



सत्यमेव जयते

File No: J-13012/03/2008- IA.II (T)
Government of India
Ministry of Environment, Forest and
Climate Change
IA Division



Date 30/04/2025



To,

Sh. Prateek Gupta
M/s Meja Urja Nigam Private Limited
MUNPL, 5th Floor, Sangam Place, Civil Lines, Allahabad, Prayagraj, Uttar Pradesh, , 212301
E-mail: env.meja@gmail.com

Subject: Expansion of Meja Coal Based Thermal Power Project from 1320 MW (2x660 – Stage I) to 3720 MW (with 3x800 MW- Stage II) by M/s. Meja Urja Nigam Private Limited located at Village-Kohdar, Mai Khurd & Patai Dandi, Tehsil Meja, District Prayagraj, Uttar Pradesh – Environmental Clearance - regarding

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/UP/THE/495375/2024 dated 05/11/2024 along with submission of written information dated 16.04.2025 seeking for grant of Environmental Clearance (EC) under the provisions of the EIA Notification 2006 and as amended thereof for the project mentioned above.

2. The particulars of the proposal are as below :

| | |
|--|--|
| (i) EC Identification No. | EC24A0601UP5108639N |
| (ii) File No. | J-13012/03/2008- IA.II (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 | MEJA THERMAL POWER PROJECT STAGE II - COAL BASED 3 X 800 MW |
| (viii) Name of Company/Organization | M/s Meja Urja Nigam Private Limited |
| (ix) Location of Project (District, State) | PRAYAGRAJ, UTTAR PRADESH |
| (x) Issuing Authority | MoEF&CC |
| (xi) Applicability of General Conditions as per EIA Notification, 2006 | No |

3. M/s. Meja Urja Nigam Private Limited (MUNPL) has made an online application vide proposal no. IA/UP/THE/495375/2024 dated 05/11/2024 along with copy of EIA/EMP report, CAF (Part A, B & C) and Certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. 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 the Central level.

4. The instant Proposal was earlier considered by the EAC – Thermal in its 16th meeting held 12.12.2024 and the proposal was deferred for want of additional information. The proponent uploaded the ADS reply through PARIVESH portal on 05.02.2025 and the same was considered by the EAC in its 20th meeting held on 24.02.2025. The proposal was again deferred by the EAC for want of additional information. Proponent uploaded the ADS reply through PARIVESH on 12.03.2025 and 24.03.2025. The proposal was further consideration before the EAC in its 23rd meeting held on 04.04.2025. The MoM for the same may be seen using the web link: <https://parivesh.nic.in>.

Details submitted by the project proponent

5. The proposed project of M/s. Meja Urja Nigam Private Limited (MUNPL) located at Village- Kohdar, Mai Khurd & Patai Dandi, Tehsil-Meja, District-Prayagraj, Uttar Pradesh State is for enhancement of power generation capacity from 1320 MW (2x660 MW Stage-I) to 3720 MW (with addition of 3x800 MW- Stage-II).

6. The detail of the Terms of Reference (ToRs) obtained for the expansion project for undertaking EIA/EMP study is furnished as below:

| Proposal No with date | Consideration | Details | Date of accord | ToR Validity |
|---|--|---|----------------|-------------------------|
| IA/UP/THE/449702/2023 Date- 20.10.2023 | 2 nd EAC (Thermal Projects) meeting dated. 31.10.2023 | J-13012/03/2008- IA.II (T) dated 14.12.2023 | 14.12.2023 | 13.12.2027 (4 years) |

7. The existing project 1320 MW (2x660 MW Stage-I) was accorded environmental clearance vide letter No J-13012/03/2008-IA.II (T) dated 10.01.2011 and subsequently amended by the Ministry vide letters dated 21.07.2017, 08.01.2018, 28.03.2019, 08.08.2019 & 25.09.2020. The latest Consent to Operate for existing Stage-I (2x660 MW) was accorded by Uttar Pradesh Pollution Control Board vide Letter No. 224743/UPPCB/Allahabad(UPPCBRO)/CTO/both/Prayagraj/2024 dated 31.12.2024 and is valid up to 31.12.2026.

| S. No | Facility | Issuing Authority | Details of Letter No. | Date of issuance |
|-------|---|-------------------|---------------------------|------------------|
| 1 | 2x660 MW Meja Thermal Power Plant Stage-I, Environmental Clearance | MoEF&CC | J.13012/03/2008-IA.II (T) | 10.01.2011 |
| 2 | Amendment in Environmental Clearance, temporary permission for transportation of coal by road | MoEF&CC | J.13012/03/2008-IA.II (T) | 21.07.2017 |
| 3 | Extension of validity of Environmental Clearance | MoEF&CC | J.13012/03/2008-IA.II (T) | 08.01.2018 |
| 4 | Temporary permission for transportation of | MoEF&CC | J.13012/03/2008-IA.II (T) | 28.03.2019 |

| S. No | Facility | Issuing Authority | Details of Letter No. | Date of issuance |
|-------|---|-------------------|---|--|
| | coal by road and Extension of validity of Environmental Clearance | | | |
| 5 | Extension of validity and amendment in Environmental Clearance | MoEF&CC | J.13012/03/2008-IA.II (T) | 08.08.2019 |
| 6 | Extension of validity of Environmental Clearance | MoEF&CC | J.13012/03/2008-IA.II (T) | 25.09.2020 |
| 7 | Consent to Establishment (CTE-NOC) for Stage-I | UPPCB | F92464/C-9/NOC-15/ii dated 19.09.2011 | 19.09.2011 |
| 8 | Consolidated Consent to Operate (CTO) under Water Act, Air Act and Hazardous Waste Authorization. | UPPCB | 224743/UPPCB/Allahabad(UPPCBRO)/CTO/both/PRAYAGRAJ/2024 | 31.12.2024. Valid up to 31.12.2026. |

8. The implementation status of the existing EC is given below:

| Capacity (MW) as per EC dated 10/01/2011 & its subsequent amendment dated 21.07.2017, 08.01.2018, 28.03.2019, 08.08.2019, 25.09.2020 | Implementation Status as on 15/10/2024 | Production as per CTO |
|--|--|-----------------------|
| 1320 MW (2x660 MW) Stage-I | Both the units are in operation | 1320 MW |

9. **Certified compliance report from Regional Office:** The Status of compliance of earlier EC was obtained from MoEF&CC Regional Office, Lucknow vide letter no. IV/ENV/UP/TH-41/319/2010/248, dated 04.09.2024. The Action Taken Report (ATR) regarding the partially/non-complied conditions was submitted to Regional Office, MoEF&CC, vide email dated 14.09.2024. Further, a request e-mail was submitted on 27.11.2024 to RO for the observations / closure report on submitted ATR of Stage- I EC compliance. Further, RO submitted the observation on ATR of MUNPL on 16.12.2024. MUNPL submitted ATR dated 10.01.2025 against RO observation dated 16.12.2024. Thereafter, Regional Office issued a revised closure letter on 24.02.2025. Regional Office submitted the observation on ATR of MUNPL Meja on 16.12.2024 & 24.02.2025.

Status of installation of Flue Gas Desulphurization is furnished as per the MoEF&CC Notification dated 05/09/2022:

- MUNPL-MEJA Project submits that as per the MoEF&CC notification dated 05.09.2022; MEJA Project falls in Category C. The timeline for compliance w.r.t. SO₂ emission is up to 31st December 2026.
- MEJA Stage-I, erection & commissioning works of both units of Flue Gas Desulphurization (FGD) are completed. Trail run done in January-February 2024.
- The utility has been put in to regular services with effect from 28.02.2025.

10. Environmental site settings:

| S. No. | Particulars | Details | Remarks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---|--------------------|--|--|--------|--|--|------------|-------|-------|---|--|----------|-----|---------------------|----|---|----------|----|---------------------|---|---|----------------|-----|---------------------|---|---|-----------|----|---------------------|---|---|--------------|------|---------------------|---|---|--|----|---|---|----------------------------------|---|---|--------|----|--|---------------|-------|---------------------|---|----------------------------------|----------------|--------|--------|-----|---|-----------------------------------|------|--|-----|---|-------------------------|-------------|--|--|---|
| 1. | Total land | 1405 Ha [Private: 760 Ha; Govt.: 645 Ha] The land is already in possession of MUNPL. Proposed expansion shall be done with in the existing premises. For Stage-II additional land of 110 Ha. Govt land, consists of Ash Pond (95 Ha) and Greenbelt (15 Ha), shall be acquired. | Land use: Existing Project: Industrial Proposed: open, barren land (Ash Pond), and Agriculture (Railway siding) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | Land use break up | <p>The break-up of existing land under possession and additional land requirement for proposed Stage-II is given below: The land break-up table earlier submitted on 27.11.24 is area under possession (1295 Ha i.e. 3200.015 Acres) for both Stage-I & II envisaged at the time of acquiring land. The break-up of existing land under possession and additional land requirement for proposed Stage-II is given in Table 1 below: Table 1: Land break-up of existing under possession (Stage-I & II) and Additional land requirement for Stage-II</p> <table border="1"> <thead> <tr> <th rowspan="2">Description</th> <th colspan="2">Existing Land Area</th> <th rowspan="2">Proposed Additional Land requirement for Stage-II (Ha)</th> <th rowspan="2">Remark</th> </tr> <tr> <th>Land area for Stage-I as per EC/EIA (Ha)</th> <th>Land area for Stage-II already taken with Stage-I (Ha)</th> </tr> </thead> <tbody> <tr> <td>Main Plant</td> <td>144.2</td> <td>183.8</td> <td>0</td> <td></td> </tr> <tr> <td>Ash Pond</td> <td>262</td> <td>Shared with Stage-I</td> <td>89</td> <td>Additional ash pond area reduced from 110 Ha to 89 Ha</td> </tr> <tr> <td>Township</td> <td>85</td> <td>Shared with Stage-I</td> <td>0</td> <td>-</td> </tr> <tr> <td>Railway Siding</td> <td>171</td> <td>Shared with Stage-I</td> <td>0</td> <td>-</td> </tr> <tr> <td>Reservoir</td> <td>75</td> <td>Shared with Stage-I</td> <td>0</td> <td>-</td> </tr> <tr> <td>Makeup water</td> <td>5.22</td> <td>Shared with Stage-I</td> <td>0</td> <td>-</td> </tr> <tr> <td>Existing Green belt (other area within Project Land)</td> <td>87</td> <td>0</td> <td>0</td> <td>Please see Footnote no. 1</td> </tr> <tr> <td>Proposed Greenbelt (other area within Project Land)</td> <td>0</td> <td>186.42</td> <td>21</td> <td><i>Additional 21 Ha land proposed for green belt</i></td> </tr> <tr> <td>Miscellaneous</td> <td>95.36</td> <td>Shared with Stage-I</td> <td>0</td> <td>Please see Footnote no. 2</td> </tr> <tr> <td>Sub-Total (Ha)</td> <td>924.78</td> <td>370.22</td> <td>110</td> <td>-</td> </tr> <tr> <td>Total (Ha): Existing and Proposed</td> <td colspan="2">1295</td> <td>110</td> <td>-</td> </tr> <tr> <td>Grand Total (Ha)</td> <td colspan="2">1405</td> <td></td> <td>-</td> </tr> </tbody> </table> <p>Footnote no. 1. In addition to the 87 Ha of existing greenbelt as mentioned above, an additional 76 Ha. greenbelt has been already developed within main plant, township &</p> | | Description | Existing Land Area | | Proposed Additional Land requirement for Stage-II (Ha) | Remark | Land area for Stage-I as per EC/EIA (Ha) | Land area for Stage-II already taken with Stage-I (Ha) | Main Plant | 144.2 | 183.8 | 0 | | Ash Pond | 262 | Shared with Stage-I | 89 | Additional ash pond area reduced from 110 Ha to 89 Ha | Township | 85 | Shared with Stage-I | 0 | - | Railway Siding | 171 | Shared with Stage-I | 0 | - | Reservoir | 75 | Shared with Stage-I | 0 | - | Makeup water | 5.22 | Shared with Stage-I | 0 | - | Existing Green belt (other area within Project Land) | 87 | 0 | 0 | Please see Footnote no. 1 | Proposed Greenbelt (other area within Project Land) | 0 | 186.42 | 21 | <i>Additional 21 Ha land proposed for green belt</i> | Miscellaneous | 95.36 | Shared with Stage-I | 0 | Please see Footnote no. 2 | Sub-Total (Ha) | 924.78 | 370.22 | 110 | - | Total (Ha): Existing and Proposed | 1295 | | 110 | - | Grand Total (Ha) | 1405 | | | - |
| Description | Existing Land Area | | Proposed Additional Land requirement for Stage-II (Ha) | | Remark | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Land area for Stage-I as per EC/EIA (Ha) | Land area for Stage-II already taken with Stage-I (Ha) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Main Plant | 144.2 | 183.8 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ash Pond | 262 | Shared with Stage-I | 89 | Additional ash pond area reduced from 110 Ha to 89 Ha | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Township | 85 | Shared with Stage-I | 0 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Railway Siding | 171 | Shared with Stage-I | 0 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reservoir | 75 | Shared with Stage-I | 0 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Makeup water | 5.22 | Shared with Stage-I | 0 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Existing Green belt (other area within Project Land) | 87 | 0 | 0 | Please see Footnote no. 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Proposed Greenbelt (other area within Project Land) | 0 | 186.42 | 21 | <i>Additional 21 Ha land proposed for green belt</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Miscellaneous | 95.36 | Shared with Stage-I | 0 | Please see Footnote no. 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sub-Total (Ha) | 924.78 | 370.22 | 110 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total (Ha): Existing and Proposed | 1295 | | 110 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grand Total (Ha) | 1405 | | | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| S. No. | Particulars | Details | | | Remarks | | | | | | |
|--|---|---|--|--|--|----------|-----------|----------------------------|-----------------------------------|---------------|---|
| | | Description | Existing Land Area | | Proposed Additional Land requirement for Stage-II (Ha) | Remark | | | | | |
| Land area for Stage-I as per EC/EIA (Ha) | Land area for Stage-II already taken with Stage-I (Ha) | | | | | | | | | | |
| | | <i>railway siding area thus total greenbelt in existing plant is 163 Ha.</i> | | | | | | | | | |
| | | <i>Footnote no. 2. Includes Public roads, vegetable market, Parking, admin building, undulating land, drains, dry fly ash silo, outside area, open areas etc.</i> | | | | | | | | | |
| | | Greenbelt details within the Total Project Land is given in Table 2. | | | | | | | | | |
| | | Sl. No. | Description (A) | Existing Greenbelt area in Ha (B) | Proposed Greenbelt area in Ha (C) | | | | | | |
| | | 1 | Plant area | 10 | 21.15 | | | | | | |
| | | 2 | Ash Pond area | 0 | 14.41 | | | | | | |
| | | 3 | Township area | 22 | 5.05 | | | | | | |
| | | 4 | Railway Siding area | 44 | 76 | | | | | | |
| | | 5 | Existing Green belt (other area within Project Land) | 87 | 0 | | | | | | |
| | | 6 | Proposed Greenbelt (other area within Project Land) | 0 | 207.42 (186.42+21) | | | | | | |
| | | 7 | Total (Sum of Sl. No. 1 to 6) | 163 | 324 | | | | | | |
| | | | Grand Total (B7+ C7) | | 487 Ha | | | | | | |
| | | Total Project Land: 1405 Ha. Percentage of Green Belt area w.r.t. Total Project Land (487x100/1405) is 34.66%. | | | | | | | | | |
| 3. | Land acquisition details as per MoEF&CC O.M. Dated 7/10/2014 & 20/02/2025 | <p>The existing 1,295 Ha of land is owned by M/s Meja Urja Nigam Private Limited, and the acquisition of an additional 110 Ha comprising of Ash Dyke (95 Ha) and Tree plantation (15 Ha) is currently under process.</p> <p>As the 110 Ha land is government-owned, the District Administration of Prayagraj is processing its resumption instead of following the acquisition route under the LARR Act, 2013. The Chief Revenue Officer, Prayagraj, in their letter dated 19.12.2024, forwarded communications from the SDM and Tehsildar Meja (dated 11.12.2024), indicating that the resumption proposal is currently in process, after which the land may be allocated to MUNPL. As a part of resumption process, on 19.12.2024, the Land Management Committee of the village has approved the proposal for resumption and hand over the land to MUNPL.</p> <p>The District Magistrate, Prayagraj, vide letter dated 27.03.2025, has issued a demand notice for the land identified for Ash dyke in Village Salaiya Kala. The requisite payment of Rs. 106.95 crores by MUNPL is under process.</p> | | | | | | | | | |
| 4. | Existence of Habitation & involvement of R&R, if any. | <p>Project site: MUNPL, Kohdar Study Area: 110 Ha comprising of Ash Dyke (95 Ha) and Tree plantation (15 Ha) in Salaiya Kala Village Total: 110 Ha</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>50 Houses in Ash Dyke Area</td> <td>Adjacent to the existing Ash Dyke</td> <td>South-West</td> </tr> </tbody> </table> | | | Habitation | Distance | Direction | 50 Houses in Ash Dyke Area | Adjacent to the existing Ash Dyke | South-West | R&R for Project Affected Families (PAFs) shall be as per the LARR 2013 and as per directions of the State Government. |
| Habitation | Distance | Direction | | | | | | | | | |
| 50 Houses in Ash Dyke Area | Adjacent to the existing Ash Dyke | South-West | | | | | | | | | |
| 5. | Latitude and Longitude of all corners of the project site. | <p>A. Existing Plant site</p> <table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>25° 9'9.74"N</td> <td>81°56'35.07"E</td> </tr> </tbody> </table> | | | Point | Latitude | Longitude | A | 25° 9'9.74"N | 81°56'35.07"E | -- |
| Point | Latitude | Longitude | | | | | | | | | |
| A | 25° 9'9.74"N | 81°56'35.07"E | | | | | | | | | |

| S. No. | Particulars | Details | | | Remarks | | | | | | |
|------------|---|--|-----------------|------------------|------------|----------|-----------|------------|-------|-----|---|
| | | B | 25° 8'30.08"N | 81°58'37.91"E | | | | | | | |
| | | C | 25° 7'56.61"N | 81°57'11.21"E | | | | | | | |
| | | D | 25° 6'41.43"N | 81°55'42.74"E | | | | | | | |
| | | E | 25° 7'52.27"N | 81°55'42.74"E | | | | | | | |
| | | F | 25° 7'52.27"N | 81°55'13.10"E | | | | | | | |
| | | B. Existing Ash Pond | | | | | | | | | |
| | | Point | Latitude | Longitude | | | | | | | |
| | | 1 | 25° 8'1.03"N | 81°55'41.51"E | | | | | | | |
| | | 2 | 25° 7'47.12"N | 81°56'23.92"E | | | | | | | |
| | | 3 | 25° 6'58.24"N | 81°55'46.90"E | | | | | | | |
| | | 4 | 25° 7'25.45"N | 81°55'10.34"E | | | | | | | |
| | | C. Proposed Ash pond with Green Belt | | | | | | | | | |
| | | Point | Latitude | Longitude | | | | | | | |
| | | 1 | 25° 6'45.99"N | 81°55'1.42"E | | | | | | | |
| | | 2 | 25° 6'54.23"N | 81°53'52.67"E | | | | | | | |
| | | 3 | 25° 7'3.48"N | 81°53'51.70"E | | | | | | | |
| | | 4 | 25° 7'24.83"N | 81°54'43.69"E | | | | | | | |
| 6. | Elevation of the project site | The topography of the proposed site is slightly undulating. The site is already developed, and expansion is to be done within the existing premises. The finished ground level of project site varies between 101 m to 104.5 m above mean sea level. | | | -- | | | | | | |
| 7. | Involvement of Forest land if any. | <p>Nil. As per the existing KML of Plant and Stage-I Environment Clearance, there is no reserved forest and/or protected forest within the existing plant area. Prior to commencement of land acquisition in the year 2009-10, the land classification was thoroughly checked and vetted to ensure that no forest land, whether classified as reserved, protected, or otherwise is involved within the project area.</p> <p>DFO Prayagraj vide letter dated 10.10.2011 has stated that no land of the Forest Department has been acquired in the land acquired for Meja Thermal Power Project by Meja Urja Nigam Pvt. Ltd. Further, DFO Prayagraj, vide another letter dated 24.12.2024 stated that "No land of the Forest Department has been acquired in the village Mudpela situated in Tehsil Meja for the construction of railway line for Meja Thermal Power Project".</p> | | | Nil | | | | | | |
| 8. | Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area | <p>No water body within the Project site</p> <p>Study area 10 km form the project area.</p> <table border="1"> <thead> <tr> <th>Water body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Tons River</td> <td>950 m</td> <td>WNW</td> </tr> </tbody> </table> <p>According to the irrigation department letter dated 10.01.2025, the flood zone for this area has not been determined to date. However, the nearest Highest Flood Level (HFL) gauge to the Meja site is located at Meja Road, 23 km downstream of the site, with the highest recorded HFL at 87.17 m. The nearest upstream gauge is at the Tons Pump House, approximately 32 km from the project site, where the highest recorded HFL over the past 50 years was 98 m. Since Meja Urja Nigam Pvt. Ltd.</p> | | | Water body | Distance | Direction | Tons River | 950 m | WNW | <p>Certificate received from Chief Engineer (Water Resources) Irrigation and Water Resources Department, Govt of UP, regarding HFL level of River Tones dated 10.01.2025.</p> |
| Water body | Distance | Direction | | | | | | | | | |
| Tons River | 950 m | WNW | | | | | | | | | |

| S. No. | Particulars | Details | Remarks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|--|--|----------------|------|------------------|-----------|---|------------------------|------|----|---|-------------------------|------|----|---|--------------------------------|------|----|---|-------------------------------|---------------------------|--|---|-------------------------------|---------------------------|--|---|------------------------|--------------------------|--|---|-------------------------|------|------|---|------------------------------|------|------|---|-----------------------|------|------|----|
| | | (MUNPL) project site level will be maintained at 101 m to 104.5 m, both the upstream and downstream HFLs of the Tons River are below the project site level. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9. | Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area | Study area: Nil Status of NBWL approval: Not Applicable List of Reserved and protected forests: <table border="1"> <thead> <tr> <th>S. No.</th> <th>Name</th> <th>Distance (in km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Badiha Reserved Forest</td> <td>7.00</td> <td>SW</td> </tr> <tr> <td>2</td> <td>Gadaria Reserved Forest</td> <td>5.00</td> <td>SW</td> </tr> <tr> <td>3</td> <td>Singhpur Khurd Reserved forest</td> <td>0.90</td> <td>SW</td> </tr> <tr> <td>4</td> <td>Salaiya Kalan Reserved Forest</td> <td>(Along Southern Boundary)</td> <td></td> </tr> <tr> <td>5</td> <td>Salaiya Khurd Reserved Forest</td> <td>(Along Southern Boundary)</td> <td></td> </tr> <tr> <td>6</td> <td>Kohdar Reserved Forest</td> <td>(Along Eastern Boundary)</td> <td></td> </tr> <tr> <td>7</td> <td>Murpela Reserved Forest</td> <td>2.70</td> <td>East</td> </tr> <tr> <td>8</td> <td>East Chandhs Reserved Forest</td> <td>8.00</td> <td>East</td> </tr> <tr> <td>9</td> <td>Sukh Protected Forest</td> <td>8.50</td> <td>East</td> </tr> </tbody> </table> | S. No. | Name | Distance (in km) | Direction | 1 | Badiha Reserved Forest | 7.00 | SW | 2 | Gadaria Reserved Forest | 5.00 | SW | 3 | Singhpur Khurd Reserved forest | 0.90 | SW | 4 | Salaiya Kalan Reserved Forest | (Along Southern Boundary) | | 5 | Salaiya Khurd Reserved Forest | (Along Southern Boundary) | | 6 | Kohdar Reserved Forest | (Along Eastern Boundary) | | 7 | Murpela Reserved Forest | 2.70 | East | 8 | East Chandhs Reserved Forest | 8.00 | East | 9 | Sukh Protected Forest | 8.50 | East | -- |
| S. No. | Name | Distance (in km) | Direction | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Badiha Reserved Forest | 7.00 | SW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Gadaria Reserved Forest | 5.00 | SW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Singhpur Khurd Reserved forest | 0.90 | SW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Salaiya Kalan Reserved Forest | (Along Southern Boundary) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Salaiya Khurd Reserved Forest | (Along Southern Boundary) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Kohdar Reserved Forest | (Along Eastern Boundary) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Murpela Reserved Forest | 2.70 | East | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | East Chandhs Reserved Forest | 8.00 | East | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Sukh Protected Forest | 8.50 | East | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10. | Archaeological sites/ monuments/ historical temples etc. | Not present in 10 km radius w.r.t TPP. Hence Not Applicable. | Not Applicable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11. | Facility envisaged in CRZ area | No | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12. | Involvement of Critically Polluted Area/Severely Polluted area as per 2018 CEPI score | No | -- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

11. The unit configuration and capacity of existing and proposed project is given as below:

| S. No. | Existing power plant configuration and capacity | Proposed power plant configuration and capacity | Total | Technology |
|--------|---|---|---------|--|
| 1. | 1320 MW (2x660 MW) Stage-I | 2400 MW (3x800 MW) Stage-II | 3720 MW | Operational Stage-I: 2 x 660 MW (based on Supercritical Technology) Proposed Stage-II: 3 x 800 MW (based on Ultra Supercritical Technology) |

12. The details of the fuel (coal/gas/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 (Million Metric Tonnes Per Annum) | Source | Distance from site (Kms) | Mode of Transportation | Coal characteristics (Worst case scenario) | Linkage |
|----------|--|-----------|--------------------------|------------------------|--|---------------|
| Existing | Coal: 7.34 | NCL & CCL | 250 (from | By rail | Ash content in coal | Agreement for |

| | | | | | | |
|-----------------|---------------------|-------|---------------------------|--------------|---|--|
| TPP | MMTPA | | NCL) 550 (from CCL) | | 34-43(%) Sulphur in coal 0.3 to 0.5(%) Moisture 13 to 14 (%) GCV in coal 3000 Kcal/Kg (NCL) 3900 Kcal/Kg (CCL) | NCL done on 3.02.2024 Agreement for CCL done on 05.02.2021 |
| | LDO: 2000 KLD | Local | 50 km | Road Tankers | - | - |
| Proposed TPP | Coal: 9.94 MMTPA | BCCL | 650 (from BCCL) | By rail | Ash content in coal 40(%) Sulphur in coal 0.3 to 0.5(%) Moisture 13 to 14 (%) GCV in coal | Coal linkage source is allocated from BCCL for Meja STPP Stage- II vide CIL letter dated 20.06.2024 |
| | LDO: 2000 KLD | Local | 50 km | Road Tankers | - | - |

13. **Water requirement:** Existing Water requirement is 95,416 m³/day (allotted water for Stage-I (1320 MW -2x660 MW) is 1,07,649 m³/day) (44 cusec), water requirement is obtained from River Ganga and permission for the same has been obtained from Central Water Commission vide letter no. 23/94/2006-PA(N)/2185-86 dated 17.11.2009. The water requirement for the proposed project Stage-II (2400 MW - 3x800 MW) is estimated as 72,000 m³/day (30 cusecs). 12,000 m³/day (5 cusec) shall be taken from surplus water from stage -I and balance 60,000 m³/day (25 cusec) of freshwater allocation from the River Ganga is under process.

The permission for drawl of surface water shall be obtained from Govt. of UP. In meeting of Chief Secretary (GoUP), dated 02.01.2025, directions were given to Irrigation & Water Resource Department, GoUP to issue letter for water allocation from UP share. The water will be transported to the plant site through pipeline. The specific water consumption for the power plant is 3 m³/MWhr.

14. **Power requirement:** The power requirement for the proposed construction project is estimated as 4 MW, will be obtained from the existing 2 No, 33 KV power line (Each having capacity to handle 4 MW) from Purvanchal Vidyut Vitran Nigam Limited.

15. Baseline Environmental Studies:

| Period | Post-monsoon 2023 (1 st October 2023 to 31 st December 2023) |
|---|---|
| AAQ parameters at 10 Locations (min and max) | PM ₁₀ (g/m ³) 42 – 94 PM _{2.5} (g/m ³) 17 – 54 SO ₂ (g/m ³) 5.4 – 13.9 NO ₂ (g/m ³) 9.0 – 17.3 CO (mg/m ³) 0.12 – 0.29 |
| Incremental GLC level | <ul style="list-style-type: none"> · PM = 2.42 (µg/ m³) (Level at 0.5 km in W Direction) · SO₂ = 10.12 (µg/ m³) (Level at 1.0 km in W Direction) · NO_x = 10.12 (µg/ m³) (Level at 1.0 km in W Direction) The Stage-II units (3x800 MW) will be designed to comply with the emission standards mandated by the Ministry of Environment, Forest and Climate Change (MoEF&CC) as specified in the notifications dated 07.12.2015 and its subsequent amendment on 26.06.2018. The design will incorporate the necessary systems to achieve these standards. To control the ash particles emission, high efficiency ESPs would be installed that would limit the particulate emission to 30 mg/Nm ³ . A chimney of suitable height, as per MoEF&CC Notification dated 28.06.2018, will be constructed to facilitate wider emissions, equipped with personal access for regular stack emission monitoring. One Twin Flue Chimney (220 m height for 2x800 MW) and one Single Flue Chimney (150 m height for 1x800 MW) is envisaged. A wet limestone-based Flue Gas Desulfurization (FGD) system will be installed |

| Period | Post-monsoon 2023 (1 st October 2023 to 31 st December 2023) | | | | | | | | | | | | | | | | | | | | |
|---|---|----------------------|--------------------|----------------------|--------------------|-----|---------|--------|---------------|------|---|------|--------------------|----------------------|--------------|-----|--|--|--|--|--|
| | behind ESP, at the tail end of the steam generator downstream in which SO ₂ gas shall be captured in limestone slurry (to limit SO ₂ emission below 100 mg/Nm ³) to produce gypsum. The scrubber will be provided with a bypass system. The FGD System shall also include auxiliary equipment and systems like mills, cyclones, vacuum filters, belt conveyors, pumps, storage vessels, piping and fittings, etc. NO _x emission from the steam generator shall be controlled by low NO _x Burners/System and combustion staging. For the control of Fugitive dust emission in and around the coal handling plant, coal dust extraction and suppression systems would be provided. Dust Suppression System would be installed at all requisite points in CHP and coal stock yard and ash dykes. | | | | | | | | | | | | | | | | | | | | |
| Ground water quality at 12 locations | pH: 6.89 to 7.78, Total Hardness: 148 to 544 mg/l, Chlorides: 40 to 311 mg/l, Fluoride: 0.32 to 0.68 mg/l, Heavy metals like were found below detection limit : Heavy metals like copper (as Cu)- < 0.01, Lead (as Pb)- <0.01, Cadmium(as Cd)- <0.003 ,Chromium (as Cr)-<0.05, Arsenic (as As)-<0.01 and Mercury(as Hg) :<0.001 | | | | | | | | | | | | | | | | | | | | |
| Surface water quality at 6 locations | pH: 7.40 to 7.92, DO: 4.4 to 6.6 mg/l, BOD: 2.7 to 8.2mg/l, COD from 12 to 48 mg/l, Heavy metals were found below detection Limit. Copper (as Cu)- <0.01, Lead (as Pb)- <0.01, Cadmium (as Cd)-<0.01, Chromium (as Cr)- <0.05, Arsenic (as As)- <0.025 and Mercury (as Hg) - <0.001 | | | | | | | | | | | | | | | | | | | | |
| Effluent generation details and its treatment | Effluent generation from TPP: 2065 m ³ /hr. Meja Stage-II has been envisaged with Air Cooled Condenser (ACC) technolog.. Mode of treatment & reuse: Proposed wastewater generated from various process is reused within the plant processes with and without treatment. Out of 2065 m ³ /hr of wastewater, only 150 m ³ /hr requires treatment through ETP before re-use. The ETP capacity is of 300 m ³ /hr which is adequate. The proposed plant is based on Zero Liquid Discharge (ZLD). Domestic wastewater generation: 50 KLD Mode of treatment & reuse: MBBR technology based STP; Treated water will be reused in plantation in the project premises. | | | | | | | | | | | | | | | | | | | | |
| Noise levels Leq (Day and Night) | 43.2 dB(A) to 45.4 dB(A) for the Day time and 37.4 dB(A) to 39.6 dB(A) for the Night time. The baseline Noise levels monitoring data in the study area is 50.2 to 60.4 dB(A) for the daytime and 40.3 to 53.9 dB(A) for the Night- time. Additional noise monitoring was also carried out for the sensitive locations like school, college and hospital present near to the project site. The daytime noise levels vary between 43.2 dB(A) to 45.4 dB(A) while the night time noise level varied between 37.4dB(A) to 39.6 dB(A). The noise levels at these sensitive locations were found well within standard for silence zones for daytime 50 dB(A) and night time 40 dB(A). | | | | | | | | | | | | | | | | | | | | |
| Traffic assessment study findings | <ul style="list-style-type: none"> Traffic study has been conducted at NH-135C which passes about 0.7 km, east of the plant site. Transportation of Coal will be done 100% by rail. Existing PCU is 84 PCU per hour (2019 PCU/day) NH-135C and existing level of service (LOS) is: <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume PCU/hr.)</th> <th>C (Capacity PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH-135C</td> <td>84 PCU</td> <td>1500 PCU/hour</td> <td>0.56</td> <td>A</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume PCU/hr.)</th> <th>C (Capacity PCU/hr.)</th> <th>Proposed V/C</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | Road | V (Volume PCU/hr.) | C (Capacity PCU/hr.) | Existing V/C Ratio | LOS | NH-135C | 84 PCU | 1500 PCU/hour | 0.56 | A | Road | V (Volume PCU/hr.) | C (Capacity PCU/hr.) | Proposed V/C | LOS | | | | | |
| Road | V (Volume PCU/hr.) | C (Capacity PCU/hr.) | Existing V/C Ratio | LOS | | | | | | | | | | | | | | | | | |
| NH-135C | 84 PCU | 1500 PCU/hour | 0.56 | A | | | | | | | | | | | | | | | | | |
| Road | V (Volume PCU/hr.) | C (Capacity PCU/hr.) | Proposed V/C | LOS | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

| Period | Post-monsoon 2023 (1 st October 2023 to 31 st December 2023) | | | |
|------------------------------|---|------------------------------|--------------|-------------|
| | | | Ratio | |
| | NH-135C | 154 | 1500 | 0.102 |
| | <p>* <i>Note: Capacity as per IRC-64:1990 Guidelines for capacity for roads.</i> Conclusion: The level of service (LOS) will be the same i.e. "A" after including additional traffic due to the proposed project</p> | | | |
| Soil Quality at 10 Locations | <p>pH range:7.38 to 7.89, Bulk density: 1.18 to 1.29 gm/cm³, Electrical conductivity (EC): 340 to 480 μmhos/cm, Calcium content: 1023 to 2085 mg/kg, Magnesium: 154.1 to 554.6 mg/kg, Potassium: 132 to 190 kg/ha, Nitrogen: 155 to 230 kg/ha, Phosphorous: 14.0 to 20.8 kg/ha, Cation Exchange Capacity (CEC): 9.5 to 16,1 meq/100gm, Organic carbon: 0.69 to 0.82 %</p> | | | |
| Flora and fauna | <p>Schedule-I species observed in the study area: Peafowl, Jungle Cat, Porcupine, Blackbuck, Hyaena, Rat Snake and Russel's Viper. Floristic Composition in the study area consists of 53 tree species, 26 shrub species, 21 herbs and 26 grasses, climber and weeds. For conservation of Schedule – I species present in the study area, a Wildlife Conservation Plan has been prepared in consultation with DFO and a budget of Rs. 3.51 Crores has been earmarked for the same. DFO has provided Wildlife Conservation (WLC) plan on 23.08.2024. The same has been submitted to Principal Chief Conservator of Forests (PCCF), Wildlife, Lucknow for approval.</p> | | | |
| Hydrogeology study | <p>Recommendations of the Hydrogeology study: MUNPL-MEJA Project submit that NIH details of the Hydrogeology recommendations are complied in Chapter 4 at Section 4.4.9 of the EIA report. NIH Roorkee Hydrogeology Study recommendations/ remedial measures to protect the surface and ground water resource from contamination, in future, are as follows: All the effluent drains are constructed with RCC. Drains are connected to ETP's for treatment and reuse for transportation of ash to Ash Ponds. Ash shall be disposed to Ash pond in High Concentrated Slurry Disposal form which itself is impervious in nature. Further bottom of the Ash Pond shall be properly lined with appropriate impermeable media to prevent any leaching of heavy metals or ground water contamination. As a part of conservation measure, extensive plantation along the plant boundary and along with their maintenance inside the plant and in the surrounding degraded forest areas is planned in a phased manner. A comprehensive action plan for plantation was developed by the Forestry Division Prayagraj and provided on 23.08.2024.</p> | | | NIH Roorkee |
| | Area of the land already developed as green belt | 163 Ha | | |
| | Area of future plantation planned on MUNPL acquired land (budget) | 318 Ha (Rs.32.62 Cr.) | | |
| | Total Green belt within MUNPL Land | 481 Ha | | |
| | Total area of MUNPL Land (1295 Ha available+ 110 Ha proposed) | 1405 Ha | | |
| | Percentage of Green Belt (Existing and Proposed) to total project land | 34.24 % (481 Ha/ 1405 Ha) | | |

| Period | Post-monsoon 2023 (1 st October 2023 to 31 st December 2023) | |
|---|---|----|
| | <p>c) Continuous monitoring of the groundwater. Regular monitoring of Ground water quality in nearby villages and around ash pond is being carried out through CSIR-IITR, Lucknow. Further, ground water level (open well) monitoring in surrounding 14 villages has been done through an accredited third party (M/s Prakriti Consultant Services, Lucknow) and the report has been submitted to Integrated Regional office, MoEF&CC, Lucknow on 03.02.2025. The activities shall be carried out on regular basis.</p> <p>MUNPL-MEJA project submit that, the project's treatment system includes several components designed to ensure water quality throughout various stages of the process. These components consist of following:</p> <ol style="list-style-type: none"> 1. Ash Water Recirculating System (AWRS), 2. Coal Slurry Settling Ponds (CSSP), 3. Effluent Treatment Plant (ETP) and 4. Sewage Treatment Plant (STP). <p>Each of these plants serves a specific function to maximise recycle and reuse of the treated effluents, to maintain optimal operational conditions and environmental compliance.</p> <p>Environment conservation and its awareness to the public are being carried in the surrounding villages on prominent environment days including World Water Day on 22nd March every year. On World Water Day emphasising about importance of water its conservation, and protection is carried through activities like</p> <ol style="list-style-type: none"> 1. Organising Nukkad natak in surrounding villages, schools and market areas. 2. Organised cycle rally campaign, quiz and drawing competitions in neighbouring schools. 3. Spreading awareness through banners at prominent locations. 4. Awareness on growing low water consuming species like Karanj and drought resistant species. 5. Mass plantation drive by MUNPL in local schools and village panchayath bhawans. <p>Communication is strengthened through coordination with local authorities and nearby communities to ensure they are aware and necessary preventive measures are taken at community level.</p> | |
| Impact study on bio-diversity and aquatic ecology | <p>Recommendations of study:</p> <p>For the proposed power plant, intake screens or meshes shall be installed at the entry point of the water supply pipeline in conjunction with the construction of an intake well. This intake screens/meshes will prevent larger aquatic organisms such as fish and frogs from entering into water supply system, thereby aiding in maintaining the aquatic ecological balance of the River Ganga.</p> <ol style="list-style-type: none"> 1. The design and concept of the proposed power plant is based on Zero Liquid Discharge with AWRS, CSSP, ETP & STP. Hence there will be no impact on water bodies. 2. Two Water Reservoir of 29 lac cubic meter capacity are available at MUNPL, to meet the water requirement during the lean season, which is sufficient for 14 days water requirement of both stages, existing and proposed. Water drawl from the river shall be regulated as per the instruction of State Irrigation Dept. 3. The aquatic ecology will be sustainable, and project will not have any significant impact even after the operation of the proposed power plant. <p>For conservation of Schedule – I species present in the study area, a</p> | -- |

| Period | Post-monsoon 2023 (1 st October 2023 to 31 st December 2023) | |
|-----------------------|--|--|
| | Wildlife Conservation Plan has been prepared in consultation with DFO and a budget of Rs. 3.51 Crores has been earmarked for the same. | |
| Risk assessment study | LDO Tank of 2000 KL is envisaged, Dyke for LDO storage tank shall be provided. A quantitative risk assessment for LDO has been carried out and provided in Chapter 7 of the Final EIA/EMP report. | |

16. 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 | Mode of Treatment | Disposal | Remarks |
|----------------------------|--|---|--|------------------------|---|---------|
| Hazardous Waste | | | | | | |
| 1 | Empty barrels/container / liners contaminated | Operation and Maintenance works (O&M works) | 60 TPA | Stored in covered area | Sale/disposal to authorized recyclers / TSDF. | - |
| 2 | Spent Ion exchange resin containing toxic metals | Water treatment | 2 TPA | Stored in covered area | Sale/disposal to authorized recyclers / TSDF. | - |
| 3 | Used or spent Oil | O&M works | 100 TPA | Stored in drum | Sale/disposal to authorized recyclers / TSDF. | - |
| 4 | Asbestos | O&M works | 0.1 TPA | Stored in covered shed | Disposal through TSDF | - |
| 5 | Waste residue containing oil | O&M works | 10 TPA | Stored in drum | Sale/disposal to authorized recyclers / TSDF. | - |
| 6 | Insulation waste | (O&M works) | 10 TPA | Stored in covered shed | Disposal through TSDF | - |
| Non-Hazardous Waste | | | | | | |
| 1 | Fly Ash | TPP | 3.024 MTPA (Million Tons Per Annum) | - | Sent to Cement Manufacturer/End users | |
| 2 | Bottom Ash | TPP | 0.756 MTPA | - | Ash Pond | |
| 3 | Gypsum | TPP | 4,34,250 TPA | - | Sent to end users | |

17. Public Consultation:

| | |
|--------------------------------|---|
| Details of advertisement given | The advertisement for public hearing for Meja Stage-II (3x800 MW) was published in the local newspaper Amar Ujala & in the main edition of the national newspaper Hindustan Times, on 22.05.2024. |
| Date of public consultation | 24.06.2024 |
| Venue | Salai Kala Community Centre village Salai Kala, Tehsil Meja, District Prayagraj, UP |
| Presiding Officer | Additional District Magistrate, Prayagraj |
| Major issues raised | |
| No. of people attended | More than 500 people attended and 55 participants attended the public hearing |

Action plan as per MoEF&CC O.M. dated 30/09/2020 to address the concerns of public consultation:

Public Hearing Action Plan

| S. No. | Proposed CER works to address the issues raised during Public Hearing | Total Estimated Cost (Rs. Crores) | Estimated Timelines |
|--------------|--|-----------------------------------|---------------------|
| 1 | Installation of 10 hand pump, 05 solar high mast light, 15 solar streetlights, and construction of public road in village Gadewara (400 m) | 1.25 | 01-02 Year |
| 2 | Repair of roads (500 mtr.), drains and water tank in (New Basti), construction of public roads (3000 mtr.), construction of drain for drainage near Triveni Road (500 mtr.), construction of 01 playground for children, providing hand pumps (08) and reboring (03) etc. in village Salaiya Kala and mobile health clinic (for all villages including Salaiya Kala) | 7.15 | 02-05 Year |
| 3 | Renovation of primary school, construction of public roads (1200 mtr.), installations of hand pumps (15), solar high mast lights (05), solar streetlights (30) and construction of bathing ghat, solar powered mini water scheme (05), cattle shed (02) etc. in Village Mai Kala | 4.00 | 02-05 Year |
| 4 | Construction of interlocking road (1500 mtr.), mini solar water scheme (07), hand pumps (20), solar streetlights (32), beautification of market, development of playground, interlocking in cowshed (gaushala), construction of paved drains (2000 mtr.) etc. in village Kohdar | 4.90 | 02-05 Year |
| 5 | Renovation of primary school, construction of interlocking road (2000 mtr.), mini solar water scheme (03), hand pumps (20), solar streetlights (40) etc. in village Salaiya Khurd | 3.00 | 02-04 Year |
| 6 | Construction of inter-locking road (2000 mtr.), hand pumps (10), solar streetlights (40), repair of overhead water tank and renovation of primary school etc. in village Jhariyahi | 2.00 | 02-04 Year |
| 7 | Construction of inter-locking road (2000 mtr.), hand pump (20) , solar streetlights (35), and renovation of primary school etc. in village Isota | 2.00 | 02-04 Year |
| 8 | Construction of interlocking road and drain (1000 mtr.), mini solar water scheme (02), hand pump (10), community toilet, Anganwadi Centre, solar streetlights (30) and renovation of primary school etc. in village Bijaura | 2.00 | 02-04 Year |
| 9 | Other Miscellaneous Work: Women Empowerment through skill development and Job oriented skill development trainings to youth such as CIPET, CRISP, CIDC and other implementation partners | 3.25 | 01-05 Year |
| 10 | Provisioning for CD Works in village Amiliya Kala | 5.00 | 01-05 Year |
| 11 | Rejuvenation of ponds in surrounding villages (100 Lakh), construction of new 4 ponds (254 Lakh), Environmental Lab (2.50 Lakh). | 3.56 | 01-05 Year |
| 12 | Dust suppression measures: Additional 4 Fog cannon (56 Lakh), Truck mounted Sprinkling & mechanized truck mounted sweeping machine (125 Lakh), Wheel Washing System (17.85 Lakh) | 0.99 | 01-02 Year |
| 13 | Approx. 100 m long approach road to ash dyke for diversion of ash bulkers shall be constructed matching with the construction of Kohdar-Meja-Khiri road | 1.00 | 01-02 Year |
| Total | | 40.10* | |

Note: * Additional budget of Rs.56.87 Cr is earmarked for development of green belt and incorporated in EMP budget

Note: i. Finalization of Village wise CD works shall be done through stakeholder consultation and Need Assessment Survey (under process). ii. Infrastructure development under Community Development (CD) works shall be executed after the allotment of Govt. Land

Theme wise breakup of proposed works

| S. No. | Proposed works to address the issues raised during Public Hearing and written demands given by Gram Pradhans & individuals | Estimated Cost (Rs Crore) | Estimated time | Remarks |
|--------------|---|---------------------------|----------------|---------|
| 1 | Infrastructure Development - Construction of roads in project affected villages, community development works, solar high mast light, solar streetlights, beautification of market, interlocking in Gaushala, Anganwadi Centre etc. | 16.55 | 01-05 Year | - |
| 2 | Cleanliness - Construction/Repair of drains, toilets and related infrastructure etc. | 4.00 | 01-05 Year | - |
| 3 | Water – Repair of overhead tanks and construction of related infrastructure facilities etc. | 3.00 | 01-05 Year | - |
| 4 | Health - Development of health infrastructure, conducting medical camps etc. | 3.50 | 01-05 Year | - |
| 5 | Education - Renovation of schools, provision of playgrounds, smart classes, furniture, and renovation of infrastructure etc. | 3.50 | 01-05 Year | - |
| 6 | Skill Development and Job Oriented Trainings - to increase employability | 4.00 | 01-05 Year | - |
| 7 | Environment related works (Dust suppression, Alternate route for ash transport, Environment lab and rejuvenation pond) | 5.55 | 01 -05 Year | - |
| TOTAL | | 40.10* | | |

* Additional budget of Rs.56.87 Cr is earmarked for development of green belt and plantation for carbon sink and incorporated in EMP budget.

18. Cost of project: Existing capital cost of project was Rs. 13,093 Cr. The capital cost of the proposed Stage-II project is Rs 25,081.88 Crores and the capital cost for environmental protection measures is proposed as Rs. 2,952.71 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 58.45 Crores. The employment generation from the proposed project / expansion during construction and operation phase is 5046 (60 permanent and 4986 temporary) and 5250 (210 permanent and 5040 temporary) respectively. The details of cost for environmental protection measures are as follows:

| S. No | Description of Item | Existing (Rs. In Crores) | | Proposed (Rs. In Crores) | |
|--------|--|--------------------------|----------------|--------------------------|----------------|
| | | Capital Cost | Recurring Cost | Capital Cost | Recurring Cost |
| (i). | Air Pollution Control | 408.06 | 8.16 | 1472.40 | 29.29 |
| (ii). | Noise Control | | | | |
| (iii). | Water Pollution Control | 10.00 | 0.20 | 31.87 | 0.63 |
| (iv). | Ash Management | 322.80 | 6.46 | 1319.75 | 26.12 |
| (v). | Environmental Monitoring and wildlife Management | 0.50 | 0.01 | 38.72 | 0.61 |
| (vi). | Green Belt Development | 2.00 | 0.04 | 55.42 | 1.11 |
| (vii). | CER Budget | 35.03 | 0.70 | 34.55 | 0.69 |
| ** | Addressal of Public Consultation issues | Separate fund | | | |
| | Total | 778.39 | 15.57 | 2,952.71 | 58.45 |

19. Green belt development: Existing green belt has been developed in 163 Ha area. For the proposed expansion, MUNPL plans to establish an additional 324 Ha of dense greenbelt within the premises, bringing the total greenbelt area to 487 Ha i.e. 34.66% of the total land area of 1405 Ha. Besides over and above the greenbelt, as carbon sink, additional plantation shall be done in 271 Ha of degraded forest area in consultation with DFO Prayagraj. Native species of trees shall be planted in consultation with DFO, Social forestry department. MUNPL consulted Divisional Forest Officer-Prayagraj for assistance in plantation within MUNPL premises and in the surrounding degraded forest land under DFO-Prayagraj. MUNPL has proposed planting in degraded forest areas, a total of 271 Ha of plantation has been identified by MUNPL in

consultation with the Forestry Division Prayagraj.

A comprehensive action plan for this external plantation has been developed and approved by the Forestry Division Prayagraj.

Action Plan for Greenbelt development

| S. No. | Description | Area (Ha) | Time Period | Budget | Remarks |
|---|--|------------|-------------------------------|------------------------|---|
| 1 | Area of the land already developed as green belt | 163 | Already done | Already done | |
| 2 | Area of future plantation planned on MUNPL acquired land | 261 | From FY 2025-26 to FY 2029-30 | Rs. 26.78 Crore | Plantation in MUNPL land of 261 Ha (80.55% of planned green belt area of 324 Ha) shall be carried out in first 5 years. |
| 3 | Area of future plantation planned on MUNPL acquired land | 63 | From FY 2030-31 to FY 2032-33 | Rs. 6.46 Crore | Plantation in MUNPL land of 63 Ha (19.45 % of planned green belt area of 324 Ha), planned to be used as Laydown/Pre-assembly area, shall be carried out in next 3 years after completion of plant erection. |
| Total Green belt (Existing & Proposed) within MUNPL Land | | 487 | 2025 to 2033 | Rs. 33.24 Crore | 487 Ha is 34.66% of total land of 1405 Ha |

Note: In addition to the development of Greenbelt with a budget of Rs. 33.24 Crore, Carbon sink through plantation in nearby forest land will be done with a budget of Rs. 24.25 Crore. Total Budget for Green Belt development and Carbon Sink plantation shall be Rs. 57.49 Crore.

Remarks:

1. Plantation in MUNPL land of 261 Ha (80.55% of planned green belt area of 324 Ha) shall be carried out in first 5 years.
2. Balance land of 63 Ha (19.45 % of planned green belt area of 324 Ha) marked for storage and pre-assembly works of Stage - II to be used by vendor shall be cleared in phase wise manner after five years, hence the same shall be developed as green belt within next 3 years after completion of plant erection.

Year Wise Plan of Green belt development within MUNPL land

| S. No | Year | Within MUNPL Land | |
|--------------|-----------|-------------------|----------------------------|
| | | Area (Ha) | Earmarked Budget (Rs. Cr.) |
| 1 | 2025-2026 | 50 | 5.13 |
| 2 | 2026-2027 | 55 | 5.64 |
| 3 | 2027-2028 | 50 | 5.13 |
| 4 | 2028-2029 | 50 | 5.13 |
| 5 | 2029-2030 | 56 | 5.75 |
| 6 | 2030-2031 | 25 | 2.57 |
| 7 | 2031-2032 | 25 | 2.57 |
| 8 | 2032-2033 | 13 | 1.325 |
| Total | | 324 | 33.24 |

Note: Budget of plantation is prepared based on the Scheduled of Rate (SoR) of forest department, Uttar Pradesh, which is provided to MUNPL during consultation taken from DFO, Social forestry, Prayagraj. The budget shall be increased, based on increment in SoR of forest department, Uttar Pradesh.

20. Ash management: Ash management for last three years (For the existing project):

| Year | Quantity Generated (LMT) | Quantity utilized (LMT) | % of Utilization | Balance Quantity (LMT) | No of storage silos with capacity |
|------------|--------------------------|-------------------------|------------------|------------------------|-----------------------------------|
| FY 2021-22 | 18.23 | 13.21 | 72.46 | 5.02 | HCS Silos: 03 (each |

| Year | Quantity Generated (LMT) | Quantity utilized (LMT) | % of Utilization | Balance Quantity (LMTP) | No of storage silos with capacity |
|------------|--------------------------|-------------------------|------------------|-------------------------|--|
| FY 2022-23 | 15.73 | 9.82 | 62.39 | 5.91 | of capacity 525 MT) |
| FY 2023-24 | 17.85 | 12.63 | 70.78 | 5.22 | Fly ash silos: 04 (each capacity 1200 MT) |

A. Ash pond details:

| S.No. | Details of Ash pond | Lagoon 1 | Lagoon 2 | Lagoon 3 | Total |
|-------|--|--|----------------------|---------------------|------------|
| 1. | Status of ash pond (Active Exhausted (yet to be reclaimed). Reclaimed) | Active | Active | Active | N.A. |
| 2. | Area HA | 101.2 | 80.9 | 72.8 | 254.9 |
| 3. | Dyke height (m)RL/ Max / Avg height from ground (m) | 97.0 / 9.50 / 4.75 | 110.0 / 20.0 / 10.0 | 110.0 / 17.5 / 8.75 | N.A. |
| 4. | Volume m3 | 23.47 Lakh | 29.79 Lakh | 16.25 Lakh | 69.51 Lakh |
| 5. | Quantity of ash disposed (Metric Tons) | 16.26 Lakh | 0.51 Lakh | 8.75 Lakh | 25.52 lakh |
| 6. | Available volume in percentage (per cent) and quantity of ash can be further disposed (Metric Tons) | 27.2 % 7.21 Lakh | 96.8 % 29.28 Lakh | 46.9 % 7.54 Lakh | 44.03 Lakh |
| 7. | Expected life of ash pond (number of years and months) | Volumetric capacity of HCSD dyke will be sufficient for 2 Years and the same of bottom ash dyke will be sufficient for 16 Years. | | | N.A. |
| 8. | Type lining carried in ash pond: HDPE lining of LDPE Inning or clay Inning or No lining | High Concentrated Slurry Lining. Bentonite lining provided in OFL. | | | N.A. |
| 9. | Mode of disposal: Dry disposal or wet slurry (in case of wet slurry please specify whether HCSD or MCSD or LCSD) | HCSD | LCSD | LCSD | N.A. |
| 10. | Ratio of ash:water in slurry | 3:2 | 1:4 | 1:4 | N.A. |
| 11. | Ash water recycling system (AWRS) installed and functioning : Yes or No | NA | Yes | Yes | N.A. |
| 12. | Quantity of waste water from ash pond discharged into land or water body (m3) | Nil | Nil | Nil | N.A. |
| 13. | Last date when the dyke stability study was conducted and name of organization who conducted the study: | Ash Dyke stability carried on 25.11.2021 by IIT Roorkee. | | | N.A. |
| 14. | Last date when the audit was conducted and name of the organization who conducted the audit: | Audit carried on 25.04.2024 by Motilal Nehru National Institute of Technology, Allahabad. | | | N.A. |

B. Proposed ash utilization plan for expansion project:

MUNPL-MEJA Project submits that Ash Utilization (AU) shall be done as per MoEF&CC notification dated 31.12.2021 and its amendments.

The proposed MUNPL-MEJA STAGE-II project to commission one of its proposed 3 units of 800MW in FY 2030-2031 and other two units in FY 2031-2032.

| Details | Existing Generation (MTPA) | Proposed Generation (MTPA) | Total | Utilization (MTPA) | % of Utilization | Balancing Quantity | No of storage silos with capacity |
|---|----------------------------|----------------------------|-------|--------------------|------------------|--------------------|-----------------------------------|
| AU details with Operation of Stage-I : 2x660MW (Stg-I) | | | | | | | |
| 2028-29 | 25.55 | 0 | 25.55 | 35.77 | 140.0 | 0 | |
| 2029-30 | 25.55 | 0 | 25.55 | 20.44 | 101.2 | 5.11 | HCSD Silos: 03 |
| AU details with Operation of Stage-I and Commissioning and Operation of one unit of 800MW in | | | | | | | |
| (each of capacity | | | | | | | |

| | | | | | | | |
|--|-------|-------|-------|-------|-------|------|---|
| Stage-II : 2x660 MW(Stg-I) + 1x800 MW (Stg-II) | | | | | | | 525 MT) |
| 2030-31 | 25.55 | 15.49 | 41.04 | 32.83 | 80 | 8.21 | Fly ash silos: 04 (each capacity 1200 MT) |
| AU details with Operation of Stage-I and Commissioning and Operation of all 3 units in Stage-II : 2x660 MW(Stg-I) + 3x800 MW (Stg-II) | | | | | | | |
| 2031-32 | 25.55 | 46.46 | 72.01 | 85.33 | 118.5 | 0 | |

Ash pond details: New ash pond details is provided as below:

| S. No. | Details of Ash Pond | Earlier | Optimised |
|--------|--|---|--|
| 1. | Area (Ha) | 110 | 89 |
| 2. | Dyke height (m) | 16 m (Avg height) | 16 m (Avg height) |
| 3. | Volume (m ³) | 10 Million m ³ | 8.75 Million m ³ |
| 4. | Quantity of ash to be disposed (Metric Tons) | 10 Million Metric Tons | 8.75 Million Metric Tons |
| 5. | Expected life of ash pond (number of years and months) | 2 Years 01 Months (w.r.t. total ash generation of Stage-II) | 1 Years 9 months (w.r.t. total ash generation of Stage-II) |
| 6. | Type lining carried in ash pond: HDPE lining or LDPE lining or clay lining or No lining | Suitable impervious lining as per actual site conditions meeting the imperviousness requirements as per "CEA and CPCB Guidelines for Design, Construction, O&M and Annual certification of Coal Ash Ponds". | |
| 7. | Mode of disposal: Dry disposal or wet slurry (in case of wet slurry please specify whether HCSD or MCSD or LCSD) | LCSD | |
| 8. | Ratio of ash: water in slurry mix | 1:4 | |
| 9. | Ash water recycling system (AWRS): | Yes | |
| 10. | Quantity of wastewater from ash pond to be discharged into land or water body (m ³) | NIL | |
| 11. | Details regarding dyke stability study and name of the organization who conducted the study. | As already done in all past ash dyke stability design, this will also be done by NTPC, (in-house design) in line with "CEA and CPCB Guidelines for Design, Construction, O&M and Annual certification of Coal Ash Ponds". | |

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

A. Summary of court cases:

There are a total of 73 cases pending against MUNPL, there is only one environment related case. Moreover, for the pending environment case before NGT-Principal Bench Delhi where apprehensions regarding water usage from Ganges at Sangam and its impact on water availability thereof have been raised. The grievance is on the account of such withdrawal of water, water scarcity is created in River Yamuna and River Ganga in Prayagraj as a result of which, the very organisation of Kumbh mela and Magh mela will be difficult in next 20 years. By virtue of the notice received from NGT, MUNPL has submitted vide an affidavit that MUNPL is drawing water 40kms downstream of Sangam and within the permitted allocated usage, therefore submitting that "MUNPL is not using water which is beyond the limits or criteria and laws established by MoEF&CC."

Segregation of Cases

| S. No. | Case Type | Number |
|--------|------------------------------------|--------|
| 1. | Arbitration, Adjudication, and ESC | 5 |
| 2. | Insolvency | 3 |
| 3. | Environment (NGT) | 1 |
| 4. | Criminal | 1 |
| 5. | Labour | 27 |
| 6. | Land | 36 |

| | |
|--------------|-----------|
| Total | 73 |
|--------------|-----------|

A Brief about NGT Case

| Case No./ Title | Name of the Court | Brief Summary of the case | Last date of hearing | PRESENT STATUS |
|--|--------------------------------|---|----------------------|---|
| Original Application No. 203/2022 Kamlesh Singh Versus State of UP & Ors. | National Green Tribunal, Delhi | By way of a letter petition wherein a grievance has been raised that Kishanpur Canal is extracting 420 cusec water from River Yamuna for irrigation purpose and 96 cusec water is utilized by Bara Thermal Power Plant, 80 MLD water by Nagar Nigam, Meja & Karchana 54 MLD and NTPC Meja 90 cusec water. The plea made by the appellant wrt NTPC MEJA is not factual. | February 11, 2025 | Disposed on March 3, 2025 with a direction to the authorities to ensure that the E-flow in river Ganga is maintained in terms of the notification dated 09.10.2018. |

B. Summary of Show Cause Notices: Nil

C. Summary of violation: PP reported that no any violation case pertaining to the Environmental Protection Act, 1986; Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 and Wildlife (Protection) Act, 1972 are pending against the proposed project.

22. Compliance to the observations of sub-committee site visit report – EAC Subcommittee visited on 15th to 19th Jan 2025. Action Plan in response to report of the site visit by EAC Sub-Committee is given below:

| S.N | Description | Action Plan |
|-----|---|--|
| 1 | PP should make plantation in more than 33% area as green belt development requirement in the available land only. For this PP can use the vacant area lying around the ash dykes, internal roads, residential colony, and gap area. | Revised greenbelt action plan has been submitted as mentioned above. |
| 2 | PP should ensure 100% ash utilization and proper maintenance and management of the ash pond/dyke including its lining, as per the guidelines issued by the CPCB/CEA. | Revised ash utilization plan has been submitted as mentioned above. |
| 3 | Construction of bund, demarcation, proper fencing, signboards, and plantation all around the boundary of ash ponds be ensured. | Rakhad Dam is a restricted area where Ash utilization and Dam raising works are carried out from time to time, hence it is not possible to construct fencing. However, the concerned contract agencies have posted their guards to prevent the movement of stray animals. Also, sign boards showing restricted area are placed around the boundary. Plantation in 85 Ha land around Ash pond shall be carried out as per plan. |
| 4 | Provision of Wheel Washing System at the entry and exit to the plant and Ash Pond should be made. | Proposal for procurement and installation of Wheel Washing System with an estimated cost of Rs. 17.85 lacs has been initiated on 22.02.2025. The system shall be in place by Oct 2025. |
| 5 | Regular monitoring system to check groundwater quality in surrounding areas and also at | Regular monitoring of Ground water quality in nearby villages and around ash pond is being carried out through CSIR-IITR, Lucknow. Further, ground water level (open well) monitoring in surrounding 14 villages has been done through |

| | | |
|---|---|---|
| | ash ponds be ensured. | an accredited third party (M/s Prakriti Consultant Services, Lucknow) and the report has been submitted to Regional Office, MoEF&CC, Lucknow on 03.02.2025. The activities shall be carried out on regular basis. |
| 6 | Approach road to the Ash Pond shall be concreted and regular spraying of water through fog canons/ fixed sprinklers to check the re-suspension of dust during transportation. | Ash Pond approach road concreting work is under progress. Target of completion of the work is May 2025. In Ash Pond, 30 nos. of water sprinklers have been provided which are under operation. Water sprinkling along the internal roads in Ash Pond is being carried out on daily basis. Also, 1 no. Fog Water Cannon machine has been deployed in Ash Pond to suppress fugitive dust. Additionally, station has taken action for procurement of 4 nos. Fog Cannon machines with an estimated cost of Rs. 56 lacs. The supply of these machines is expected by Oct 2025. |
| 7 | Adequate environmental safety measures must be planned for the health and safety of the school children and villagers located in Buffer Zone. | Mai Khurd is located 0.5 Km NW (in cross wind direction) to the project site. Vijay Degree College located in Salaiya Kala village, which is 0.68 Km, in SSW (in up wind direction) from the project boundary. Existing mitigation measures are as follows: 1. FGD of both the units are in operation. 2. Dry fly ash is being transported through Closed wagon rakes of railways which has further reduced the vehicular emission. 3. Ash pond Lagoon-II and Lagoon-III are water covered. 4. In Ash Pond, 30 nos of water sprinklers are provided to suppress fugitive dust. 5. Water sprinkling along the roads/ approaches in and around Ash Pond is being carried out regularly with 02 nos. water tankers. Further additional 02 more water tankers are deployed for sprinkling along the approach roads to plant and township. 6. Fog Cannon is deployed in Ash Pond as well as in surrounding areas to suppress fugitive dust. 7. During coal unloading at Wagon Tippler pre-wetting and dust suppression system is in service. 8. In Coal yard 88 nos. of water sprinklers are installed and in service. 9. Dust extraction system is in service in crusher house and dry fog dust suppression systems is in service in coal conveyors. Proposed Mitigation measures are as follows: 1. State-of-the-art "Ultra Super Critical Technology" with higher efficiency has lesser emission of CO ₂ (12-13 % less with respect to sub critical units). 2. Increase of number of Dry fly ash closed wagon rakes through railways to further reduce the vehicular emission. 3. Use of Low NOx burner will reduce NOx emission. 4. Use of highly efficient ESP will reduce PM emission to less than 30mg/Nm ³ as per MoEF&CC norms. 5. Use of Wet Flue Gas Desulphurization (FGD) will reduce the PM and SO ₂ emission as well as low flue gas exit temperature, which shall improve climatic conditions. 6. As a mitigation measure, MUNPL has already undertaken plantation activities in nearby settlements close to the project boundary. Additionally, as part of the proposed expansion project, a dense greenbelt will be developed within the project area and around the ash dyke. Out of the total 303 Ha., approximately 70 Ha. of land has been identified by MUNPL, prioritizing the Mai Khurd village & Vijay Degree College, which shall work as barrier between the school, village and project boundary to mitigate noise and dust exposure. |
| 8 | PP should install solar panels on the plant buildings and provide solar street lights in | The project of 3.5 MW capacity for rooftop solar is in progress under existing Stage-I and the target for completion of the same is March'26. Additionally, installation of 1.5 MW rooftop solar panel within plant buildings |

| | | |
|----|--|--|
| | the nearby villages. | <p>has been included in the scope of Stage-II EPC package.</p> <p>MUNPL has demonstrated its commitment to sustainability and corporate social responsibility by executing several solar-powered projects over the last three years. Below is a summary of the projects along with their respective contract values:</p> <p>i. Installation works of 01 Off grid Solar Power System (5 KW) at Women Degree College, Kaithwal, Ladiyari. The contract value was Rs. 7.84 Lakh.</p> <p>ii. Installation of 294 Nos. Solar Powered Street Lights in the nearby villages of MUNPL. The contract value was Rs. 60.90 Lakh.</p> <p>iii. Installation of 20 Nos. Solar Powered High Mast in the nearby villages of MUNPL. The contract value was Rs. 25.53 Lakh.</p> <p>Grand Total: Rs. 94.27 Lakh</p> <p>The above initiatives highlight MUNPL's efforts to promote renewable energy, improve community infrastructure, and support education and public welfare through sustainable solutions.</p> <p>Further, MUNPL has outlined its future plans for solar-powered projects under its Corporate Social Responsibility (CSR) initiatives for the fiscal year 2025-26. The proposed projects are as follows:</p> <p>i. Installation of 200 Nos. Solar Powered Street Lights in the nearby villages of MUNPL. The contract value is Rs. 42.19 Lakh.</p> <p>ii. Installation of 15 Nos. Solar Powered High Mast in the nearby villages of MUNPL. The contract value is Rs. 19.14 Lakh.</p> <p>Grand Total: Rs. 61.33 Lakh (Proposed)</p> <p>These planned initiatives further underscore MUNPL's commitment to leveraging solar energy for sustainable development, enhancing community infrastructure, and improving the quality of life in nearby villages.</p> |
| 9 | The sub-committee also visited the Environmental Lab of the project. A few more environmental monitoring instruments are required to be added in the Lab. An environmental management cell Head should be deputed with Environmental Science/Environmental Engineering qualification for proper environmental management of the plant. | <p>a) SOx, NOx, Methane, CO, VOCs measuring instruments are available at site.</p> <p>b) Ozone kit is under procurement with an estimated cost of 2.50 lacs. Target for supply is June 2025.</p> <p>c) Orders for procurement of Water testing kit and RADON meter have been placed with a value of 20,702/-. Target for supply is March 2025.</p> <p>d) SPM portable monitoring instruments is under procurement with estimated value of 60000/-. Target for supply is September 2025.</p> <p>Further, Environmental Management cell is headed by Senior Executive and report directly to CEO and is supported by 2 specialists in Chemistry (for environment lab) and 2 specialists in Environmental Science (for environmental management of the plant).</p> |
| 10 | The tractor-mounted water sprinkling system should be replaced by the truck-mounted system. | Contract proposal has been processed for deployment of Truck mounted Sprinkling system with an estimated cost of 10.85 lacs per annum and is expected to be awarded by July 2025. |
| 11 | There is only one Fog cannon machine available in the plant. Four (4) additional Fog Cannon machines should be deployed. | Station has taken action for procurement of additional 4 nos. Fog Cannon Machines with an estimated cost of 56 lacs. The supply of these machines is expected by October 2025. |
| 12 | Truck-mounted Road sweeping machine should also be deployed to minimize road dust in sensitive areas like fly ash silos. Coal yards etc. | Biennial contract proposal has been processed for deployment of mechanised truck mounted sweeping machine with an estimated cost of 1.25 crore and is expected to be awarded by July 2025. |
| 13 | An additional alternate route | NIT for widening of Kohdar-Khiri Road has been done by PWD. |

| | | |
|----|--|---|
| | for ash transport by road to reduce the pollution load on the existing road transport which passes through populated areas shall be constructed. This can be achieved by construction of approx. 300m long road to ash dyke for diversion of ash bulkers matching with Kohdar-Meja-Khiri road. | Construction of approx. 100 m connecting road on land will be done by MUNPL for which a budget provision of 1 Crore has been made. |
| 14 | Water harvesting system should be strengthened in and around the plant with conserving the existing waterbodies. | For strengthening water harvesting system, 4 nos. of water ponds shall be constructed in and around the plant with approx. 41,700 m ³ water holding capacity. Budget provision of 2.54 Crore for the same has been made. Out of these 4 water ponds, 1 water pond shall be made ready by October 2025 and other 3 water ponds will be ready by March 2026. |

23. The above additional information was deliberated by the EAC in its 20th meeting held on 24.02.2025. The proposal was again deferred by the EAC for want of following additional information. Proponent uploaded the ADS reply through PARIVESH on 12.03.2025.

a. As per the revised closure report dated 24/02/2025 received from Regional Office, the proponent is still not complying with the following prescribed EC conditions with respect to the existing project:

- As per the specific, condition no. III "land requirement shall be restricted to 1100 acre (including ash pond) [445.34 Ha]". However it has come to notice that PA's have acquired around 2762.63 acre (1118.47 Ha) of land, which is 1762.63 acre (713.61 Ha) more as mentioned in the EC.
- As per the land breakup submitted by PP, it has been observed that the total land area acquired for Stage I is 1295 ha. (3200.015 Acre), which is still more than the land mentioned in the EC condition.
- PAs have also changed their coal linkage from SECL to CCL and NCL in 2021. However, no EC amendment has been taken so far, which is required as per the Ministry Office Memorandum no. J13012/8/2009-IA.II (T) dated 11.11.2020.
- It has been found that the PAs have yet not submitted fly ash returns to this office. It is required to submit fly ash returns to this office regularly.

The Committee asked the proponent to submit an action taken report on the above points.

b. The land break up of 1409 ha is observed to be quite confusing and there is no clarity on the area earmarked for the existing and proposed green belt details. The land break up given in the EIA report, presentation made before the EAC and in the brief summary are found to be not in consistent with each other. PP was advised to revisit and correct the same in totality.

c. The proposal involves acquisition of additional land of 114 ha (Govt land: 110 Ha & Private land: 4 Ha) for the project. As per the MoEF&CC O.M. dated 7/10/2014 as amended on 20/02/2025, proponent is required to submit a confirmation from the State Government (or) authorized agency indicating their intent to acquire land for the project as indicated in the EIA report of the project for the Government land. With respect to private land, the proponent is required to submit consent obtained from the landowners. No document has been made available by the project proponent in this regard.

d. Action plan prepared to address the issues raised during public hearing is as furnished in the EIA report and presentation made before the EAC found to be not in consistent with each other. PP was advised to revisit the same.

e. The area earmarked for the existing and proposed green belt details as given in the EIA report, presentation made before the EAC and in the brief summary are found to be not in consistent with each other. PP was advised to revisit the same. Revised green belt action plan shall be submitted.

f. The area earmarked for the proposed ash pond was 110 Ha and the same got optimized to 95 Ha. However, the ash pond details for the revised area of 95 Ha has not been made available.

g. Compliance to the recommendations of the site visit report of EAC Sub-Committee have not been submitted.

h. Assessment of Carbon emissions and brief plan for Carbon emission mitigation has not been submitted.

i. The proponent shall revisit the entire data submitted for the instant proposal in totality and all the requisite documents such as EIA/EMP report and presentation etc., shall be revised to ensure the consistency of the data.

In addition to the above, Ministry was in receipt of representation regarding the instant project. Proponent submitted point-

wise reply to the said representation through Parivesh on 24/03/2025. The additional information submitted by the proponent on 12/03/2025 and 24/03/2025 was deliberated in the 23rd EAC meeting held on 04/04/2025.

24. **Written submissions:**

Project proponent submitted the following written submissions during the meeting:

- i. Revised action plan for Greenbelt development.
- ii. Hon'ble NGT Order dated 03/03/2025 in Original Application No. 203/2022 Kamlesh Singh Versus State of UP & Ors.
- iii. Carbon Sequestration Through Existing Plantation
- iv. Exemption given by MoP to Meja TPS from linking with STP vide Office Memorandum dated 10.01.23
- v. Revised land details
- vi. Review of proposed Ash dyke Land: The proposed ash dyke land has been further reviewed and reduced from 95 Ha to 89 Ha, which is the technical minimum requirement. The remaining 6 Ha (95 Ha-89 Ha) land shall also be used for Greenbelt development. Hence, out of 110 Ha additional land proposed for Stage-II, 89 Ha is proposed to be used for Ash dyke purpose and 21 Ha is proposed to be used for Greenbelt development. The Ash Pond details and area calculation has also been submitted.

Observations and deliberation of the EAC

25. The Committee observed and noted the following:

- i. Instant proposal is for Expansion of Meja Coal Based Thermal Power Project from 1320 MW (2x660 – Stage I) to 3720 MW (with 3x800 MW- Stage II) by M/s. Meja Urja Nigam Private Limited located at Village- Kohdar, Mai Khurd & Patai Dandi, Tehsil Meja, District Prayagraj, Uttar Pradesh.
- ii. The existing project 1320 MW (2x660 MW Stage-I) was accorded environmental clearance on 10.01.2011 and subsequently amended by the Ministry vide letters dated 21.07.2017, 08.01.2018, 28.03.2019, 08.08.2019 & 25.09.2020. Project has been implemented and the unit is under operation. Consent to Operate renewal for existing Stage-I (2x660 MW) was accorded by Uttar Pradesh Pollution Control Board on 31.12.2024 and is valid up to 31.12.2026.
- iii. Committee deliberated on the certified compliance report of the existing unit including the closure report dated 24/02/2025 along with the action taken of the proponent and found it satisfactory.
- iv. ToR for the proposed expansion project was obtained on 14/12/2023.
- v. Total land under possession of M/s. Meja Urja Nigam Private Limited is 1295 Ha including existing unit. A total area of 370.220 Ha will be required for the proposed expansion, which is within the existing project boundary of 1295 Ha. In addition to this, additional land requirement for the proposed expansion is 110 Ha.
- vi. With respect to land acquisition of 110 Ha, the District Magistrate, Prayagraj, vide letter dated 27.03.2025, has issued a demand notice. The requisite payment of Rs. 106.95 crores by MUNPL to the State Government is reportedly under process.
- vii. Proposal involves no involvement of forest land.
- viii. The EAC also took into consideration the drone survey of the project site and KML file on the Google Earth presented by the project proponent along with DSS of the project site on PARIVESH.
- ix. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site as ascertained from DSS.
- x. The project site is not located within the Critically Polluted Area (CPA) / Severally Polluted Area (SPA) as per CEPI assessment 2018 of CPCB.
- xi. Tons river is located at distance of 950 m from the project site. According to the irrigation department letter dated 10.01.2025, the flood zone for this area has not been determined to date. However, the nearest Highest Flood Level (HFL)

gauge to the Meja site is located at Meja Road, 23 km downstream of the site, with the highest recorded HFL at 87.17 m. The nearest upstream gauge is at the Tons Pump House, approximately 32 km from the project site, where the highest recorded HFL over the past 50 years was 98 m. Since Meja Urja Nigam Pvt. Ltd. (MUNPL) project site level will be maintained at 101 m to 104.5 m, both the upstream and downstream HFLs of the Tons River are below the project site level. In view of this, no impact on Tons river is envisaged.

xii. Mai Khurd is located 0.5 Km NW (in cross wind direction) to the project site. Vijay Degree College located in Salaiya Kala village, which is 0.68 Km, in SSW (in up wind direction) from the project boundary. A dense greenbelt will be developed prioritizing the Mai Khurd village & Vijay Degree College, which shall work as barrier between the school, village and project boundary to mitigate noise and dust exposure.

xiii. Coal requirement for Stage-I (7.34 MMTPA) & Stage II (9.94 MMTPA) project will be met through rail. There will be no road transportation of coal for Stage- I & II.

xiv. Existing Water requirement is 95,416 m³/day (allotted water for Stage-I (1320 MW -2x660 MW) is 1,07,649 m³/day (44 cusec), water requirement is obtained from River Ganga and permission for the same has been obtained from Central Water Commission on 17.11.2009. The water requirement for the proposed project Stage-II (2400 MW - 3x800 MW) is estimated as 72,000 m³/day (30 cusecs). 12,000 m³/day (5 cusec) shall be taken from surplus water from stage -I and balance 60,000 m³/day (25 cusec) of freshwater allocation from the River Ganga is under process. For freshwater conservation Air Cooled Condenser System will be used in Meja STPP Stage-II.

xv. The Committee deliberated on the baseline data and incremental GLC due to the proposed project and observed that AAQ levels are within NAAQS.

xvi. The Stage-II units (3x800 MW) will incorporate high-efficiency (with 99.99%) Electrostatic Precipitators (ESP) to control ash particle emissions. These ESPs will design to limit particulate emissions to 30 mg/Nm³. Besides, one Twin Flue Chimney (220 m height for 2x800 MW) and one Single Flue Chimney (150 m height for 1x800 MW) is envisaged. A wet limestone-based Flue Gas Desulphurization (FGD) system will be installed behind ESP, at the tail end of the steam generator downstream in which SO₂ gas shall be captured in limestone slurry (to limit SO₂ emission below 100 mg/Nm³) to produce gypsum.

xvii. Total wastewater generation from the existing and expansion project is 3600 KLD. The Effluent Treatment Plant (ETP) of 300 m³/hr is envisaged to treat the effluent.

xviii. There are 7 Schedule I Species found in the buffer zone and a Wildlife Conservation & Management Plan (WLCP) has been prepared and submitted to Principal Chief Conservator of Forest (Wildlife), Govt. of Bihar for the approval.

xix. Committee deliberated on the action plan arising out of Hydrogeology study and bio-diversity and found it satisfactory.

xx. Public hearing for the project was held on 24/06/2024. The Committee looked in to the videography of the public hearing proceedings, deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory. The committee advised the PP to implement the PH action plan in a time bound manner.

xxi. Committee deliberated on the existing ash management and observed that percentage of ash utilization for the year 2023-24 is observed to be only 70.78%. Committee asked the proponent to achieve 100 % ash utilization. Further, with respect to the proposed new ash pond, the committee asked the proponent to optimize the land area. Accordingly, PP optimized the area from 95 Ha to 89 Ha.

xxii. Existing capital cost of project was Rs. 13,093 Cr. The capital cost of the proposed Stage-II project is Rs 25,081.88 Crores and the capital cost for environmental protection measures is proposed as Rs. 2,952.71 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 58.45 Crores. The employment generation from the proposed project / expansion during construction and operation phase is 5046 (60 permanent and 4986 temporary) and 5250 (210 permanent and 5040 temporary) respectively.

xxiii. The committee noted that there are 73 court cases with respect to the instant project. Out of 73 cases, only one case bearing Original Application No. 203/2022 is related to the environment. The said case has been disposed of on 03/03/2025 by the Hon'ble NGT.

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

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

xxvi. 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:

26. The EAC after detailed deliberations on the information submitted and as presented during the meeting **recommended** for grant of Environmental Clearance to the proposed expansion of Meja Coal Based Thermal Power Project from 1320 MW (2x660 – Stage I) to 3720 MW (with 3x800 MW- Stage II) by **M/s. Meja Urja Nigam Private Limited** located at Village- Kohdar, Mai Khurd & Patai Dandi, Tehsil Meja, District Prayagraj, Uttar Pradesh, under the provisions of EIA Notification, 2006 subject to the stipulation of specific conditions and standard/general conditions (**Annexure 1**).

27. 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. Meja Urja Nigam Private Limited** for “*Expansion of Meja Coal Based Thermal Power Project from 1320 MW (2x660 – Stage I) to 3720 MW (with 3x800 MW- Stage II) at Village- Kohdar, Mai Khurd & Patai Dandi, Tehsil Meja, District Prayagraj, Uttar Pradesh*” subject to compliance of the Specific/General environmental conditions (**Annexure 1**).

28. 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.

29. 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.

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

31. 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.

32. 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.

33. 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.

34. 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 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 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.
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 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, Prayagraj, Uttar Pradesh
10. PARIVESH Portal

Specific EC Conditions for (Thermal Power Plants)

1. [A] Environmental Management

| S. No | EC Conditions |
|-------|---|
| 1.1 | Project proponent shall adopt 100% utilization of ash generated as a result of the expansion project in accordance with the ash utilization notification dated 31/12/2021 and its subsequent amendment. Area for the additional ash pond proposed under the expansion project shall not exceed 89 Ha as committed. |
| 1.2 | In addition to the existing 4 Continuous Ambient Air Quality Monitoring Stations (CAAQMS), Project proponent shall install additional one continuous ambient air quality monitoring at suitable location within the project site in consultation with UPPCB as committed. |
| 1.3 | The water requirement for the proposed project is estimated as 72,000 KLD and the same shall be met from River Ganga. Air Cooled Condenser System shall be used in STPP Stage-II as committed. |
| 1.4 | 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. |
| 1.5 | Project proponent shall implement the protective measure proposed in EMP in a time-bound manner. The budget earmarked for the same is Rs. 2952.71 Crores (Capital) and Rs. 58.45 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. |
| 1.6 | 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. |
| 1.7 | Project proponent shall install and commission the FGD for the existing 2x660 MW & and proposed 3x800 MW unit as per the Ministry's notification dated 05/09/2022 and its subsequent amendments. |
| 1.8 | Ash pond area and fly ash utilization shall be as per Fly Ash Notification issued by Ministry/ CPCB from time to time. |
| 1.9 | Project proponent shall ensure that pipelines carrying the fly ash and effluent shall be inspected regularly for any leakages. |
| 1.10 | Effluent of 3600 KLD will be treated through Effluent Treatment Plant. As committed by the Project proponent, Zero liquid discharge shall be adopted for the existing and the proposed plant. No wastewater will be discharged outside the project site. |

| S. No | EC Conditions |
|-------|--|
| 1.11 | PP shall ensure that diesel operated vehicles will be switched over to E-Vehicles/CNG/LNG vehicles in a time bound manner, 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/LNG/CNG like Bulklers for ash transportation for short distance subject to availability of such E-vehicle/facility and requisite 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 e-vehicles deployed etc. in six monthly compliance report. |
| 1.12 | PP shall implement the concurrent plantation plan in a time bound manner. The gap plantation shall be completed in the identified 163 Ha land area within Plant, residential and administrative areas and around Further, three tier green belt shall be developed in an area of 324 ha in a time frame of 6 years from the date of grant of EC in consultation with Forest department/ Gram Panchayat/District Administration all along the periphery of the project site. Thus, total of 487 ha area (34.66 % of total project area) will be developed as greenbelt. PP shall also adopt Miyawaki plantation technique and plantation with minimum 2 meter height of the saplings in upcoming monsoon season. The budget earmarked for the green belt, plantation inside and outside the plant area, along the transportation route and Miyawaki Plantation area 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. |
| 1.13 | 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 and shall also develop green belt around the nearby schools. Regular watering of saplings planted in the nearby schools will be carried out by Project Proponent to mitigate the air and noise pollution. Further, PP shall organize quarterly awareness programs for school students to educate them on the significance and preservation of trees. |
| 1.14 | 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. |
| 1.15 | Wildlife conservation plan 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 government account. |
| 1.16 | 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. |
| 1.17 | 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. |

| S. No | EC Conditions |
|-------|--|
| 1.18 | PP shall deploy vacuum based vehicle for everyday cleaning of the road in and around plant site at least for 5 KM. |
| 1.19 | Environment Audit of plant shall be done annually and report shall be submitted to Regional office of the Ministry. |
| 1.20 | 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. |
| 1.21 | Oil and grease recovered from the treatment plant should be disposed only through authorized recyclers. |
| 1.22 | 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. |
| 1.23 | 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. |
| 1.24 | 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. |
| 1.25 | 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 within 5 km radius of the project cover area shall be prepared and submitted to the Regional Office of the Ministry within 6 months. Implementation status of the same shall be reported to the Regional office in 6 monthly compliance report. |

| S. No | EC Conditions |
|-------|---|
| 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. 40.10 Crores. The budget proposed shall be kept in a separate account and audited annually. Project proponent shall implement the following action plan to address the issues raised during public hearing within a time frame of 4 years from the date of grant of EC. PP shall submit the progress report regarding the implementation of action plan to concerned RO along with the six monthly compliance report. |
| 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. |

3. [C] Miscellaneous

| S. No | EC Conditions |
|-------|---|
| 3.1 | An Environmental Cell headed by the Environment Manger with postgraduate qualification in environmental science/environmental engineering, shall be created. 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. |
| 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 | 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. |
| 1.3 | MoEF&CC Notifications on Ash Utilization S.O. 5481 (E) dated 31/12/2021 as amended from time to time shall be complied. |
| 1.4 | MoEF&CC Notifications on Water Consumption vide Notification No. S.O. 3305 (E) dated |

| S. No | EC Conditions |
|-------|---|
| | 07.12.2015 read with G.S.R 593 (E) dated 28.6.2018 as amended from time to time shall be complied. |
| 1.5 | The recommendation from Standing Committee of NBWL under the Wildlife (Protection) Act, 1972 should be obtained, if applicable. |
| 1.6 | 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 Transportation 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 | Flue Gas Desulphurisation System shall be installed based on Lime/Ammonia dosing to capture Sulphur in the flue gases to meet the SO ₂ emissions standard as per G.S.R. 682 (E) dated 05.09.2022 and amended from time to time. |
| 3.2 | 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 NOX emission standard of 100 mg/Nm ³ . |
| 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/Nm ³ . |
| 3.4 | Stacks of prescribed height 220 m & 150 m shall be provided with continuous online monitoring instruments for SO ₂ , 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 PM ₁₀ , PM _{2.5} , SO ₂ , NOX within the plant area at five locations. 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. |
| 3.7 | Adequate dust extraction/suppression system shall be installed in coal handling, ash handling areas and material transfer points to control fugitive emissions. |

| S. No | EC Conditions |
|-------|---|
| 3.8 | 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. |

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 m ³ /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 withdrawal site shall be maintained. |
| 6.4 | Regular (at least once in six months) monitoring of groundwater quality in and around the ash pond |

| S. No | EC Conditions |
|-------|--|
| | 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 3600 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 50 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; Fecal Coliforms (Most Probable Number): <1000 per 100 ml. |

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). Sulphur Content in the liquid fuel should not exceed 0.5%. |
| 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 34.66% 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. |
| 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, 2016. |
| 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 Fly 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 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. |

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 |

| S. No | EC Conditions |
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| | <p>to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;</p> <p>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& PM2.5incase 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.</p> |

11. Corporate Environmental Responsibility (Cer) Activities

| S. No | EC Conditions |
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| 11.1 | <p>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 shall be submitted.</p> |