.5) Committee recommended that the proposal may be referred to Institute of Plasma Research, Gandhinagar, and the Institute be requested by the Ministry to provide a critical appraisal of the technical feasibility of and likely emissions from the proposed technology. Thereafter, the recommendations may be placed before the Committee for arriving at an informed decision. An expert from Central Electro Chemical Research Institute may also be co-opted in the EAC meeting for detailed examination to ensure clarity on the proposal. **Accordingly, the proposal has been deferred till such time the above issues are resolved.**

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- (26.2) **250 MW Municipal Solid Waste Power Project (using Ultra Cold Plasma Technology to convert into Green Power, Purified Water and Zero Carbon Fuel) at Village Ramnagar Mazra Ahatmali, Tehsil & District Moradabad, Uttar Pradesh by M/s A.G. Dauters Waste Processing Private Limited. - reg. ToR. (F.No. J-13012/03/2019-IA.I(T) & Proposal No. IA/UP/THE/98859/2019),**

- (26.3) **50 MW Municipal Solid Waste Power Project (using Ultra Cold Plasma Technology to convert Solid Waste into Green Power, Purified Water and Zero Carbon Fuel) at Shahjahanpur, Tehsil Kakra Kankar Kund, District Shahjahanpur, Uttar Pradesh by M/s A.G. Dauters Waste Processing Private Limited. - reg. ToR. (F.No. J-13012/04/2019-IA.I(T) & Proposal No. IA/UP/THE/98566/2019) and**

- (26.4) **400 MW Municipal Solid Waste Power Project (using Cold Plasma Technology to convert Solid Waste into Green Power, Purified Water and Zero Carbon Fuel) Tehsil & District Ram Chak Bairiya, Patna, Bihar M/s A.G. Dauters Waste Processing Private Limited. - reg. ToR. (F.No. J-13012/06/2019-IA.I(T) & Proposal No. IA/BR/THE/99725/2019)**

(26.2.1), (26.3.1) & (26.4.1) M/s A.G. Dauters Waste Processing Private Ltd. have submitted three proposals (dated 11.3.2019, 8.3.2019 and 18.3.2019, respectively) of Waste to Energy projects at various locations based on Cold Plasma Gasification technology.

(26.2.2), (26.3.2) & (26.4.2) Committee noted that a similar project of 55 MW Municipal Solid Waste Power Project on cold plasma gasification, near Ghazipur Landfill Site, Delhi has been deliberated by the EAC. As the technology is new and with the limited information available about the process/technology, the previous proposal is yet to reach a conclusion. The said proposal is also discussed in the present meeting. Further, the PP was also not having an accredited consultant and as per the OM dated 04.08.2009, the Member Secretary informed in the meeting that it is a prerequisite even during ToR stage. **Therefore, as all the projects are based on same technology and until the decision on 55 MW WtE Project is decided, Committee opined that all other proposals shall be deferred.**

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(26.5) 4000 MW Deoghar Ultra Mega Power Project to be set up in Pipra village, Mohanpur Anchal, District Deoghar, Jharkhand by M/s Deoghar Mega Power Limited. - reg. ToR. (F.No. J-13012/05/2019-IA.I(T) & Proposal no. IA/JH/THE/98383/2019)

(26.5.1) Project Proponent who is the subsidiary of Power Finance Corporation Ltd. submitted online application on 8.3.2019 for grant of Terms of Reference.

(26.5.2) Committee in the first instance noticed that QCI-NABET consultants for conducting EIA report have not been engaged by the project proponent. Ministry's Office Memorandum dated 04.08.2009 stipulates that project proponents should indicate the name consultants/firm they propose to hire for preparing EIA/EMP reports along with their complete details including their accreditation, if any, by an organisation such as Quality Council of India/National Accreditation Board for Education and Training (NABET). Further, the project area has forest land of 50 ha for which forest diversion application is yet to be submitted under Section 2 of FC Act, 1980. As per the Ministry's guidelines, a copy of application submitted for forest clearance shall be furnished at the ToR stage. Committee was also informed that Ministry had issued Environmental Clearance for 4000 MW Tilaiya Ultra Mega Power Project in District Hazaribagh, Jharkhand on 7.4.2008 to M/s Jharkhand Integrated Power Ltd. who is also another subsidiary of Power Financing Corporation Ltd. An application for seeking extension of validity of EC (beyond 10 years) for further period of five years was submitted. The location of the proposed project is at approx.175 km from the Tilaiya UMPP. A justification interms of demand and supply to establish two project of 4000 MW shall also be required. **Accordingly, the project is deferred till the information regarding justification, credible application submitted for forest clearance and details of consultant/s engaged is submitted.**

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(26.6) 1x800 MW Sipat Advance Ultra Super Critical Technology Demonstration Project, (Stage-III) at Village Sipat, Tehsil Masturi, Bilaspur District. Madhya Pradesh by M/s NTPC Limited - reg. reconsideration of ToR. (F.No. J-13012/02/2019-IA.I (T) & Online no. IA/CG/THE/89473/2018)

(26.6.1) Project Proponent submitted online proposal on 29.01.2019 for grant of ToR for establishing 1x800 MW (Stage-III) Ultra Supercritical Technology project in the existing premises of Sipat Power Plant (Stage-I: 3x660 MW & Stage-II: 2x500 MW).

(26.6.2) The proposal has been earlier considered in the EAC meeting held on 22.2.2019 and the proposal was deferred for the want of details regarding QCI-NABET consultants engaged for conducting EIA/EMP studies inline with the Ministry's Office Memorandum dated 04.08.2009. Project Proponent has now engaged M/s Vimta Labs Ltd. for carrying out EIA studies. Accordingly, the proposal has been considered in the present meeting.

(26.6.3) Project Proponent along with EIA consultants M/s Vimta Labs Ltd. have made the presentation and submitted the following information:

- i. The proposed 800 MW (Stage-III) Advanced Ultra Super Critical Technology Project is a project proposed under Clean Coal Technology as part of National Action Plan on Climate Change to be set up in the premises of Sipat Power Plant. It is a collaboration project between NTPC, BHEL and IGCAR under the aegis of the PSA to GoI.

- ii. The target efficiency of the plant is 46% as against 38% in subcritical plants. The temperature and pressure are in the range of steam for the Advanced Ultra Super Critical Project is 710-720°C and 310 bar respectively.
- iii. The Environmental Clearance for Sipat Stage-I (3x660 MW) and Stage-II (2x500 MW) has been accorded on 30.4.2002 and 8.6.2004, respectively. Both stages are under operation.
- iv. Total land requirement for the proposed project is 170 acres. There is no forest land involved in the project. Sipat village is adjacent to the proposed site. Bitkuli reserved forest and Dalha protected forest are within 10 km radius. Bilaspur city is 12 km from the proposed project site.
- v. There are no wildlife sanctuaries, national parks and other protected areas under Wildlife (Protection) Act, 1972 within 10 km radius of the project.
- vi. Lilagarh river is about 3 km East and Kharung River (5 km, West), Arpa (12 km SW) from the project site.
- vii. Coal requirement is 3.34 Million Tons/annum at 90% Plant Load Factor. Coal from coal blocks with GCV of 3700 Kcal/Kg has been considered. Mode of coal transportation from the coal mines to the power plant is by rail (MGR/IR). The same shall be used for Stage-III also.
- viii. The water requirement is estimated to be about 24 cusecs (2450 m³/hr, 58,752 m³/day), which is proposed to be drawn from the Right Bank Canal (RBC) originating from Hasdeo Barrage pondage. No additional water commitment is required for the expansion project. The water requirement for the proposed project will be met from the available committed quantity of 120 MCM from WRD, Govt. of Chhattisgarh for Sipat STPS.
- ix. It is estimated that about 1.3 MTPA (4000 Tons/day) of ash shall be generated annually. Gypsum 15 TPH generated from FGD plant shall also be utilized. The existing ash ponds of Stage-I and II will be used for the proposed expansion also.
- x. The manpower during operation phase of the project is estimated to be about 150. However, during construction phase, the total no. of workers likely to be employed will be much higher about 1000.

(26.6.4) Committee noted that the proposed advanced ultra super critical project is the first of its kind in the country and aims to achieve the efficiency of 46% as against 40.8% for super critical projects. Committee also noted that this is a demonstration project for achieving higher operating parameters to achieve greater efficiency. Committee also noted that the unutilised ash generated from the project will be disposed in the existing ash ponds. The coal transportation will be done by rail as the infrastructure is already in place. However, committee noted that the cumulative environmental impacts of existing stages shall also be incorporated in the EIA/EMP report.

(26.6.5) **Committee after detailed deliberations recommended for grant of ToR with the following additional conditions along with the standard ToR:**

- i. Ambient air quality sampling location shall also be kept in the downwind direction.
- ii. Cumulative impact assessment by taking into the existing operating plants in the same premises shall also be considered.
- iii. The risk assessment shall also be carried out for the worst case scenarios such as boiler failure and mitigation measures shall be incorporated in the EMP.

- iv. The implementation of FGD/SCR/SCNR systems for control of SO₂ and NO_x emissions as per Ministry' Notification dated 7.12.2015 and its compliance achievement shall be submitted for existing stages (Stage-I & II).
- v. The prediction of air quality impacts shall be carried out considering the existing plants with and without SO₂/NO_x control systems.
- vi. The details of ash pond such as area & volume of all ponds, quantity of ash disposed, available volume and fly ash utilisation in the last five years for various purposes shall be incorporated in the EIA report.
- vii. Water availability and sufficiency studies for drawing nearly 60,000 m³/day shall be carried out by including the impact of such withdrawal on competing users and downstream users, including e-flows.

(26.7) Proposed Expansion of 726.6 MW (Unit-3&4: 2 x 363.3 MW) Gas Based Power Project at Village Palatana, Tehsil Kakraban, Gomti District, Tripura by M/s ONGC Tripura Power Company Limited- reg. EC. (F.No. J-13012/02/2017-IA.II(T) & Proposal No. IA/TR/THE/97559/2006)

- (26.7.1) Project Proponent submitted online application on 01.03.2019 for consideration of grant of Environmental Clearance. As the project proponent did not attend the meeting, **the proposal has been deferred till a communication is received from Project Proponent stating their readiness for appraisal.**

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(26.8) 2x10 MW Coal Based Captive Thermal Power Plant at Village Tatisilwai, Ranchi District, Jharkhand by M/s Usha Martin Ltd.- reg. amendment in EC for transportation of Coal by road. (F.No. J-13012/122/08-IA. II(T) & Proposal No. IA/JH/THE/10337/2011).

- (26.8.1) Project Proponent submitted online application on 16.01.2019 for amendment in EC for transportation of Coal by road.
- (26.8.2) Project Proponent has made the presentation and *inter-alia*, submitted the following information:
- i. The Environmental Clearance (EC) under EIA Notification, 2006 for establishing 2x10 MW Coal Based Captive Thermal Power Plant at Village Tatisilwai, District Ranchi in Jharkhand has been accorded in favour of M/s. Usha Martin Ltd. vide Ministry's letter dated 07.04.2011, The Specific Condition No. (i) of the EC dated 07.04.2011 stipulates as below:

"Road transportation of coal shall be permitted for a limited period of 36 months only. The project proponent shall shift to railway transportation thereafter. The project proponent shall be vicariously responsible for liabilities incurred for road transportation such as accidental damages to public, coal fines emission from transporting trucks etc. The project proponent shall immediately start its action plant for rail transportation with consultation with the Railways and shall submit half yearly action taken report to the Ministry on the matter."
 - ii. The Unit-1 (1x10 MW) and Unit-2 (1x10 MW) of the Captive Power Plant of M/s Usha Martin Ltd. have been commissioned on 30.03.2012 and 31.12.2012, respectively.

- iii. The quantity of coal required for both units is very small i.e. 500 TPD with an average number of trucks for transportation of coal of 20 with the capacity of 25 Tons/ truck.
- iv. The quantity of coal transported till date are as below:

Sl. No	Year	Quantity (MTPA)	Monthly average (MT)
1.	FY 2014-15	1,12,995	9,416
2.	FY 2015-16	1,14,883	9,574
3.	FY 2016-17	1,17,258	9,771
4.	FY 2017-18	1,25,134	10,427
5.	FY 2018-19	1,28,488	11,681

(26.8.3) Committee noted that the EAC meeting held during 19th-20th May, 2015, recommended for sourcing of coal through e-auction and extension of permission for temporary road transportation of coal for three years i.e. till 31.03.2018. However, Committee was informed that there is no formal approval issued by the Ministry permitting the road transportation. It has evident that the road transportation of coal has been carried out since commissioning of the units (i.e. March, 2012) and the permission for road transportation was allowed only for 36 months, i.e. till 31.03.2015. Committee noted that this amounts to non-compliance of EC conditions without explicit permission from the Ministry, though the quantity is less. Committee has been informed that State Government has been asked to initiate credible action under the provisions of Environment (Protection) Act, 1986 vide Ministry's letter dated 16.10.2018. It was informed that the reminders were also sent to Jharkhand State Pollution Control Board vide letters dated 17.1.2019 and 8.2.2019. However, credible action taken by the Jharkhand Pollution Control Board is yet to be intimated to the Ministry. Committee further noted that project proponent is insisting that connecting railway line from Tatisilwai Railway station which is hardly a kilometre from the plant site and the railway line is passing at 500 m away from the plant site, is not possible.

(26.8.4) **Committee after deliberations, deferred the proposal for want of following information:**

- i. The credible action taken by the Jharkhand Pollution Control Board against the proponent for having transported coal by road without Ministry's approval.
- ii. Justification for not connecting railway line from Tatisilwai Railway station or take off from the nearest railway line.
- iii. A technical feasibility study by M/s RITES Ltd. or any reputable organisation for drawing railway line from Tatisilwai or nearest take off point to the plant premises shall be conducted to see the possibility of railway line.

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(26.9) 2x800 MW Imported coal based Godda Thermal Power Project at Village Motia, Patwa, Gangta and Nayabad of Godda Block and Sondiha, Petbi, Gayghat, Ranganiya and Mali Poraiyahaat Block, Distt. Godda, Jharkhand by M/s Adani Power of (Jharkhand) Limited- reg. Reconsideration of amendment in EC. (File No: J-13012/01/2016-IA.I (T) & Online No. IA/JH/THE/54853/2016).

(26.9.1) Project Proponent (PP) submitted the proposal online on 11.12.2018 for amendment in EC. Project Proponent applied for amendment in EC for changing the source of water from Chir River to Ganga River. The proposal has been considered in the EAC meeting held on 23.1.2019 and the committee sought the following information:

- i. Revised Form-1 mentioning the details of forest land.
- ii. Forest Diversion Permission (Stage-I FC) for 36.821 acres of forest land to be part of pipeline.
- iii. Details and number of trees to be cut in the forest land and non-forest land enroute pipeline.
- iv. Details of land requirement for all facilities and the map showing the revised co-ordinates of these facilities which include ash pond area, water reservoirs and intake & pump stations.

(26.9.2) Project Proponent submitted the information on 1.3.2019. Accordingly, the proposal is considered in the present meeting. Project Proponent made the presentation *inter-alia*, submitted the following information:

- i. Revised Form-1 stating the forest land of 13.3293 ha has been furnished.
- ii. Details of forest land involved for laying pipeline from Ganga River to the plant are as below:

Sl. No.	Forest Division	Forest Land (ha)	Legal Status
1.	Sahebganj	6.016	Reserved Forest
2.	Godda	1.8178	Reserved Forest
3.	Godda	0.7527	Jungle Jhari Land
4.	Godda	4.7428	Section-4

- iii. The forest diversion proposal for diverting 13.3293 ha for laying water intake pipelines has been submitted online on 27.3.2018 and the proposal is pending at Division (DFO) level in the State Forest Department.
- iv. There are 4243 trees under RoU in the forest land out of which only 2,000 will be cut. Further, number of trees in non-forest land in the RoU is 2226. Accordingly, the total number of trees to be cut in the forest and non-forest land is 4226.
- v. Revised map showing all facilities with co-ordinates including ash pond area, water reservoirs and intake & pump stations.
- vi. Summary of revised land requirement for the power project is as below:

Sl. No.	Description	Proposed area as per amendment (in acres)

1.	Plant area, Township, Ash dyke, 3 Water Reservoir other plant facilities & Greenbelt	558
2.	Railway Corridor	116.04
3.	Intake Location, Intermediate Reservoir cum Booster Station	60
	Sub-Total	734.04
4.	RoU for Water Pipeline Corridor	460.33
Grand Total		1194.37

(26.9.3) **Committee after detailed deliberations recommended for change in water source from Chir River to Ganga River for drawing 36 MCM and creation of storage reservoirs for 15 MCM to cater during lean season** subject to the following conditions:

- i. Stage-I Forest Clearance for diversion of 13.3293 ha for laying pipeline shall be submitted. As per Ministry's guidelines, a formal amendment will be issued after furnishing the Stage-I Clearance
- ii. Inline with Ministry's OM dated 11.3.2010 in regard to Oil and Gas pipelines, in a similar manner, 10 trees to be planted for every tree cut in the non-forest area.
- iii. There will be storage reservoirs for storing 15 MCM water to cater during lean season.
- iv. Daily quantity (Average, minimum and maximum) of fresh water withdrawn from Ganga River near Sahebganj for the Power Plant shall be recorded and data base be preserved to ensure permissible drawl of fresh water from Ganga River. The source sustainability reports for withdrawal of water from Chir River and from the Ganga River shall be placed in the public domain by the proponent, either by uploading to the PARIVESH portal or its own website.
- v. As per the original EC, 33% greenbelt of plant area shall be developed. In case of any shortage of land, additional land shall be acquired to meet the condition.

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(26.10) 1x660 MW Supercritical Ennore Thermal Power Station expansion Project, Ernavur Village, District Ennore, Tamil Nadu by M/s Tamil Nadu Generation and Distribution Corporation Ltd (TANGEDCO)- reg. amendment in ToR. (F.No. J-13012/15/2018-IA.I (T) & Online No. IA/TN/THE/84128/2018)

(26.10.1) Project Proponent submitted online application on 15.3.2019 for amendments in conditions prescribed in the ToR dated 21.1.2019.

(26.10.2) The environmental clearance for 1x660 MW Ennore expansion Power Project has been accorded on 3.6.2009 which is valid for 10 years, i.e. till 2.6.2019. Project Construction is in progress. As informed, 17% of physical progress was made at site by the EPC contractor and 18% payment (Rs.703 crores) of payment has been made to them so far. Meanwhile, Project Proponent requested to extend the EC beyond 10 years. Ministry advised to initiate the process of obtaining EC denovo as there is no provision to extend the EC beyond 10 years. Subsequently, Project Proponent applied for ToR and accordingly, Ministry prescribed the ToR vide letter dated 21.1.2019. Further, another project of 1x660 MW in the same premises has been proposed for which EIA and Public Hearing have been conducted. EAC while appraising the

proposal on 26.10.2017 sought additional studies which are yet to be completed and submitted to the Ministry. The Ennore replacement project will replace the existing Ennore Power Station of 450 MW which was de-commissioned on 31.3.2017.

(26.10.3) Project Proponent made the presentation and *inter-alia*, submitted the following information:

- i. A comprehensive EIA/EMP has been conducted in 2016 for the ETPS replacement project (1x660 MW) in the same complex. The public hearing for ETPS replacement project was conducted recently on 30.5.2017 and public are aware of both projects and their progress. As suggested by EAC, one season baseline during July-September, 2018 has been carried out for ETPS replacement project.
- ii. Exemption of Public Hearing may be granted as it is ongoing project.
- iii. Exemption for providing three alternate sites since it is an expansion TPP within ETPS complex.
- iv. Exemption of providing air quality monitoring data of 104 observations a year as this is applicable for power plants which are under operation. In the present case, the existing power plant of 450 MW has been decommissioned on 31.3.2017.
- v. Construction of project may be permitted even after expiry of EC (i.e. after 2.6.2019) as an interim arrangement till a fresh EC is obtained.

(26.10.4) Committee noted that the construction is in progress (17% achieved till date) and Rs.703 crores have been spent so far. Project Proponent can use the baseline data collected during July-September, 2018 for preparation of EIA. Further, the 104 observations a year of baseline data may not be applicable as the existing power plant has been shut down since 31.3.2017. Further, examination of alternate sites may also be exempted as it is an expansion project for which physical progress had already been made. However, committee noted that exemption of public hearing cannot be done as the public hearing was conducted in 2017 is for other project in the same complex whereas the public hearing for the proposed project has been conducted in 2008. Further, permitting the construction after expiry of existing EC cannot be recommended as construction without valid EC amounts to violation under Environment (Protection) Act, 1986.

(26.10.5) Committee after detailed deliberations, recommended for the following amendments in ToR:

- i. Baseline data collected during July-September, 2018 can be used in preparation of EIA/EMP report and collecting 104 readings a year may also be exempted.
- ii. Further, examination of alternate sites may also be exempted as it is ongoing project and the environmental clearance had already been issued for the project.

The committee again emphasises that no construction activities shall be carried out beyond the date of expiry of the existing EC till a fresh EC is obtained based on the amended ToR.

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(26.11) 2x520 MW Coal based Thermal Power Plant at Village Palavalasa, Taluk Pedagantyada, District Vishakhapatnam, Andhra Pradesh by M/s Hinduja National Power Corporation Ltd.-reg. amendment in EC for transportation of Coal by road. (F.No. J-13012/92/2008-IA.II (T) & Online No. IA/AP/THE/10774/2008)

(26.11.1) The Project Proponent submitted online application on 14.03.2019 for amendment in EC for transportation of Coal by road.

(26.11.2) Project Proponent along with EIA consultants M/s BS Envirotech Pvt. Ltd. have made the presentation and *inter-alia*, furnished the following information:

- i. The Environmental Clearance for the 2x520 MW has been accorded vide Ministry's letter dated 3.9.1996 and 10.9.1996. An amendment for incorporating CRZ recommendations of APSCZMA has been issued on 10.6.2010.
- ii. Temporary permission for transportation of coal by road for a period of two years (i.e. till 2.4.2019) from NTPC Simhadri Sick Line (8.5 km) for domestic coal, Bayyavaram Railway siding (45 km) and Kantakapalli Railway siding (63 km) for imported coal has been issued vide Ministry's letter dated 3.4.2017.
- iii. The Unit-1 (1x520 MW) and Unit-2 (1x520 MW) have been commissioned in January, 2015 and July, 2016 respectively.
- iv. Presently, the coal is obtained from Talcher Coalfields of M/s Mahanadi Coalfields Ltd.
- v. The railway siding is delayed due to delay in land acquisition from various government agencies. The plant is hardly in operation since February, 2018.
- vi. Rial rakes are proposed to be unloaded at NTPC Simhadri Sick Line, for which major works have been completed and it is being planned to cater maximum road transportation from NTPC sick line siding as it is located at a distance of 5 km from the power plant.
- vii. The company has obtained permission from East Coast Railway to unload at NTPC Simhadri railway siding.
- viii. The company has already acquired the land required from Devada village (proposed take off point from the existing NTPC line till the plant premises) till the plant boundary by Nov, 2014. All the Civil and Associated works in the stretch is completed by July, 2017 except the track work, which is pending due to approval from NTPC on co-user agreement.
- ix. Permission to transport coal by road from these three railway sidings and Gangavaram port for further period of three years.

(26.11.3) Committee noted that the transportation of coal by road has been carried out since commissioning of units till permission is granted (from January, 2016 till 3.4.2017). It has been informed that the Ministry vide letter dated 7.8.2018 has directed Andhra Pradesh State Pollution Control Board to initiate the credible action under E(P) Act, 1986 for transporting coal by road without Ministry's permission and for transporting coal with ash content more than 34% inline MoEF & CC Notification dated 2.1.2014. The status of credible action is not known till date.

(26.11.4) Further, Project Proponent while taking permission for two years in 2017, submitted the following information:

- a. construction of 5 km railway siding to take off from NTPC Siding (at 19th km) to HNPCL's plant is in advanced stage of construction. All the land has been acquired and about 30% work had already completed. The completion of railway siding will take another 2 years.
- b. Till the completion of 5 km railway siding, HNPCL requests for permission to transport coal on road from NTPC Simhadri sick line (8.5 km) for domestic coal, Bayyavaram Railway siding (45 km) for imported coal and Kantakapalli Railway siding (63 km) for imported coal.

(26.11.5) Committee noted that the connecting line of 19.46 km from Jaggayapalem-Devada cross over line had already been constructed by NTPC Simhadri Power Plant and M/s NTPC is using the railway line to bring the coal to their plant. However, committee noted that it is not sufficient to simply lay 5 km independent rail line and to connect the NTPC Simhadri sick line to transport coal by rail. There is a need to add additional railway line in the same corridor for which land acquisition and construction of railway line for a length of 20 km is required. This is because, as informed the railway line set up by M/s NTPC will not be able cater to the coal requirement of M/s HNPCL (Project Proponent). Further, the committee has not seen significant progress in the last two years. Project Proponent has not explored whether the common use of railway line by NTPC and the HNPCL is possible. Further, committee sought whether there is any MoU has been signed between two companies. In absence of any agreement with NTPC, how project proponent is going ahead to connect NTPC rail line is not known. If this information were known to project proponent few years back, a plan could have been made to connect the railway line for total length. Further, the traffic impact assessment study conducted by project proponent mentions only road sufficiency. However, the environmental impacts w.r.t impact on air quality, flora & fauna and villages/habitation are not available.

(26.11.6) **Committee after deliberations, deferred the project for want of the following information:**

- i. Status of credible action to be initiated by State Pollution Control Board for transporting coal by road without Ministry's permission and transporting coal with more than 34% ash content beyond 500 km.
- ii. Concrete plan for connecting railway line to the plant premises along with the progress made till date on all aspects.
- iii. Details of MoU with NTPC allowing to share the railway line for common portion. NTPC may also be requested give in writing that whether the existing railway line can be shared or not.
- iv. A comprehensive Traffic Impact Assessment study which includes type, width, make and custodian of the road, road sufficiency, load bearing strength, road condition, baseline air quality along the roads, impact on air quality, noise, forests, village/habitation, whether narrow crossings are involved or the roads are crossing through dense populations, etc. to be covered.

(26.12) **Expansion of 1000 MW (4x250 MW) by addition of 4x600 MW (2400 MW) Coal Based Thermal Power Plant at Village Tamnar, Taluk Gharghoda, Raigarh District, Chhattisgarh by M/s Jindal Steel & Power Ltd.- reg. extension of existing permissions to use ash pond. (F.No.J-13012/117/2008-IA.II(T) & Proposal No. IA/CG/THE/10323/2010)**

(26.12.1) The Project Proponent submitted online application on 07.03.2019 for extension of existing permission to use ash pond.

(26.12.2) Project Proponent made the presentation interalia submitted the following information:

- i. The Environmental Clearance for Units #1 & 2 (2x600 MW) was accorded on 18.03.2011 based on domestic coal linkage and Units#3 & 4 (2x600 MW) based on imported coal (till domestic coal linkage is available) was accorded on 04.11.2011.
- ii. Ministry vide letter dated 26.4.2017 permitted to use the existing ash dyke of 4x250 MW as the ash dyke for 4x600 MW could not be established in time. Further, change in location of ash pond was also permitted vide Ministry's letter dated 26.4.2017.
- iii. The land required for the construction of new ash dyke has been awarded under the New Land Acquisition Act, 2013.
- iv. The amount of Rs72.43 Crores has been deposited with CSIDC, Raipur towards compensation for land, trees and immovable properties to be paid to the land owners through Land Acquisition Officer.
- v. However due to enforcement of Model Code of Conduct in the Chhattisgarh State, allotment and physical possession of the land got delayed. The same is expected in next 2-3 months.
- vi. After land acquisition, the construction of first lagoon of new ash dyke is expected to be ready by October, 2020.

(26.12.3) Committee noted that the details of availability of volume of the existing ash pond and the generation of total ash quantity are not made available. The coal requirement of 4x250 MW and 4x600 MW is 5 MTPA and 9.6 MTPA. Accordingly, the ash quantity is estimated to be 5.264 MTPA. The daily ash generation is in the order of 15,000 TPD if plant runs at maximum PLF. However, it was informed that plant is running at 50% PLF. Accordingly, the ash generation is about 7500 TPD. It has been informed that land acquisition will be completed within 2-3 months.

(26.12.4) **Committee after detailed deliberations, recommended for use of existing ash pond for further period of one year (i.e. from 26.04.2019 to 25.04.2020)** subject to the following additional conditions:

- i. The details of quantities of ash generation, utilisation to various purposes such as brick manufacturing, constructions, soil condition & cement manufacturing and disposal shall be provided for six months (April-September & October-March) in the six monthly compliance report.
- ii. As per the Ministry's fly ash amendment Notification vide SO.254 (E) dated 25.01.2016, the company shall upload the details of stock of each type of ash generated/available from all the units (4x250 MW and 4x600 MW) on their website and shall update the stock position regularly.
- iii. As per the Ministry's fly ash amendment Notification vide SO.254 (E) dated 25.01.2016, the fly ash shall be supplied to various utilising units. The cost of transportation of ash for road construction projects or for manufacturing of ash based products or use as soil conditioner in agriculture activity within a radius of hundred km from Thermal Power Station shall be borne by the company and the cost of transportation beyond the radius of hundred km and up to three hundred km shall be shared equally between the user and the company.
- iv. For achieving compliance of fly ash notification, a map and details of ash utilising units within 100 km radius and 100-300 km along with quantity of ash required for each unit shall be prepared and submitted to the Ministry within 3 months.
- v. A public notice in major daily newspapers shall be published in both vernacular and English that the fly ash/bottom ash will be supplied free of cost for ash utilising units located within 100 km radius and the cost of transportation will be shared equally

between user and company for ash utilising units located in the radius of 100-300 km, in compliance to the fly ash amendment notification dated 25.01.2016. A copy of newspaper advertisement shall be submitted to Regional Office.

- vi. While commissioning the proposed project, the compliance of applicable revised emission norms vide Notification dated 07.12.2015, shall be achieved along with specific water consumption as per the notification issued vide dated 28.06.2018. The FGD System, NO_x control measures such as SCR/SCNR/De-NO_x burners shall be installed to achieve the revised emission norms.

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(26.13) 2x660 MW Coal Based Captive Power Plant at Village Nipania in Sunderpahari Taluk, in Godda District in Jharkhand by M/s Jindal Steel & Power Ltd -reg. amendment in EC. (F. No. J-13012/154/2010-IA.II(T) & Online No. IA/JH/THE/10417/2010)

(26.13.1) Project Proponent has submitted online application on 18.3.2019 seeking for extension of validity of Environmental Clearance dated 30.3.2012.

(26.13.2) The EC dated 30.3.2012 for establishing 2x660 WM Captive Power Project in Godda District of Jharkhand is valid for five years, i.e. till 29.3.2017. The EIA amendment Notification dated 14.9.2016, increased the validity of EC from five to seven years. As the EC was valid on the date of publication of EIA Notification and by virtue of this notification dated 14.9.2016, the validity of the said EC automatically get extended up to seven years, i.e. till 29.3.2019.

(26.13.3) Project Proponent provided the following information:

- i. The company has acquired 394.42 acres, out of total land requirement of 1209.99 acres.
- ii. The captive coal mine at Jitpur, near Jamshedpur, Jharkhand has been cancelled by the Supreme Court in September, 2014.
- iii. The company plans to participate in auction of new coal blocks to be carried out by Ministry of Coal. Thus, due to non-availability of the firm coal source for the project, the company has not taken up any major construction and related activities of the project. Once the firm coal linkage is available, the implementation of the project will be commenced.

(26.13.4) Committee noted that except for land acquisition of 394.42 acres, there has not been any progress during last seven years. Further, as informed, coal block has been cancelled in September, 2014. However, in the last 4-5 years after cancellation of coal block, project proponent has not secured any coal linkage which has been stated as the main reason for not going ahead with implementation of the project activities. The Committee has also ensured that there is no development of land or construction activities. Further, the project is linked as captive power plant to an integrated steel plant elsewhere. However, it was informed that the construction activities of connected steel plant have also not been initiated till dated. Considering the progress of the project activities and uncertainty in obtaining coal linkage, Committee noted that it would not be possible to complete the construction of the project and commission the captive power plant within 3 years, if extended. **Accordingly, Committee did not recommend the extension of validity of Environmental**

Clearance beyond seven years. Project Proponent may have to initiate the EC process *denovo*.

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(26.14) Any other item with the permission of the Chair

(26.14 A) 2x660 MW Khargone Super Critical Thermal Power Project at Villages Selda and Dalchi, District Khargone, Madhya Pradesh by M/s NTPC Ltd.- reg. temporary permission for transportation of coal by road. (F. No. J-13012/54/2010-IA-II (T) & Online No. IA/MP/THE/22937/2014)

(26.14.1) Project Proponent submitted online application on 11.1.2019 for seeking temporary permission for transportation of 2000 TPD coal by road till December, 2019.

(24.14.2) The environmental clearance for 2x660 MW Khargone Thermal Power Project in District Khargone of Madhya Pradesh has been issued vide Ministry's letter dated 31.3.2015. Coal requirement for two units is 6.51 MTPA and to be sourced from Pakri Barwadih Captive Coal Block. The Condition No. 4A (i) of the Environmental Clearance specifies as follows:

"Coal transportation shall be by Rail only. An additional EIA shall be carried out and an EMP shall be prepared for laying down the rail line and alternate mode of transportation, in case rail line gets delayed. The EIA/EMP shall be submitted to the Ministry within one year of issuing EC."

(24.14.3) Unit-1 (660 MW) is expected to be commissioned by 31.3.2019 and Unit-2 is expected to be commissioned by 30.9.2019. The proposal has been considered by the EAC in its meeting held on 23.1.2019 and EAC sought the following information:

- i. Detailed progress report of the construction activities of the power project along with milestones and expenditure incurred till date out of total project cost.
- ii. Reasons for delay in setting up railway line and siding from Nimarkhedi to Power Plant. Detailed progress report of the activities completed and balance activities along with timelines.
- iii. Any certification from Railways regarding expected date of completion for converting meter gauge to broad gauge from Khandwa to Nimarkhedi Railway station.
- iv. The routes from which coal is transported is firmed up out of 6 routes proposed. Reasons for proposing to transport only 2000 TPD whereas the coal requirement for Unit-1 is about 9800 TPD.
- v. Legible map showing proposed routes on topo sheet and google satellite image to be produced in hard copy (A0/A1).
- vi. Details of roads viz. Make of road whether it is concrete, WBM, Bitumen, Kutchha road, etc.; Type of road whether it is NH, SH, PWD or Rural Road. Capacity and load bearing strength of the road to take up 20 ton truck in addition to the tare weigh of 10-15 tons.
- vii. Justification for exceeding the total traffic (baseline and proposed traffic) beyond Design volumes of the roads at certain places. Any alternate routes available. If not, mitigation measures thereof.
- viii. Justification for incremental concentrations and details of input data such as weather conditions/meteorology, road type and condition, emissions from the trucks, fugitive emission & road dust, etc. Dispersion modelling is to be run before the committee.

(26.14.4) Project Proponent submitted the additional information online on 13.2.2019 i.e. immediately after uploading the Minutes in the website. However, the Ministry after processing the file has issued formal letter dated 21.2.2019 for submitting the reply to the additional information sought by EAC. The said letter was uploaded on the Ministry's website and the proposal was shown as pending at Project Proponent. As the proposal was shown pending at the Project Proponent level, it could not be placed in the Agenda. Subsequently, this was brought to the notice of the Ministry by the Project Proponent. Project Proponent had again submitted the same reply on 20.3.2019. Based on the request and justification provided by the project proponent, for considering out of turn basis in the meeting approval has been taken from the Competent Authority in line with the Ministry Circular dated 30.6.2009 and accordingly, the proposal was placed in the present meeting. Project Proponent along with consultants M/s Min Mec Consultancy Pvt. Ltd. has made the presentation and *inter alia*, submitted the following information:

- i. As per the current progress of NTPC Khargone Unit#1, it is planned to start synchronization, trial run, commissioning on coal in the month of March/April, 2019. The 72 hrs trial run on full load as per CERC guideline is also planned subsequently. As per CEA guideline the commissioning coal requirement of one unit of 660 MW is 2 lakh MT including trial run and 72 hrs full load operation. This 2 lakh tonne coal shall be brought from NTPC's Captive coal mine Pakri-Barwadih to M/s Nepa Ltd. siding by Indian railway and from NEPA siding to plant site by road. Thus, only commissioning coal requirement of one unit of 660 MW which is 2 lakh tonne as explained above, shall be brought by road from M/s Nepa Ltd. Siding.
- ii. Construction works of 2x660 MW Khargone STPP of NTPC Ltd. has been awarded to M/s L&T on 31.03.2015 as an EPC package. The works are in full swing with Unit#1 Boiler light up completed in Dec 18. Unit#1 TG put on barring gear on 03.02.2019 and preparedness for steam blowing for Unit#1 is in full swing. Synchronization of Unit#1 is planned by March, 2019. CHP works are also in progress and various structures like Wagon Tippler, Crusher House, TPs, Stacker Re-claimers are erected and in advanced stages of completion (80% completed) ready for start of commissioning.
- iii. Supply of coal is envisaged from NTPC's captive mine Pakri Barwadih (Hazaribag, Jharkhand) through railway line. The take off point is located at Nimarkhedi station (Khandwa district), 37 km from Khargone STPP plant. Railway line from Khandwa to Nimarkhedi is presently meter gauge & being converted into broad gauge by Indian Railway through customer funding model for which NTPC has deposited Rs. 487 Crores in March, 2015. Total length of broad gauge conversion is about 42 Km from Khandwa to Nimarkhedi. Likely completion date of gauge conversion is March, 2019.
- iv. Total expenditure incurred is Rs.6,947 Crores as on date out of total project cost Rs. 9,871 Crores.
- v. The land acquisition for railway corridor took time and the contract work for outside railway siding works of 37 km from Nimarkhedi to Khargone STPP was awarded to M/s RITES on 02.09.2016, after a lag of 1.5 years.
- vi. M/s RITES has further divided this work into 11 packages for which awards were placed during March, 2017 to Sep., 2018. The package for S&T works has been awarded in the month of Sep., 2018.

- vii. The initial tendering of Package 7 i.e. Major Bridges was done by M/s. RITES in March, 2017 and was annulled in August, 2017 as the price quoted by lowest bidder was very high w.r.t. cost estimate. Package was again tendered and could be awarded in Feb., 2018.

The completion schedule for various activities of Railway siding package:

Railway siding Package Progress Report			
Description	Scope	Executed	Completion schedule
Earth Work	9 million m ³	7.7 million m ³	April, 2019
Concreting	0.19 million m ³	0.152 million m ³	-
No of Bridges (Slab & Girder)	130 Nos.	105 Nos	-
Track Laying (including loop lines)	48 km	16.71 km	May, 2019
Fitness of track	-	-	May, 2019
S&T	-	-	July, 2019
OHE	-	-	Dec., 2019

- viii. Expected date of completion of conversion of meter gauge to broad gauge from Khandwa to Nimarkhedi Railway station is March, 2019. This is mentioned at Point No. 9, page 3 of MoM of 17th Coordination meeting held between Indian railways and NTPC.
- ix. Out of the six routes only one route is being firmed up, which is Route-5 (as given in traffic study report) from M/s Nepa Ltd. Railway siding to Plant site via Nepa Phata, Sanawad and Bediya having total length 145.2 km. CMD, NEPA Ltd. has given a consent letter to NTPC for use of their railway siding for unloading of NTPC coal.
- x. Once the railway siding is commissioned, the coal requirement of 9,800 TPD post COD, will be met through NTPC's own railway siding only.
- xi. The detailed descriptions of selected road i.e. Route-5 (From Nepa Ltd. Siding to Plant) having total length 145.2 km as desired are Tabulated below:

Section of road	Approx. Distance	Type of road	Ownership/ Custodian
NTPC Khargone to Bediya	20 km	PWD	PWD Khargone
Bediya to Sanawad	19 km	District Road	MPRDC Indore
Sanawad to NEPA Phata	92 km	SH-27	MPRDC Indore
NEPA Phata to M/s NEPA	14 km	PWD	PWD Burhanpur
Total Length	145 km		

- ix. The nature of the road is mentioned as under:

Make of road	Black top (Bitumen)	Concrete	WBM/Kutchha
Length in km	142.1 km	3.2 km	-

- x. Road widths are adequate for the existing and proposed traffic at all the traffic census point except at two location i.e. CP-10 (Near Indian Oil Pump, Sanawad) & 16 (Near River Bridge at Sanawad) in urban area and at three locations i.e. CP- 18 (Deshgaon village), 20 (Near Jain Dhaba, Chhaigaon Makhan village) & 23 (Asir village) in rural area.
- xi. It has been found that existing traffic remains high during day time only during 9:00 AM to 5:00 PM. Keeping this in mind, it is suggested that movement of coal carrying trucks to be restricted to only 16 hours during 5:00 PM to 9:00 AM. Further, a team of traffic marshals will be deployed in and around Sanawad.
- xii. Traffic impact assessment has been done again considering the line source model (CALINE) and considering worst case scenarios of traffic volume i.e. 200 Tippers movement daily (i.e. 13 tippers per hour during 16 hours/day). The maximum Ground Level Concentrations predicted at receptor distance of 10 m from centre of the road are as under:

Pollutant	Concentrations ($\mu\text{g}/\text{m}^3$)	Receptor No.	Section
PM ₁₀	1.028	86	S07
PM _{2.5}	0.288	86	S07
SO ₂	3.16	86, 120	S07, S09
NO _x	22.13	86	S07

(26.14.5) Committee noted that the project proponent has firmed up one route out of six routes earlier proposed. The route from NEPA Railway siding to plant premises involves the distance of 145.2 km. Further, the total quantity of coal to be transported is 2,00,000 Tons for the purpose of trail run and achieving commissioning of plant. Thus, project proponent has put restriction of maximum coal transportation of 2000 Tons/day involving 200 Trucks (20 tons truck) to and fro along the road. Further, the total length of road is either black top or concrete. Road widths are not sufficient at five locations/stretches. Accordingly, project proponent has agreed to transport coal during non-peak hours (5 PM to 9 AM). Accordingly, the traffic impact can be minimised. Further, the railway siding including broad gauge conversion by Indian Railways will be completed by December, 2019. Accordingly, Committee agreed to transport the coal by road temporarily.

(26.14.6) **Committee after detailed deliberations, recommended for transportation of coal by road for the quantity of 2,000 Tons/day of having total quantity restricted to 2,00,000 Tonnes (2 Lakh tonnes) for a temporary period of one year subject to following additional conditions:**

- i. While commissioning the proposed project, the compliance of revised emission norms vide Notification dated 07.12.2015 for the parameters PM: 30 mg/Nm³; SO₂: 100 mg/Nm³; NO_x : 100 mg/Nm³ and Hg: 0.03 mg/Nm³ shall be achieved along with specific water consumption as per the notification vide dated 28.06.2018. The FGD System, NO_x control measures such as SCR/SCNR/De-NO_x burners shall be installed to achieve the revised emission norms.
- ii. The status of installation of FGD and De-NO_x/SCR/SCNR control systems to comply with new emission norms for both units shall be submitted.

- iii. The detailed progress report of construction of proposed project shall be submitted to the Ministry and its Regional Office along with six monthly compliance report till the both units are commissioned.
- iv. As per the Revised Tariff Policy notified of Ministry of Power issued vide dated 28.01.2016, project proponent shall explore the use of treated sewage water from the Sewage Treatment Plant of Municipality/ local bodies/ similar organization located within 50 km radius of the proposed power project to minimize the water drawl from surface water bodies. The details of Sewage Treatment Plants located within 50 km radius along with the capacities shall be submitted.
- v. Daily quantity of (Average, minimum and maximum) fresh water withdrawn from Narmada River at Omkareshwar Dam for the plant purpose shall be submitted along with six monthly compliance report.

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As there being no agenda item left, the meeting ended with a vote of thanks to the Chair.

Standard Terms of Reference (TOR):

- i) The proposed project shall be given a unique name in consonance with the name submitted to other Government Departments etc. for its better identification and reference.
- ii) Vision document specifying prospective long term plan of the project shall be formulated and submitted.
- iii) Latest compliance report duly certified by the Regional Office of MoEF& CC for the conditions stipulated in the environmental and CRZ clearances of the previous phase(s) for the expansion projects shall be submitted.
- iv) The project proponent needs to identify minimum three potential sites based on environmental, ecological and economic considerations, and choose one appropriate site having minimum impacts on ecology and environment. A detailed comparison of the sites in this regard shall be submitted.
- v) Executive summary of the project indicating relevant details along with recent photographs of the proposed site (s) shall be provided. Response to the issues raised during Public Hearing and the written representations (if any), along with a time bound Action Plan and budgetary allocations to address the same, shall be provided in a tabular form, against each action proposed.
- vi) Harnessing solar power within the premises of the plant particularly at available roof tops and other available areas shall be formulated and for expansion projects, status of implementation shall also be submitted.
- vii) The geographical coordinates (WGS 84) of the proposed site (plant boundary), including location of ash pond along with topo sheet (1:50,000 scale) and IRS satellite map of the area, shall be submitted. Elevation of plant site and ash pond with respect to HFL of water body/nallah/River and high tide level from the sea shall be specified, if the site is located in proximity to them.
- viii) Layout plan indicating break-up of plant area, ash pond, green belt, infrastructure, roads etc. shall be provided.
- ix) Land requirement for the project shall be optimized and in any case not more than what has been specified by CEA from time to time. Item wise break up of land requirement shall be provided.
- x) Present land use (including land class/kisam) as per the revenue records and State Govt. records of the proposed site shall be furnished. Information on land to be acquired including coal transportation system, laying of pipeline, ROW, transmission lines etc. shall be specifically submitted. Status of land acquisition and litigation, if any, should be provided.
- xi) If the project involves forest land, details of application, including date of application, area applied for, and application registration number, for diversion under FCA and its status should be provided along with copies of relevant documents.
- xii) The land acquisition and R&R scheme with a time bound Action Plan should be formulated and addressed in the EIA report.
- xiii) Satellite imagery and authenticated topo sheet indicating drainage, cropping pattern, water bodies (wetland, river system, stream, nallah, ponds, etc.), location of nearest habitations (villages), creeks, mangroves, rivers, reservoirs etc. in the study area shall be provided.

- xiv) Location of any National Park, Sanctuary, Elephant/Tiger Reserve (existing as well as proposed), migratory routes / wildlife corridor, if any, within 10 km of the project site shall be specified and marked on the map duly authenticated by the Chief Wildlife Warden of the State or an officer authorized by him.
- xv) Topography of the study area supported by topo sheet on 1:50,000 scale of Survey of India, along with a large scale map preferably of 1:25,000 scale and the specific information whether the site requires any filling shall be provided. In that case, details of filling, quantity of required fill material; its source, transportation etc. shall be submitted.
- xvi) A detailed study on land use pattern in the study area shall be carried out including identification of common property resources (such as grazing and community land, water resources etc.) available and Action Plan for its protection and management shall be formulated. If acquisition of grazing land is involved, it shall be ensured that an equal area of grazing land be acquired and developed and detailed plan submitted.
- xvii) A mineralogical map of the proposed site (including soil type) and information (if available) that the site is not located on potentially mineable mineral deposit shall be submitted.
- xviii) Details of fly ash utilization plan as per the latest fly ash Utilization Notification of GOI along with firm agreements / MoU with contracting parties including other usages etc. shall be submitted. The plan shall also include disposal method / mechanism of bottom ash.
- xix) The water requirement shall be optimized (by adopting measures such as dry fly ash and dry bottom ash disposal system, air cooled condenser, concept of zero discharge) and in any case not more than that stipulated by CEA from time to time, to be submitted along with details of source of water and water balance diagram. Details of water balance calculated shall take into account reuse and re-circulation of effluents.
- xx) Water body/Nallah (if any) passing across the site should not be disturbed as far as possible. In case any Nallah / drain is proposed to be diverted, it shall be ensured that the diversion does not disturb the natural drainage pattern of the area. Details of proposed diversion shall be furnished duly approved by the concerned Department of the State.
- xxi) It shall also be ensured that a minimum of 500 m distance of plant boundary is kept from the HFL of river system / streams etc. and the boundary of site should also be located 500 m away from railway track and National Highways.
- xxii) Hydro-geological study of the area shall be carried out through an institute/ organization of repute to assess the impact on ground and surface water regimes. Specific mitigation measures shall be spelt out and time bound Action Plan for its implementation shall be submitted.
- xxiii) Detailed Studies on the impacts of the ecology including fisheries of the River/Estuary/Sea due to the proposed withdrawal of water / discharge of treated wastewater into the River/Sea, etc. shall be carried out and submitted along with the EIA Report. In case of requirement of marine impact assessment study, the location of intake and outfall shall be clearly specified along with depth of water drawl and discharge into open sea.
- xxiv) Source of water and its sustainability even in lean season shall be provided along with details of ecological impacts arising out of withdrawal of water and taking into account inter-state shares (if any). Information on other competing sources

- downstream of the proposed project and commitment regarding availability of requisite quantity of water from the Competent Authority shall be provided along with letter / document stating firm allocation of water.
- xxv) Detailed plan for rainwater harvesting and its proposed utilization in the plant shall be furnished.
 - xxvi) Feasibility of near zero discharge concept shall be critically examined and its details submitted.
 - xxvii) Optimization of Cycles of Concentration (COC) along with other water conservation measures in the project shall be specified.
 - xxviii) Plan for recirculation of ash pond water and its implementation shall be submitted.
 - xxix) Detailed plan for conducting monitoring of water quality regularly with proper maintenance of records shall be formulated. Detail of methodology and identification of monitoring points (between the plant and drainage in the direction of flow of surface / ground water) shall be submitted. It shall be ensured that parameter to be monitored also include heavy metals. A provision for long-term monitoring of ground water table using Piezometer shall be incorporated in EIA, particularly from the study area.
 - xxx) Socio-economic study of the study area comprising of 10 km from the plant site shall be carried out through a reputed institute / agency which shall consist of detail assessment of the impact on livelihood of the local communities.
 - xxxi) Action Plan for identification of local employable youth for training in skills, relevant to the project, for eventual employment in the project itself shall be formulated and numbers specified during construction & operation phases of the Project.
 - xxxii) If the area has tribal population it shall be ensured that the rights of tribals are well protected. The project proponent shall accordingly identify tribal issues under various provisions of the law of the land.
 - xxxiii) A detailed CSR plan along with activities wise break up of financial commitment shall be prepared. CSR component shall be identified considering need based assessment study and Public Hearing issues. Sustainable income generating measures which can help in upliftment of affected section of society, which is consistent with the traditional skills of the people shall be identified. Separate budget for community development activities and income generating programmes shall be specified.
 - xxxiv) While formulating CSR schemes it shall be ensured that an in-built monitoring mechanism for the schemes identified are in place and mechanism for conducting annual social audit from the nearest government institute of repute in the region shall be prepared. The project proponent shall also provide Action Plan for the status of implementation of the scheme from time to time and dovetail the same with any Govt. scheme(s). CSR details done in the past should be clearly spelt out in case of expansion projects.
 - xxxv) R&R plan, as applicable, shall be formulated wherein mechanism for protecting the rights and livelihood of the people in the region who are likely to be impacted, is taken into consideration. R&R plan shall be formulated after a detailed census of population based on socio economic surveys who were dependant on land falling in the project, as well as, population who were dependant on land not owned by them.
 - xxxvi) Assessment of occupational health and endemic diseases of environmental origin in the study area shall be carried out and Action Plan to mitigate the same shall be prepared.

- xxxvii) Occupational health and safety measures for the workers including identification of work related health hazards shall be formulated. The company shall engage full time qualified doctors who are trained in occupational health. Health monitoring of the workers shall be conducted at periodic intervals and health records maintained. Awareness programme for workers due to likely adverse impact on their health due to working in non-conducive environment shall be carried out and precautionary measures like use of personal equipments etc. shall be provided. Review of impact of various health measures undertaken at intervals of two to three years shall be conducted with an excellent follow up plan of action wherever required.
- xxxviii) One complete season site specific meteorological and AAQ data (except monsoon season) as per latest MoEF Notification shall be collected and the dates of monitoring shall be recorded. The parameters to be covered for AAQ shall include PM₁₀, PM_{2.5}, SO₂, NO_x, CO and Hg. The location of the monitoring stations should be so decided so as to take into consideration of the upwind direction, pre-dominant downwind direction, other dominant directions, habitation and sensitive receptors. There should be at least one monitoring station each in the upwind and in the pre-dominant downwind direction at a location where maximum ground level concentration is likely to occur.
- xxxix) In case of expansion project, air quality monitoring data of 104 observations a year for relevant parameters at air quality monitoring stations as identified/stipulated shall be submitted to assess for compliance of AAQ Standards (annual average as well as 24 hrs).
- xl) A list of industries existing and proposed in the study area shall be furnished.
- xli) Cumulative impacts of all sources of emissions including handling and transportation of existing and proposed projects on the environment of the area shall be assessed in detail. Details of the Model used and the input data used for modelling shall also be provided. The air quality contours should be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any. The wind-rose and isopleths should also be shown on the location map. The cumulative study should also include impacts on water, soil and socio-economics.
- xlii) Radio activity and heavy metal contents of coal to be sourced shall be examined and submitted along with laboratory reports.
- xliii) Fuel analysis shall be provided. Details of auxiliary fuel, if any, including its quantity, quality, storage, etc. should also be furnished.
- xliv) Quantity of fuel required, its source and characteristics and documentary evidence to substantiate confirmed fuel linkage shall be furnished. The Ministry's Notification dated 02.01.2014 regarding ash content in coal shall be complied. For the expansion projects, the compliance of the existing units to the said Notification shall also be submitted
- xlv) Details of transportation of fuel from the source (including port handling) to the proposed plant and its impact on ambient AAQ shall be suitably assessed and submitted. If transportation entails a long distance it shall be ensured that rail transportation to the site shall be first assessed. Wagon loading at source shall preferably be through silo/conveyor belt.
- xlvi) For proposals based on imported coal, inland transportation and port handling and rail movement shall be examined and details furnished. The approval of the Port and Rail Authorities shall be submitted.

- xlvi) Details regarding infrastructure facilities such as sanitation, fuel, restrooms, medical facilities, safety during construction phase etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase should be adequately catered for and details furnished.
- xlvi) EMP to mitigate the adverse impacts due to the project along with item - wise cost of its implementation in a time bound manner shall be specified.
- xlix) A Disaster Management Plan (DMP) along with risk assessment study including fire and explosion issues due to storage and use of fuel should be carried out. It should take into account the maximum inventory of storage at site at any point of time. The risk contours should be plotted on the plant layout map clearly showing which of the proposed activities would be affected in case of an accident taking place. Based on the same, proposed safeguard measures should be provided. Measures to guard against fire hazards should also be invariably provided. Mock drills shall be suitably carried out from time to time to check the efficiency of the plans drawn.
- l) The DMP so formulated shall include measures against likely Fires/Tsunami/Cyclones/Storm Surges/Earthquakes etc, as applicable. It shall be ensured that DMP consists of both On-site and Off-site plans, complete with details of containing likely disaster and shall specifically mention personnel identified for the task. Smaller version of the plan for different possible disasters shall be prepared both in English and local languages and circulated widely.
- li) Detailed scheme for raising green belt of native species of appropriate width (50 to 100 m) and consisting of at least 3 tiers around plant boundary with tree density of 2000 to 2500 trees per ha with a good survival rate of around 80% shall be submitted. Photographic evidence must be created and submitted periodically including NRSA reports in case of expansion projects. A shrub layer beneath tree layer would serve as an effective sieve for dust and sink for CO₂ and other gaseous pollutants and hence a stratified green belt should be developed.
- lii) Over and above the green belt, as carbon sink, plan for additional plantation shall be drawn by identifying blocks of degraded forests, in close consultation with the District Forests Department. In pursuance to this the project proponent shall formulate time bound Action Plans along with financial allocation and shall submit status of implementation to the Ministry every six months.
- liii) Corporate Environment Policy
- Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
 - What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions. Details of this system may be given.
 - Does the company has compliance management system in place wherein compliance status along with compliances / violations of environmental norms are reported to the CMD and the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.

All the above details should be adequately brought out in the EIA report and in the presentation to the Committee.

- liv) Details of litigation pending or otherwise with respect to project in any Court, Tribunal etc. shall invariably be furnished.

ANNEXURE- A2

Standard EC Conditions for Thermal Power Sector:

A. Statutory compliance:

1. Emission Standards for Thermal Power Plants as per Ministry's Notification S.O. 3305(E) dated 7.12.2015, G.S.R.593(E) dated 28.6.2018 and as amended from time to time shall be complied.
2. Part C of Schedule II of Municipal Solid Wastes Rules, 2016 dated 08.04.2016 as amended from time to time shall be complied for power plants based on Municipal Solid Waste.
3. MoEF&CC Notification G.S.R 02(E) dated 2.1.2014 as amended time to time regarding use of raw or blended or beneficiated/washed coal with ash content not exceeding 34% shall be complied with, as applicable.
4. MoEF&CC Notifications on Fly Ash Utilization S.O. 763(E) dated 14.09.1999, S.O. 979(E) dated 27.08.2003, S.O. 2804(E) dated 3.11.2009, S.O. 254(E) dated 25.01.2016 as amended from time to time shall be complied.
5. Thermal Power Plants other than the power plants located on coast and using sea water for cooling purposes, shall achieve specific water consumption of 2.5 m³/MWh and Zero effluent discharge.
6. The recommendation from Standing Committee of NBWL under the Wildlife (Protection) Act, 1972 should be obtained, if applicable.
7. No Objection Certificate from Ministry of Civil Aviation be obtained for installation of requisite chimney height and its siting criteria for height clearance.
8. Groundwater shall not be drawn during construction of the project. In case, groundwater is drawn during construction, necessary permission be obtained from CGWA.

B. Ash content/ mode of transportation of coal:

1. EC is given on the basis of assumption of ___% of ash content and ___km distance of transportation in rail/road/conveyor/any other mode. Any increase of %ash content by more than 1 percent, and/or any change in transportation mode or increase in the transport distance (except for rail) require application for modifications of EC conditions after conducting the 'incremental impact assessment' and proposal for mitigation measures.

C. Air quality monitoring and Management:

1. Flue Gas Desulphurisation System shall be installed based on Lime/Ammonia dosing to capture Sulphur in the flue gases to meet the SO₂ emissions standard of 100 mg/Nm³.
2. Selective Catalytic Reduction (SCR) system or the Selective Non-Catalytic Reduction (SNCR) system or Low NO_x Burners with Over Fire Air (OFA) system shall be installed to achieve NO_x emission standard of 100 mg/Nm³.
3. High efficiency Electrostatic Precipitators (ESPs) shall be installed in each unit to ensure that particulate matter (PM) emission to meet the stipulated standards of 30 mg/Nm³.
4. Stacks of prescribed height ____m shall be provided with continuous online monitoring instruments for SO_x, NO_x and Particulate Matter as per extant rules.
5. Exit velocity of flue gases shall not be less than 20-25 m/s. Mercury emissions from stack shall also be monitored periodically.
6. Continuous Ambient Air Quality monitoring system shall be set up to monitor common/criteria pollutants from the flue gases such as PM₁₀, PM_{2.5}, SO₂, NO_x within the plant area at least at one location. The monitoring of other locations (at least three locations outside the plant area covering upwind and downwind directions at an angle of 120° each) shall be carried out manually.
7. Adequate dust extraction/suppression system shall be installed in coal handling, ash handling areas and material transfer points to control fugitive emissions.
8. Appropriate Air Pollution Control measures (DEs/DSs) be provided at all the dust generating sources including sufficient water sprinkling arrangements at various locations viz., roads, excavation sites, crusher plants, transfer points, loading and unloading areas, etc.

D. Noise pollution and its control measures:

1. The Ambient Noise levels shall meet the standards prescribed as per the Noise Pollution (Regulation and Control) Rules, 2000.
2. Persons exposed to high noise generating equipment shall use Personal Protective Equipment (PPE) like earplugs/ear muffs, etc.
3. Periodical medical examination on hearing loss shall be carried out for all the workers and maintain audiometric record and for treatment of any hearing loss including rotating to non-noisy/less noisy areas.

E. Human Health Environment:

1. Bi-annual Health check-up of all the workers is to be conducted. The study shall take into account of chronic exposure to noise which may lead to adverse effects like increase in heart rate and blood pressure, hypertension and peripheral vasoconstriction and thus increased peripheral vascular resistance. Similarly, the study shall also assess the health impacts due to air polluting agents.
2. Baseline health status within study area shall be assessed and report be prepared. Mitigation measures should be taken to address the endemic diseases.
3. Impact of operation of power plant on agricultural crops, large water bodies (as applicable) once in two years by engaging an institute of repute. The study shall also include impact due to heavy metals associated with emission from power plant.
4. Sewage Treatment Plant shall be provided for domestic wastewater.

F. Water quality monitoring and Management:

1. Induced/Natural draft closed cycle wet cooling system including cooling towers shall be set up with minimum Cycles of Concentration (COC) of 5.0 or above for power plants using fresh water to achieve specific water consumption of 2.5 m³/MWhr. (Or) Induced/Natural draft open cycle cooling system shall be set up with minimum Cycles of Concentration (COC) of 1.5 or above for power plants using sea water.
2. In case of the water withdrawal from river, a minimum flow 15% of the average flow of 120 consecutive leanest days should be maintained for environmental flow whichever is higher, to be released during the lean season after water withdrawal for proposed power plant.
3. Records pertaining to measurements of daily water withdrawal and river flows (obtained from Irrigation Department/Water Resources Department) immediately upstream and downstream of withdrawal site shall be maintained.
4. Rainwater harvesting in and around the plant area be taken up to reduce drawl of fresh water. If possible, recharge of groundwater to be undertaken to improve the ground water table in the area.
5. Regular (at least once in six months) monitoring of groundwater quality in and around the ash pond area including presence of heavy metals (Hg, Cr, As, Pb, etc.) shall be carried out as per CPCB guidelines. Surface water quality monitoring shall be undertaken for major surface water bodies as per the EMP. The data so obtained should be compared with the baseline data so as to ensure that the groundwater and surface water quality is not adversely impacted due to the project & its activities.
6. The treated effluents emanating from the different processes such as DM plant, boiler blow down, ash pond/dyke, sewage, etc. conforming to the prescribed standards shall be re-circulated and reused. Sludge/ rejects will be disposed in accordance with the Hazardous Waste Management Rules.
7. Hot water dispensed from the condenser should be adequately cooled to ensure the temperature of the released surface water is not more than 5 degrees Celsius above the temperature of the intake water.
8. Based on the commitment made by the Project Proponent, Sewage Treatment Plants within the radius of 50 km from proposed project, the treated sewage ofKLD from STP (name) shall be used as an alternative to the fresh water source to minimize the fresh water drawl from surface water bodies.
9. Wastewater generation ofKLD from various sources (viz. cooling tower blowdown, boiler blow down, wastewater from ash handling, etc) shall be treated to meet the standards of pH: 6.5-8.5; Total Suspended Solids: 100 mg/l; Oil & Grease: 20 mg/l; Copper: 1 mg/l; Iron:1 mg/l; Free Chlorine: 0.5; Zinc: 1.0 mg/l; Total Chromium: 0.2 mg/l; Phosphate: 5.0 mg/l;
10. Sewage generation ofKLD will be treated by setting up Sewage Treatment plant to maintain the treated sewage characteristics of pH: 6.5-9.0; Bio-Chemical Oxygen Demand (BOD): 30 mg/l; Total Suspended Solids: 100 mg/l; Fecal Coliforms (Most Probable Number):<1000 per 100 ml.

G. Risk Mitigation and Disaster Management:

1. Adequate safety measures and environmental safeguards shall be provided in the plant area to control spontaneous fires in coal yard, especially during dry and humid season.
2. Storage facilities for auxiliary liquid fuel such as LDO and HFO/LSHS shall be made as per the extant rules in the plant area in accordance with the directives of Petroleum &

Explosives Safety Organisation (PESO). Sulphur Content in the liquid fuel should not exceed 0.5%.

3. Ergonomic working conditions with First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
4. Safety management plan based on Risk Assessment shall be prepared to limit the risk exposure to the workers within the plant boundary.
5. Regular mock drills for on-site emergency management plan and Integrated Emergency Response System shall be developed for all kind of possible disaster situations.

H. Green belt and Biodiversity conservation:

1. Green belt shall be developed in an area of 33% of the total project with indigenous native tree species in accordance with CPCB guidelines. The green belt shall inter-alia cover an entire periphery of the plant.
2. *In-situ/ex-situ* Conservation Plan for the conservation of flora and fauna should be prepared and implemented.
3. Suitable screens shall be placed across the intake channel to prevent entrainment of life forms including eggs, larvae, juvenile fish, etc., during extraction of seawater.

I. Waste management:

1. Solid waste management should be planned in accordance with extant Solid Waste Management Rules, 2016.
2. Toxicity Characteristic Leachate Procedure (TCLP) test shall be conducted for any substance, potential of leaching heavy metals into the surrounding areas as well as into the groundwater.
3. Ash pond shall be lined with impervious liner as per the soil conditions. Adequate dam/dyke safety measures shall also be implemented to protect the ash dyke from getting breached.
4. Fly ash shall be collected in dry form and ash generated shall be used in phased manner as per provisions of the Notification on Fly Ash Utilization issued by the Ministry and amendment thereto. By the end of 4th year, 100% fly ash utilization should be ensured. Unutilized ash shall be disposed off in the ash pond in the form of High Concentration Slurry. 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. Flyash utilization details shall be submitted to concerned Regional Office along with the six-monthly compliance reports and utilization data shall be published on company's website.
5. Unutilized ash shall be disposed off in the ash pond in the form of High Concentration Slurry/Medium Concentration Slurry/Lean Concentration Slurry method. Ash water recycling system shall be set up to recover supernatant water.
6. In case of waste-to-energy plant, major problems related with environment are fire smog in MSW dump site, foul smell and impacts to the surrounding populations. Therefore, the following measures are required to be taken up:
 - i) Water hydrant at all the dumpsites of MSW area to be provided so that the fire and smog could be controlled.
 - ii) Sprayer like microbial consortia may be provided for arresting the foul smell emanating from MSW area.

J. Monitoring of compliance:

1. Environmental Audit of the project be taken up by the third party for preparation of Environmental Statement as per Form-V & Conditions stipulated in the EC and report be submitted to the Ministry.
2. Resettlement & Rehabilitation Plan as per the extant rules of Govt. of India and respective State Govt. shall be followed, if applicable.
3. Energy Conservation Plan to be implemented as envisaged in the EIA / EMP report. Renewable Energy Purchase Obligation as set by MoP/State Government shall be met either by establishing renewable energy power plant (such as solar, wind, etc.) or by purchasing Renewable Energy Certificates.
4. Monitoring of Carbon Emissions from the existing power plant aswell as for the proposed power project shall be carried out annually from a reputed institute and report be submitted to the Ministry's Regional Office.
5. Energy and Water Audit shall be conducted at least once in two years and recommendations arising out of the Report should be followed. A report in this regard shall be submitted to Ministry's Regional Office.
6. Environment Cell (EC) shall be constituted by taking members from different divisions, headed by a qualified person on the subject, who shall be reporting directly to the Head of the Project.
7. The project proponent shall (Post-EC Monitoring):
 - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
 - b. upload the clearance letter on the web site of the company as a part of information to the general public.
 - c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forest and Climate Change (MoEF&CC) at <http://parviesh.nic.in>.
 - d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
 - e. monitor the criteria pollutants level namely; PM (PM₁₀& PM_{2.5} in case of ambient AAQ), SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company;
 - f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
 - g. submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company;

- h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project and the date of commencement of the land development work.

K. Corporate Environmental Responsibility (CER) activities:

1. CER activities will be carried out as per OM No. 22-65/2017-IA.II dated 01.05.2018 or as proposed by the PP in reference to Public Hearing or as earmarked in the EIA/EMP report along with the detailed schedule of implementation with appropriate budgeting.

L. Marine facilities:

1. As the seawater intake systems are required for the plant fall in CRZ area, recommendations from State Coastal Zone Management Authority (SCZMA) as per CRZ Notification shall be implemented.
2. Marine intake and outfall pipelines shall be located as per the recommendations State Coastal Zone Management Authority (SCZMA).

M. Sea Water Intake:

1. Seawater intake system shall be so designed and constructed to ensure sufficient seawater in terms of quantity and quality.
2. The withdrawal of seawater shall be preferably through a pipeline with a riser equipped with a velocity cap arrangement and bar screen to arrest the impingement of large marine organisms.
3. In all tide conditions (particularly at spring low tides) the riser head must be flooded with the required submergence of seawater above its top.

N. Effluent Release:

1. At the effluent release point, maximum temperature of the discharge water shall not be more than 5°C and salinity shall not exceed 50 ppt with respect to that of the ambient seawater.
2. Use of antifouling agents like chlorine / hypochlorite, shall be carefully controlled. The chlorine concentration shall not exceed 0.2 ppm at the effluent release point.
3. The effluent when released at the selected location shall attain sufficient dilution so that near ambient water quality (particularly temperature and salinity) is attained within 500 m from the release location, at low tide.
4. The location of the diffuser shall be marked with a solar lighted buoy to avoid accidents.
5. The site selected based on mathematical modeling shall ensure absence of recirculation of the effluent plume in the seawater intake area under all tidal conditions.
6. The effluent shall be released through a properly designed multiport diffuser above the seabed to facilitate its efficient initial mixing with the receiving seawater.
7. Efficacy of the diffuser shall be ascertained at least once in 2 years through scientific studies and corrective actions such as cleaning of the diffuser from marine growth, removal of silt deposits, etc. shall be taken up, if warranted.
8. Continuous online monitoring system for Temperature and Salinity shall be installed to monitor the quality of effluent.

O. Common to intake and effluent:

1. The pipeline shall be buried below the seabed at a depth to ensure its stability under rough sea conditions particularly during cyclone / tsunami. The depth of burial will depend on the seafloor strata but normally the top of the pipeline shall be at least 1 m below the bed level. In the surf and intertidal zones, the pipeline shall be buried below the maximum scour level.
2. In case of open channel, the channel shall be constructed as per the recommendations of State Coastal Zone Management Authority (SCZMA).
3. If the substratum is rocky the pipeline may be anchored to the rock provided the geology of the area satisfactorily supports the structure which shall be ascertained through geo-technical investigations.
4. Exposed pipeline section and riser shall be protected by armour stone from waves, boats anchoring, fishing activities etc.
5. The location of the riser & diffuser shall be marked with a solar lighted buoy to avoid accidents from boats.
6. Marine / Sea water quality shall be monitored at effluent release location at the center. Parameters to be monitored shall be as follows:
 - a. *Physico-chemical*: Temperature, Salinity, pH and Dissolved Oxygen.
 - b. *Biological*: Primary Productivity, Phytoplankton (Chlorophyll a, Phaeophytin, Population, Species), Zooplankton (Biomass, Population, Species) and Benthos (Biomass, Population, Species).
7. In case of Coastal Power Plants, the Mangrove plantation shall be taken up in an area ofha, along the coast/ on the banks of Estuary.

Attendance Sheet of EAC members

LIST OF MEMBERS (Attendance Sheet)

26th EXPERT APPRAISAL COMMITTEE MEETING (Thermal)DATE & TIME : 27th March 2019, 10:00 AM

VENUE : Indus Hall, Jal Wing, Ground Floor, Indira Paryavaran Bhawan, New Delhi

Sr.No.	Name of Member	Signature
1.	Dr. Navin Chandra Chairman	<i>Navinchandra</i> 27/03/19
2.	Shri Suramya D. Vora, IFS (Retd.) Member	<i>SOLB</i> 27/3/19
3.	Dr. Narmada Prasad Shukla Member	<i>NPS</i> 27.3.19
4.	Sh. N. Mohan Karnat, IFS Member	- Abs -
5.	Dr. Sharachchandra Lele Member	<i>S Lele</i> 27/3/19
6.	Sh. N.S. Mondal, CEA Member	<i>N.S. Mondal</i> 27/3/19
7.	Dr. R.K. Giri, IMD Member	- Abs -
8.	Dr. S.K. Paliwal, CPCB Member	- Abs -
9.	Prof. S.K. Gupta (ISM/ IIT Dhanbad) Member	- Abs -
10.	Dr. Jai Krishna Pandey Member	<i>J.K. Pandey</i> 27/3/19
11.	Dr. Manjari Srivastava Member	- Abs -
12.	Dr. Gururaj P Kundargi Member	<i>G Kundargi</i>
13.	Dr. S. Kerketta Member Secretary, MoEFCC	<i>S Kerketta</i> 27/3/2019
	Dr. P. Vardaraj Manjari IPR	<i>P. Vardaraj</i> 27/3/19

Approval of Minutes of the 26th Meeting of the Re-constituted Expert Appraisal Committee (EAC) of Thermal Power Projects by the Chairman.

4/11/2019

https://mail.gov.in/twc_static/layout/shell.html?lang=en&3.0.1.2.0_15121607

Subject: Re: Draft 26th EAC meeting of Thermal Sector - reg.
To: Dr S Kerketta <s.kerketta66@gov.in>

Date: 04/11/19 12:32 PM
From: navin chandra <navinchandrarnl@yahoo.com>

11/04/2019

Dear Dr. Kerketta Ji,

I have gone through the finalized draft of the Minutes of 26th EAC (Thermal) meeting and found them to be in order. The Minutes can now be uploaded on the website of the Ministry.

(NAVIN CHANDRA)

Dr. Navin Chandra,
Director General
M P Council of Science and Technology (MPCST),
Vigyan Bhawan, Nehru Nagar, Bhopal - 462003 (M.P.) India
Phone : 91-755- 2671800 (Office)
e-mail : dg@mpcost.nic.in
navinchandrarnl@yahoo.com, navinchandraampri@gmail.com

On Wednesday, 10 April, 2019, 3:23:27 pm IST, Dr S Kerketta <s.kerketta66@gov.in> wrote:

Sir,

PFA regarding the above subject matter. Sending the same after incorporating the comments of the other EAC Members (comments received from Mr. GP kundargi) It is requested to kindly approve the same.

—
regards,

Dr. S. Kerketta
Director- IA (Thermal, River Valley & HEP)
MoEF&CC, New Delhi
Phone: 011-24695314 (O), 26113096 (R)

https://mail.gov.in/twc_static/layout/shell.html?lang=en&3.0.1.2.0_15121607

1/1

AGENDA OF 26th MEETING OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE ON THERMAL POWER PROJECTS

DATE : 27 March, 2019

TIME : 10.30 A.M. ONWARDS

VENUE : INDUS MEETING HALL, GROUND FLOOR, JAL WING, IPB, JORBAGH ROAD, NEW DELHI-110003.

ITEM	
Item No. 26.0	CONFIRMATION OF MINUTES OF 25th EAC (THERMAL) MEETING
Item No.	CONSIDERATION OF PROJECTS
26.1	250 MW Municipal Solid Waste Power Project (using Ultra Cold Plasma Technology to convert into Green Power, Purified Water and Zero Carbon Fuel) at Village Ramnagar Mazra Ahatmali, Tehsil & District Moradabad, Uttar Pradesh by M/s A.G. Dauters Waste Processing Private Limited. - reg. ToR. F.No. J-13012/03/2019-IA.I(T) & Proposal no. IA/UP/THE/98859/2019.
26.2	50 MW Municipal Solid Waste Power Project (using Ultra Cold Plasma Technology to convert Solid Waste into Green Power, Purified Water and Zero Carbon Fuel) at Shahjahanpur, Tehsil Kakra Kankar Kund, District Shahjahanpur, Uttar Pradesh by M/s A.G. Dauters Waste Processing Private Limited. - reg. ToR. F.No. J-13012/04/2019-IA.I(T) & Proposal no. IA/UP/THE/98566/2019.
26.3	400 MW Municipal Solid Waste Power Project (using Cold Plasma Technology to convert Solid Waste into Green Power, Purified Water and Zero Carbon Fuel) Tehsil & District Ram Chak Bairiya, Patna, Bihar M/s A.G. Dauters Waste Processing Private Limited. - reg. ToR. F.No. J-13012/06/2019-IA.I(T) & Proposal no. IA/BR/THE/99725/2019.
26.4	55 MW Municipal Solid Waste Power Project (Using Cold Plasma Technology to convert Green Power, Purified Water and Fuel at East Delhi Municipal Corporation Opp. Gagan Theatre, Wazirabad Road, Mandoli Extension, Village Mandoli, Delhi by M/s A.G. Dauters Waste Processing Private Limited.- reg. reconsideration of ToR. F.No. J-13012/13/2018-IA.I (T) & Proposal no. IA/DL/THE/84113/2018.
26.5	4000 MW Deoghar Ultra Mega Power Project to be set up in Pipra village, Mohanpur Anchal, District Deoghar, Jharkhand by Deoghar Mega Power Limited. - reg. ToR. F.No. J-13012/05/2019-IA.I(T) & Proposal no. IA/JH/THE/98383/2019.
26.6	1x800 MW Sipat Advance Ultra Super Critical Technology Demonstration Project, (Stage-III) at Village Sipat, Tehsil Masturi, Bilaspur District. Madhya Pradesh by M/s NTPC Limited - reg. reconsideration of ToR. F.No. J-13012/02/2019-IA.I (T) & Online no. IA/CG/THE/89473/2018.
26.7	Proposed Expansion of 726.6 MW (Unit-3&4: 2 x 363.3 MW) Gas Based Power Project at Village Palatana, Tehsil Kakraban, Gomti District, Tripura by M/s ONGC TRIPURA POWER COMPANY LIMITED reg.- EC. F.No. J-13012/02/2017-IA.II(T) & Proposal No. IA/TR/THE/97559/2006.
26.8	2x10 MW Coal Based Captive Thermal Power Plant at Village Tatisilwai, Ranchi District, Jharkhand by M/s Usha Martin Ltd. reg. amendment in

	EC for transportation Coal by road. F.No. J-13012/122/08-IA. II(T) & Proposal No. IA/JH/THE/10337/2011.
26.9	2x800 MW Imported coal based Godda Thermal Power Project at Village Motia, Patwa, Gangta and Nayabad of Godda Block and Sondiha, Petbi, Gayghat, Ranganiya and Mali villages of Poraiyahaat Block, Distt. Godda, Jharkhand by M/s Adani Power (Jharkhand) Limited- reg. Reconsideration of EC. File No: J-13012/01/2016-IA.I (T) & Online No. IA/JH/THE/54853/2016.
26.10	1x660 MW Supercritical Ennore Thermal Power Station expansion Project, Ernavur Village, District Ennore, Tamil Nadu by M/s Tamil Nadu Generation and Distribution Corporation Ltd (TANGEDCO)- reg. amendment in ToR. F.No. J-13012/15/2018-IA.I (T) & Online no. IA/TN/THE/84128/2018.
26.11	2x520 MW Coal based Thermal Power Plant at Village Palavalasa, Taluk Pedagantyada, District Vishakhapatnam, Andhra Pradesh by M/s Hinduja National Power Corporation Ltd.reg. amendment in EC. F.No. J-13012/92/2008-IA.II (T) & Online no. IA/AP/THE/10774/2008.
26.12	Expansion of 1000 MW (4x250 MW) by addition of 4x600 MW (2400 MW) Coal Based Thermal Power Plant at Village Tamnar, Taluk Gharghoda, Raigarh District, Chhattisgarh by M/s Jindal Steel & Power Ltd.- reg. extension of existing permissions to use ash pond. F.No. J-13012/117/2008-IA II (T) & Proposal No. IA/CG/THE/10323/2010.
26.13	2x660 MW Coal Based Captive Power Plant at Village Nipania in Sunderpahari Taluk, in Godda District in Jharkhand by M/s Jindal Steel & Power Ltd -reg. amendment in EC. F.No. J-13012/154/2010 -IA II (T) & Online no. IA/JH/THE/10417/2010.
26.14	2x660 MW Khargone Super Critical Thermal Power Project at Villages Selda and Dalchi, District Khargone, Madhya Pradesh by M/s NTPC Ltd.- reg. temporary permission for transportation of coal by road. F.No. J-13012/54/2010-IA-II (T) & Online No. IA/MP/THE/22937/2014.
26.15	ANY OTHER ITEM WITH THE PERMISSION OF THE CHAIR.

Note: If project documents are not submitted to Committee Members on time along with brief summary/basic information as per pro-forma, it will be the Committee's discretion to consider the project. Project proponents shall bring shape file (.kml file) containing project boundaries & facilities and shall be saved on computer in the meeting hall. Project Proponents are required to bring hard copy (A0/A1 size) and soft copy (pdf) of a map showing project facilities superimposed on Survey of India Toposheet. Proponents shall submit the attendance form duly filled to the Member Secretary before starting the presentation.

CERTIFIED TRUE COPY OF SPECIAL RESOLUTION PASSED IN THE EXTRA ORDINARY GENERAL MEETING OF THE MEMBER OF WELSPUN ENERGY UP PRIVATE LIMITED ("THE COMPANY") HELD ON WEDNESDAY, 10TH DAY OF JULY, 2019 AT 12:00 NOON AT ADANI CORPORATE HOUSE, SHANTIGRAM, NR. VAISHNODEVI CIRCLE, S G HIGHWAY, AHMEDABAD-382421.

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Change in name of the Company

"RESOLVED THAT pursuant to provision of Section 13 and all other applicable provisions, if any, of the Companies Act, 2013, read with applicable rules made thereunder (including any statutory modification(s) or re-enactment thereof, for the time being in force) and the provision of the Memorandum and Articles of Association of the company, subject to the approval of Registrar of Companies, Gujarat, approval of members be and is hereby accorded to the change of name of the Company from 'Welspun Energy UP Private Limited' to 'Mirzapur Thermal Energy (UP) Private Limited'.

RESOLVED FURTHER THAT the Board of Directors be and is hereby authorized to give effect to above resolution."

// Certified True Copy //

For, Welspun Energy UP Private Limited



Virendra Kumar Kasliwal
Director
Din: 07180043





Registered Office:
Welspun House, 7th floor,
Kamala City,
SB Marg, Lower Parel (w)
Mumbai - 400013

CIN: U40300MH2010PTC211286
Tel: +91 79 2656 7555
Fax: +91 79 2555 7177
info@adani.com
www.adani.com

TRUE COPY


CERTIFIED TRUE COPY OF EXPLANATORY STATEMENT PURSUANT TO SECTION 102(1) OF THE COMPANIES ACT, 2013.

The following statement sets out all material facts relating to the Special Business mentioned in the accompanying Notice:

Your Company was incorporated with an object of the business of establishing, commissioning, setting up, operating and maintaining electric power generating stations based on conventional/non-conventional resources, tie-lines, sub-stations and transmission lines on build, own and transfer (BOT) and/or build, own, lease and transfer (BOLT) basis.

Your Company now wishes to set up the business of generation, transmission, distribution of power and coal mining, transportation and trading in coal or any other minerals in the state of Madhya Pradesh

Accordingly, your Directors propose to change the name of the Company from '**Welspun Energy UP Private Limited**' to '**Mirzapur Thermal Energy (UP) Private Limited**' to reflect the business of the Company in its name.

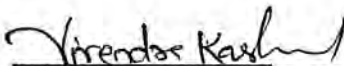
The change of the Company needs approval of shareholders of the Company by way of Special Resolution.

The Board of Directors recommends the above resolution for your approval.

None of the Directors or any key managerial personnel or any relative of any of the Directors of the Company or the relatives of any key managerial personnel is, in anyway, concerned or interested in the above resolution.

// Certified True Copy //

For, Welspun Energy UP Private Limited




Virendra Kumar Kasliwal
Director
Din: 07180043





Registered Office:
Welspun House, 7th floor,
Kamala City,
SB Marg, Lower Parel (w)
Mumbai - 400013

CIN: U40300MH2010PTC211286
Tel: +91 79 2656 7555
Fax: +91 79 2555 7177
info@adani.com
www.adani.com

TRUE COPY


THE COMPANIES ACT, 1956

ARTICLES OF ASSOCIATION

OF

MIRZAPUR THERMAL ENERGY (UP) PRIVATE LIMITED

*(Amended pursuant to the special resolution passed on 10th July, 2019 at An Extra Ordinary General meeting)

PRELIMINARY

APPLICATION OF TABLE "A"

1. Subject as hereinafter provided and in so far as these presents do not modify or exclude them the regulations contained in Table "A" in the First Schedule to the Companies Act, 1956 [hereinafter called "The Act"] shall apply to the Company in so far as they are applicable to a Private Company

HEADINGS

2. The headings hereto shall not affect the construction hereof.

PRIVATE COMPANY

RESTRICTION ON TRANSFER AND NUMBER OF MEMBERS

3. The Company is a Private Company Limited by Shares within the meaning of Section 3(1) (iii) of the Act, and accordingly.
 - [a] Restricts the right to transfer its shares,
 - [b] Limits the number of its members to 50 (fifty) but not including:
 - [i] Persons who are in the employment of the Company.
 - [ii] Persons who having been formerly in the employment of the Company were members of the Company while in that employment and have continued to be the members after the employment ceased; provided that where two or more persons hold one or more shares in the Company jointly, they shall, for the purpose of this Article, be treated as a single member.
 - [c] Prohibits any invitation to the public to subscribe for any shares in or debentures of the Company.
 - [d] Prohibits any invitation or acceptance of deposits from persons other than its members, directors or their relatives.
 - [e] The Company is having minimum paid up capital of ` 100,000/- (Rupees One Lac).

SHARE CAPITAL**DIVISION OF CAPITAL**

4. The Authorised Share Capital of the Company shall be amounts and be divided into such shares as may from time to time, be provided in Clause V (a) of the Memorandum of Association with power to increase or reduce the capital in accordance with the Company's regulations and legislative provisions for the time being in force in that behalf with the powers to divide the share capital, whether original or increased or decreased into several classes and attach thereto respectively such ordinary, preferential or special rights and conditions in such a manner as may for the time being be provided by the Regulations of the Company and allowed by law.

GENERAL AUTHORITY

5. Wherever in the Companies Act, 1956 it has been provided that the Company shall have any right, privilege or authority or that Company cannot carry out any transaction unless the company is so authorized by its Articles then in that case, Articles hereby authorize and empower the Company to have such rights, privileges or authority and to carry out such transaction as have been permitted by the Companies Act, 1956.

SHARES AT THE DISPOSAL OF DIRECTORS

6. The shares shall be under the control of the Directors who may allot or otherwise dispose off the same or any of them to such persons, in such proportions and on such terms and conditions and at par, at premium or at discount [subject to the provisions of the Act] as they may from time to time think proper.

CALLS

7. The Directors may, from time to time, make calls upon the members in respect of any money unpaid on the shares in any manner, as they deem fit.

POWER TO ISSUE SHARES AT DISCOUNT

8. With the previous authority of company in General Meeting and the sanction of the Company Law Board and upon otherwise complying with the provisions of Section 79 of the Act, it will be lawful for the Directors to issue at a discount, shares of a class already issued.

HOW FAR NEW SHARES TO RANK WITH SHARES IN THE ORIGINAL

9. Except as otherwise provided by the conditions of issue or by these presents, any capital raised by creation of new shares shall be considered part of the original capital and shall be subject to the provisions herein contained with reference to payment of calls and installments, transfer and transmission for future, lien, voting rights and otherwise.

FIRST NAMED PERSON DEEMED SOLE HOLDER

10. If any share stands in the names of two or more persons, the person first names in the Register of Members shall as regards voting at meetings, service of notice and all or any matters connected with the Company, except the transfer of shares and any other matters herein otherwise provided, be deemed to be sole holder thereof but joint holders of the shares shall be severally as well as jointly liable for the payment of all deposits, installments and calls due in respect of such shares and for all incidents thereof according to the Company's regulations.

DIRECTORS MAY ALLOT SHARES FOR CONSIDERATION OTHER THAN CASH

11. The Board may issue and allot shares in the Capital of the Company as payment or part payment for any property sold or transferred, goods or machinery supplied or for service rendered to the Company in or about the conduct of the company's business and shares to be allotted may be issued as fully paid up shares and if so issued, shall be deemed to be fully paid up shares.

LIABILITY OF MEMBERS

12. Every member or his heirs, executors, administrators, assigns or other representatives shall pay to the Company the portion of the capital represented by his share or shares which may for the time being remain due and unpaid thereon in such amounts, at such time or times and in such manner as the Board shall from time to time in accordance with the Company's regulations require the payment thereof and so long as any money remains due, owing and unpaid to the Company by any member on any account, such member shall not be entitled at the option of the Board, to exercise any rights or privileges.

TRANSFER AND TRANSMISSION OF SHARES

RESTRICTION ON TRANSFER OF SHARE

13. Save as hereinafter provided no share shall be transferred to a person who is not a member of Company so long as any Member or any person selected by the Directors as one whom it is desirable in the interest of the Company to admit to membership is willing to purchase the same at the fair value.

DIRECTORS' DISCRETION TO DECLINE REGISTRATION OF ANY TRANSFER

14. The Directors may at any time in their absolute and uncontrolled discretion and without assigning any reason whatsoever, decline or acknowledge any proposed transfer of shares and their power or discretion to refuse such transfer shall not be affected by the fact that the proposed transferee is already a registered member of the Company. Without prejudice to the generality of the aforesaid power, the Directors may in particular so decline in any case in which the Company has a lien upon the shares [or any of them] or whilst any shareholder executing the transfer is either alone or jointly with any person or persons indebted to the Company on any account whatsoever, or

whilst any moneys in respect of the shares desired to be transferred [or any of them] remain unpaid or unless the transferee is approved by the Board. The registration of the Transfer shall be conclusive evidence of the approval of the transferee by the Board.

TRANSFER OF SHARES HOW TO BE MADE

15. Except where the transfer is made pursuant to Article 20, the person proposing to transfer any share [hereinafter called "proposing transferor"] shall give notice in writing [hereinafter called 'the Notice'] to the Company that he desires to transfer the same. Such notice shall specify the sum he fixes as the fair value of the shares, and shall constitute the Directors as agent for the sale of the shares to any member of the Company or person selected as aforesaid willing to purchase the shares [hereinafter called the "Purchasing Member] at a price so fixed or at the option of the purchasing member at the fair value to be fixed in accordance with Article 17 hereinafter appearing. A transfer notice may include several classes and in such case it would operate as if it were a separate notice of each share. A transfer notice shall not be revoked except with the sanction of the Directors.

SHARES COMPRISED IN THE TRANSFER NOTICE HOW TO BE DEALT

16. Except where the transfer is made pursuant to Article 20, the shares comprised in any transfer notice shall be dealt with as under:
 - [a] The Board shall forthwith give notice to all the members of the company and specify the price of the share to be sold and invite each of them to state in writing within 7 days from the date of the said notice whether he is willing to purchase any and if so what maximum number of the said shares.
 - [b] After the expiration of said 7 days the Board shall allocate the said shares comprised in the transfer notice to or amongst the members or member who shall have expressed their or his willingness to purchase as aforesaid, but so that in case of competition, they shall rank for acceptance pari passu in proportion to shares held by them and if any shares cannot be apportioned, such shares shall be offered to them in order determined by lot, and directors shall cause such lots to be drawn accordingly.
 - [c] If shares are not taken up by the person to whom they are offered in accordance with the foregoing provisions and the company finds a purchasing member within the space of three months after the expiration of the said 7 days it shall give notice thereof to the purchasing member and proposing transferor who shall be bound upon payment of fair value as fixed in accordance with Article 17 hereof to transfer the shares to such purchasing member or members.

PROCEDURE WHEN PROPOSING TRANSFEROR MAKES DEFAULT IN TRANSFERRING

17. (1) In any case where the proposing transferor after having become bound as aforesaid makes default in transferring, the Directors may receive the purchase money and the

proposing transferor shall be deemed to have appointed any one Director or the Secretary of the Company as his agent to execute transfer of shares to the purchasing member, and upon the execution of such transfer, the Company shall hold the purchase money in trust for proposing transferor. The receipt of the Company for the purchase money shall be a good discharge to the purchasing member and after his name being entered in the Register of Members in purported exercise of the aforesaid power, the validity of the proceedings shall not be questioned by any person.

- (2) If share Certificate/Certificates in respect of the shares transferred as mentioned above is/are not delivered to the Company by the former holder of such share/shares, the Directors may issue new Certificate/s for such share/shares distinguishing it in such manner as they may think fit from the certificate/certificates not so delivered.

RIGHT OF THE PROPOSING TRANSFEROR WHEN THE COMPANY DOES NOT FIND A PURCHASING MEMBER

18. If the Directors shall not within the space of the said three months find a purchasing member after giving notice in the aforesaid manner, the proposing transferor shall at any time within three months afterwards be at liberty subject to Article 14 hereof to sell and transfer the shares to any person and at a price not less than the fair value as fixed in accordance with Article 17 hereof.

REGISTRATION OF TRANSFER NOT TO APPLY FOR CERTAIN TRANSFER

19. Subject to the power of Directors in this behalf as mentioned in Article 14 hereof, any share may be transferred by a member to his spouse or lineal descendants, the restrictions in the preceding Articles hereto shall not apply to any transfer made by virtue of this Article.

DIRECTOR'S RIGHT TO TRANSFER SHARES OF DECEASED MEMBERS

20. Any person becoming entitled to any share in consequence of death or insolvency of any sole holder thereof or in any way otherwise than by transfer upon producing such evidence of his title thereto may, with the consent of directors [which they shall not be under any obligation to give] be registered as a member in respect of such shares, provided the Board shall have the right to decline registration as it would have had if the deceased or insolvent member had transferred the shares before his death or insolvency.

DIRECTOR MAY CALL FOR TRANSFER OF THE SHARES OF THE DECEASED

21. [a] If any member dies, the Board may call the heirs or the executors or the administrators of such deceased member to transfer the shares of the deceased to some person to be approved by the Board at the fair value of the shares and if the heirs or the executors or the administrators do not comply forthwith such requisition, they shall be deemed to have served to the Company with a transfer notice under Article 15 and the provisions of that Article and the subsequent Articles shall apply thereon operate.
- [b] On the death of any joint holders, the survivor or survivors of them shall be the only person or persons recognized by the Company as having any title to the shares but the

Directors may require such evidence of death as they may think fit and nothing herein contained shall be deemed to release estate of the joint holder with any other persons.

- [c] The executors or administrators of deceased members shall be the only persons recognized by the Company as having any title to his shares and the Company shall not be bound to recognize such executors or administrators or other legal representation as the case may be from a duly constituted Court in India. Provided nevertheless that it shall be lawful for the Directors in its absolute discretion to dispose with production of Probate or Letter of Administration or such other legal representation upon such terms as to indemnity or otherwise as the Directors may deem fit.

PROVISIONS TO APPLY TO DEBENTURES

22. The provisions of these Articles for transfer and transmission of shares, shall mutatis mutandis apply to the transfer or transmission of any debentures of the Company.

LIEN

23. The Company shall have a first and paramount lien upon all the shares registered in the name of each member and upon the proceeds of sale thereof for his debts, liabilities and engagements solely or jointly with any other person to or with the Company whether the period of payment, fulfillment or discharge thereof shall have actually arrived or not and such lien shall extend to all dividends from time to time declared in respect of such shares, unless otherwise agreed. The registration of transfer of shares shall operate as waiver of Company's lien if any, on such shares. The Directors may at any time, declare any shares to be wholly or in part exempt from the provisions of this Article.

GENERAL MEETINGS

NOTICE OF MEETING

24. Any General Meeting may be called by giving to the members Three clear day's notice or a shorter notice than of Three days, if consent is accorded thereto by members of the Company holding not less than 60 percent of the paid up share capital of the Company and it shall not be necessary to annex any explanatory statement to the notice.

QUORUM AT GENERAL MEETING

25. Two members personally present shall be a quorum of any General Meeting of the Company.

VOTING RIGHT

26. On a show of hands every member holding equity shares present in person shall have one vote. On a poll every such member present in person or by proxy shall have one vote for each share held by him.

PROXY

27. A member may appoint another member as his proxy to attend and vote instead of himself but a non member shall not be so appointed and provisions of section 176[2] shall not apply to the Company.

DIRECTORS**NUMBER OF DIRECTORS**

28. Unless otherwise decided, the number of the Directors shall not be less than two and more than twelve excluding the Nominee Director and Alternate Director.

FIRST DIRECTORS

29. #First Directors are:
- a. *Mr. Jay Shukla
 - b. *Mr. Abhinav Mayank

Each of the first Directors shall hold office as permanent directors and shall continue to remain as Directors until he or she as the case may be, resigns or dies or otherwise becomes disqualified under the provisions of the Companies Act.

(#Discrepancy noted in Form 32 and the Articles of Association of the Company filed at the time of incorporation is rectified now by including the names of the actual Directors as First Directors as per Form 32 filed initially)

*(*Altered vide Special Resolution passed at the Extra Ordinary General Meeting of the Members of the Company held on October 22, 2012)*

POWER TO FILL CASUAL VACANCY

30. Subject to the provisions of Section 262 of the Act, the Board shall have the power at any time and from time to time, to appoint any qualified person to be a Director to fill a causal vacancy. Any person so appointed shall hold office only up to the date up to which the Director in whose place he is appointed would have held office if it had not been vacated by him.

POWER TO APPOINT ALTERNATE DIRECTOR

31. Subject to Section 313 of the Act, the Board of Directors of the company may appoint an Alternate Director to act for a Director during his absence for a period of not less than three months from the State in which the meetings of the Board are ordinarily held.

POWER OF DIRECTORS TO APPOINT ADDITIONAL DIRECTORS

32. The Directors shall have power at any time and from time to time to appoint any other person as Director as an addition to the Board so that number of Directors shall not at any time exceed the maximum number fixed as above and any person so appointed as an Additional Director shall retain his office only until the next Annual General Meeting but shall be eligible for re-appointment.

NOMINEE DIRECTORS

33. Subject to the provisions of the Act and of these Articles, whenever the Directors enter into a contract with any Government, Central, State, or Local, and Bank/s or Financial

Institution/s or any person/s [hereinafter referred to as "The Appointer"] for borrowing any money or for providing any guarantee or security for any technical or financial collaboration or assistance or for entering into any other arrangement, whatsoever, the Directors shall have the power to agree that such appointer shall have the right to appoint or nominate by a notice in writing addressed to the Company one or more Directors on the Board for such period and upon such terms and conditions as may be mentioned in the agreement and that such Director may not be liable to retire by rotation nor be required to hold any qualification shares. The Directors of company may also agree that such Director or Directors may be removed from time to time by the appointer and the appointer may appoint another or others in his or their place and also fill in any vacancy, which may occur as a result of any such Director or Directors ceasing to hold that office for any reason whatsoever.

CHAIRMAN OF THE BOARD

34. The Board may from time to time appoint any Director to be the Chairman of the Board. The Chairman of the Board shall be subject to the same provisions as to resignation and removal as the other Directors, and he ipso facto and immediately ceases to be the Chairman if he ceases to hold the office of Director for any cause.

DIRECTORS CAN HOLD OFFICE

35. Subject to the provisions of Sections 299 and 314 of the said Act, a Director may hold any other office or place of profit under the Company except that of any auditor upon such terms and remunerations as may be determined by the Board from time to time.

SITTING FEE

36. Every Director shall be paid out of the funds of the Company such sum as the Directors may from time to time determine for attending every meeting of the Board or any committee of the Board, subject to the ceiling prescribed, under the Act. The Directors shall also be paid traveling and other expenses for attending and returning from meeting of the Board and any other expenses properly incurred by them in connection with the business of the Company.

QUALIFICATION SHARE

37. No qualification share shall be required for a Director.

DIRECTORS NOT TO RETIRE BY ROTATION

38. The Directors shall not be liable to retire by rotation at every Annual General Meeting of the Company.

CONTRACT BY DIRECTORS

39. Subject to the provisions of Section 297 and 299 of the said Act, a Director shall be capable of contracting and participating in the profits of any contract with the Company and shall be directly or indirectly concerned or interested in any contract or arrangement entered into by or on behalf of the Company in the same manner as if he was not a Director.

SPECIAL REMUNERATION TO DIRECTORS

40. If any Director being willing, shall be called upon to perform extra services which expression shall include work done by the Director as a member of any committee formed by the Directors or to make any special exertions in going or residing abroad or otherwise for any of the purposes of the Company, the Board may resolve to remunerate such Director either by a fixed sum or by a percentage of profit or otherwise as may be determined by the Directors and such remuneration may be in addition to the remuneration above provided.

EXPENSES OF DIRECTORS

41. In addition to the remuneration payable to them in pursuance of the aforesaid Articles, the Directors may be paid taxi, air or railway return fare, hotel and other incidental expenses incurred by them for the purposes of attending and returning from meeting of Board of Directors or any committee thereof or any general meeting of Company or in connection with the business of the Company.

PROCEEDINGS OF THE BOARD

QUORUM

42. The quorum for a meeting of the Board shall be one third of its total strength or two Directors, whichever is higher.

RESOLUTION BY CIRCULATION

43. Save as otherwise expressly provided in the Act, a Resolution shall be valid and effectual as if it had been passed at a meeting of the Board or Committee thereof, as the case may be duly convened and constituted, if a draft thereof in writing is circulated, together with the necessary papers, if any, to all the Directors, or to all the members of the Committee of the Board, as the case may be, then in India [not being less in number than the quorum fixed for a meeting of the Board or Committee as the case may be] and to all other Directors or members of the Committee at their usual address in India, and has been approved by such of the Directors as are then in India or by a majority of such of them as are entitled to vote on the resolution.

POWER OF DIRECTORS

44. The Business of the Company shall be vested in the Board of Directors who may in addition of the powers and authorities by these presents or otherwise expressly conferred upon them exercise all or any of such powers and do such acts and things as may be exercised or done by the Company and are not hereby or by statute law expressly directed or done by the Company of any statute or law or any regulation from time to time made by the Company in General Meeting, but subject to nevertheless to the provisions of any statute or law or any regulation from time to time made by the Company in General Meeting.

45. Without prejudice to the general powers conferred by these Articles and the other powers conferred by these presents, it is hereby declared that unless otherwise determines by the Directors, the directors shall have the following powers that is to say:
- (a) To pay the costs, charges and expenses incidental to the promotion establishments, registration and running of business and affairs of Company
 - (b) To take on lease purchase or otherwise acquire of the Company any property, right or privileges which the Company is authorized to acquire at such price and generally on such terms and conditions as they think fit.
 - (c) To appoint any person or persons [whether incorporated or not] to accept and hold in trust for the Company any property belonging to the Company or in which it is interested or for any other purpose and to execute and do all such instruments and things as may be required in relation to any such trust and to provide for the remuneration of such trustee or trustees.
 - (d) To improve, manage, develop, exchange, lease, mortgage, dispose or turn to account, or otherwise deal with absolutely or conditionally all or any part of the property, privileges or rights of the Company, upon such terms, conditions and for such consideration as they think fit.
 - (e) To appoint any persons to be the attorney or agents of the Company for such purpose and with powers, authorities and discretion not exceeding if those vested in or exercisable by the directors and for such period and subject to such terms and conditions as may be thought fit.
 - (f) To enter into, carry out, rescind or vary all financial arrangement with any banks persons or corporation for or in connection with the Company's business or affairs and pursuant to or in connection with such arrangements to deposit, pledge or hypothecate any property of the Company or the documents representing or relating to the same.
 - (g) To make and give receipts, permission, release and other discharges for money payable to the Company and for the claims and demands of the Company,
 - (h) To compound and allow time for the payment or satisfaction of any of debts due to or by the Company and to refer claims and demands of the Company.
 - (i) For and on behalf of the Company to draw accept endorse and all negotiable all such cheques bills, of exchange, promissory notes, hundies, drafts, government bonds, other securities as shall be necessary in or for carrying on the affairs of the Company and to delegate any or all powers to the appropriate person as they may deem fit..
 - (j) To invest and deal with any of the Moneys of the Company upon such securities (not being shares in this Company or investments and in such manner as they may think fit and from time to time to realize such securities and investment.
 - (k) To enter into all such negotiations and contracts and rescind and vary all such contracts and execute and do all such acts, deeds and things in the name and on behalf of the Company as they may consider expedient for or in relation to any matters aforesaid or otherwise for the purpose of the Company.

- (l) At their discretion, to pay in cash or in fully or partly paid up shares for any property, rights or privileges, acquired by or service rendered to the Company or the premium payable in respect of any leases taken by the Company.
- (m) To accept from any member on such terms and conditions as shares agreed upon a surrender of his shares or any part thereof.
- (n) To sell, lease or otherwise dispose off whole or substantially the whole of the undertaking of the Company.
- (o) To make and alter rules and regulations concerning the time and manner of payment of the contribution of the employees and the Company respectively to any such Fund, the actual employment, suspension and forfeiture of the benefits of the said Fund and the applications and disposal thereof and to otherwise in relation to the working management of the said Fund as the Directors shall from time to time think fit.

MANAGING DIRECTORS

POWER TO APPOINT MANAGING DIRECTORS

- 46. The Board may from time to time appoint anyone or more Directors to be the Managing Director/Wholetime Director of the Company on such remuneration and terms and conditions as the Board may think fit from time to time [subject to the provisions of any contract between him and Company] remove or dismiss him from office and appoint another in his place.

TO WHAT PROVISIONS HE SHALL BE SUBJECT

- 47. Managing Director [subject to the provisions of any contract between him and the Company] be subject to the same provisions as to resignation and removal as the other Directors and shall ipso facto and immediately cease to be the Managing Director if he ceases to hold the office of Director for any cause.

REMUNERATION OF THE MANAGING DIRECTOR(S) AND/OR WHOLETIME DIRECTOR/S

- 48. Managing Director/Wholetime Director shall, in addition to the remuneration payable to him as a Director of the Company as sitting fee, receive such remuneration as may be sanctioned by the Board from time to time and such remuneration may be fixed by way of salary or commission or participation in profit, or perquisites and benefits or by some or all of these modes.

THE SEAL

- *49 The Board shall provide a common seal for the purpose of the Company and shall have power from time to time to destroy the same and substitute a new seal in lieu thereof and the Board shall provide for the safe custody of the seal for the time being and the Seal shall never be used except by the authority of the Board or a Committee of the Board, previously given and in the presence of a Director of the Company or some other person appointed by the Directors for the purpose.

*(*Altered vide Special Resolution passed at the Extra Ordinary General Meeting of the Members of the Company held on October 22, 2012)*

BORROWING POWERS

- 50 The Board may from time to time, for the purpose of the Company's business raise or borrow or secure the payment of any sum or sums of money in excess of the aggregate of paid up capital of the Company and its free reserves in addition to temporary loans, if any, obtained from the Company's bankers as they, in their discretion deem fit and proper. Any such money may be raised or the payment or repayment thereof may be secured in such manner and upon such terms and conditions in all respect as the Board may think fit by promissory notes or by opening loan or current accounts or by receiving deposits and advances at interest with or without security or otherwise and in particular by the issue of bonds, perpetual or redeemable debentures, stocks of the Company charged upon all or any part of the property of the Company [both present and future] including its uncalled capital for the time being or by mortgaging or charging or pledging any lands, buildings, machinery, plant, goods or other property and securities of the company or by other means as the Board deems expedient.

RESERVE FUND AND DIVIDEND

- 51 The Board from time to time, before recommending any dividend, set aside, out of profits of the Company, such sum as they think fit, as a reserve fund for redemption of debenture or to meet contingencies for equilisation of dividends or for special dividends or for rebuilding, repairing, restoring, replacing, improving, maintaining, or altering of any of the property of the company or for such other purposes as it may in their absolute discretion, think conducive to the interest of the Company or by issue of bonus shares and without being bound to keep the same on deposit with bank and from time to time deal with every such investment and deposit of all or any part thereof for the benefit of the company and they may divide the reserve fund into special funds as they think fit with full power to employ the assets constituting the reserve funds in the business of the company and that without being bound to keep the sum separate from other assets save as any contrary direction given by the general meeting, the Board shall have the power to pay interim dividend. The Company may declare dividend in relation to any year by an extra ordinary general meeting where the same has not been declared in the last annual general meeting.

POWER OF THE BOARD TO MODIFY FINAL ACCOUNTS

- 52 Every Balance Sheet and Profit and Loss Account of the Company when audited and adopted by the Company in General Meeting shall be conclusive except as regards any matter in respect of which modifications may from time to time be considered proper by the Board of Directors and approved by the Company at its General Meeting.

INDEMNITY

53 Subject to the provision of Section 201 of the Act, the directors, secretary and the other officers for the time being of the Company and any trustees for the time being acting in relating to any of the affairs of the Company and their heirs, executors and administrators respectively shall be indemnified out of the assets of the Company from and against all suits, proceedings, cost, charges, losses, damage and expenses which they or any of them shall or may incur or sustain by reason of any act done or committed in or about the execution of their duty in their respective office of trust except such, if any they shall incur or sustain; by or through their own willful neglect or default respectively and no such officer or trustees shall be answerable for the acts, receipts, neglects or defaults, of any other officer or trustees or joining in any receipts for the sake of confirming or for the solvency or honesty of any bankers or other persons with whom any money or effects belonging to the Company may be lodged or deposited for safe custody or for any insufficiency or deficiency of any securities upon which any money of the Company shall be invested or for any other loss or damage due to any such cause as aforesaid or which may happen in or about the execution of his office or trust unless the same shall happen by the willful, neglect or default of such officer or trustee.

SECURITY CLAUSE

- 54 (a) Subject to the provisions of Companies Act, 1956 no member shall be entitled to visit or inspect any work of the Company without the permission of the Directors, Managing Directors or Secretary or to require inspection of any books of accounts or documents of the Company or any discovery of any information or any detail of the Company's business or any other matter, which is or may be in the nature of a trade secret, mystery of secret process or which may relate to the conduct of the business of the company and which is the opinion of the Directors or the Managing Director will be inexpedient in the collective interests of the members of the company to communicate to the public or any member.
- (b) Every Director, manager, secretary, auditor, trustee, member of committee, officer, servant, agent, accountant or other person employed in the business of the company will be upon entering his duties pledging himself not to reveal any of the matters which may come to his knowledge in the discharge of his duties except when required so to do by the Directors or by any meeting or by a court of law and except so far as may be necessary in order to comply with any of the provisions in these presents contained.

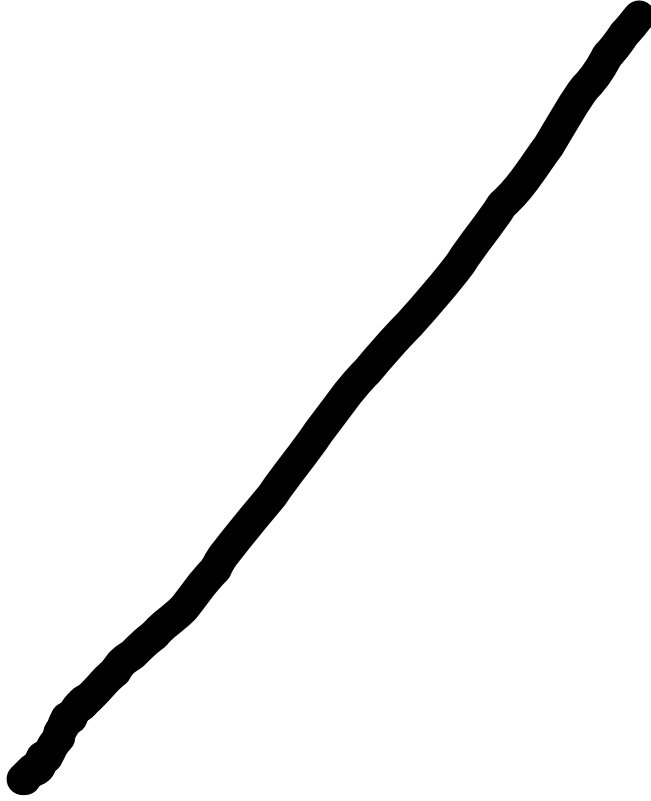
WINDING UP

55 In winding up whether voluntarily or otherwise the liquidators may with the sanction of a special resolution distribute all or any of the assets of the Company in specie or kind among the contributories in accordance with their respective rights.

We, the several persons whose names and addresses are subscribed hereto, are desirous of being formed into a Company in pursuance of this Articles of Association.

Names, addresses, descriptions, occupation and signature of subscribers	Signature of Subscribers	Signature, name, address, description and occupation of the witness
<p>1) Watspun Renewables Energy Limited. Address - 9th Floor Watspun House, Kamnole City, Senyapuri Borpat (West), Lower Panel (Ward 1), Mumbai - 400013 occupation - Business through its authorized signatory Mr. Dheerendra Patel (As per Board resolution dated December 20, 2010)</p> <p>2) Mr. Jay Shankar Shukla s/o. Mr. Ram Chandra Shukla Add: Plot No. 273, Queens Lane, Part II, 3rd Floor, Shiv-e-Punjab Anandhi (East), Mumbai - 400013 Occupation: Service Nominee of Watspun Renewables Energy Limited</p>	<p><i>[Signature]</i> Authorized Signatory</p>	<p>Common witness to both the subscribers <i>[Signature]</i> Arjun Shukla s/o Mr. Ram Chandra Shukla 3rd Floor, Shiv-e-Punjab Anandhi (East), Mumbai - 400013 Occupation: Service</p>

Place: Mumbai
 Dated: December 21, 2010



MEMORANDUM
AND
ARTICLES OF ASSOCIATION
OF
MIRZAPUR THERMAL ENERGY (UP) PRIVATE
LIMITED



प्रारूप 1
पंजीकरण प्रमाण-पत्र

कॉर्पोरेट पहचान संख्या : U40300MH2010PTC211286

2010 - 2011

मैं एतद्वारा सत्यापित करता हूँ कि मेसर्स

WELSPUN ENERGY UP PRIVATE LIMITED

का पंजीकरण, कम्पनी अधिनियम 1956 (1956 का 1) के अंतर्गत आज किया जाता है और यह कम्पनी प्राइवेट लिमिटेड है।

यह निगमन-पत्र आज दिनांक तेईस दिसम्बर दो हजार दस को मेरे हस्ताक्षर से मुंबई में जारी किया जाता है।

Form 1
Certificate of Incorporation

Corporate Identity Number : U40300MH2010PTC211286

2010 - 2011

I hereby certify that WELSPUN ENERGY UP PRIVATE LIMITED is this day incorporated under the Companies Act, 1956 (No. 1 of 1956) and that the company is private limited.

Given under my hand at Mumbai this Twenty Third day of December Two Thousand Ten.



V. Elango
(V ELANGO VAN)

उप कम्पनी रजिस्ट्रार / Deputy Registrar of Companies

महाराष्ट्र, मुंबई
Maharashtra, Mumbai

कम्पनी रजिस्ट्रार के कार्यालय अभिलेख में उपलब्ध पताकार का पता :

Mailing Address as per record available in Registrar of Companies office:

WELSPUN ENERGY UP PRIVATE LIMITED

Welspun House, 7th Floor, Karna's City, Senapati Bapat Marg, Lower Parel (West),

Mumbai - 400013,

Maharashtra, INDIA

THE COMPANIES ACT, 2013
[COMPANY LIMITED BY SHARES]

MEMORANDUM OF ASSOCIATION

OF

MIRZAPUR THERMAL ENERGY (UP) PRIVATE LIMITED

I. The name of the company is ***"MIRZAPUR THERMAL ENERGY (UP) PRIVATE LIMITED"**

*(Amended pursuant to the special resolution passed on 10th July, 2019 at An Extra Ordinary General meeting)

II. The Registered Office of the Company will be situated in the State of Maharashtra within the jurisdiction of Registrar of Companies Maharashtra, at Mumbai.

III. The objects to be pursued by the company on its incorporation are :

[A] THE OBJECTS TO BE PURSUED BY THE COMPANY ON ITS INCORPORATION ARE:-

*1. To carry on in India or elsewhere the business of establishing, commissioning, setting up, operating and maintaining electric power generating stations based on conventional/non-conventional resources, tie-lines, sub-stations and transmission lines on build, own and transfer (BOT) and/or build, own, lease and transfer (BOLT) basis and to carry on in India or elsewhere the business of acquiring, operating, managing and maintaining existing power generation stations, tie-lines, sub-stations and transmission lines, either owned by the private sector or public sector or the Government or Governments or other public authorities and for any or all of the aforesaid purposes, generating, producing, refining, receiving, improving, buying, selling, reselling, acquiring, using, transmitting, accumulating, employing, distributing, developing, handling, supplying and to act as producer/grower, agent, broker, representative, consultant, collaborator, or otherwise to deal in, undertake, assist, encourage, promote, developmental, scientific, technical, engineering, research activities associated with the generation, transmission and distribution of power which is derived from conventional/non conventional methods including hydel, thermal, turbine, hydrogen, fuel cell technology, solar energy, wind energy, tidal energy, energy from waste, bio mass or from products/ by products, appliances/products from solar/winds.

*(*Altered vide Special Resolution passed by the Members of the Company in the Extra Ordinary General Meeting held on 23rd April, 2014)*

[B] MATTERS WHICH ARE NECESSARY FOR FURTHERANCE OF THE OBJECTS SPECIFIED IN CLAUSE 3[A] ARE: -

2. To take over existing generation plants and companies, distribution and transmission systems and to renovate the generating plant and distribution and transmission systems and to acquire, take over any license, concessions for energy generation, distribution, transmission and to carry on the business of an Electric, Power, Light and Supply and in particular to construct, lay down, establish, fix and carry out all necessary power stations, cables, wires, lines accumulators lamps and works, water rights, canals, gas works, electric works, reservoirs, water course, furnaces, stamping works, smelting works, factories, warehouses and other works and conveniences.
3. To transfer, sell or dispose off the property acquired, developed or turned to account by the company by way of sale, lease, mortgage, exchange, barter, hire, license settlement or otherwise and to promote, incorporate, form, settle, create co-operative societies, companies, trusts, condominiums or other association of persons.
4. To buy, renovate, alter, install or otherwise deal in any type of machine or equipment required for the business of the company.
5. To purchase, charter, hire, or otherwise acquire any vessels or craft of every description and to hold, own, use for, work such vessels for the business of the company.
6. To create any depreciation funds, sinking funds or other funds whether for appreciation or for repairing, improving, extending or maintaining any of the property of the company or for redemption of debentures or redemption of preference shares or for any other purposes whatsoever conducive to the interest of the company.
7. To create any reserve or any other fund for any other purpose conducive to the interest of the Company.
8. To register trade names, brand names, marks, copyrights and permit their uses to such persons, firms, companies or corporations which adhere to such terms and conditions as laid down by the company by making such terms and conditions as are necessary from time to time in this connection.
9. To amalgamate, enter into partnership or into any agreement for sharing profits or losses in joint venture, which the company is authorised to carry on and to give or accept by way of consideration for any of the acts, or things aforesaid or property acquired, any shares, debentures or other securities of any kind that may be agreed upon and to hold, retain, sell mortgage, or deal with the same.
10. To enter into all sorts of internal and/or external foreign collaboration, technical assistance, financial or commercial arrangement for fulfillment of any of the objects herein contained.
11. To purchase or otherwise acquire dominion over all forms of immovable and movable property including machinery, equipment, motor vehicles, ships, airplanes and all consumer and industrial items and to hire, lease or otherwise deal with them in any manner whatsoever including resale thereof, regardless of whether the property purchased and leased be new and/or used.

12. To protect members, officers, directors, agents and servants of the Company in respect of anything done or ordered to be done by them for and in the interest of the company or any loss, damage or misfortune whatever, which may happen in execution of the duties of their office or in relation thereof.
13. To purchase, acquire or undertake, or take over the whole or any part of the business, goodwill, property contracts, agreements, rights, privileges, effects and liabilities of any person, firm or company carrying on or proposing to carry on or ceasing to carry on business, or activity which the company is authorised to carry on, and upon such terms and subject to such stipulations and conditions and at or for such price and/or consideration (if any) in money, shares, debentures, moneys worth or otherwise as may be deemed fit.
14. To enter into contracts, agreements with any other company, firm or person for the carrying out by such other company, firm or person on behalf of the company of the objects for which the Company is formed.
15. To undertake and execute any trusts either graciously or otherwise the undertaking of which may seem desirable to the Company.
16. To employ experts to examine and investigate into the conditions, prospectus value, character and circumstances of business concern or undertaking.
17. To enter into any arrangements with any Government or authorities that may seem conducive to the attainment of the company's objects or any of them, and to obtain from any such Government or authority any rights, privileges, licenses and concessions which the company may consider necessary or desirable to obtain, and to carry out, exercise, use or comply with any such arrangements, rights, privileges or concessions.
18. To lend, invest or otherwise employ or deal with money belonging to or entrusted to the Company in securities and shares or other movable or immovable property or without security upon such terms and in such manner as may be thought proper from time to time, to vary such transactions and investments in such manner as the Directors may think fit subject to the provisions of the Companies Act, 2013.
19. To draw, make, issue, accept, transfer and endorse, discount, execute and negotiate promissory notes, hundies, bill of exchange, cheques, drafts, bills of lading, letters of credit, delivery orders, dock warrants, railway or transport receipts, warehouse keepers certificate and other negotiable or commercial or mercantile investments connected with the business of the company.
20. To open accounts with any bank or banks and to deposit money therein and to draw and endorse cheques on and to withdraw moneys from such account and generally operate upon same, whether over drawn or not as may be required for any of the objects or purposes of the company.
21. To carry out all or any of the objects of the company and do all of the above things in any part of the world and either as principal, agent, contractor or trustee or otherwise and by or through trustees or agents or otherwise and either alone or in conjunction with others.
22. To borrow, raise or secure payment of money other than public deposits in such manner as the company shall think fit and in particular by mortgages, charges or the issue of

debentures, or debenture stock, perpetual or otherwise charges upon all or any of the company's property (both present and future) including its uncalled capital and to purchase, redeem or pay off any such mortgages, charges or securities subject to provisions of section 73 of the Companies Act, 2013.

- *22A. To manage, sell, dispose off, let, mortgage, charge, exchange, redeem, underlet, grant leases, licenses, easements or turn to account or otherwise dispose off in any manner the whole of the undertaking or any properties (movable or immovable), assets, rights, and effects of the Company or any part thereof, to secure any financial facilities (whether fund based or non fund based) or any loans or advances (whether on short term or long term basis) availed by the Company or any of its Subsidiary or Holding Company or any of its affiliates or Associate or Group Companies or any other Company, as the case may be, from any bank or financial institution or other lender and on such terms and conditions that shall be agreed between the Company, its Subsidiary or Holding Company or any of its affiliates or Associate or Group Companies or any other Company and any bank or financial institution or other lender as the case may be.

(*Inserted vide Special Resolution passed at the Extra Ordinary General Meeting of the Members of the Company held on October 22, 2012)

23. To appoint agents and sub-agents in connection with the business of the company.
24. To amalgamate with any other company having objects altogether or in part similar to those of this company.
25. To employ experts to investigate and examine into the condition, prospects, value, character and circumstances of any business concerns and undertaking and generally of any assets, property or rights.
26. To acquire by outright purchase or in collaboration technology development, patent rights, know-how prototypes and specialized machinery, processes and equipments, working drawings from abroad or in India in furtherance of the main and ancillary objects of the Company.
27. To nominate Directors or managers of any subsidiary Company or of any other Company in which this Company is or may be interested.
28. For the purpose mentioned in the preceding clause to appoint and remunerate any directors, trustees, accountants or other experts or agents.
29. To purchase, take on lease or in exchange, hire or otherwise acquire any immovable or movable property and any rights or privileges which this Company may think necessary or convenient for the purpose of its business and in particular any land, buildings, easements, machinery, plant and stock-in-trade, and either to retain any property to be acquired for the purpose of the Company's business or to turn the same to account as may seem expedient.
30. To let or lease or on-hire purchase system or to lend or otherwise dispose off any property belonging to the Company and to finance the purchase of any article or articles whether made by the Company or not by way of loans or by the purchase of any such

article or articles, and the letting thereof on the hire-purchase system or otherwise howsoever.

31. To amalgamate, enter into any Partnership or partially amalgamate with or acquire interest in the business of any Company, person or firm carrying on or engaged in, or about to carry on or engage in any business or transaction included in the objects of the Company, or to enter into any arrangement or sharing profits, or for co-operation or for limiting competition or for mutual assistance, with any such person, firm or company, and to give or accept by way of consideration for any of the acts or things aforesaid or property acquired, any shares, debentures, debenture-stock or securities that may be agreed upon, and to hold and retain mortgage share, and deal with any shares, debentures, debenture-stock or securities so received.
32. To sell, improve, manage, develop, exchange, leave, mortgage, dispose off, turn on account or otherwise, deal with all or any part of the property and rights of the Company for the time being.
33. To sell, lease, grant licenses, easements and other rights over and in any other manner deal with or dispose off, the undertaking, property, assets, rights and effects of the Company, or any other part thereof, for such consideration as the Company may think fit, and in particular for shares, debentures, or securities of any other Company.
34. To enter into partnership or into any arrangement for sharing profits or losses, or for any union of interest, joint-venture, reciprocal concession or co-operation, with any person or persons, or Company or Companies carrying on, or engaged in or about to carry on, engaged in, any business, or transaction which this Company is authorised to carry on.
35. To establish or promote or concur in establishing or promoting any company or companies having similar object for the purpose of acquiring all or any of the property, rights and liabilities of the Company or for any other purpose and to place or guarantee the placing of, underwrite, subscribe for or otherwise, acquire all or any part of the shares, debentures, or other securities of any such other company.
36. To enter into any arrangement with any Government or authority, municipal, local or otherwise or any person or company that may seem conducive to the Company's objects or any of them and to obtain from any such Government, authority, person, or company any rights, privileges, charters, contracts, licenses and concessions which the company may think fit desirable to obtain and to carry out, exercise, and comply therewith.
37. To establish, provide, maintain and conduct, or otherwise subsidise research laboratories and experimental workshops for scientific and technical research and experiments and to undertake and carry on with all scientific and technical researches, experiments and tests of all kinds and to promote studies and research, both scientific and technical, investigations and inventions by providing, subsidising, and owning or assisting laboratories, workshops, libraries, lectures, meetings and conferences and by providing for the remuneration of scientific or technical professors, teachers and researchers and by providing for exhibitions and the award of scholarships, prizes and grants to students or otherwise and generally to encourage, promote and spread studies, researches, tests and inventions of any kind that may be considered likely to assist any of the business which the Company is authorised to carry on.

38. To apply for promote, and obtain any Act, Charter, privilege concession, license, authorization, of any Government, State or Municipality's provisional Order or license of any authority for enabling the Company or for effecting any modification of the Company's constitution, or for any other purpose which may seem expedient and to oppose any proceedings or applications which may seem calculated, directly or indirectly to prejudice the Company's interest.
39. To refer or agree to refer any claim, demand, dispute or any other question, by or against the Company, or in which the Company is interested or concerned, and whether between the Company and third parties, to arbitration in India or at any place outside India, and to observe and perform and to do all acts, deeds, matters and things to carry out or enforce the awards.
40. To acquire and undertake the whole or any part of the business, property and liabilities of any person firm or Company carrying on similar business or proposing to carry on, or which can be carried on in conjunction therewith.
41. To make donations to such persons or institutions either of cash or any other assets as may be thought directly or indirectly conducive to any of the Company's objects or otherwise expedient and in particular to remunerate any person or corporation introducing business to this Company and also to subscribe, contribute or otherwise assist or guarantee money for charitable scientific, religious or benevolent, national or other institutions, objects or for any exhibition or for any public objects and to establish and support associations, institutions, funds, trusts and convenience for the benefit of the employees or ex employees (including Directors) of the Company or its predecessors in business or of persons having dealings with the Company or the dependents, relatives or connection of such persons and in particular friendly or other benefit societies and to grant pensions, allowances, gratuity and bonus either by way of annual payments or a lump sum and to make payments towards insurance and to form and contribute to provident funds and other welfare funds of or for such persons subject to provisions of the Companies Act, 2013.
42. Subject to the provisions of the Companies Act, 2013 to distribute among the members in specie any property of the Company, or any proceeds of sale or disposal of any property of the Company in the event of winding up.
43. To pay out of the funds of the Company all expenses which the Company may lawfully pay with respect to the promotion, registration and other expenses incurred in connection with the marketing and promotion of the business prior to incorporation of the Company or the issue of its capital including brokerage and commission for obtaining applications for or taking, placing or underwriting or procuring the underwriting of shares, debentures or other securities of the Company.
44. To pay all preliminary expenses of any Company promoted by the Company or any company in which the Company is or may contemplate being interested, including in such preliminary expenses all or any part of the costs and expenses of owners of and business or property acquired by the Company.
45. To pay for any rights of property acquired by the Company and to remunerate any person or Company for services rendered or to be rendered in placing of shares in the Company's capital or any debentures, debenture-stock, or other securities of the

Company, or in or about the formation of the Company or the acquisition of property by the Company or the conduct of its business whether by cash payment or by the allotment of shares, debentures, or other securities of the Company credited as paid up in full or in part or otherwise.

46. To adopt such means of making known the business of the company as may seem expedient, and in particular by advertising in the press by circulars, by purchase and exhibition of work of art or interest, by publication of books and periodicals, and by granting prizes, rewards and donations or by paying the same to the concerned persons or firms or Company or Companies, as the case may be subject to provisions of the Companies Act, 2013.
47. To lend and advance money or to give credit to such persons or companies and on such terms as may seem expedient and in particular to customers, and others having dealing with the Company and to guarantee the performance or any contract or obligation and the payment of money of or any such persons or Companies and generally to give guarantee and indemnities.
48. Subject to provisions of Section 73 of the Act and the rules framed by the Reserve Bank of India (RBI) there under to receive money on deposit or loan and borrow or raise money in such manner as this Company shall think fit and in particular by the issue of debentures or debenture-stock (perpetual or otherwise) and to secure the repayment of any money borrowed raised or any of the property or assets of the Company (both present and future) including its uncalled capital and also by a similar mortgage, charge or lien to secure and guarantee the performance by the Company or any obligation undertaken by the Company or any person or company as the case may be.
49. To apply for, purchase or otherwise, acquire and protect and renew in any part of the world any patents, patent rights, brevets, disinvention, trademarks, designs, licenses, concessions and the like offering any exclusive or non-exclusive or other information as to any invention which may seem capable of being used for any of the purpose of the company and to use, exercise, develop or grant licenses in respect of or otherwise, turn to account the property, rights or information so acquired and to expend money in experimenting upon, testing or improving such patents, inventions or rights.
50. To insure the whole or any part of the property of the company either fully or partially to protect and indemnify the company from liability or loss in any respect either fully or partially and also to insure and to protect and indemnify and part of portion thereof either on mutual principal or otherwise.
51. To carry out in India or abroad all or any part of the company's object as principal agents, factory trustee, contractor, or otherwise, either alone or in conjunction with any other person, firm association, corporate body municipality, province, state, or government or colony or dependency thereof.
52. To exercise all or any of its corporate powers, rights, and privileges and to conduct its business in all or any of its branches in the Union of India and in any or all States, territories, possessions, colonies and dependencies thereof and any of all foreign countries, and for this purpose to have and maintain and to discontinue such number of offices and agencies therein as may be convenient.

53. To procure the recognition of the company in India or abroad.
 54. To deal with all persons including Companies, Government and Semi-Government bodies, local corporation, local planning authority, and for these purposes to deal with all places including cities, towns, villages, Taluka, districts, docks, markets, theaters, building, industries and offices.
 55. To carry on the business of farming, agriculture and horticulture in its branches and to grow, produce, manufacture, process, prepare, refine, extract, manipulate, hydrolize, buy, sell, market or deal in all kinds of agricultural, horticultural, dairy, poultry and farm produce and products including food grains, cereals, seeds, soya beans, corn, corn oils, cash crops, plants, flowers, vegetables, edible oils, vanaspaties, meat fish, eggs, animal and human foods and food products and all other agricultural produces and to prepare, manufacture and render marketable any such produces and to sell, market, dispose off or deal in any such produces either in its prepared, manufactured or raw state and to purchase, hold, develop, cultivate any agricultural, barren land for the purpose herein mentioned.
 56. To carry on business as manufacturers, buyers, sellers, dealers, distributors, exporters, importers, hirers, stockists, surveyors, valuers, agents, clearing agents, processors, assembler, repairers, erection and commissioning of agricultural implements, equipments and machineries of all types and sizes either power driven or hand operated including harvesters, thrashers, winnowers, cultivators, seeds and fertilizer drillers, sprinklers, dairy machines, elevating machines, conveying machines, transmission machines, tractors, sprayers, hullers, hand and industrial blowers, drilling machines, oil engines, diesel engines, kerosene engines, petrol engines, internal combustion engines and their raw materials, components, semi-finished goods, accessories and spare-parts.
 57. To carry on the business of designing, engineering, fabricating, manufacturing, assembling, marketing, importing, exporting, selling, purchasing, leasing, distributing, supplying, on turnkey basis or servicing, maintaining, erecting and commissioning, repairing and dealing in all kinds and description of industrial plants, petro-chemical plants, cement plants including rotary kilns and fluxo packers, fertilizer plants, chemical vessels, sugar plants, edible and non-edible oil extraction plants, pulps, pulp and paper manufacturing plants, pollution control equipments, crystalliser plants, bottling plants, drying plants, power plants, coal and material handling plants, dairy plants, plastic processing machinery, cement machinery, beverage machinery, air conditioning and refrigeration plants and their machineries, components, accessories, ancillary equipments, instruments and appliances.
 58. To carry on the business as importer, exporters, buyers, sellers, dealers, principal or agent, distributors, assemblers, repairers or exchangers in all kinds of plant and machineries, equipments and instruments, articles, apparatus, appliances, accessories and fittings, raw materials, spare parts and components required for the purpose of the objects of the Company.
- IV. The Liability of the members is limited.

- V. (a) The Authorised Share Capital of the Company is Rs. 500,000/- [Rupees Five Lac only] divided into 50,000 [Fifty Thousand] Equity Shares of Rs. 10/- (Rupees Ten only) each
- (b) The minimum paid up share capital of the Company shall be Rs. 100,000/- [Rupees One Lac only].

We the several persons, whose names, addresses and descriptions are subscribed hereto, are desirous of being formed in to a Company in pursuance of this Memorandum of Association and we respectively agree to take up the number of shares in the capital of the company set opposite our respective names.

Name, addresses, descriptions, occupation and signature of subscribers	Number of Shares subscribed	Signature of Subscribers	Signature, name, address, description and occupation of the witness
<p>Elispun Renewables Energy Ltd. Address - 7th Floor, Custom House, Kamala City, Senapati Bapat Road, Lower Panel (West), Mumbai - 400013 Through its Authorized Signatory Mrs. Devidasa Patil (As per Board Resolution dated December 20, 2010)</p>	<p>9,999 (Nine thousand nine hundred and ninety nine only)</p>	<p><i>[Signature]</i> Director, Elispun Renewables Energy Limited</p>	<p><i>[Signature]</i> Common witness to the subscribers Mrs. Devidasa Patil 7th Floor, Custom House, Kamala City, Senapati Bapat Road, Lower Panel (West), Mumbai - 400013 Occupation: Service</p>
<p>2-Mr. Jay Shankar Shukla 1/0 Mr. Ravi Chandra Shukla (Dine) Add: Plot No. 273, Ganesha, East II, 3rd Floor, Chhatrapati Pradhani (East), Mumbai - 400013 Occupation: Services</p>	<p>1 10,000 (Ten Thousand)</p>	<p><i>[Signature]</i></p>	<p><i>[Signature]</i></p>

Place: Mumbai
 Dated: December 21, 2010



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GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS

Office of the Registrar of Companies
Everest, 100 Marine Drive, Mumbai, Maharashtra, India, 400002

Certificate of Incorporation pursuant to change of name
[Pursuant to rule 29 of the Companies (Incorporation) Rules, 2014]

Corporate Identification Number (CIN): U40300MH2010PTC211286

I hereby certify that the name of the company has been changed from WELSPUN ENERGY UP PRIVATE LIMITED to MIRZAPUR THERMAL ENERGY (UP) PRIVATE LIMITED with effect from the date of this certificate and that the company is limited by shares.

Company was originally incorporated with the name WELSPUN ENERGY UP PRIVATE LIMITED.

Given under my hand at Mumbai this Sixteenth day of August two thousand nineteen.

DS Ministry
of Corporate
Affairs 23

Digitally signed by DS Ministry of Corporate Affairs 23
DN: cn=DS, postalCode=400002, st=Maharashtra,
serialNumber=District,Bhamburda,Talkar,MangalMunshi,
Linn=Maharashtra, 2.5.4.1=109-Everest, ou=Ministry of
Corporate Affairs, o=Ministry of Corporate Affairs 23,
cn=DS, Ministry of Corporate Affairs 23
Reason: I affirm the accuracy and integrity of this
document
Date: 2019.08.16 15:56:21 +05'30'

V T SAJEEVAN

Registrar of Companies
RoC - Mumbai

Mailing Address as per record available in Registrar of Companies office:

MIRZAPUR THERMAL ENERGY (UP) PRIVATE LIMITED

Welspun House, 7th Floor, Kamala City,, Senapati Bapat Marg, Lower Parel (West),, Mumbai,
Maharashtra, India, 400013



TRUE COPY
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File No: J-13012/12/2011-IA.II (T)

Government of India

Ministry of Environment, Forest and Climate Change

IA Division



Dated 29/07/2024



To,

Sh. Santosh Kumar Singh
M/s MIRZAPUR THERMAL ENERGY (UP) PRIVATE LIMITED
Mirzapur Thermal Energy (UP) Private Limited, Adani Corporate House, Shantigram, Near Vaishno Devi Circle, S. G. Highway, Khodiyar, Ahmedabad 382 421, Gujarat, India, Ahmedabad, AHMADABAD, GUJARAT, ACH, Shantigram, Vaishnodevi Circle, S.G Highway., 382421
E-mail: mirzapur.env@gmail.com

Subject: Proposal of 2x800 MW Coal based Ultra Super Critical Thermal Power Project (TPP) at Village Dadri Khurd, Tehsil, Mirzapur Sardar, District Mirzapur, Uttar Pradesh by M/s Mirzapur Thermal Energy (UP) Private Limited (MTEUPPL). – Grant of Terms of Reference - regarding

Sir/Madam,

This is in reference to your application for Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding in respect of project 2x800 MW Coal based Ultra Super Critical Thermal Power Project (TPP) at Village Dadri Khurd, Tehsil, Mirzapur Sardar, District Mirzapur, Uttar Pradesh by Mirzapur Thermal Energy (UP) Private Limited (MTEUPPL). submitted to Ministry vide proposal number IA/UP/THE/467671/2024 dated 08/05/2024.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO24A0601UP5665287N
(ii) File No.	J-13012/12/2011-IA.II (T)
(iii) Clearance Type	TOR
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(d) Thermal Power Plants
(vi) Sector	Thermal Projects 2x800 MW Coal based Ultra Super Critical Thermal Power Project (TPP) at Village Dadri Khurd, Tehsil, Mirzapur Sardar, District Mirzapur, Uttar Pradesh by Mirzapur Thermal Energy (UP) Private Limited (MTEUPPL).
(vii) Name of Project	Thermal Projects 2x800 MW Coal based Ultra Super Critical Thermal Power Project (TPP) at Village Dadri Khurd, Tehsil, Mirzapur Sardar, District Mirzapur, Uttar Pradesh by Mirzapur Thermal Energy (UP) Private Limited (MTEUPPL).
(viii) Name of Company/Organization	M/s MIRZAPUR THERMAL ENERGY (UP)

	PRIVATE LIMITED
(ix) Location of Project (District, State)	MIRZAPUR, UTTAR PRADESH
(x) Issuing Authority	MoEF&CC
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

3. M/s Mirzapur Thermal Energy (UP) Private Limited (MTEUPPL) has made an application online vide proposal no IA/UP/THE/467671/2024 dated 08/05/2024 in the prescribed format (Form-I) and submitted a pre-feasibility report for undertaking a detailed EIA study as per the EIA Notification, 2006 for grant of Terms of Reference (ToR) to 2x800 MW Coal based Ultra Super Critical Thermal Power Project (TPP) at Village Dadri Khurd, Tehsil, Mirzapur Sardar, District Mirzapur, Uttar Pradesh by M/s Mirzapur Thermal Energy (UP) Private Limited (MTEUPPL).

4. The project/activity is covered under category A of item 1(d) 'Thermal Power Plants' of the Schedule to the Environmental Impact Assessment (EIA) Notification, 2006, as amended as the power generation capacity of proposed expansion is beyond threshold capacity of 500MW i.e. 2 x 800 MW (1600 MW) and requires appraisal at Central level.

5. The instant Proposal was considered in the 10th EAC (Thermal) meeting held on 10th June 2024. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed at <https://parivesh.nic.in>.

Details submitted by the project proponent

6. Project Proponent along with the QCI NABET consultant M/s. Gaurang Environmental Solutions Pvt. Ltd made the detailed presentation and apprised following to the EAC:

i. Mirzapur Thermal Energy (UP) Private Limited (MTEUPPL) is proposed to setup a coal based Ultra Super Critical Technology Thermal Power Project (USCTPP) of 1600(2X800) MW in Village Dadri Khurd, District Mirzapur, State Uttar Pradesh.

ii. Previously, M/s. Welspun Energy UP Pvt. Ltd. (WEUPPL) proposed to set up 2x660 MW Super Critical Coal based thermal power plant at Village Dadri Khurd, Tehsil Mirzapur, Uttar Pradesh. The Ministry of Environment, Forest & Climate Change (MoEFCC) had granted Environmental Clearance for 1320 (2x660) MW vide F. No: J-13012/12/2011-IA II(T) dated 21.08.2014 and subsequently, name changed to Welspun Energy UP Pvt. Ltd. (WEUPPL) to Mirzapur Thermal Energy UP Pvt. Ltd. (MTEUPPL) Vide Letter No. F. No: J-13012/12/2011-IA II(T) dated 20.12.2019.

iii. Earlier, Hon'ble NGT, Principal Bench, Delhi in their judgement dated 21.12.2016 set aside the Environmental Clearance (EC) dated 21.08.2014. Further, in Judgement dated 01.05.2017, a clarification was issued, that "the Project Proponent is at liberty to approach the MoEF&CC or any other competent authority for processing of the application for grant of EC upon making up for /rectifying the defects and deficiencies pointed out in the judgement".

iv. MTEUPPL had submitted the revised Form-I & supporting documents - Study Reports as suggested by MoEFCC for EC amendment, which was appraised by the EAC (Thermal Power) in its meetings held on 24.07.2017 and 22.02.2019. The EAC in its meeting held on 22.02.2019 recommended for EC amendment.

v. The MoEFCC vide letter no. J-13012/ 12/2011-IA.II(T) dated: 20.12.2019 suggested for providing/submitting the Stage-I Forest Clearance for further issuance of EC amendment letter. MTEUPPL had not submitted the same and the EC amendment letter was not issued. PP now submitted a fresh proposal for EC.

vi. Pre-Construction activities & Planning has been completed and construction work not started yet.

vii. Now the proposal has changed from 2x660 MW to 2x800 MW and almost 10 years have lapsed, a new reference (De Novo) is being made through this application for grant of ToR.

viii. The salient features of the project are as under:-

Project Details

S. No.	Particulars	Details
i.	Category of the project	A
ii.	Capacity	1600 (2 X 800) MW
iii.	Location of TPP	Village Dadri Khurd, Tehsil, Mirzapur Sardar, District Mirzapur, Uttar Pradesh
iv.	Average height	(a) TPP site: 198 m above MSL (b) Ash pond site: 195 m above MSL.
v.	Accredited Consultant and certificate no.	M/s Gaurang Environmental Solutions Pvt. Ltd. NABET Accreditation No.: NABET / EIA / 2023/SA0203
vi.	Inter- state issue involved	No
vii.	Seismic zone	Zone-III as per IS 1893.

Land Area Breakup:

Land Requirement:	365.19 ha.
a) TPP Site	85.80 ha
b) Ash Pond	49.37 ha
c) Township	11.57 ha
d) Railway Siding & Others	64.14
e) Raw Water Reservoir	33.18 ha
f) Green Belt	120.51 ha
g) others	0.62
Total (if expansion state additional land requirement)	Total: No additional land is required.
Status of Land Acquisition:	The land required for proposed project is already under possession except Govt. & Forest like area (Jhari)
Status of the project: If under construction phase: please specify the reasons for delay, works completed till date and balance works along with expected date of completion. If under operation phase, date of commissioning (COD) of each unit. Whether the plant was under shutdown since commissioning, details and reasons.	Proposed project is at planning stage and no construction activities have been commenced at the site.
Break-Up of land-use of TPP site: a) Total land required for project components b) Private land c) Government land Forest Land	Total Project Land:365.19 ha · Private Land: 364.57 ha · Forest Land: 0.62 ha (Application was submitted for same area but after the Joint inspection of DFO (Forest Office) & SDM (Revenue) was held on 03.04.2024 confirming that the above area is Non-Forest Land. This area will be used for plantation / green belt purposes only.)
Whether the project is in the Critically Polluted Area (CPA) or within 10 km of CPA. If so, the details thereof:	No, the district doesn't fall under CPA.
CRZ Clearance	Not Applicable
Whether the project is in the Critically Polluted Area (CPA)/Severally Polluted Area (SPA) or within 10 km of CPA. If so, the details thereof:	No, the district doesn't fall under CPA/SPA.

Details of fuel and Ash disposal:

Fuel to be used:	Coal and Auxiliary Fuel
Quantity of Fuel required per Annum:	Coal - 6.4 Million MTPA Auxiliary Fuel- 15000 KL per annum
Coal Linkage / Coal Block: (If Block allotted, status of EC & FC of the Block)	Coal for the Proposed project will be Domestic coal from commercial Coal Mines of NCL / SECL / CCL & Commercial Coal Mines. (Design Coal GCV of 3200-4300 KCal/kg.). Auxiliary liquid fuels, viz. LDO/HSD requirement per annum is about 15000 kilo liters.
Details of mode of transportation of coal from coal source to the plant premises along with distances	Coal shall be received from Mine to TPP through BG Rail Wagons. Total distance from the source to Rail: about 250 - 550 km.
Fly Ash Disposal System Proposed	Fly ash will be collected in dry form for utilization, while bottom ash will be collected in wet form. There would be provision for dry disposal of fly ash from storage silos to closed tankers for utilization in cement industries, abandoned mine reclamation, road construction, aggregate replacement in concrete, for manufacturing bricks, etc. as per Fly Ash Notification, 31st December' 2021 and amendments. Provision would be kept for HCSD disposal of both bottom and fly ash to ash pond in case of exigency. In this case, both bottom ash and fly ash will be disposed through HCSD system to the proposed ash dyke.
a) Ash Pond / Dyke: (Area, Location & Co-ordinates) Average height of area above MSL (m)	Area-49.37 ha 25° 0'1.67"N 82°40'33.12"E 195 m above MSL.
b) Space left in ash dyke area	Area- 49.37 ha
Quantity of	10,035 TPD
a) Fly Ash to be generated	8028 TPD
b) Bottom Ash to be generated:	2007 TPD
Fly Ash utilization percentage with details in last 5 years	No fly ash generated in last five years as this is a green field (De Novo) project
Stack Height (m) & Type of Flue	120 (m) (new) Bi Flue

ix. The estimated project cost is Rs. 18,300 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs. 3012.39 Cr. and the Recurring cost (operation and maintenance) will be about Rs 3.0 Cr per annum considering EMP.

x. Total Employment will be 275 persons as direct & 25 persons as indirect. Industry proposes to allocate Rs. 48.5 Cr. towards CER (as per Ministry's OM dated 30.09.2020).

xi. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site except Reserved forests, temples and BHU (South Campus) exist within the study area from the project site. Upper Khajuri Dam is at a distance of 6.0 km in the WEST direction and few other water bodies exist within the study area from the project site.

xii. Effluent of 1080 KLD quantity will be treated through STP & ETP. The plant will be based on a Zero Liquid discharge system.

xiii. Power requirement after will be 7.5 and will be met from self-generation, i.e. AUX consumption. The existing unit has no DG sets, additionally, no DG sets are used as standby during power failure. Stack (height-movable DG sets) will be provided as per CPCB norms for the proposed DG sets.

xiv. The existing unit has no boiler. Additionally, a 585 TPH coal-fired boiler will be installed. Electrostatic precipitator (ESP), NOx Control system and Flue gas desulphurisation system (FGD) with a stack height of 120 m will be installed for controlling particulate emissions within the statutory limit of 30 mg/Nm³ for proposed boilers.

xv. Details of Solid waste/ Hazardous waste generation and its management are given below-

Name of the waste	Source	Quantity (TPA)	Mode of Disposal	Mode of Transportation
Used/Spent oil	Plant Operation	60	Registered Recyclers/ Pre-processors with SPCB	Road
Wastes or residues containing oil	Plant Operation	10	Send to authorized recyclers	Road
Empty barrels/container/contaminated liners	Plant Operation	12	Send to authorized recyclers	Road

xvi. Ash Pond area: As per MoEF&CC Notification S.O. 5481(E) dated 31.12.2021 and amendments stipulated ash pond area for thermal power plant 0.1 hectare per Mega Watt (MW). The proposed power plant has total ash pond area 49.37 ha i.e. 13.51% of the total project area 365.19 ha which is well within the norms.

xvii. Water Requirement: Water consumption for thermal power plants as per MoEF&CC vide Notification S.O. 3305 (E) dated 07.12.2015 for all existing CT based plants reduce specific water consumption upto maximum of 3.5 m³/MWh and as per MoEF&CC stipulated norms vide Notification GSR 593 (E) dated 28.06.2018 water allocated to the thermal power plant is 3 m³/MWhr for new plants installed after the 1st January, 2017. The total water requirement for the project is 3200 m³/h, (2m³/MWh) which will be well within the stipulated norms of Notification dated 07.12.2015/28.06.2018.

xviii. The water drawl permission of 36 MCM/year is obtained from WRD Uttar Pradesh Vide letter no. 3613/11-27-C.0-4-174/11 dated 09.10.2011.

xix. Details of Coal Linkage: Coal for the Proposed project will be Domestic coal from commercial Coal Mines of NCL / SECL / CCL & Commercial Coal Mines.

xx. Status of Litigation Pending against the proposal, if any.

Court name	Bench	Case Category	Status	Orders Directions
Local Court	Local Court	WP(Civil)	Reserved for judgement	Regulatory and Non Regulatory court caes are under hearing & consideration.
NGT court Case	NGT, Principal Bench, Delhi	Appeal	Disposed Off	In December' 2016, NGT judgement set aside the EC of the 1320 MW TPP at Mirzapur and vide their judgment in May'2017, that Project proponent is at liberty to approach the MoEFCC or any other competent authority for processing of the applications for grant of EC upon making up for rectifying the defects and deficiencies pointed out in the judgment. However, the authorities concerned are at liberty to process the same in accordance with law while strictly adhering to the content of the judgment.

Deliberations of the Committee

7. The EAC noted the following:

i. The proposal is for the grant of Terms of Reference (ToR) to 2x800 MW Coal based Ultra Super Critical Thermal Power Project (TPP) at Village Dadri Khurd, Tehsil, Mirzapur Sardar, District Mirzapur, Uttar Pradesh by Mirzapur Thermal Energy (UP) Private Limited (MTEUPPL). The committee noted that earlier, M/s. Welspun Energy UP Pvt. Ltd. (WEUPPL) proposed to set up a 2x660 MW Super Critical Coal-based thermal power plant and MoEF&CC granted EC for 1320 (2x660) MW vide letter no. F. No: J-13012/12/2011-IA II(T) dated 21.08.2014 and subsequently, name changed to Welspun Energy UP Pvt. Ltd. (WEUPPL) to Mirzapur Thermal Energy UP Pvt. Ltd. (MTEUPPL) vide Letter No. F. No: J-13012/12/2011-IA II(T) dated 20.12.2019.

ii. It was noted by the EAC that in 2016, Hon'ble NGT, Principal Bench, Delhi vide Judgement dated 21.12.2016 set aside the Environmental Clearance (EC) dated 21.08.2014. Further, in the Judgement dated 01.05.2017, it was clarified that "the Project Proponent is at liberty to approach the MoEF&CC or any other competent authority for the processing of the application for grant of EC upon making up for rectifying the defects and deficiencies pointed out in the judgement". Accordingly, PP applied for amendment in EC in 2019 but the same was not issued due to non-submission of the Stage-I FC.

iii. It was observed by the committee that as per the KML file, no construction work has been started yet and now PP has proposed a thermal power plant with a change in capacity from 2x660 MW to 2x800 MW for obtaining prior environmental clearance (De Novo).

iv. The Committee also deliberated on the land use and observed that previous EC was granted over an area of 354.1 Ha (875 acres as per EC dated 21.08.2014) but now the proposal is for 365.19 Ha. The EAC deliberated on land use pattern and PP informed that the area is barren land, further EAC asked PP to submit existing Land Use pattern of the Project Site. Accordingly, PP vide letter dated 10.06.2024 submitted the following:

The proposed Land area for the project is 365.19 Ha. Land as per Government of Uttar Pradesh land records and land use details are as under:

S. No.	Type of Land	Area (in ha)	Remarks
a.	Industrial Land (Private Land converted for industrial use.) Currently the land is barren and under possession.	333.19	Land use map prepared using satellite imagery and GIS is enclosed as Annexure – I. Copy of order & summary of land documents is enclosed as Annexure – II. Based on the Land allotment and Land converted for industrial purpose by order of District Magistrate, Sadar Mirzapur, Gcvvt.of U.P Order dated: 05.11.2012.
b.	Govt. Land	31.38	Application for land allotment was submitted on dated 22.03.2024 & 22.05.2024. Copy of receipt the application is enclosed Annexure - III.
c.	Forest like area	0.62	The application was submitted for diversion of forest area (forest-like area) but after the Joint inspection of DFO (Forest Office) & SDM (Revenue) held on 03.04.2024, it was confirmed that the above area is Non-Forest Land. Copy of Joint inspection report enclosed Annexure - IV. However, as per the directions of Hon'ble committee members, this area will be used for plantation / green belt purposes only

The Committee observed that PP has reported an area of 0.62 Ha (forest land) inside the plant boundary but at the same time applied for FC over an area of 4.0123 vide proposal No FP/UP/OTHERS/470227/2024 dated 22/04/2024. Further, PP submitted that application was submitted for the same area (0.62 Ha) but after joint inspection of DFO (Forest Office) & SDM (Revenue) was held on 3.04.2024 confirming that the above area is non-forest land. In addition to this PP also reported in PFR that there is a forest involvement in water pipeline (5.8162 ha) and approach road (2.5419 ha). Stage I Forest Clearance has already been applied for this vide Proposal no. FP/UP/THE/14236/2015 and the same is under due consideration with MoEF&CC. The Committee is of the view that although PP has submitted a copy of joint inspection report but for more clarity PP shall obtain a letter in this regard from concerned forest department clearly mentioning the extent of forest land involved within and outside (other activities related to plant) plant area. The EAC also suggested that while preparing the EIA/EMP report, PP shall explore the possibility of optimizing forest land requirement to the extent possible and submit a detailed note on the same at the time of EC presentation. In case of any increase in forest land PP shall obtain the amendment in ToR.

v. PP showed the KML file and Topo-Sheet of the project area. The Committee observed that as per KML the area is barren land but some water bodies/nallha passing through the project area. The Committee therefore asked the PP to submit a drainage map with contours. PP vide letter dated 10.06.2024 submitted project area drainage map with contour. The Committee is of the view that PP shall submit a plan for diversion of nallha/water body, if any, involved in the project. PP shall also obtain the permission for such diversion from the concerned authorities.

vi. The Committee observed that PP has submitted that Coal for the proposed project will be Domestic coal from commercial Coal Mines of NCL / SECL / CCL & Commercial Coal Mines. But PP has not submitted the quantity of coal that will be used for the proposed plant, accordingly, PP vide email dated 10.06.2024 submitted that the annual requirement of coal is estimated to be about 6.4 million MTPA for Ultra Super Critical Boiler based TPP (2x800 MW) Coal from Coal Mines of NCL / SECL & Commercial Coal Mines. The Coal will be transported through Rail as per the rules, regulations & terms/conditions of the Indian Railway for transportation of Coal. The Committee is of the view PP shall submit the firm coal linkage, quality of coal and propose mitigative measures in the EIA/EMP report after referring to the OMs issued by MoEF&CC in this regard.

vii. The Committee also observed that PP has submitted a PPT for expansion but it's a green field project and asked the PP to submit the revised PPT. PP vide email dated 10.06.2024 submitted the revised PPT and basic information.

viii. Further, the EAC noted that the total water requirement for the expansion project is 3200 m³/h (~2 m³ /MWh), which is well within the stipulated limits mentioned in the Notification dated 28.06.2018. The water drawl permission of 36 MCM/year is obtained from WRD Uttar Pradesh Vide letter no. 3613/11-27-C.0-4-174/11 dated 09.10.2011.

ix. Additionally, the Committee noted that total power generation will be 1600 MW (2x800 MW). Further, as per MoEF&CC Notification S.O. 5481(E) dated 31.12.2021 and amendments stipulated ash pond area for the thermal power plant is 0.1 hectare per Mega Watt (MW), which works out to be 160 Ha. The proposed power plant has a total ash pond area of 49.37 ha i.e. 13.51% of the total project area 365.19 ha which is well within the area suggested as per Notification dated 31.12.2021.

x. The Committee is also of the view that PP while preparing the EIA/EMP Report and conducting Public consultation shall take into account, the deficiency pointed out by the Hon'ble NGT Judgment 21.12.2016.

Recommendations of the Committee:

8. The EAC after detailed deliberation on the information submitted and as presented during the meeting **recommended** the proposal for grant of ToR for conducting an EIA study with Public Consultation (Public Hearing and Written submission) to the project for the construction of the 2x800 MW Coal based Ultra Super Critical Thermal Power Project (TPP) at Village Dadri Khurd, Tehsil, Mirzapur Sardar, District Mirzapur, Uttar Pradesh by **M/s Mirzapur Thermal Energy (UP) Private Limited (MTEUPPL)**, under the provisions of the EIA Notification, 2006, as amended with the specific ToRs in addition to generic/standard ToR.

9. In accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the EAC, the Ministry hereby accords Terms of Reference (ToR) to M/s Mirzapur Thermal Energy (UP) Private Limited (MTEUPPL) for the construction of the 2x800 MW Coal based Ultra Super Critical Thermal Power Project (TPP) at Village Dadri Khurd, Tehsil, Mirzapur Sardar, District Mirzapur, Uttar Pradesh under EIA Notification, 2006 (as amended) with the specific ToRs in addition to generic/standard ToR as per **Annexure 1**.

10. The EIA/EMP report should contain the information in accordance with provisions & stipulations as given in the specific and standard ToR.

11. You are required to submit the final EIA/EMP prepared as per TORs to the Ministry within 4 years as per this Ministry's Notification vide dated 25.07.2022 for considering the proposal for environmental clearance.

12. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India/National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization(s)/laboratories including their status of approvals etc.

13. The Ministry reserves the right to stipulate additional ToR, if found necessary.

14. The Terms of Reference to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project

Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

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

Yours faithfully,

(Sundar Ramanathan)
Scientist 'E'/Additional Director
Tel: 011- 20819378
Email- r.sundar@nic.in;

Copy To

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110001.
2. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. The Chairman, Uttar Pradesh State Pollution Control Board, Building. No. TC-12V. Vibhuti Khand, Gomti Nagar. Lucknow-226 010
4. The Deputy Director General of Forests (C), Integrated Regional Officer, Ministry of Environment, Forest and Climate Change, Kendriya Bhawan, 5th Floor, Sector "H", Aliganj, Lucknow – 2260205.
5. The Chairman, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
6. Member Secretary, Uttar Pradesh State Pollution Control Board, PICUP Bhawan, 3rd Floor, B-Block, Vibhuti Khand, Gomti Nagar Lucknow – 226 010.
7. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
9. The District Collector, Mirzapur, Uttar Pradesh
10. Guard File/Monitoring File/PARIVESH Portal

Annexure 1

Specific Terms of Reference for (Thermal Power Plants)

1. [A] Environmental Management And Biodiversity Conservation

S. No	Terms of Reference
1.1	A Cumulative Environmental Impact Assessment study of all the existing and proposed projects in the 15-km radius of the proposed project shall be conducted and the same shall be included the in EIA/EMP report. Details of industrial units present in 15 Km radius of the power plant shall be submitted.
1.2	Radioactivity studies along with coal analysis to be provided (sulphur, ash percentage and heavy metals including Pb, Cr, As and Hg). Details of auxiliary fuel, if any including its quantity, quality, storage, etc should also be given.
1.3	A comparative chart shall be prepared with changes observed from the previous baseline study and present baseline study.

S. No	Terms of Reference
1.4	PP should submit the detailed plan in tabular format (year-wise for the life of the project) for concurrent afforestation and green belt development in and around the project site. The PP should submit the number of saplings to be planted, names of native species, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this, PP should show on a surface plan (5-year interval for life of project) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided. In addition to this, plantation in the safety zone at project boundary the plantation should be planned in such a way that it should be completed within 2 years only.
1.5	Action plan for development of Three tier plantation programme (33% of total project cover area) along the periphery of the project boundary shall be provided. Plan shall be duly approved by the local forest department.
1.6	A detailed plan need to be submitted for undertaking extensive green plantation within 10 km radius of the plant focusing on water reservoir, school, hospital and other institutional area and same need to be incorporated in EIA/EMP report.
1.7	<i>Detailed action plan shall be prepared for maintenance of air pollution control equipment for proposed and existing units and shall be incorporated in EIA/EMP report.</i>
1.8	<i>Details of Ash management of 5-year plan for 100 % ash utilization for proposed project shall be submitted. MoU signed for ash utilization with companies shall be submitted.</i>
1.9	<i>Details of Ash handling system along with the supplementary coal handling system shall be submitted.</i>
1.10	<i>Proper protection measures like HDPE lining, appropriate height of bund and adequate distance between the proposed Ash pond and water body (minimum 60 meters) etc. shall be planned to reduce the possibility of mixing leachate with any freshwater body for under-construction ash pond. A high-density Slurry disposal plan shall be prepared. The design of the same should as per CEA/CPCB guidelines.</i>
1.11	<i>Pond and ground water quality (10 locations within 2 km radius of the plant boundary) shall be studied and report be submitted along with EIA/EMP. Action plan for Ground water monitoring stations on all hotspots like schools/hospitals within 2 km radius of the plant boundary be submitted. Baseline Study for Heavy metals in Groundwater, Surface water and soil to be carried out and incorporated in EIA/EMP report. This is in addition to the regular baseline study of the study area.</i>
1.12	<i>Details pertaining to water source, treatment and discharge should be provided.</i>
1.13	<i>Zero Liquid Discharge plan shall be submitted.</i>
1.14	<i>PP shall submit action plan for using treated Sewage/Domestic wastewater for its operations.</i>

S. No	Terms of Reference
1.15	<i>Project Proponent to conduct Environmental Cost Benefit Analysis for the project in EIA/EMP Report.</i>
1.16	<i>An action plan shall be prepared for Water shed development within a 10 km radius of the plant boundary in consultation with a reputed government institution and incorporated in the EIA/EMP report. This should include recharge of ground water in the surrounding area of the plant.</i>
1.17	<i>PP should clearly bring out that what is the specific diesel consumption ~ (Liters/Tonne of total material handled) and steps to be taken for reduction of the same. The year-wise target for reduction in the specific diesel consumption needs to be submitted. PP shall also explore the possibility of using e-vehicles/LNG/CNG-based machinery and trucks for the operation and transportation of Coal and ash.</i>
1.18	<i>PP shall submit a plan for diversion of nallah/water body if any involved in the project. PP shall also obtain the permission for such diversion from the concerned authority.</i>
1.19	<i>PP shall obtain a letter from concerned forest department clearly mentioning the extent of forest land involved within and outside (other activities related to plant) plant area.</i>
1.20	<i>While preparing the EIA/EMP report, PP shall explore the possibility of optimizing forest land requirement to the extent possible and submit a detailed note on the same at the time of EC presentation. In case of any increase in forest land PP shall obtain the amendment in ToR.</i>
1.21	<i>List of Schedule-1 species needs to be authenticated by the concerned forest department.</i>
1.22	<i>PP shall submit the firm coal linkage, quality of coal and propose mitigative measures in the EIA/EMP report after referring to the OMs issued by MoEF&CC in this regard.</i>

2. [B] Disaster Management

S. No	Terms of Reference
2.1	A Disaster Management Plan shall be prepared and incorporated in the EIA/EMP report.

3. [D] Miscellaneous

S. No	Terms of Reference
3.1	<i>Plot the wind rose diagram using the typical meteorological year (TMY) data for the period considered for the study. The monitoring units shall be deployed in the field based on the coverage area ratio and direction of the wind. A mathematical model shall be developed for the local site rather than using the standard model available in software for both air & water quality modelling.</i>
3.2	<i>PP shall align its activities to one/few of the Sustainable Development Goals (SDG) and start working on the mission of net zero by 2050. PPs shall update the same to the EAC.</i>
3.3	<i>PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.</i>

S. No	Terms of Reference
3.4	<i>Detailed description of all the court cases including all directions given by the apex and currents status of them shall submit.</i>
3.5	<i>PP should provide in the EIA Report details of all the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after grant of EC.</i>
3.6	<i>The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.</i>
3.7	<i>PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of persons to be engaged for the implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.</i>
3.8	<i>PP should submit the year-wise, activity-wise and time-bound budget earmarked for EMP, occupational health surveillance, and activities proposed to address the issues raised during the Public Hearing. The capital and recurring expenditures to be incurred need to be submitted.</i>
3.9	<i>Aerial view video of the project site and transportation route proposed for this project shall be recorded through drone and be submitted.</i>
3.10	<i>PP while preparing the EIA/EMP Report and conducting Public consultation shall take into account, the deficiency pointed out by the Hon'ble NGT Judgment 21.12.2016.</i>

4. [C] Socio-economic Study

S. No	Terms of Reference
4.1	<i>The Public Health Delivery Plan including the provisions for drinking water supply for the local population shall be in the EIA/EMP Report. The status of the existing medical facilities in the project area shall be discussed. Possibilities of strengthening of existing medical facilities, construction of new medical infrastructure etc. will be explored after assessing the needs of the labour force and local populace.</i>
4.2	<i>Public consultation (Public Hearing and Written submission) shall be conducted as per the provisions of EIA Notification, 2006 (as amended) and OMs issued in this regard by MoEF&CC.</i>
4.3	<i>As per the Ministry's OM dated 30.09.2020, to address the concern raised during the Public Hearing, the Project Proponent is required to submit the detailed activities proposed with year-wise budgetary provision (Capital and recurring) for at least 10 years. Activities proposed shall be part of EMP. Tentative no. of project-affected families (if any) shall be identified and accordingly appropriate Rehabilitation & Resettlement plan shall be prepared. The recommendation Socio-economic study may also be considered while planning the activities & budget. In addition to this issues raised during previous PH shall also be taken into account.</i>
4.4	<i>Demographic details in 10 km area shall be submitted.</i>

Standard Terms of Reference for (Thermal Power Plants)

1. Statutory Compliance

S. No	Terms of Reference
1.1	The proposed project shall be given a unique name in consonance with the name submitted to other Government Departments etc. for its better identification and reference.
1.2	Vision document specifying prospective long term plan of the project shall be formulated and submitted.
1.3	Latest compliance report duly certified by the Regional Office of MoEF&CC for the conditions stipulated in the environmental and CRZ clearances of the previous phase(s) for the expansion projects shall be submitted.

2. Details Of The Project And Site

S. No	Terms of Reference
2.1	The project proponent needs to identify minimum three potential sites based on environmental, ecological and economic considerations, and choose one appropriate site having minimum impacts on ecology and environment. A detailed comparison of the sites in this regard shall be submitted.
2.2	Executive summary of the project indicating relevant details along with recent photographs of the proposed site (s) shall be provided. Response to the issues raised during Public Hearing and the written representations (if any), along with a time bound Action Plan and budgetary allocations to address the same, shall be provided in a tabular form, against each action proposed.
2.3	Harnessing solar power within the premises of the plant particularly at available roof tops and other available areas shall be formulated and for expansion projects, status of implementation shall also be submitted.
2.4	The geographical coordinates (WGS 84) of the proposed site (plant boundary), including location of ash pond along with topo sheet (1:50,000 scale) and IRS satellite map of the area, shall be submitted. Elevation of plant site and ash pond with respect to HFL of water body/nallah/River and high tide level from the sea shall be specified, if the site is located in proximity to them.
2.5	Layout plan indicating break-up of plant area, ash pond, green belt, infrastructure, roads etc. shall be provided.
2.6	Land requirement for the project shall be optimized and in any case not more than what has been specified by CEA from time to time. Item wise break up of land requirement shall be provided.
2.7	Present land use (including land class/kism) as per the revenue records and State Govt. records of the proposed site shall be furnished. Information on land to be acquired including coal transportation system, laying of pipeline, ROW, transmission lines etc. shall be specifically submitted. Status of land acquisition and litigation, if any, should be provided.
2.8	If the project involves forest land, details of application, including date of application, area applied for, and application registration number, for diversion under FCA and its status should be provided

S. No	Terms of Reference
	along with copies of relevant documents.
2.9	The land acquisition and R&R scheme with a time bound Action Plan should be formulated and addressed in the EIA report.
2.10	Satellite imagery and authenticated topo sheet indicating drainage, cropping pattern, water bodies (wetland, river system, stream, nallahs, ponds etc.), location of nearest habitations (villages), creeks, mangroves, rivers, reservoirs etc. in the study area shall be provided.
2.11	Topography of the study area supported by toposheet on 1:50,000 scale of Survey of India, along with a large scale map preferably of 1:25,000 scale and the specific information whether the site requires any filling shall be provided. In that case, details of filling, quantity of required fill material; its source, transportation etc. shall be submitted.

3. Ecology Biodiversity And Environment

S. No	Terms of Reference
3.1	A detailed study on land use pattern in the study area shall be carried out including identification of common property resources (such as grazing and community land, water resources etc.) available and Action Plan for its protection and management shall be formulated. If acquisition of grazing land is involved, it shall be ensured that an equal area of grazing land be acquired and developed and detailed plan submitted.
3.2	Location of any National Park, Sanctuary, Elephant/Tiger Reserve (existing as well as proposed), migratory routes / wildlife corridor, if any, within 10 km of the project site shall be specified and marked on the map duly authenticated by the Chief Wildlife Warden of the State or an officer authorized by him.
3.3	A mineralogical map of the proposed site (including soil type) and information (if available) that the site is not located on potentially mineable mineral deposit shall be submitted.
3.4	The water requirement shall be optimized (by adopting measures such as dry fly ash and dry bottom ash disposal system, air cooled condenser, concept of zero discharge) and in any case not more than that stipulated by CEA from time to time, to be submitted along with details of source of water and water balance diagram. Details of water balance calculated shall take into account reuse and re-circulation of effluents.
3.5	Water body/Nallah (if any) passing across the site should not be disturbed as far as possible. In case any Nallah / drain is proposed to be diverted, it shall be ensured that the diversion does not disturb the natural drainage pattern of the area. Details of proposed diversion shall be furnished duly approved by the concerned Department of the State.
3.6	It shall also be ensured that a minimum of 500 m distance of plant boundary is kept from the HFL of river system / streams etc. and the boundary of site should also be located 500 m away from railway track and National Highways.
3.7	Hydro-geological study of the area shall be carried out through an institute/ organization of repute to assess the impact on ground and surface water regimes. Specific mitigation measures shall be

S. No	Terms of Reference
	spelt out and time bound Action Plan for its implementation shall be submitted
3.8	Detailed Studies on the impacts of the ecology including fisheries of the River/Estuary/Sea due to the proposed withdrawal of water / discharge of treated wastewater into the River/Sea etc shall be carried out and submitted along with the EIA Report. In case of requirement of marine impact assessment study, the location of intake and outfall shall be clearly specified along with depth of water drawl and discharge into open sea.
3.9	Source of water and its sustainability even in lean season shall be provided along with details of ecological impacts arising out of withdrawal of water and taking into account inter-state shares (if any). Information on other competing sources downstream of the proposed project and commitment regarding availability of requisite quantity of water from the Competent Authority shall be provided along with letter / document stating firm allocation of water.
3.10	Detailed plan for rainwater harvesting and its proposed utilization in the plant shall be furnished. In addition, wherever ground water is drawn, PP shall submit detailed plan of Water charging activity to be undertaken.
3.11	Feasibility of near zero discharge concept shall be critically examined and its details submitted.
3.12	Optimization of Cycles of Concentration (COC) along with other water conservation measures in the project shall be specified.
3.13	Plan for recirculation of ash pond water and its implementation shall be submitted.
3.14	Detailed plan for conducting monitoring of water quality regularly with proper maintenance of records shall be formulated. Detail of methodology and identification of monitoring points (between the plant and drainage in the direction of flow of surface / ground water) shall be submitted. It shall be ensured that parameter to be monitored also include heavy metals. A provision for long-term monitoring of ground water table using Piezometer shall be incorporated in EIA, particularly from the study area.
3.15	Hazards Characterization: Past incidents of hazard events within 10km radius of project area with detailed analysis of causes and probability of reoccurrence

4. Environmental Baseline Study And Mitigation Measures

S. No	Terms of Reference
4.1	One complete season (critical season) site specific meteorological and AAQ data (except monsoon season) as per latest MoEF&CC Notification shall be collected along with past three year's meteorological data for that particular season for wins speed analysis and the dates of monitoring shall be recorded. The parameters to be covered for AAQ shall include PM10, PM2.5, SO2, NOx, CO and Hg. The location of the monitoring stations should be so decided so as to take into consideration the upwind direction, pre-dominant downwind direction, other dominant directions, habitation and sensitive receptors. There should be at least one monitoring station each in the upwind and in the pre - dominant downwind direction at a location where maximum ground level concentration is likely to occur.

S. No	Terms of Reference
4.2	In case of expansion project, air quality monitoring data of 104 observations a year for relevant parameters at air quality monitoring stations as identified/stipulated shall be submitted to assess for compliance of AAQ Standards (annual average as well as 24 hrs).
4.3	A list of industries existing and proposed in the study area shall be furnished.
4.4	Cumulative impacts of all sources of emissions including handling and transportation of existing and proposed projects on the environment of the area shall be assessed in detail. Details of the Model used and the input data used for modelling shall also be provided. The air quality contours should be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any. The windrose and isopleths should also be shown on the location map. The cumulative study should also include impacts on water, soil and socio-economics.
4.5	Radio activity and heavy metal contents of coal to be sourced shall be examined and submitted along with laboratory reports.
4.6	Fuel analysis shall be provided. Details of auxiliary fuel, if any, including its quantity, quality, storage etc should also be furnished.
4.7	Quantity of fuel required, its source and characteristics and documentary evidence to substantiate confirmed fuel linkage shall be furnished. The Ministry's Notification dated 02.01.2014 regarding ash content in coal shall be complied. For the expansion projects, the compliance of the existing units to the said Notification shall also be submitted
4.8	Details of transportation of fuel from the source (including port handling) to the proposed plant and its impact on ambient AAQ shall be suitably assessed and submitted. If transportation entails a long distance it shall be ensured that rail transportation to the site shall be first assessed. Wagon loading at source shall preferably be through silo/conveyor belt.
4.9	For proposals based on imported coal, inland transportation and port handling and rail movement shall be examined and details furnished. The approval of the Port and Rail Authorities shall be submitted.
4.10	Details regarding infrastructure facilities such as sanitation, fuel, restrooms, medical facilities, safety during construction phase etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase should be adequately catered for and details furnished.

5. Environmental Management Plan

S. No	Terms of Reference
5.1	EMP to mitigate the adverse impacts due to the project along with item - wise cost of its implementation in a time bound manner shall be specified.
5.2	A Disaster Management Plan (DMP) along with risk assessment study including fire and explosion issues due to storage and use of fuel should be prepared. It should take into account the maximum inventory of storage at site at any point of time. The risk contours should be plotted on the plant layout map clearly showing which of the proposed activities would be affected in case of an

S. No	Terms of Reference
	accident taking place. Based on the same, proposed safeguard measures should be provided. Measures to guard against fire hazards should also be invariably provided. Provision for mock drills shall be suitably incorporated to check the efficiency of the plans drawn.
5.3	The DMP so formulated shall include measures against likely Fires/Tsunami/Cyclones/Storm Surges/ Earthquakes etc, as applicable. It shall be ensured that DMP consists of both On-site and Off-site plans, complete with details of containing likely disaster and shall specifically mention personnel identified for the task. Smaller version of the plan for different possible disasters shall be prepared both in English and local languages and circulated widely.
5.4	Details of fly ash utilization plan as per the latest fly ash Utilization Notification of GOI along with firm agreements / MoU with contracting parties including other usages etc. shall be submitted. The plan shall also include disposal method / mechanism of bottom ash along with monitoring mechanism.

6. Green Belt Development

S. No	Terms of Reference
6.1	Detailed scheme for raising green belt of native species of appropriate width (50 to 100 m) and consisting of at least 3 tiers around plant boundary not less than 2000 tree per ha with survival rate of more than 85% shall be submitted. Photographic evidence must be created and submitted periodically including NRSA reports in case of expansion projects. A shrub layer beneath tree layer would serve as an effective sieve for dust and sink for CO ₂ and other gaseous pollutants and hence a stratified green belt should be developed.
6.2	Over and above the green belt, as carbon sink, plan for additional plantation shall be drawn by identifying blocks of degraded forests, in close consultation with the District Forests Department. In pursuance to this the project proponent shall formulate time bound Action Plans along with financial allocation and shall submit status of implementation to the Ministry every six months

7. Socio-economic Activities

S. No	Terms of Reference
7.1	Socio-economic study of the study area comprising of 10 km from the plant site shall be carried out through a reputed institute / agency which shall consist of detail assessment of the impact on livelihood of the local communities.
7.2	Action Plan for identification of local employable youth for training in skills, relevant to the project, for eventual employment in the project itself shall be formulated and numbers specified during construction & operation phases of the Project.
7.3	If the area has tribal population, it shall be ensured that the rights of tribals are well protected. The project proponent shall accordingly identify tribal issues under various provisions of the law of the land.
7.4	A detailed CER plan along with activities wise break up of financial commitment shall be prepared in terms of the provisions OM No. 22-65/2017-IA.III dated 30.09.2020. CER component shall be

S. No	Terms of Reference
	identified considering need based assessment study and Public Hearing issues. Sustainable income generating measures which can help in upliftment of affected section of society, which is consistent with the traditional skills of the people shall be identified.
7.5	While formulating CER schemes it shall be ensured that an in-built monitoring mechanism for the schemes identified are in place and mechanism for conducting annual social audit from the nearest government institute of repute in the region shall be prepared. The project proponent shall also provide Action Plan for the status of implementation of the scheme from time to time and dovetail the same with any Govt. scheme(s). CER details done in the past should be clearly spelt out in case of expansion projects.
7.6	R&R plan, as applicable, shall be formulated wherein mechanism for protecting the rights and livelihood of the people in the region who are likely to be impacted, is taken into consideration. R&R plan shall be formulated after a detailed census of population based on socio economic surveys who were dependant on land falling in the project, as well as, population who were dependant on land not owned by them.
7.7	Assessment of occupational health and endemic diseases of environmental origin in the study area shall be carried out and Action Plan to mitigate the same shall be prepared.
7.8	Occupational health and safety measures for the workers including identification of work related health hazards shall be formulated. The company shall engage full time qualified doctors who are trained in occupational health. Health monitoring of the workers shall be conducted at periodic intervals and health records maintained. Awareness programme for workers due to likely adverse impact on their health due to working in non-conductive environment shall be carried out and precautionary measures like use of personal equipments etc. shall be provided. Review of impact of various health measures undertaken at intervals of two to three years shall be conducted with an excellent follow up plan of action wherever required.

8. Corporate Environment Policy

S. No	Terms of Reference
8.1	Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
8.2	Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
8.3	What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions. Details of this system may be given.
8.4	Does the company has compliance management system in place wherein compliance status along with compliances / violations of environmental norms are reported to the CMD and the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.

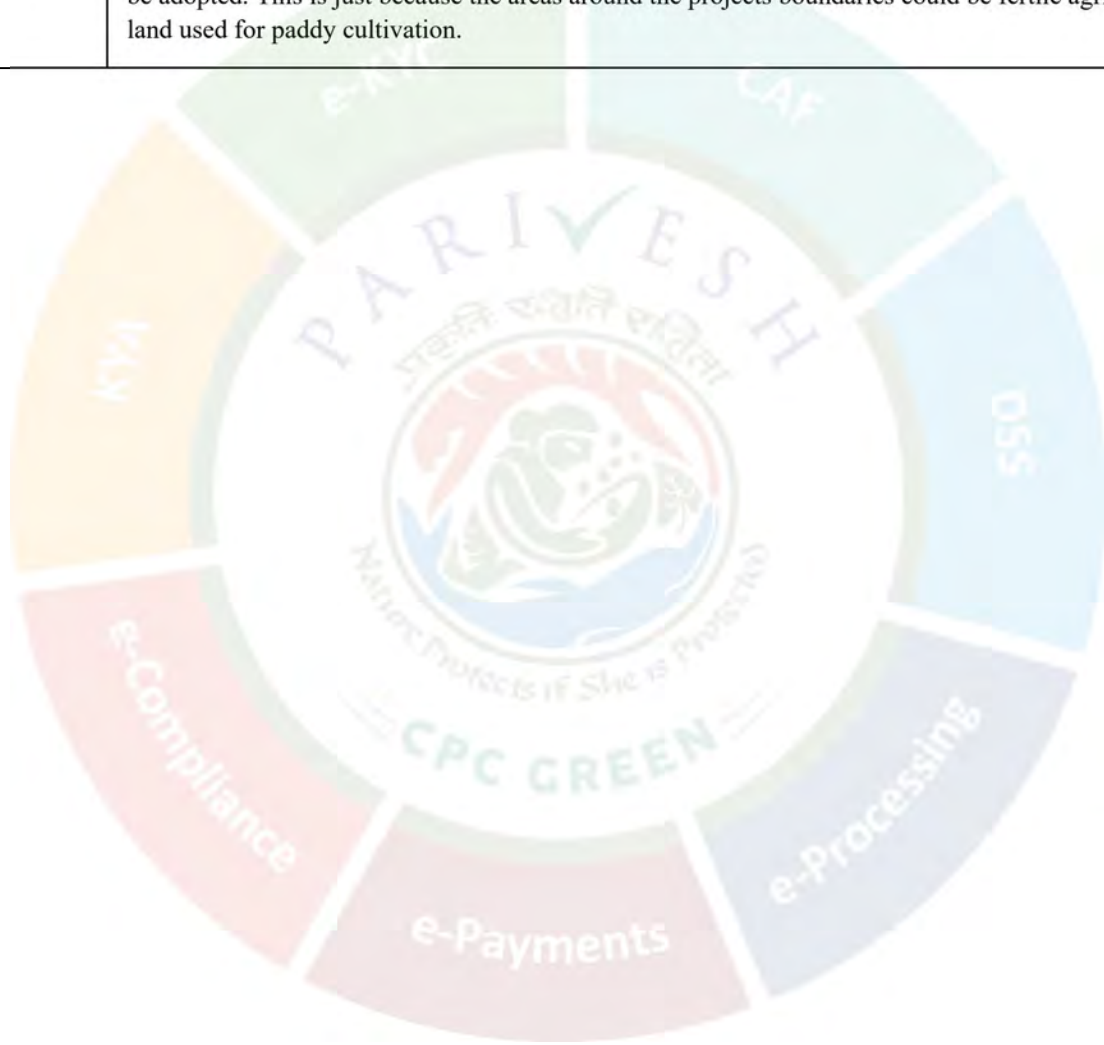
9. Miscellaneous

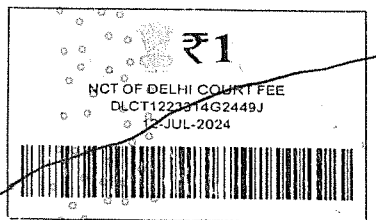
S. No	Terms of Reference
9.1	All the above details should be adequately brought out in the EIA report and in the presentation to the Committee.
9.2	Details of litigation pending or otherwise with respect to project in any Court, Tribunal etc. shall invariably be furnished.
9.3	In case any dismantling of old plants are envisaged, the planned land use & land reclamation of dismantled area to be furnished.

10. Additional Tor For Coastal Based Thermal Power Plants Projects (Tpps)

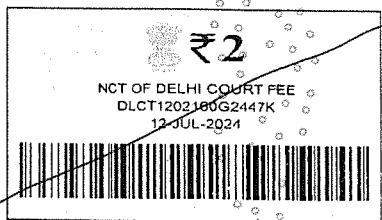
S. No	Terms of Reference
10.1	Low lying areas fulfilling the definition wetland as per Ramsar Convention shall be identified and clearly demarcated w.r.t the proposed site.
10.2	If the site includes or is located close to marshy areas and backwaters, these areas must be excluded from the site and the project boundary should be away from the CRZ line. Authenticated CRZ map from any of the authorized agencies shall be submitted.
10.3	The soil levelling should be minimum with no or minimal disturbance to the natural drainage of the area. If the minor canals (if any) have to be diverted, the design for diversion should be such that the diverted canals not only drains the plant area but also collect the volume of flood water from the surrounding areas and discharge into marshy areas/major canals that enter into creek. Major canals should not be altered but their embankments should be strengthened and desilted.
10.4	Additional soil required for levelling of the sites should as far as possible be generated within the site itself in such a manner that the natural drainage system of the area is protected and improved.
10.5	Marshy areas which hold large quantities of flood water to be identified and shall not be disturbed.
10.6	No waste should be discharged into Creek, Canal systems, Backwaters, Marshy areas and seas without appropriate treatment. Wherever feasible, the outfall should be first treated in a Guard Pond and then only discharged into deep sea (10 to 15 m depth). Similarly, the Intake should be from deep sea to avoid aggregation of fish and in no case shall be from the estuarine zone. The brine that comes out from Desalinization Plants (if any) should not be discharged into sea without adequate dilution.
10.7	Mangrove conservation and regeneration plan shall be formulated and Action Plan with details of time bound implementation shall be specified, if mangroves are present in Study Area.
10.8	A common Green Endowment Fund should be created by the project proponents out of EMP budgets. The interest earned out of it should be used for the development and management of green cover of the area.
10.9	Impact on fisheries at various socio economic level shall be assessed.
10.10	An endowment Fishermen Welfare Fund should be created out of CER grants not only to enhance their quality of life by creation of facilities for Fish Landing Platforms / Fishing Harbour / cold

S. No	Terms of Reference
	storage, but also to provide relief in case of emergency situations such as missing of fishermen on duty due to rough seas, tropical cyclones and storms etc.
10.11	Tsunami Emergency Management Plan shall be prepared wherever applicable and Plan submitted prior to the commencement of construction work.
10.12	There should not be any contamination of soil, ground and surface waters (canals & village pond) with sea water in and around the project sites. In other words necessary preventive measures for spillage from pipelines, such as lining of Guard Pond used for the treatment of outfall before discharging into the sea and surface RCC channels along the pipelines of outfall and intake should be adopted. This is just because the areas around the projects boundaries could be fertile agricultural land used for paddy cultivation.





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VAKALATNAMA

BEFORE THE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH, NEW DELHI
ORIGINAL APPLICATION NO. 883 OF 2024

IN THE MATTER OF:

NEWS ITEMS TITLED "EXPERTS FLAG LARGE-SCALE CLEARING OF VEGETATION IN MIRZAPUR FOREST" APPERARING IN THE HINDUSTAN TIMES DATED 03.07.2024

KNOW ALL to whom these presents shall come that I, Rajesh Sehgal, the Authorised Representative of Mirzapur Thermal Energy (UP) Private Limited., the Respondent No. 5 in the above matter do hereby appoint:

RITWIKA NANDA (F/1074/829/2011), PETAL CHANDHOK (D/2291/2012), MS. SWASTI MISRA (UP/08013/2017), MS. SHRUTI GUPTA (MP/590/2022), MS. YASHITA RASTOGI (D/4597/2022)
TRUST LEGAL, ADVOCATES AND CONSULTANTS,
D-415, Defence Colony, New Delhi – 110 024
Tel: 9711721923, 9654025754

ritwikananda@trustlegal.in, petalchandhok@trustlegal.in

[hereafter called the Advocate(s) to be my/our Advocates in the above noted case and authorize him/them.

1. To act, appear, plead in the above-noted case in the court or in any other court in which the same may be tried or heard and also in the appellate Courts including High Court subject to payment of fees separately for each court by me/us.
2. To sign, file verify and present pleadings, replications, appeals, cross-objections or petitions, for executions, review, revision, restoration, withdrawal compromise or other petitions, replies, objections, or affidavits or other documents as may be deemed necessary or proper for the prosecution of the said case in all its stages.
3. To file and take back documents.
4. To withdraw or compromise the said case or submit to arbitration any differences or disputes that may arise touching or in any manner relating to the said case.
5. To take out execution proceedings.
6. To deposit, draw and receive moneys, cheques and grant receipts thereof and to do all other acts and things which may be necessary to be done for the progress and in the course of the prosecution of the said case.
7. To appoint and instruct any other Legal Practitioner(s)/Consultant(s) authorizing him to exercise the power and authority hereby conferred upon the advocates whenever they may think fit to do so and to sign the power of attorney on my/our behalf.

And I/We the undersigned do hereby agree to ratify and confirm the acts done by the Advocate(s) or his/their substitute in the matter as my/our own acts as if done by me/us to all intents and purposes.

And I/We the undersigned undertake that I/We or my/our duly authorized agent would appear in court on all hearings and will inform the Advocate(s) for appearance, when the case is called.

And I/We the undersigned do hereby agree not to hold the Advocate(s) or his/their substitute responsible for the result of the said case in consequence of his/their absence from the court when the said case is called up for hearing, or any negligence of the said Advocate(s) or his/their substitute.

And I/We the undersigned, do hereby agree that in the event of the whole or any part of the fee agreed by me/us to be paid to the Advocate(s) remaining unpaid, he/they shall be entitled to withdraw from the prosecution of the said case until the same is paid up. If any costs are allowed for an adjournment the Advocate(s) would be entitled to the same. The fee settled is only for the above case and court.

IN WITNESS WHEREOF I/We do hereunto set my/our hand to these present, the contents of which have been understood by me/us this 13 day of Feb, 2025

Accepted subject to the terms of fees.

Yashita Rastogi
10/4597/22
Advocates

Petal Chandhok
11/02/1829/2011

Swasti Misra
12/0013/2013
Rajesh Sehgal
8/2291/2012

Rajesh Sehgal
Swasti Misra
Petal Chandhok
Client

