सत्यमेव जयते

File No: J-13012/05/2025-IA.I(T)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
****

Date **11/05/2026**

To,

Sh. Ashesh Kumar Padhy
M/s. JSW Thermal Energy Limited
JSW Centre, Bandra Kurla Complex, Bandra(East), Mumbai, Maharashtra, 400051
E-mail: susanta.sahoo@jsw.in

Subject: **Proposed 2x800 MW Coal Based Ultra Super Critical Thermal Power Plant by M/s. JSW Thermal Energy Limited (JSWTEL) located at villages Arabari, Dubrajpur, Kulpheni, Asnasuli, Natundihi, Ramraidihi, Masru, Nitaipur, Banskopna, Khairisole, Ghagrasole, Chakbaghi, Chatibandhi, Narayanchak, Jambediya, Natunbankti, Barju and Salika, Tehsil: Salboni, District: Paschim Medinipur, State: West Bengal – Environment Clearance – regarding**

Sir/Madam,

This is with reference to your proposal number IA/WB/THE/561908/2026 dated 16/02/2026 seeking for grant of Environmental Clearance (EC) under the provision of the EIA Notification 2006 and as amended thereof to the proposed project mentioned above.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC26A0601WB5710799N
(ii) File No.	J-13012/05/2025-IA.I(T)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(d) Thermal Power Plants
(vi) Sector	Thermal Projects
(vii) Name of Project	Proposed 2x800 MW Coal Based Ultra Super Critical Thermal Power Plant coming up at Villages Nitaipur, Salboni, Paschim Medinipur District, West Bengal by JSW Thermal Energy Limited (JSWTEL).
(viii) Name of Company/Organization	M/s. JSW Thermal Energy Limited
(ix) Location of Project (District, State)	Paschim Medinipur, West Bengal

(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

3. M/s. JSW Thermal Energy Limited (JSWTEL) has made an online application vide proposal no. IA/WB/THE/561908/2026 dated 16/02/2026 along with copy of EIA/EMP report and Form seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above.

4. The proposed project activity is listed at item no. 1(d) Under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level. The project does not attract the provisions of general condition to the schedule of the EIA Notification, 2006. The instant Proposal was considered by the EAC (Thermal) in its 40th meeting held during 19-20th March, 2026. The MoM for the same may be seen using the following web link: https://parivesh.nic.in

Details submitted by the project proponent

5. The project of M/s JSW Thermal Energy Limited (JSWTEL) is located in Villages Arabari, Dubrajpur, Kulpheni, Asnasuli, Natundihi, Ramraidihi, Masru, Nitaipur, Banskopna, Khairisole, Ghagrasole, Chakbaghi, Chatibandhi, Narayanchak, Jambediya, Natunbankti, Barju and Salika, Tehsil: Salboni, District: Paschim Medinipur, State: West Bengal is for setting up of a new power plant with a capacity of 1600 MW (2x800 MW) coal-based Ultra Supercritical Thermal Power Plant.

6. **Compliance to MoEF&CC Notification dated 11/07/2025 regarding SO2 emission norms**: The status of compliance to the SO2 emission norms shall be furnished as per the MoEF&CC Notification dated 11/07/2025:
i. Categorization details of TPP: Not done by CPCB as the project is of Green Field in nature
ii. Sulfur content of the coal to be fired in the boiler: <0.50 %
iii. Provision of Stack details: Twin flue Stack of 275 m height will be provided in compliance to the notification number GSR 742 (E) dated the 30/08/1990 for the proposed project.

7. **The detail of the ToR is furnished as below**:

Proposal No with date	Consideration	Details	Date of accord	ToR Validity
IA/WB/THE/537470/2025 Dated 20.05.2025	27th meeting of EAC held on 08.07.2025	Terms of Reference	26.07.2025	25.07.2029

8. **Environmental site settings**

S. No.	Particulars	Details	Remarks
1.	Total land	Total Land (i.e. 724.38 Ha.) is in possession of JSW Thermal Energy Limited (JSWTEL).	Land Use: Industrial Purpose
2.	Land use break-up	**Particular** / **Area (in Ha.)** Main Plant including Switch yard: 44.80 (6.18%) Coal Storage and Handling: 88.86 (12.27%) Greenbelt: 239.05 (33%) Water System: 30.00 (4.14%) Water Reservoir: 61.10 (8.43%) Misc: 55.43 (7.65%) Ash Disposal: 70.14 (9.68%) Area Earmarked for Future Expansion: 135.0 (18.64%) **Total: 724.38 (100%)** *• ROW land for railway line is not applicable as existing line for the JSW Cement plant will be further extended inside JSWTEL & the necessary approval for scheme has been obtained from Department of Indian Railways.* *• ROU land for water pipeline: Based on preliminary survey, the following*	

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>details are available
a. Length: Approx. 65 km.
b. Type of land: Private.
The exact ROU details will be available after final route survey & accordingly permissions/NoC will be obtained from owners & statutory bodies, as may be applicable, prior to laying of pipeline after detailed route survey which is under process.</td><td></td></tr>
<tr><td>3.</td><td>Land acquisition details as per MoEF&CC O.M, dated 7/10/2014, 20/02/2025 and 18/12/2025</td><td>The land is already in possession with JSW Thermal Energy Limited (JSWTEL).
Land acquisition details are as below:
• Govt. order has been received for transfer of leasehold of 683.109 Ha (1688 acres) of JSW Bengal Steel Limited (JSWBSL) to JSWTEL & further transfer process is ongoing.
• 7.8 Ha (19.28 acres) of land is in possession of JSWBSL. Transfer process of freehold rights from JSWBSL to JSWTEL is under process.
• Approval from West Bengal Industrial Development Corporation (WBIDC) for transfer of 38.85 Ha (96 acre) land under possession of JSWBSL to JSWTEL is under process.</td><td>Land transfer is under progress</td></tr>
<tr><td>4.</td><td>Existence of habitation &involvement of R&R, if any.</td><td><u>Project site</u>: Name of village (if any) – No R&R.
Study Area: List of villages in 500 m radius from project site given as under:
<table>
<tr><th>S. No</th><th>School</th><th>Distance (in Km)</th><th>Directions</th></tr>
<tr><td>1</td><td>Sitanathpur S.S High School</td><td>0.02</td><td>NNW</td></tr>
<tr><td>2</td><td>Palaibani Primary School, Palaibani</td><td>0.02</td><td>NNW</td></tr>
<tr><td>3</td><td>Salgaria SSK Primary School</td><td>0.02</td><td>West</td></tr>
<tr><td>4</td><td>Shyamchandpur Primary School</td><td>0.09</td><td>SE</td></tr>
<tr><td>5</td><td>Ramraidihi SSK Primary School</td><td>0.16</td><td>NE</td></tr>
<tr><td>6</td><td>Asnasuli Primary School</td><td>0.2</td><td>NE</td></tr>
<tr><td>7</td><td>Banskapna Primary school</td><td>0.2</td><td>North</td></tr>
<tr><td>8</td><td>Apex Upper Primary School</td><td>0.23</td><td>SSW</td></tr>
<tr><td>9</td><td>Jambedia. High School</td><td>1.4</td><td>ENE</td></tr>
<tr><td>10</td><td>Baikunthapur Jr. High school</td><td>1.6</td><td>SW</td></tr>
<tr><td>11</td><td>Dhanyasole ICDS school</td><td>1.7</td><td>NNE</td></tr>
<tr><td>12</td><td>Kotalkuli Upper Primary school</td><td>1.9</td><td>NNE</td></tr>
<tr><td>13</td><td>Chandankath Primary School</td><td>2.3</td><td>SE</td></tr>
<tr><td>14</td><td>Deulkund Primay School</td><td>2.4</td><td>SW</td></tr>
<tr><td>15</td><td>Pathar Chati Primary School</td><td>2.5</td><td>SSE</td></tr>
<tr><td>16</td><td>Bhursa Primary School</td><td>2.8</td><td>SW</td></tr>
<tr><td>17</td><td>Analysis & Research Training Institute. (ARTI)</td><td>2.8</td><td>NE</td></tr>
<tr><td>18</td><td>Kendriya Vidyalaya</td><td>3</td><td>NE</td></tr>
</table></td><td>Status of R&R. - Not applicable as R&R not involved.
There are 171 Villages in study area of 10 km radius.</td></tr>
</table>

S. No.	Particulars	Details				Remarks
			BRBNMPL Salboni			
		19	Saiyedpur primary school	3.2	ENE	
		20	Narasinghapur Primary School	4.7	SSE	
5.	Existence of school and hospitals if any.	**A. School** **Project site: None** **Study area:**				

S. No	School	Distance (in Km)	Directions
1	Sitanathpur S.S High School	0.02	NNW
2	Palaibani Primary School, Palaibani	0.02	NNW
3	Salgaria SSK Primary School	0.02	West
4	Shyamchandpur Primary School	0.09	SE
5	Ramraidihi SSK Primary School	0.16	NE
6	Asnasuli Primary School	0.2	NE
7	Banskapna Primary school	0.2	North
8	Apex Upper Primary School	0.23	SSW
9	Jambedia. High School	1.4	ENE
10	Baikunthapur Jr. High school	1.6	SW
11	Dhanyasole ICDS school	1.7	NNE
12	Kotalkuli Upper Primary school	1.9	NNE
13	Chandankath Primary School	2.3	SE
14	Deulkund Primay School	2.4	SW
15	Pathar Chati Primary School	2.5	SSE
16	Bhursa Primary School	2.8	SW
17	Analysis & Research Training Institute. (ARTI)	2.8	NE
18	Kendriya Vidyalaya BRBNMPL Salboni	3	NE
19	Saiyedpur primary school	3.2	ENE
20	Narasinghapur Primary School	4.7	SSE

B. Hospitals
Project site: None
Study area:

S. No	Hospitals	Distance (in Km)	Directions
1	Sub-health Centre, Sitanathpur	0.2	East
2	Health Centre, Dubrajpur	1.5	NE

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>3</td><td>Health Centre, Kashijora</td><td>2.6</td><td>South</td></tr>
<tr><td>4</td><td>Health Sub-Centre, Hatmari</td><td>2.7</td><td>East</td></tr>
<tr><td>5</td><td>Godapiasal Govt. Hospital</td><td>5.3</td><td>SE</td></tr>
<tr><td>6</td><td>Primary Health Centre</td><td>6.8</td><td>NE</td></tr>
</table>
Protection Measures for nearby school & habitations include:
• Minimum 50 m wide greenbelt buffer all along plant periphery
• Layout planning ensuring a distance of 1.0 km between school & main plant & stack.
• Layout planning ensuring a distance of >1.5 km between school & ash pond.
• Advanced Air Pollution Control Systems including High efficiency ESP, Low NOx burners, OFA/SOFA, Stack of 275 m height.
</td><td></td></tr>
<tr><td>6.</td><td>Latitude and Longitude of all corners of the project site.</td><td>
A. Project Site
<table>
<tr><th>S. No.</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1</td><td>22°35'34.87"N</td><td>87°15'28.27"E</td></tr>
<tr><td>2</td><td>22°35'21.58"N</td><td>87°16'26.87"E</td></tr>
<tr><td>3</td><td>22°34'31.26"N</td><td>87°16'8.67"E</td></tr>
<tr><td>4</td><td>22°34'56.13"N</td><td>87°16'49.48"E</td></tr>
<tr><td>5</td><td>22°34'56.98"N</td><td>87°17'43.74"E</td></tr>
<tr><td>6</td><td>22°34'54.69"N</td><td>87°17'49.86"E</td></tr>
<tr><td>7</td><td>22°34'49.21"N</td><td>87°17'47.01"E</td></tr>
<tr><td>8</td><td>22°34'45.73"N</td><td>87°17'49.25"E</td></tr>
<tr><td>9</td><td>22°34'44.99"N</td><td>87°17'47.97"E</td></tr>
<tr><td>10</td><td>22°34'29.71"N</td><td>87°18'1.76"E</td></tr>
<tr><td>11</td><td>22°34'31.74"N</td><td>87°18'13.19"E</td></tr>
<tr><td>12</td><td>22°34'26.07"N</td><td>87°18'13.21"E</td></tr>
<tr><td>13</td><td>22°34'26.11"N</td><td>87°18'15.71"E</td></tr>
<tr><td>14</td><td>22°34'24.79"N</td><td>87°18'15.71"E</td></tr>
<tr><td>15</td><td>22°34'24.80"N</td><td>87°18'29.40"E</td></tr>
<tr><td>16</td><td>22°34'26.04"N</td><td>87°18'29.41"E</td></tr>
<tr><td>17</td><td>22°34'26.29"N</td><td>87°19'11.54"E</td></tr>
<tr><td>18</td><td>22°34'20.76"N</td><td>87°19'11.57"E</td></tr>
<tr><td>19</td><td>22°34'20.39"N</td><td>87°16'27.14"E</td></tr>
<tr><td>20</td><td>22°33'29.93"N</td><td>87°16'27.40"E</td></tr>
<tr><td>21</td><td>22°33'44.94"N</td><td>87°15'52.12"E</td></tr>
<tr><td>22</td><td>22°34'13.92"N</td><td>87°15'38.58"E</td></tr>
<tr><td>23</td><td>22°34'32.29"N</td><td>87°15'17.95"E</td></tr>
<tr><td>24</td><td>22°34'59.35"N</td><td>87°15'29.78"E</td></tr>
<tr><td>25</td><td>22°35'3.46"N</td><td>87°15'10.46"E</td></tr>
</table>
B. Ash Pond
<table>
<tr><th>S. No.</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1</td><td>22°34'23.01"N</td><td>87°15'37.63"E</td></tr>
<tr><td>2</td><td>22°34'23.24"N</td><td>87°15'59.52"E</td></tr>
<tr><td>3</td><td>22°34'17.74"N</td><td>87°16'5.06"E</td></tr>
<tr><td>4</td><td>22°34'17.82"N</td><td>87°16'25.93"E</td></tr>
<tr><td>5</td><td>22°33'46.33"N</td><td>87°16'25.90"E</td></tr>
<tr><td>6</td><td>22°33'45.40"N</td><td>87°15'56.83"E</td></tr>
</table>
</td><td></td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>7</td><td>22°34'2.67"N</td><td>87°16'18.29"E</td></tr>
<tr><td>8</td><td>22°34'15.23"N</td><td>87°15'41.32"E</td></tr>
</table>
</td><td></td></tr>
<tr><td>7.</td><td>Elevation of the project site</td><td>Minimum site elevation is 68 m AMSL
Maximum site elevation is 100 m AMSL
Average site elevation is 87 m AMSL</td><td></td></tr>
<tr><td>8.</td><td>Involvement of Forest land if any.</td><td>Project Site does not involve any forest land.</td><td></td></tr>
<tr><td>9.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td><u>Project site</u>: None.
<u>Study area</u>:
<table>
<tr><th>Water body</th><th>Aerial Distance (Km)</th><th>Direction</th></tr>
<tr><td>Pond in Salgeria*</td><td>0.35</td><td>West</td></tr>
<tr><td>Sundra Nadi</td><td>0.65</td><td>N</td></tr>
<tr><td>Pond in Kusumdanga*</td><td>1.30</td><td>SSW</td></tr>
<tr><td>Pond in Shyamchandpur*</td><td>2.0</td><td>ESE</td></tr>
<tr><td>Parang Nadi</td><td>2.30</td><td>SW</td></tr>
<tr><td>Goaltor Canal</td><td>3.0</td><td>NW</td></tr>
<tr><td>Tamal Nadi</td><td>5.10</td><td>ENE</td></tr>
</table>
Source-SOI Toposheet and *Google Earth Imagery
Mitigation measures:
Water Quality Monitoring/conservation:
•Min. 50 m greenbelt along plant periphery.
•No mixing of industrial effluent with storm water in the plant premises.
•TPP will operate on ZLD principle.
•Ash pond is proposed at a distance of >2.0 km from the Sundra Nadi as per the Plant layout planning.</td><td>No HFL Data of Sundra or Parang Nadi is being maintained as per letter no. 2057/WBIW/WMD dated 29.10.2025 of Executive Engineer, West Medinipore Division, Irrigation & Water ways Department.</td></tr>
<tr><td>10.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area</td><td><u>Study area</u>
Name of the ESZ/ESA: Nil
Status of Notification: NA
Distance of project from ESZ/ESA: NA
Authenticated map of ESZ projecting distance of ESZ from project site: NA
Status of NBWL approval: Not applicable
List of Reserved and protected forests:
<table>
<tr><th colspan="4">Reserve/ Protected Forests</th></tr>
<tr><th>S. No.</th><th>Name</th><th>Aerial Distance (Km)</th><th>Direction</th></tr>
<tr><td>1</td><td>Forest</td><td>Adjacent</td><td>SW</td></tr>
<tr><td>2</td><td>PF</td><td>0.05</td><td>W</td></tr>
<tr><td>3</td><td>P.F N/v Sluire</td><td>0.80</td><td>S</td></tr>
<tr><td>4</td><td>P.F N/v Gokulpur</td><td>1.80</td><td>NNE</td></tr>
<tr><td>5</td><td>P.F N/v Dakshinsol</td><td>2.70</td><td>NE</td></tr>
<tr><td>6</td><td>P.F N/v Dubiabandi</td><td>3.30</td><td>ENE</td></tr>
<tr><td>7</td><td>P.F N/v Banamalipur</td><td>3.30</td><td>NNW</td></tr>
<tr><td>8</td><td>P.F N/v Dhanyasol</td><td>3.40</td><td>NE</td></tr>
<tr><td>9</td><td>Salboni P.F.</td><td>4.40</td><td>WSW</td></tr>
<tr><td>10</td><td>P.F N/v Betkundri</td><td>5.84</td><td>SSE</td></tr>
</table>
</td><td></td></tr>
</table>

S. No.	Particulars	Details				Remarks
		11	P.F N/v Mirga	6.20	N	
		12	P.F N/v Tasarara	6.66	SSW	
		13	Lalgarh P.F	7.0	WNW	
		14	P.F N/v Kankasol	7.40	WSW	
		15	P.F N/v Banshiayersol	7.85	NNW	
		16	P.F N/v Bagla	8.25	SE	
		17	P.F N/v Bandhgora	10.00	NW	
		18	P.F N/v Nayagram	10.00	SSW	
		Source: SOI Top map & DSS on Parivesh *As per letter issued by DFO, Medinipur Division dated 19.01.2026 "No National Park, Wild life Sanctuary, Elephant/Tiger Reserve exists within 10 km of the Proposed TPP. However, elephant migrating movement routes are present within 10 km of the Proposed site". The report has been examined and concurred by Chief Conservator of Forests, Western Circle, West Bengal vide letter no. No. 2709 / 2W-1, Kharagpur, dated 29.01.2026.*				
11.	Archaeological sites monuments/ historical temples etc.	There are no Archaeological site present within study area.				
12.	Involvement of Critically Polluted Area/Severely Polluted area as per 2018 CEPI score	**Involvement of CPA/SPA:** - Nil **Proximity to CPA/SPA:** - Nil				There is no CPA/SPA declared by CPCB within 10 km of the project site.

9. The details of the fuel (coal/ LDO) requirement for the proposed project/ expansion cum proposed project along with its source and mode of transportation is given as below:

Details	Fuel requirement (MTPA)	Source	Distance from site (Kms)	Mode of Transport-ation	Coal characteristics (Worst case scenario)	Linkage document
Proposed TPP	Fuel : Coal 8.85 (85% PLF)	IB Valley & Talcher coal fields of MCL under WB RFQ, B(IV) of SHAKTI	350-400	Rail Wagons	Ash <44 % Sulphur <0.50 % Moisture-16.5 % GCV - 2900 Kcal/Kg	Agreement under Shakti policy
	LDO	Nearby Refinery/ oil Depot	100	Road	Sulphur <0.01 %	--

10. **Water Requirements**: The water requirement for the proposed project is estimated as 1,00,000 m3/day (36.50 MCM/ Annum), to be met from Rupnarayan River near Ghatal, which is around 60 km away from plant location through dedicated pipeline. Consent Letter was issued by Irrigation and Waterways Department; Govt. of West Bengal vide its letter dated 16.12.2025 for water withdrawal. The water will be transported to the plant site through the dedicated pipeline. The specific water consumption for the proposed power plant will be <3 m3/MWhr.

11. **Power Requirement**: The power requirement for the proposed project is estimated as 88 MW, and will be obtained from the self -generation.

12. **Baseline Environmental Studies**

Period	March 2025 to May 2025	Additional study (if any)
AAQ parameters at 11 Locations (min and max)	PM_{10}: 53.59 µg/m^3 – 77.92 µg/m^3 $PM_{2.5}$: 26.18 µg/m^3 – 44.14 µg/m^3 SO_2: 5.61 µg/m^3 – 10.66 µg/m^3	

<table>
<tr><th>Period</th><th>March 2025 to May 2025</th><th>Additional study (if any)</th></tr>
<tr><td></td><td>NOx: 9.32 µg/m^3 – 19.70 µg/m^3
CO: 0.21 mg/m^3 – 0.92 mg/m^3
The values of Pb, Ni, Hg, O_3, As, C_6H_6, BaP were found to be Below detection limit.</td><td></td></tr>
<tr><td>Incremental GLC level</td><td>PM_{10} = Max. GLC: 0.418 µg/m^3 (Level at 3 km in N Direction)
$PM_{2.5}$= Max. GLC: 0.11 µg/m^3(Level at 3 km in N Direction)
SO_2 = Max GLC: 5.30 µg/m^3 (Level at 3 km in N Direction)
NOx = Max GLC: 2.87 µg/m^3(Level at 3 km in N Direction)</td><td></td></tr>
<tr><td>Ground water quality at 15 locations</td><td>pH: 6.58 to 7.84, total Hardness: 120 mg/L – 162.4 mg/lit, Chloride: 20.49 mg/L – 39.35 mg/L, Fluoride: 0.1 mg/L – 0.18 mg/L, Heavy metals: BDL</td><td></td></tr>
<tr><td>Surface water quality at 07 locations</td><td>pH 6.68 to 7.84, Dissolved Oxygen: 5.5 to 6.2 mg/lit; BOD: 2.2 mg/L – 5.4 mg/L, COD: 12 mg/L – 18 mg/L.</td><td></td></tr>
<tr><td>Effluent generation details and its treatment</td><td>Effluent generation from TPP: 9120 KLD
Mode of treatment & reuse: Effluent generated from DM Plant, coal pile is run off, CT Blow down, and TG hall floor wash will be collected / channelized to proposed ETP of capacity 10000 KLD treated water will be used for cooling water makeup and ash quenching.
Domestic wastewater generation: 90 KLD
Mode of treatment & reuse: Domestic sewage will be treated in proposed STP of capacity 100 KLD & treated water will be used for green belt development.</td><td></td></tr>
<tr><td>Noise levels Leq (Day and Night) at 11 locations</td><td>Industrial Area (Near JSW cement plant): Day Leq: 53.1 dB(A), Night Leq: 44.6 dB(A)
Residential Areas (All remaining 10 locations): 49.1–52.2 dB(A) for daytime, 39.2 – 43.7 dB(A) for nighttime.</td><td></td></tr>
<tr><td>Traffic assessment study findings</td><td>• Traffic study has been conducted at National Highway-60 (NH-60/ 14) which is approximately 1.10 km from plant site.
• Transportation of raw material (coal) will be done 100% by rail.
• The existing PCU is 74 PCU/hr on NH-60/ 14 and existing level of service (LOS) is A.
<table>
<tr><th>Road</th><th>Volume (in PCU/hr)</th><th>Capacity (in PCU/hr)</th><th>Existing V/C Ratio</th><th>LOS</th><th>Performance</th></tr>
<tr><td>NH-60/ 14</td><td>74</td><td>625</td><td>0.1185</td><td>A</td><td>Excellent</td></tr>
</table>
• PCU load after proposed project will be 74 (Existing) + 16.34 (Additional) PCU/hr and level of service (LOS) will be:
<table>
<tr><th rowspan="2">Road</th><th rowspan="2">Existing LOS</th><th colspan="4">Changed V/C and LOS after adding generated traffic from operational phase of proposed project</th></tr>
<tr><th>Capacity (in PCU/hr)</th><th>Existing V/C Ratio</th><th>Propo-sed V/C Ratio</th><th>Modifi-ed LOS</th></tr>
<tr><td>NH-60/ 14</td><td>A ‘Excellen’</td><td>74 + 33 = 107</td><td>0.1185</td><td>0.17</td><td>A ‘Excellent’</td></tr>
</table>
• Conclusion: The level of service will be unaltered remains A after additional traffic due to the proposed project.</td><td></td></tr>
<tr><td>Soil Quality at 11 Locations</td><td>pH range 6.45 to 7.42; Electrical conductivity (EC); 590 to 806 µS/cm; calcium content : 511.7 to 622.2 mg/kg; Sodium: 30.6-36.2 mg/kg potassium: 114 to 152 mg/kg; Nitrogen: 0.159-0.191mg/kg, Phosphorous: 16.3 to 30.3 mg/kg; Cation Exchange Capacity(CEC): 1.26- 1.4 meq/100gm Magnesium: 1.26 to 1.54 mg/kg; Organic Matter: 0.69% to 1.36%</td><td></td></tr>
</table>

<table>
<tr><td>Period</td><td colspan="3">March 2025 to May 2025</td><td>Additional study (if any)</td></tr>
<tr><td>Flora and fauna</td><td colspan="3">17 Schedule I Species as per WLPA, 2022 have been observed in the study area. List of flora and fauna has been authenticated by DFO, Medinipur division vide letter dated 21.11.2025. Wild life conservation Plan for Schedule I species with a budgetary allocation of 1 Cr. has been prepared & submitted to DFO, Medinipur division dated 06.02.2026.</td><td></td></tr>
<tr><td>Hydrogeology study</td><td colspan="3">The action plan to address the recommendation of the Hydrogeology report and Watershed management plan are as below:
<table>
<tr><th>S. No.</th><th>Recommendations</th><th>Action Plan</th></tr>
<tr><td>1.</td><td>ZLD system</td><td>The following measures proposed in the design stage:
•Cooling tower blow down water treated & recycled.
• Installation of ash handling & ash water recirculation system & waste water treatment system</td></tr>
<tr><td>2.</td><td>Installation of Monitoring wells/ Piezometer</td><td>04 Piezometer wells within the plant boundary</td></tr>
<tr><td>3.</td><td>Regular Ground water Monitoring</td><td>04 locations in nearby sensitive receptor like schools and hospitals.</td></tr>
<tr><td>4.</td><td>Ash dyke Lining and Regular Monitoring around it</td><td>•Annual audit and Bi-annual maintenance check for stability.
•04 Piezometer wells outside the plant boundary around ash dyke.</td></tr>
<tr><td>5.</td><td>Rain Water Harvesting</td><td>01 RWH pond with recharge pits within site</td></tr>
<tr><td>6.</td><td>Water treatment facility</td><td>R.O Plant facility in nearby sensitive receptor viz.
1. S.S High School, Sitanathpur
2. Primary School, Palaibani
3. High School, Jambediajr
4. Health Centre, Kashijora</td></tr>
</table></td><td>Indian Institute of Technology, Kharagpur.</td></tr>
<tr><td>Impact study on biodiversity and aquatic ecology</td><td colspan="3">Recommendations of study report:
<table>
<tr><th>S. No.</th><th>Particular</th><th>Measures to be adopted</th><th>Budget</th></tr>
<tr><td>1</td><td>Adequate Spatial Buffer and Layout Planning</td><td>• Spatial planning: Distance between BTG & stack and forest is approximately 1 km.
• Plant infrastructure has been spatially optimized to minimize ecological disturbance and edge effects through provision of green buffer.</td><td>included in project cost</td></tr>
<tr><td>2</td><td>Development of Dense Multi-Tier Greenbelt</td><td>Three-tier greenbelt using native species will be developed along forest-facing boundary and project periphery.
• Layered structure: shrubs (1–3 m), medium trees (3–10 m), tall trees (8–15 m).
• Native species to maintain ecological compatibility with surrounding forest.</td><td>30.0 Crore</td></tr>
<tr><td>3</td><td>Advanced Air Pollution Control Systems &</td><td>• High efficiency Electrostatic Precipitators (ESP) with efficiency >99.9%.
• Low NOx burners with OFA/ SOFA system.</td><td>Budget for air pollution control</td></tr>
</table></td><td>Maharaja Ganga Singh University</td></tr>
</table>

Period	March 2025 to May 2025				Additional study (if any)
		Fugitive Dust Control Measures	• 275 m stack height for effective dispersion • Covered conveyor systems for coal transport • Dry fog dust suppression at transfer points. • Automatic sprinkling at coal stockyard. • Closed pneumatic fly ash handling system. • Paved internal roads with regular cleaning.	measures: 932 Crore	
	4	Noise Pollution Control	• Acoustic enclosures for turbines, compressors and high-noise equipment. • Three-tier greenbelt along forest boundary	Greenbelt: 30 Crore	
	5	Light Pollution Control Measures	• Shielded low-intensity amber lighting. • Directional lighting fixtures. • Downward facing lights. • Avoidance of high-intensity floodlights toward forest area.	included in project cost	
	6	Wildlife Protection and Habitat Conservation Measures	• Compliance with DFO Medinipur Division recommendations (Letter No. 188-8F-33 dated 19.01.2026). • Wildlife conservation plan prepared for Schedule-I species. • Restriction of workforce movement near forest during night. • Boundary fencing installation. • Worker awareness programs on wildlife protection. • Speed limits within plant roads. • Silence zone and no-honking signage near forest area.	WLCP Budget: 1.0 Crore	
	7	Continuous Environmental Monitoring	• Ambient air quality monitoring near forest boundary. • Soil quality monitoring near forest boundary. • Groundwater monitoring. • Monitoring reports submitted to CPCB / SPCB / MoEF&CC.	Monitoring budget: 5.0 Crore	
	8	Fire Prevention & Forest Safety Measures	• Fire hydrant system across plant boundary. • Dedicated fire-fighting infrastructure. • Strict no open burning policy. • Emergency response plan coordinated with Forest Department.	included in project cost	
Risk assessment study	• The individual risk level of 1E-04 per year due to flammable and toxic scenarios is confined within a 60 m radius of the facility, while the 1E-07 per year risk contour lies within 720 m. • Worst-case scenarios considered include catastrophic rupture of ammonia/chlorine vessels, LDO tank rupture, and explosion of hydrogen cylinders. • The F-N curve indicates societal risk within the ALARP (As Low As Reasonably Practicable) region for the plant population. • Safety measures include toxic and flammable gas detectors (Ammonia, Chlorine, Hydrogen), alarm and interlock systems, PPE including breathing apparatus, fire protection systems (fire extinguishers, water curtain, fire hydrants), and proper ventilation in enclosed areas such as the H_2 generation plant to prevent vapour cloud formation. • With these safeguards, the risk is maintained within acceptable limits of UK HSE risk criteria. • Coal stockpile management: FIFO operation, limited storage time, proper compaction and drainage to prevent spontaneous heating.			HSE-6

Period	March 2025 to May 2025	Additional study (if any)
	• Hotspot monitoring: Thermal cameras/IR scanners and temperature probes. • Fire safety: Fire hydrants/monitors, firefighting access, and dozers for pile isolation. • Dust control: Water mist/fog cannons, sprinkling, enclosures and dust extraction at crushers and transfer points, along with proper housekeeping. • Railway unloading safety: Hot bearing monitoring, unloading SOPs, spark control, timely spillage removal, and fire hydrants with emergency shutdown at wagon tippler/track hopper.	

13. **Solid and hazardous waste Management**: The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S. No.	Type of Waste	Source	Quantity generated (TPA)	Mode of Treatment	Disposal
1	Municipal Solid Waste	Plant Canteen	365	Collected; segregated using color coded waste bin, Organic waste converters (OWC)	Inorganic will be disposed via local municipal authorized vendor & Organic/Biodegradable waste by OWC.
2	E-waste	IT & Telecom Equipment	~2.0 TPA	Collected; segregated	CPCB/SPCB Authorized Recycler
3	Battery waste from UPS	Automotive & Industrial	~3 TPA	Collected; segregated	CPCB/SPCB Authorized Recycler
4	Bio medical waste	First aid center	0.05 TPA	Collected; segregated	Authorized CBWTF&/or hospital having BMW disposal agreement with CBWTF
5	Ash	Plant Operation	Fly ash-3.02 MTPA & Bottom ash- 0.755 MTPA		Cement plants, brick/block manufacturing industries, Mine Voids, Highway Construction, Export.
6.	Hazardous waste				
a.	Used / Spent Oil (Cat.5.1)	Plant Operation	70 TPA	Collected; segregated	CPCB/SPCB Authorized Recycler
b.	Waste or residues Containing oil (Cat.5.2)	Plant Operation	10 TPA	Collected; segregated	CPCB/SPCB Authorized Recycler
s.	Empty Barrels/ containers/liners Contaminated with Hazardous chemicals/ wastes (Cat.33.1)	Plant Operation	10 TPA	Collected; segregated	CPCB/SPCB Authorized Recycler
d.	Spent oil Exchange resins containing toxic metals (Cat. 35.2)	Plant Operation	10 TPA	Collected; segregated	Captive incineration in boiler as per SOP issued by CPCB
7.	STP Sludge	Domestic	3.65 TPA	Collected	Used as manure in greenbelt development

14. **Public Consultation**:

Details of advertisement given	1. Millenium Post (English) dated 21.08.2025 2. Aajkaal (Bengali) dated 21.08.2025 3. Sanmarg (Hindi) dated 21.08.2025
Date of public consultation	Date: 25.09.2025
Venue	JSW Cement, Ankur complex, Village Jambedia, P.O Saiyedpur, Salboni, District- Paschim

	Meinipur (West Bengal)
Presiding Officer	
Major issues raised	Employment to local people, community rural infrastructure development, education, community health & infrastructure development. Concerns related to environmental protection, pollution control and water management were also noted, with the public expressing expectations that modern technology and safeguards would be adopted.
No. of people attended	228

Action plan as per MoEF&CC O.M. dated 30/09/2020

S. No	Key Area Identified under Socio-EMP (CER) based on needs highlighted during Public Hearing	Time bound (Year wise) expenditure (in Crores)					Budget (in Cr)
A	**Skill development – Economic empowerment of youths**	**1st**	**2nd**	**3rd**	**4th**	**5th**	
	§ 200 micro enterprise promotion (As income generation initiative, women led poor households will be identified and based on their interest soft skill for enterprise as well as micro seed capital money will be provided to the selected entrepreneur. For the screening and developing capacity building, required handholding support will be provided by expert agency like Bandhan Konnagar or other relevant agencies. § Supporting Govt. ITI (Salboni (Govt) & Jhargram ITI Govt)- One class room in each ITI with size of 20 feet x 25 Feet. § Setting up one Skill Development Centre (Nitaipur village) – skill Development center adjacent to plant for promotion of different skill initiatives relevant for local youth including SHG women. One building with two rooms of 20 feet x 25 feet, one meeting hall 35 feet x 25 feet with one reception room along with drinking water and toilet facilities. Cycle/ byke stand will also be there to accommodate candidates from far off places. § Setting up soil testing lab (Nitaipur village) – 750- 1000 square feet infrastructure development with sample receiving and processing room, analytical laboratory, store room for chemical, glass ware and reagents, one record section for simple tracking and report generation. § **Capacity building of farmers for adoption of sustainable agriculture practices with judicious utilization of fertilizer and pesticides.**	0	0.78	0.98	0.72	0.64	3.12
B	**Health Care**						
	§ Mega health camp (4 units)- Kashijora /Sundra, Banskopna , Midnapur, Salboni § Equipment support to Govt hospital (Salboni Govt Hospital, Midnapur Dist Hopital, Chandrakona Hospital Keshpur Hospital , local PHCs of Bankibath and Kashijora panchyat)- Support of separate screening place at PHC , X-ray machine/ other required machinery at Govt Hospitals § Hearing screening – Hearing screening for	0.02	1.25	1.40	1.30	1.26	5.23

S. No	Key Area Identified under Socio-EMP (CER) based on needs highlighted during Public Hearing	Time bound (Year wise) expenditure (in Crores)					Budget (in Cr)
A	**Skill development – Economic empowerment of youths**	**1st**	**2nd**	**3rd**	**4th**	**5th**	
	working population and required input support to improve the hearing capacity to check income loss, generating positive financial impact on the family § Health status screening – screening of villagers health status on basic parameters to boost up preventive health care of the community.						
C	**Environment**						
	§ Afforestation (Village- Gaighata,Karamsol , Ghagrasol, Masru, Nitaipur, Banshkopna, Khairisol, Radhagobindapur, Barju, Bandghutu, Arabari, Ramraydi, Sitanathpur, Jamdedya, Ashna Shuli,Kulpheni) § Ecologicalpark development (to be finalised in consultation of district authority) § Initiative to reduce man-elephant conflict (Godapiyasal forest - Chandanakath and nearby villages) – Introduction of AI , sensory monitoring device, mobile application etc. § Toilet construction with water supply arrangement -(Banskopna, Bandghutu, Masru, Nitaipur)	0	0.90	0.90	0.80	0.28	2.88
D	**Education**						
	§ Construction of school hostel building School : Construction of two hostel with (30 X 25) feet with bed facility of 35–40 students (Sitanathpur Higher secondary school) § Classroom renovation (Kharisol, Jamdedya, Hatimari, Andandapur, Midnapur ,Nadaria village schools) § School benches support (Kharisol,,Jamdedya, Hatimari, Andandapur, Midnapur, Nadaria-Salboni village schools) § School ground development (Asnasuli, Sitanahtpur, Jambedia / Banskopna village schools) § School toilet blocks (Ghagrasol village schools, Kulpheni,Polaiboni, sarasbadia) § Library support (Chandrokona/Anandapur village schools) § Competitive exam coaching/ Regular coaching support: Interested children from all DIZ villages will be encouraged to join. § Teacher support – in one school for tribal children.	0	0.70	0.80	0.80	0.53	2.83
E	**Water**						
	§ Drinking water arrangement in 26 villages (Gaighata,Karamsol , Ghagrasol, Masru, Nitaipur, Banshkopna, Khairisol, Radhagobindapur, Barju,Arabari,Ramraydi, Sitanathpur, Jamdedya, Ashna Shuli,Kulpheni 15 Buffer zone 1 Palaibani ,	0	0.89	1.00	0.97	0.71	3.57

S. No	Key Area Identified under Socio-EMP (CER) based on needs highlighted during Public Hearing	Time bound (Year wise) expenditure (in Crores)					Budget (in Cr)
A	**Skill development – Economic empowerment of youths**	**1st**	**2nd**	**3rd**	**4th**	**5th**	
	Bagbasa, Sarasbedya , Baragada, Nutandihi , Srikrishnapur, Balibasa, Shyamchandpur, Chandan Kath , Kashijora , Pathrajuri , Godapiasol , Sundra,Chensol,Benachapra village) § Pond de-siltation (3 units in Masru, chandankath, pathrajuri) § Installation/repair of hand pumps/tube wells – In 16 DIZ villages § Rainwater harvesting system (2 units in Midnapur& chandrakona) – Capturing rainwater from roof top of 1500 square feet each and facilitating ground water recharge.						
F	**Infrastructure**	**1st**	**2nd**	**3rd**	**4th**	**5th**	
	§ Drainage construction (2 units: Lalband, Balibasa Village) § Road network construction (Balibasa, Barju, Bandhgutu,Kharisol, chandankath , Masru, Paloiboni, sitanatpur, Banskopna Village) § Culverts (2 units over sundra and parang river) § Community hall : 30 feet x 20 feet (1 unit : Sitanathpur/ Midnapur) § Bathing ghat/river embankment (2 units : Masru, Chandankath- Pathrajuri Village) § Burning ghat/crematorium (2 units: Asansuli , Barju)	0.20	2.50	2.50	2.60	2.30	10.10
G	**Renewable Energy**						
	§ Solar street lights (600 units :Gaighata,Karamsol , Ghagrasol, Masru, Nitaipur, Banshkopna, Khairisol, Radhagobindapur, Barju,Arabari,Ramraydi, Sitanathpur, Jamdedya, Ashna Shuli,Kulpheni 15 Buffer zone 1 Palaibani , Bagbasa, Sarasbedya , Baragada, Nutandihi , Srikrishnapur, Balibasa, Shyamchandpur, Chandan Kath ,Kashijora, Pathrajuri, Godapiasol , Sundra,Chensol,Benachapra village) § **Solar irrigation (10 units : Asanasuli, jambedia, sundra, gaighata, bankkopna, sitnatpur, paloiboni/ masru, khairisol, salgaria Village)** § Solar power drinking water system (20 units:Asanasuli, jambedia, sundra, gaighata, bankkopna, sitnatpur, paloiboni/ masru, khairisol, salgaria, Bandghutu, Barju,Joynarayanpur, deulkunda, chandankath, Pathrajuri, godapiyasal, Natundihi, Lalbandh, Balibasa, Benchapra village)	0.00	0.50	0.60	0.58	0.42	2.1
H	**Sports & Culture**	**1st**	**2nd**	**3rd**	**4th**	**5th**	
	§ Sports equipment support (Equipment's like football , cricket , volley ball to rural youths to local CBS of 16 DIZ villages, 15 non DIZ villages covering Salboni and Medinipur CBS with the	0.07	0.45	0.45	0.45	0.30	1.72

S. No	Key Area Identified under Socio-EMP (CER) based on needs highlighted during Public Hearing	Time bound (Year wise) expenditure (in Crores)					Budget (in Cr)
A	**Skill development – Economic empowerment of youths**	**1st**	**2nd**	**3rd**	**4th**	**5th**	
	objective of meaningful physical and metal health of local youths. § Sports ground development (4 units: Banskopna, Paloiboni, Other two with discussion with DM and local Panchayati Raj Institution members) § Sports tournament support (8 units : Bankopna, Sudra, Salboni Village) § Tribal art & culture events (Bandghutu, Balibasa- Lalbandh, Baragada, Godapiyasal village) § Sports coaching support (Salboni, Bankopna Village) – Focusing football						
I	**Community Development Programme**						
	§ Awareness Programme – Generation of awareness on social evils like, liquor consumptions, early marriage of girls, school dropout etc. § Market development (Farmroad, Dakhisol, Baragada, Kamla, Deulkunda Village) § Waste management initiative-(Balibasa, Lalbandh, sitantpu Village) development bio composter . § Relief material support (To Midnapur district officials) – During emergency like flood, cyclone or other natural calamity support of required relief materials. § Model village development (Bankopna, Khairsol, Barju, Chandankath village)- support in drainage, school infra, road, lighting etc to improve development parameters to become a model village in long run) § Bus stand shed (Midnapur, Bhadutala, chandrokona, Khirpai village)	0.06	0.88	0.90	0.85	0.76	3.45
	Sub Total	**35 Cr**					

15. **Cost of the Project***: The capital cost of the proposed project is Rs. 14070 Crores and the capital cost for environmental protection measures with Addressal of Public Hearing Issues is proposed as Rs. 2547.5 Cr*. The annual recurring cost towards the environmental protection measures with Addressal of Public Hearing Issues is proposed as Rs 251.55 Cr. The employment generation from the proposed project is 4124 nos. during construction phase, 2460 during operation phase. The details of cost for environmental protection measures as follows:

S. No.	Item Description	Capital Cost (Rs. in Cr)	Recurring cost per annum (Rs. in Cr)
1	High efficiency of Electrostatic Precipitator (ESP) to meet PM <30 mg/Nm^3 (2 nos.)	932.00	93.2
2	Twin flue Stack of 275 m height	93.00	9.3
3	Cooling Tower (2 nos.)	320.00	32
4	Ash Handling including ash water recirculation	297.00	29.7
5	Ash disposal civil work	223.00	22.3

S. No.	Item Description	Capital Cost (Rs. in Cr)	Recurring cost per annum (Rs. in Cr)
6	Dust extraction & suppression system	19.00	1.9
7	DM Plant & Waste water Treatment System	10.00	1
8	Sewerage collection, treatment & disposal (1 nos.)	10.00	1
9	Green Belt, afforestation & landscaping (33%)	30.00	3
10	Low NOx Burner with SOFA/ OFA	440.00	44
11	Rainwater harvesting measures	5.00	0.5
12	Solar Power Plant (4 MW)	12.00	0.5
13	Environmental Laboratory & Environmental Monitoring	4.00	1.1
14	Hazardous waste storage facility	2.50	0.25
15	CEMS (2 nos.), CAAQMS (4 nos.), EQMS (1 nos.) monitoring system & Main gate display board	5.00	0.5
16	Dry Fog System & RCC Flooring in Coal Storage Area.	110.0	11
	Total	**2512.50**	**251.25**
1	Addressal of Public Hearing Issues	35	0.30

* Note – *At the time of grant of ToR on 26/07/2025, the capital cost for environmental protection measures is proposed as Rs 4112.5 Crores and the annual recurring cost towards the environmental protection measures is proposed as Rs. 411.0 Crores by duly considering the installation of FGD for SO2 emission control. However, in the final EIA/EMP report the cost towards FGD has not been included as the proponent is providing bi-flue stack of 275 meters height in compliance of notification number GSR 742 (E) dated 30/08/1990*.

16. **Greenbelt development Plan**: The proposed Green belt will be developed in 239.05 ha area which is about 33 % of the total project area. Thus, total of 239.05 ha (33 %)of total project area of 724.38 Ha will be developed as greenbelt. A 30m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 597625 saplings will be planted and nurtured in 239.05 hectares in 5 years.

17. **Ash management**

Details	Annual generation (MTPA)	Utilization (MTPA)	% of utilization	Balance quantity (MTPA)	No. of storage silos with capacity
Fly Ash	3.02	3.02	100	0	3 silos (3400 tonnes capacity)
Bottom Ash	0.775	0.775	100	0	--

Ash Pond details:

S. No.	Details of Ash pond	Ash pond
1.	Area (Ha)	70.14
2.	Dyke height (m)	20.0
3.	Volume (m^3)	44,57,061
4.	Quantity of ash to be disposed (Metric Tons)	0.775 MTPA
5.	Expected life of ash pond (number of years and months)	7.08 Years
6.	Type lining carried in ash pond: HDPE lining of LDPE lining or clay lining or No lining	HDPE with PCC
7.	Mode of disposal: Dry disposal or wet slurry (in case of wet slurry please specify whether HCSD or MCSD or LCSD).	1.5 mm
8.	Ratio of ash: water in slurry mix (1:___):	Wet slurry (HCSD for Fly ash and LCSD for Bottom Ash)

9.	Ash water recycling system (AWRS): Yes or No	Yes, 1: 2.33
10.	Quantity of wastewater from ash pond to be discharged into land or water body (m^3)	Yes
11.	Details regarding dyke stability study and name of the organization who conducted the study:	Design study for ash pond has been done by TATA Consulting Engineers Limited

Ash utilization plan

S.No.	Activity	Quantity	Percentage
1.	Fly ash based products (bricks or blocks or tiles or fiber cement sheets or pipes or boards or panels)	0.035 MTPA	1 %
2.	Cement manufacturing	3.02 MTPA	80 %
3.	Construction of roads, road and fly over embankment	0.72 MTPA	19 %
	Total	**3.775 MTPA**	**100%**

18. **Summary of violation under EIA, 2006/court case/show cause/direction if any, related to the project under consideration**: Nil.

19. **Compliance to the observations of sub-committee site visit report dated 30.01.2026-31.01.2026**:

S. No.	Recommendation from Site Visit Report	Action to be taken by the PP	Budget Allocation (Rs. Crore)
1	The demarcated land for the proposed TPP should be clearly separated through the boundary wall from rest of the land of M/S JSW Bengal Steel Limited.	Boundary wall of the area of 724.38 Ha area	Rs. 8.0 Cr
2	PP should submit the suggested revised item wise breakup of land requirement before the EAC for consideration.	The area has been optimized along with ash dyke area and separate land requirement for future expansion has been earmarked.	-

Particular	Area (in Ha.)
Main Plant including Switch yard	44.80 (6.18%)
Coal Storage and Handling	88.86 (12.27%)
Greenbelt	239.05 (33%)
Water System	30.00 (4.14%)
Water Reservoir	61.10 (8.43%)
Misc	55.43 (7.65%)
Ash Disposal	70.14 (9.68%)
Area Earmarked for Future Expansion	135.0 (18.64%)
Total	**724.38(100%)**

3	PP should prepare a phase wise plan for the green belt development all along the boundary of project area, internal roads, residential colony and other gap area *with suitable plant species in consultation with the Agriculture / Horticulture /Forest Department*. **The greenbelt development along the plant boundary should be initiated right from the beginning of the project.**	The Green belt development plan has been prepared in phase wise manner for five years. The native species will be planted in consultation with local forest department. The JSWTE L has already started plantation activity along the plant boundary.	Rs. 30 Cr
4	Adequate environmental safety measures must be planned for the health and safety of the school children and villagers located close to the	Additional environmental safety measures will be adopted to minimize the impact of project on nearby schools and villages	-

S. No.	Recommendation from Site Visit Report	Action to be taken by the PP	Budget Allocation (Rs. Crore)
	plant site.	are given below:	

S. No.	Protection Aspect	Key Measures
i	Layout & Buffer Zone	No schools within project site; nearest Sitanathpur S.S. High School (~1.0 km) and Baikunthpur Jr. High School (~1.5 km from ash pond); 50 m wide greenbelt along plant boundary.
ii	Air Pollution Control	Installation of high-efficiency ESP (99.9%), SOFA/OFA for NOx control, and 275 m bi-flue chimney for effective dispersion ensuring emissions within NAAQS limits.
iii	Fugitive Dust Control	Covered coal conveyors, dust suppression at transfer points, water sprinkling at coal yard, wind barriers, covered ash transport, paved roads with regular cleaning.
iv	Greenbelt Development	Minimum 50 m wide greenbelt along plant boundary acting as barrier for dust, noise and pollutant dispersion.
v	Ash Pond Safety	Ash pond located >1.5 km from nearest school; HDPE lining, closed ash handling system, dyke stabilization with plantation, and groundwater monitoring.
vi	Water Pollution Prevention	Zero Liquid Discharge (ZLD) system; no effluent discharge outside plant; treated wastewater reused within plant.
vii	Noise Control	Acoustic enclosures, low-noise equipment, and greenbelt barrier to maintain noise within CPCB norms.
viii	Environmental Monitoring	Regular ambient air and noise monitoring at plant boundary and nearby habitation/sensitive receptors.
ix	Traffic & Road Safety	Dedicated entry/exit routes, speed restrictions, covered coal/ash vehicles, and road safety signage near schools and habitation.
x	Emergency Preparedness	On-site emergency plan, fire protection systems, emergency response training, and coordination with local authorities.

5	Both physical target/quantity and financial provision (capital and recurring) must be included in the CER and EMP related to the proposed project.	The same has been updated and incorporated in the Final EIA report.	EMP - 2512.5 Cr CER – 35.0 Cr

20. **Comments of State Pollution Control Board, West Bengal as per Ministry's OM dated 14.01.2025 and SOP dated 08.10.2025, obtained vide Memo no. 1062-2N-102/2025 (E) dated 04.09.2025:**
Comments of WBPCB:

• Since the Project need to obtain Environmental Clearance(EC) from MoEF&CC, no CTE is required to be obtained from the WBPCB as per the provisions of Gazette Notification issued by MoEF&CC vide no. GSR 702 and GSR 703 dated 12.01.2024.
• All the conditions that will be stipulated in the Environmental Clearance should be strictly complied with.
• Project Proponent is required to obtain all necessary permission/clearances from various Govt. Authorities as applicable for the project.
• Project Proponent is also required to obtain Consent to Operate(CTO) from the State Board as per the provisions of the sub-section(1) of Section 25 of the Water (Prevention &Control of Pollution) Act,1974 and sub-section (1) of Section 21 of the Air (Prevention &Control of Pollution) Act,1981 prior to start of production.

In addition to the above, proponent paid a fee of Rs. 55.0 Lakhs towards CTE Fees online through WBPCB Portal on 01.09.2025.

21. **Written submissions :**The proponent vide letter dated 19th March 2026 has submitted the following written submission as suggested by the EAC during the meeting.

S. No.	Particulars	Compliance
1.	Preventive Measures to be	The conservation measures proposed to be implemented are as

	Considered for Elephant Movement Areas	follows: • Restrict Night-Time Construction and use Noise-Dampening Technology: All high-decibel activities should be confined to daylight hours, and machinery must be fitted with silencers and acoustic enclosures. • Install Shielded, Low-Intensity, Amber-Spectrum Lighting: Lighting must be directed downward and away, from forest edges, using amber wavelengths that attract fewer insects and cause less disturbance to nocturnal animals. • Enforce a Night-Time Ban or Strict Speed Limit for Heavy Vehicles: Heavy trucks restricted during night hours, or speed limits should be capped at 20-30 km/h in wildlife-sensitive zones. • Maintain Village-Level Barriers like fencing. • Appropriate signage will be ensured to alert workers and commuters about elephant movement zones. • Early-warning systems, such as solar-powered alarms and watchtowers, will be installed to monitor elephant movement and minimize the risk of human-elephant conflict. • Strengthen Anti-Poaching Measures and Control Unauthorized Access: Patrolling, boundary monitoring, and community awareness initiatives will be undertaken to prevent opportunistic poaching that may arise due to increased human presence. • Establish Fire lines Along Forest Edges and Plant Boundaries: Wide fire lines-gaps of 10 to 20 meters cleared of flammable vegetation—will be established between the plant and nearby forest areas. These fire lines will act as physical barriers to prevent the spread of ground fires into or out of forest patches.
2.	The CER along with year-wise physical and financial targets	The detailed CER along with year-wise physical and financial targets have been submitted.

Observations and deliberation of the EAC

22. ***The Committee observed and noted the following***:

i. The Instant proposal is for seeking Environment Clearance for setting up of a new power plant with a capacity of 1600 MW (2x800 MW) coal-based Ultra Supercritical Thermal Power Plant located in Villages Arabari, Dubrajpur, Kulpheni, Asnasuli, Natundihi, Ramraidihi, Masru, Nitaipur, Banskopna, Khairisole, Ghagrasole, Chakbaghi, Chatibandhi, Ramraidihi, Narayanchak, Jambediya, Kulpheni, Natunbankti, Barju and Salika, Tehsil: Salboni, District: Paschim Medinipur, State: West Bengal of M/s JSW Thermal Energy Limited (JSWTEL)

ii. Total required land for proposed project is 724.38 Ha, out of which Govt. order has been received for transfer of leasehold of 683.109 Ha (1688 acres) of JSWBSL to JSWTEL & further transfer process is ongoing, 7.8 Ha (19.28 acres) of land is in possession of JSWBSL. Transfer process of freehold rights from JSWBSL to JSWTEL is under process and Approval from West Bengal Industrial Development Corporation (WBIDC) for transfer of 38.85 Ha (96 acre) land under possession of JSWBSL to JSWTEL is under process.

iii. No forest Land is involved in the Project.

iv. No National Park, Tiger Reserve, ESZ or migratory routes/wildlife corridor exists within 10 km of the proposed TPP. However Elephant migrating routes are present within 10 Km. of the site as observed by the EAC as per the application submitted the proponent. PP shall prepare and submit the preventive measures for Elephant conservation to be taken for the same in consultation with the Forest Department.

v. The project site is not located within the Critically Polluted Area (CPA) / Severally Polluted Area (SPA) as per CEPI assessment 2018 of CPCB.

vi. PP has presented the coal characteristic of domestic coal having total coal requirement of 8.85 MTPA. The Sulphur content of domestic coal is reported as <0.5 %. Similarly, the ash content of domestic coal is reported as <44%. Coal shall be transported by Rail to plant site from Mines.

vii. The water requirement for the proposed project is estimated as 1,00,000 m3/day (36.50 MCM/ Annum), to be met from Rupnarayan River near Ghatal, which is around 60 km away from plant location through dedicated pipeline. Consent Letter was issued by Irrigation and Waterways Department; Govt. of West Bengal vide its letter dated 16.12.2025 for water withdrawal. The water will be transported to the plant site through the dedicated pipeline. The specific water consumption for the proposed power plant will be <3 m3/MWhr.

viii. The power requirement for the proposed project is estimated as 88 MW, and will be obtained from the self - generation.

ix. Action plan submitted by the proponent to address the issues raised Public Hearing held on 25.09.2025 is in line with the MoEF&CC OM dated 30/09/2020.

x. The capital cost of the proposed project is Rs. 14070 Crores and the capital cost for environmental protection measures with addressal of Public Hearing issues is proposed as Rs. 2547.5 Cr. The annual recurring cost towards the environmental protection measures with Addressal of Public Hearing Issues is proposed as Rs 251.55 Cr. The employment generation from the proposed project is 4124 nos. during construction phase, 2460 during operation phase.

xi. The Committee deliberated on the baseline data and incremental GLC. The committee noted that the proponent is providing High Efficiency Electrostatic Precipitator (ESP) to meet the stack emission standards for Particulate Matters 30 mg/Nm3, Low Nox Burner, and Dust Extraction & Suppression System to control the emission of Particulate matter, NOx, and stack with a height of 275 m will be provided to control & regulate the air emission from the proposed project.

xii. Committee deliberated on the action plan of Hydrogeology study; Bio-diversity/aquatic ecology study, Risk assessment study, and found it satisfactory.

xiii. The proposed Green belt will be developed in 239.05 ha area which is about 33 % of the total project area. Thus total of 239.05 ha (33 % of total project area of 724.38 Ha will be developed as greenbelt. A 30 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB guidelines. Local and native species will be planted of not less than 4 feet height saplings with a density of 2500 trees per hectare. Total no. of 597625 saplings will be planted and nurtured in 239.05 hectares in 5 years.

xiv. Zero Liquid Discharge system is envisaged for the proposed project. No wastewater discharge is proposed.

xv. The Fly Ash will be collected in dry form in silos for further utilization/transportation through rail wagons / closed trucks / bulkers to adjacent Cement Plants. 100% Ash will be utilised in Cement Industries, reclamation of abandoned mines, manufacturing of bricks, road construction, and aggregate replacement in concrete, etc. as per Fly Ash Notification, 31st December, 2021. Provision will be made for disposal of un-utilized ash in high concentration slurry form to ash dyke.

xvi. The committee noted that with respect to water pollution control, proponent shall use Sewage treatment plant and treated sewage water shall be utilized for horticulture purpose. Effluent will be treated in ETP. There will be no effluent discharge from the premises, hence the ZLD will be maintained. Along with this, the water from the cooling towers will be recirculated. A state-of-the-art roof top rain water harvesting system will be provided to collect the run -off for ground water recharging.

xvii. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components.

xviii. No court cases and show cause notices related to Environment are pending against the proposed project.

xix. The proposed project site lies in an Earthquake sensitive Zone III as per IS 1893 (Indian Seismic Code), indicating the

high seismic risk area and therefore committee suggested to carry out study on site specific design earthquake parameters for proposed 1600MW power project through reputed institute.

xx. The Sub-committee visited JSW Thermal Energy Limited on 30.01.2026-31.01.2026. and suggested to demarcate land for the proposed TPP through the boundary wall from rest of the land of M/S JSW Bengal Steel Limited. Revise the item wise breakup of land requirement, phase wise green belt development plan and greenbelt development along the plant boundary should be initiated right from the beginning of the project, Adequate environmental safety measures must be planned for the health and safety of the school children and villagers located close to the plant site and Both physical target/quantity and financial provision (capital and recurring) must be included in the CER and EMP related to the proposed project. The committee deliberated on the response of the proponent to the recommendations of site visit report and found it satisfactory.

xxi. The Committee also deliberated on the comments of WBPCB and opined to incorporate the same in the EC conditions.

xxii. The EAC also deliberated on the written submission of the project proponent and found it satisfactory.

xxiii. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

Recommendations of the Committee:

23. The EAC after detailed deliberations on the information submitted and as presented during the meeting ***recommended*** for grant of Environmental Clearance to the proposed "*Proposed 2x800 MW Coal Based Ultra Super Critical Thermal Power Plant by* ***M/s. JSW Thermal Energy Limited (JSWTEL)*** *located at villages Arabari, Dubrajpur, Kulpheni, Asnasuli, Natundihi, Ramraidihi, Masru, Nitaipur, Banskopna, Khairisole, Ghagrasole, Chakbaghi, Chatibandhi, Narayanchak, Jambediya, Natunbankti, Barju and Salika, Tehsil: Salboni, District: Paschim Medinipur, State: West Bengal*", under the provisions of EIA Notification, 2006 subject to the stipulation of specific conditions and standard/general conditions (**Annexure 1**).

24. The MoEF&CC has examined the proposal 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 hereby accords Environmental Clearance to M/s. JSW Thermal Energy Limited (JSWTEL) for "*Proposed 2x800 MW Coal Based Ultra Super Critical Thermal Power Plant located at villages Arabari, Dubrajpur, Kulpheni, Asnasuli, Natundihi, Ramraidihi, Masru, Nitaipur, Banskopna, Khairisole, Ghagrasole, Chakbaghi, Chatibandhi, Narayanchak, Jambediya, Natunbankti, Barju and Salika, Tehsil: Salboni, District: Paschim Medinipur, State: West Bengal*" subject to compliance of the Specific/General environmental conditions (**Annexure 1**).

25. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

26. The Environmental Clearance 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.

27. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.

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

29. General Instructions:
(i) The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC website where it is displayed.
(ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.
(iii) The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.
(iv) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.
(v) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
(vi) The Regional Office of this MoEF&CC shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
(vii) Validity of EC is as per the provision of EIA Notification, 2006 and its subsequent amendment.

30. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

31. This issue with an approval of the Competent Authority

Yours faithfully,
(Sundar Ramanathan)
Scientist 'F'
Tel: 011- 20819378
Email- r.sundar@nic.in

Copy To

1. The Member Secretary, CGWA, 18/11 Jamnagar House Man Singh Road, Central, Delhi, cgwa@nic.in
2. The Member Secretary, CPCB, Parivesh Bhawan Cbd-Cum-Office Complex East Arjun Nagar, East, Delhi, mscb.cpcb@nic.in

Annexure 1

Specific EC Conditions for (Thermal Power Plants)

1. [A] Environmental Management

S. No	EC Conditions
1.1	Project proponent shall ensure that 100% utilization of ash generated from 2x800 MW in accordance with the ash utilization notification dated 31/12/2021 and its subsequent amendment.

S. No	EC Conditions
	Area for the ash pond proposed for unit no 1 & 2 (2x800MW) shall not exceed 70.14 Ha as committed. Ash pond shall be fenced and a green belt shall be developed all along the periphery of the ash pond area.
1.2	In addition to the proposed 4 Continuous Ambient Air Quality Monitoring Stations (CAAQMS), project proponent shall install additional one continuous ambient air quality monitoring at the location at which Maximum GLC is occurring in consultation with WBPCB within one year from the date of grant of EC as committed.
1.3	Project proponent shall comply with the recommendations made in the aquatic Ecology & Biodiversity assessment report, Hydrology and Hydrogeology study, Risk assessment Study in a time bound manner. Compliance status in this regard shall be submitted to the Regional Office of MoEF&CC along with the six monthly compliance report.
1.4	The coal requirement for the proposed project is about 8.85 MTPA and same would be met under the Shakti Policy. The entire coal requirement for proposed project shall be transported by rail network only and no road transportation is permitted.
1.5	The water requirement for proposed project is estimated as 1,00,000 m3/day and the same shall be met from Rupnarayan River near Ghatal. The specific water consumption shall be less than 3.0 m3/MWhr.
1.6	Project proponent shall store harvested rainwater in the project boundary and utilize the same for plantation, recharging water in the pond and domestic utilization in colonies. A record shall be maintained of water collected through rainwater and its supply system. PP shall get the water audit done every year to optimize the water requirement.
1.7	Project proponent shall implement the protective measure proposed in EMP in a time-bound manner. The budget earmarked for the same is Rs. 2512.50 crores and Rs. 251.25 crores (recurring) and should be kept in separate accounts and audited annually. The implementation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office for the activities carried out during the previous year.
1.8	Project proponent shall assess the carbon footprint of the project and develop carbon sink/carbon sequestration resources using modern technologies. The implementation report shall be submitted to the concerned Regional Office of the MoEF&CC.
1.9	Project proponent shall carry out study on site specific design earthquake parameters for proposed 1600 MW power project through reputed institute within a time frame of six months from the da of grant of EC as the proposed project site lies in an Earthquake sensitive zone-III as per IS 1893 (Indian Seismic Code). Recommendations of the study report and its implementation status shall be submitted to the Regional Office along with the six monthly compliance report.
1.10	Project proponent shall ensure that diesel operated vehicles will be switched over to E-Vehicles in a time bound manner and replace the passenger vehicles to E-vehicle in phased manner. Further, for local movement of officials, Contract of Vehicles deployment shall be awarded to Project affected people and all efforts for adopting heavy E-vehicles like Bulkers for ash transportation for short distance subject to availability of such E-vehicle and adequate charging infrastructure in the surrounding area shall be provided. PP shall submit the action taken report to concerned RO with amount spent, photographs (before & after), number of such non diesel vehicles deployed etc. in six

S. No	EC Conditions
	monthly compliance report.
1.11	The Project Proponent shall provide stack of 275 meters height and shall abide by the provisions of the notification number G.S.R 465 (E) dated 11/07/2025 related to SO2 emission norms. Along with Particulate Matter, SO2, NOx and Hg, CO and CO2 shall also be monitored for stack emissions.
1.12	Ash pond area and fly ash utilization shall be as per Fly Ash Notification issued by Ministry/ CPCB from time to time.
1.13	Project proponent shall ensure that pipelines carrying the fly ash and effluent shall be inspected regularly for any leakages.
1.14	Effluent of 9120 KLD will be treated through Effluent Treatment Plant. As committed by the Project proponent, Zero liquid discharge shall be adopted for the proposed plant. No wastewater will be discharged outside the project site.
1.15	PP shall install 4 MW Solar Energy Plant for conservation measures. Action plan in this regard shall be submitted to the Regional Office of the MoEF&CC and SPCB within two years from the date of grant of EC. PP should explore more opportunities to put solar PV in nearby Schools and other Government buildings also.
1.16	PP shall implement the concurrent plantation plan in a time bound manner. Total of 239.05 ha area (33% of total plant area of 724.38 ha) will be developed as greenbelt. A 5 m - 50 m wide (min 25 m) greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB guidelines. The height of the saplings to be planted should be of minimum of 2 meter height. The budget earmarked for the green belt plantation shall be kept in a separate account and audited annually. PP should annually submit the audited statement of expenditure along with proof of activities viz. photographs (before & after with geolocation date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC and on PARIVESH Portal as the case may be for the activities carried out during previous year.
1.17	Project proponent shall carry out community plantation with incentive scheme by distributing 50,000 saplings per year for a period of five years. Further, PP shall provide basic facilities to the nearby schools such as drinking water, sanitation facilities (sanitary napkin vending machines) and shall also develop green belt around the nearby schools. Further, PP shall organize quarterly awareness programs for school students to educate them on the significance and preservation of trees.
1.18	Wildlife conservation plan including the conservation measures for Elephant as approved by the competent authority shall be implemented. Additional, budget shall be added in the plan, in case additional measures suggested by state wildlife department. The final Wildlife conservation plan duly approved by the CWLW shall be submitted to RO, MoEF&CC within a time frame of three months from the date of grant of EC and the budget approved by the concerned authority shall be deposited in a government account.
1.19	Project proponent shall install LED display of air quality (Continuous AAQ monitoring) and stack emission (Continuous emission monitoring) at prominent locations preferably outside the plant's main entrance for public viewing and in administrative complex and maintenance of devices shall be done regularly.

S. No	EC Conditions
1.20	Project proponent shall carry out Water Sprinkling on roads inside the plant area/ administrative/ residential areas and outside the plant area at least for 2 KM on a regular basis to control the air pollution. A logbook shall be maintained for the activity and be in six-monthly compliance report.
1.21	PP shall deploy vacuum based vehicle for everyday cleaning of the road in and around plant site at least for 5 KM.
1.22	Environment Audit of plant shall be done annually, and report shall be submitted to Regional office of the Ministry.
1.23	A detailed action plan regarding leachate handling shall be prepared and implemented in consultation with SPCB and the same shall be submitted to the Regional Office of the Ministry. Leachate shall be treated and reused. No treated leachate shall be discharged in any circumstances. Characteristics of Leachate and the treated leachate shall be monitored once in quarter and records shall be maintained.
1.24	Oil ad grease recovered from the treatment plant should be disposed only through authorized recyclers.
1.25	Monitoring of surface water quality and Ground Water quality shall also be regularly conducted in and around the project site and records to be maintained. 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. The monitored data shall be submitted regularly on PARIVESH portal as part of Half Yearly compliance report.
1.26	For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
1.27	PP shall ensure that all types of plastic waste generated from the plant shall be stored separately in isolated area and disposed of strictly adhering to the Plastic Waste Management Rules 2016 (as amended). In pursuant to the Ministry's OM dated 18/07/2022. PP shall also create awareness among the people working in the project area as well as in its surrounding area on the ban on Single Use Plastic (SUP) in order to ensure compliance of Ministry's Notification published by the Ministry on 12/08/2021. A report along with photograph on the measures taken shall also be included in the six monthly compliance report submitted by PP.
1.28	PP is advised to implement the 'Ek Ped Maa Ke Naam' Campaign which was launched on 5th June 2024 on the occasion of the World Environment Day to increase the forest cover across the Country. This plantation drive is other than Green belt development. The action in this regard shall be submitted concerned RO in six monthly report.

2. [B] Socio-economic

S. No	EC Conditions
2.1	A vision document comprising prospective plan for implementation of various CER activities, plantation programme outside the project cover area, rejuvenation and conservation of water bodies

S. No	EC Conditions
	within 5 km radius of the project cover area shall be prepared and submitted to the Regional Offce of the Ministry within 6 months. Implementation status of the same shall be reported to the Regional office in 6 monthly compliance report.
2.2	Epidemiological Study among population within 5 km radius of project cover area shall be carried out on regular interval (Once in two year) through independent agency. Necessary measures shall be taken as per findings of study in consultation with district administration. Action taken report shall be submitted to the Regional Office of the Ministry.
2.3	The budget proposed for PH is Rs. 35 Crores. The budget proposed shall be kept in a separate account and audited annually. Project proponent shall implement the action plan to address the issues raised during public hearing within a time frame of 5 years from the date of grant of EC. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office of MoEF&CC. In addition to this, PP shall strengthen the existing Primary Health Center (PHC) & Community Health Center (CHC) in the study area for better public health as committed. Compliance status in this regard shall be submitted along with the six monthly compliance to the concerned Regional Office of MoEF&CC.
2.4	The establishment of a robust public grievance redressal mechanism to address concerns and complaints from local communities regarding the power plant's operations, environmental impacts, or social issues shall be developed. A Senior Officer shall review the functioning of the mechanism twice in a month.
2.5	PP shall provide basic facilities to the nearby schools such as drinking water, sanitation facilities (sanitary napkin vending machines) and shall also develop green belt around the nearby schools. Further, PP shall organize quarterly awareness programs for school students to educate them on the conservation of trees.

3. [C] Miscellaneous

S. No	EC Conditions
3.1	An Environmental Cell headed by the Environment Manager with postgraduate qualification in environmental science/environmental engineering, shall be created. It shall be ensured that the Head ofell shall directly report to the Head of the Plant who would be accountable for implementation of environmental regulations and social impact improvement/mitigation measures.
3.2	Consent for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
3.3	All necessary clearance from the concerned Authority, as may be applicable should be obtained prior to commencement of project or activity.

Standard EC Conditions for (Thermal Power Plants)

1. Statutory Compliance

S. No	EC Conditions
1.1	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.
1.2	MoEF&CC Notifications on Water Consumption vide Notification No. S.O. 3305 (E) dated 07.12.2015 read with G.S.R 593 (E) dated 28.6.2018 as amended from time to time shall be complied.
1.3	The recommendation from Standing Committee of NBWL under the Wildlife (Protection) Act, 1972 should be obtained, if applicable.
1.4	No Objection Certificate from Ministry of Civil Aviation be obtained for installation of requisite chimney height and its siting criteria for height clearance.

2. Ash Content/mode Of Transporatation Of Coal

S. No	EC Conditions
2.1	MoEF&CC Notification issued vide S.O. 1561 (E) dated 21.05.2020 and as amended from time to time shall be complied which inter-alia include use of coal by Thermal Power Plants, without stipulations as regards ash content or distance, shall be permitted subject to compliance of conditions prescribed under (1) Setting Up Technology Solution for emission norms, (2) Management of Ash Ponds and (3) Transportation.

3. Air Quality Monitoring And Management

S. No	EC Conditions
3.1	Project proponent shall abide by the provisions of the notification number G.S.R 465(E) dated 11/07/2025 related to SO2 emission norms.
3.2	Low NOX Burners with Over Fire Air (OFA) system shall be installed to achieve NOX emission standard of 100 mg/Nm3.
3.3	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.
3.4	Stack with a height of 275 meters shall be provided with continuous online monitoring instruments for SO2, NOx and Particulate Matter as per extant rules.
3.5	Exit velocity of flue gases shall not be less than 20-25 m/s. Mercury emissions from stack shall also be monitored periodically.
3.6	Continuous Ambient Air Quality monitoring system shall be set up to monitor common/criteria pollutants from the flue gases such as PM10, PM2.5, SO2, NOX within the plant area and in the buffer area, at five locations in consultation with WBPCB. 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.

S. No	EC Conditions
3.7	Adequate dust extraction/suppression system shall be installed in coal handling, ash handling areas and material transfer points to control fugitive emissions.
3.8	Appropriate Air Pollution Control measures 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.

4. Noise Pollution And Its Control Measures

S. No	EC Conditions
4.1	The Ambient Noise levels shall meet the standards prescribed as per the Noise Pollution (Regulation and Control) Rules, 2000.
4.2	Persons exposed to high noise generating equipment shall use Personal Protective Equipment (PPE) like earplugs/ear muffs, etc.
4.3	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.

5. Human Health Environment

S. No	EC Conditions
5.1	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.
5.2	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.

6. Water Quality Monitoring And Management

S. No	EC Conditions
6.1	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 3.0 m3/MWhr.
6.2	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.
6.3	Records pertaining to measurements of daily water withdrawal and river flows (obtained from Irrigation Department/Water Resources Department) immediately upstream and downstream of

S. No	EC Conditions
	withdrawal site shall be maintained.
6.4	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.
6.5	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.
6.6	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.
6.7	Wastewater generation of 9120 KLD 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.
6.8	Sewage generation of 90 KLD 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; Faecal Coliforms (Most Probable Number).

7. Risk Mitigation And Disaster Management

S. No	EC Conditions
7.1	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.
7.2	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). Low sulphur fuel shall be used.
7.3	Ergonomic working conditions with First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
7.4	Safety management plan based on Risk Assessment shall be prepared to limit the risk exposure to the workers within the plant boundary.
7.5	Regular mock drills for on-site emergency management plan and Integrated Emergency Response System shall be developed for all kind of possible disaster situations.

8. Green Belt And Biodiversity Conservation

S. No	EC Conditions
8.1	Green belt shall be developed in an area of 239.05 ha (33% of the total plant area) with indigenous native tree species in accordance with CPCB guidelines. The green belt shall inter-alia cover an entire periphery of the plant.
8.2	In-situ/ex-situ Conservation Plan for the conservation of flora and fauna should be prepared and implemented.

9. Waste Management

S. No	EC Conditions
9.1	Solid waste management should be planned in accordance with extant Solid Waste Management Rules, 2026.
9.2	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.
9.3	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.
9.4	Fly ash shall be collected in dry form and ash generated shall be used in phased manner as per provisions of the Notification on Ash Utilization issued by the Ministry S.O. 5481 dated 31.12.2021, S.O.6169 (E) dated 30.12.2021, S.O.05 (E) dated 01.01.2024 and amendment thereto.
9.5	Unutilized ash if any shall be disposed off in the ash pond in the form of High Concentration Slurry method for fly ash and LCSD for Bottom Ash.

10. Monitoring Of Compliance

S. No	EC Conditions
10.1	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.
10.2	Resettlement & Rehabilitation Plan as per the extant rules of Govt. of India and respective State Govt. shall be followed, if applicable.
10.3	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.
10.4	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.
10.5	The project proponent shall (Post-EC Monitoring): a. Send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal

S. No	EC Conditions
	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 & PM2.5 in case of ambient AAQ), SO2, Nox (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.

11. Corporate Environmental Responsibility (Cer) Activities

S. No	EC Conditions
11.1	CER activities will be carried out as per Ministry's OM F.No.22- 65/2017- IA.III dated 30th September, 2020 and 22-65/2017- IA.III dated 25.02.2021 or as proposed by the PP in reference to Public Hearing or as earmarked in the EIA/EMP report along with the detailed scheduled of implementation with appropriate budgeting. Statement on the commitments (activity-wise) made during public hearing to facilitate the discussion on the CER in compliance of the commitment shall be submitted.