सत्यमेव जयते

Government of India
Ministry of Environment, Forest and Climate Change
IA Division
(Thermal Projects)
***

Minutes of 23RD MEETING OF THE EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL POWER PROJECTS) TO BE HELD ON 4TH APRIL, 2025 DURING 10:30 AM – 02:00 PM THROUGH VIRTUAL MODE meeting Thermal Projects held from 04/04/2025 to 04/04/2025

Date: 15/04/2025

MoM ID: EC/MOM/EAC/542354/3/2025

Agenda ID: EC/AGENDA/EAC/542354/3/2025

Meeting Venue: N/A

Meeting Mode: Virtual

Date & Time:

04/04/2025	10:31 AM	02:00 PM

1. Opening remarks

At the outset, Shri. Inder Pal Singh Matharu (I.F.S Retd.), Chairman, Expert Appraisal Committee (Thermal Power & Coal Mining) welcomed the Expert members & other participants and requested to start the proceeding as per the agenda listed for this meeting. The list of members who participated in the meeting is at **Annexure – I**. The Standard/Generic ToR conditions shall be system generated through the PARIVESH Portal.

[The main PDF of MoM is enclosed at Page no. 49 - 108]

2. Confirmation of the minutes of previous meeting

Confirmation of the minutes of the 22nd meeting of the EAC (Thermal): The minutes of the 22nd meeting of the EAC (Thermal) held during 19/03/2025 has been confirmed by the EAC.

3. Details of proposals considered by the committee

Day 1 -04/04/2025

3.1. Agenda Item No 1:

3.1.1. Details of the proposal

MEJA THERMAL POWER PROJECT STAGE II - COAL BASED 3 X 800 MW by **MEJA URJA NIGAM PRIVATE LIMITED** located at **PRAYAGRAJ,UTTAR PRADESH**	
Proposal For	Fresh EC

Proposal No	File No	Submission Date	Activity (Schedule Item)
IA/UP/THE/495375/2024	-13012/03/2008- IA.II (T)	28/11/2024	Thermal Power Plants (1(d))

3.1.2. Project Salient Features

Agenda No 23.1

23.1 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 – Reconsideration for grant of Environmental Clearance based on ADS reply – regarding.**

[Proposal No: IA/UP/THE/495375/2024; F.No. J-13012/03/2008- IA.II (T)]

Name of the EIA consultant: M/s. EQMS Global Pvt Limited [NABET Certificate No.: NABET/EIA/2225/RA 0303, valid up to 23/11/2025].

The above project 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 again listed for consideration before the EAC in its 23rd meeting held on 04.04.2025.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

23.1.2: 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).

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

Proposal No				

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 coal by road and Extension of validity 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
	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.

	Implementation Status as on 15/10/2024	Production as per CTO
	Both the units are in operation	

23.1.6: 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. The observations of Regional Office, Action Taken report of the proponent and the present status as reported in the recent closure report dated 24/02/2025 are as below:

S. No.	Details	IRO Observation dated 24.02.2025	Response by PP
i	As per the specific, condition no. III "land requirement shall be restricted to 1100 acre (including ash pond). However, it has come to notice that PA's have acquired around 2762.63 acre of land, which is 1762.63 acre more as mention	As per the submitted reply, it has been observed that the PP's have acquired land for both the stages, which has also mentioned in the EIA report, not in the preamble/condition of EC date 2011. Besides, as per the submitted breakup of land for Stage I & II, it has been observed that the t	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

<table>
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<tr><td></td><td>ed in the EC.</td><td>otal land area acquired for Stage-I is 1295 Ha (3200.015 Acre), which is still more than the land mentioned in the EC condition i.e., 1100 Acres (445.45 Ha).</td><td>
<table>
<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>
<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>Additional 21 Ha land proposed for green belt</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="3">1405</td><td>-</td></tr>
<tr><td colspan="5">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 & railway siding area thus total greenbelt in existing plant is 163 Ha.</td></tr>
<tr><td colspan="5">Footnote no. 2. Includes Public roads, vegetable market, Park</td></tr>
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<tr><td colspan="5">ing, admin building, undulating land, drains, dry fly ash silo, outside area, open areas etc.</td></tr>
</table>
Greenbelt details within the Total Project Land is given in Table 2.
Table 2 : Greenbelt area details within Total Project Land
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<tr><th>Sl. No.</th><th>Description (A)</th><th>Existing Greenbelt area in Ha (B)</th><th>Proposed Greenbelt area in Ha (C)</th></tr>
<tr><td>1</td><td>Plant area</td><td>10</td><td>21.15</td></tr>
<tr><td>2</td><td>Ash Pond area</td><td>0</td><td>14.41</td></tr>
<tr><td>3</td><td>Township area</td><td>22</td><td>5.05</td></tr>
<tr><td>4</td><td>Railway Siding area</td><td>44</td><td>76</td></tr>
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<tr><td>7</td><td>Total (Sum of Sl. No. 1 to 6)</td><td>163</td><td>324</td></tr>
<tr><td colspan="2">Grand Total (B7+ C7)</td><td colspan="2">487 Ha</td></tr>
</table>
Total Project Land: 1405 Ha. Percentage of Green Belt area w.r.t. Total Project Land (487x100/1405) is 34.66%
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<tr><td>ii</td><td>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.</td><td>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.</td><td>The land break-up table earlier submitted on 27.11.2024 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 Stage-II is given in Table 1 above.</td></tr>
<tr><td>iii</td><td>PAs have also changed their coal linkage from SECL to CCL and N</td><td>Based on the submitted document, it has been observed that the Ministry issued</td><td>As per MoEF&CC notification dated 31.12.2021, first ash compliance cycle for stations (for MUNPL, Meja) is 04 years i.e., from 01.04.2022 to 31.03.2026 (since Ash Utilization is ranging between 60% to 80%) and accordingly the station to comply 100% ash u</td></tr>
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Besides, PA’s have also submitted future projections of the fly ash utilization for the financial year 24-25 (Jan-March 25) and financial year 25-26, which shows fly ash utilization up to 100% at the end of the compliance cycle.</td><td>tilization by FY2025-26.
Table 3 : Ash Utilization for first compliance cycle of 4yrs<table><tr><td>Financial Year</td><td>Ash Production (LMT)</td><td>Total AU (LMT)</td><td>Total AU (%)</td></tr><tr><td>FY 2022-23</td><td>15.73</td><td>9.82</td><td>62.39</td></tr><tr><td>FY 2023-24</td><td>17.85</td><td>12.63</td><td>70.78</td></tr><tr><td>FY 2024-25 up to Dec’24</td><td>15.24</td><td>12.86</td><td>84.00</td></tr><tr><td>FY 24-25
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<tr><td>iv</td><td>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.</td><td>It has been found that the PAs have yet not submitted fly ash return to this office. It is required to submit fly ash returns to this office regularly.
Based on the submitted document, it has been observed that the Ministry issued OM vide letter no. J- 13012/8/2009-IA.II (T) dt 11.11.2020 with six additional c</td><td>The monthly report regarding generation, ash utilization and disposal of fly ash is being submitted to CPCB every month regularly. Further, Fly ash return to MoEF&CC and its regional office for FY 23-24 was submitted on 07.09.2024 and submission of the same shall be ensured on regular basis.
As per MoEF&CC notification dated 31.12.2021, first ash compliance cycle for stations (for MUNPL, Meja) is 04 years i.e. from 01.04.2022 to 31.03.2026 (since Ash Utilization is ranging between 60 % to 80%) and accordingly the station to comply 100% ash utilization by FY2025-26. Ash Utilization for first compliance cycle of 4yrs is reproduced in Table 3 given below:
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In addition to the above, status of installation of Flue Gas Desulphurization is furnished as per the MoEF&CC Notification dated 05/09/2022:

1. 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. SO_2 emission is up to 31st December 2026.
2. MEJA Stage-I, erection & commissioning works of both units of Flue Gas Desulphurization (FGD) are completed. Trail run done in January-February 2024.
3. The utility has been put in to regular services with effect from 28.02.2025.

23.1.7: 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 sidi

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Total Project Land: 1405 Ha. Percentage of Green Belt area w.r.t. Total Project Land (487x100/1405) is 34.66%.</td><td></td></tr>
<tr><td>3.</td><td>Land acquisition details as per MoEF&CC O.M. Dated 7/10/2014 & 20/02/2025</td><td>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.
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.
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.</td><td></td></tr>
<tr><td>4.</td><td>Existence of Habitation & involvement of R&R, if any.</td><td><table><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table></td><td>R&R for Project Affected Families (PAFs) shall be as per the LARR 2013 and as per directions of the State Government.</td></tr>
<tr><td>5.</td><td>Latitude and Longitude of all corners of the project site.</td><td>A. Existing Plant site
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>A</td><td>25° 9'9.74"N</td><td>81°56'35.07"E</td></tr>
<tr><td>B</td><td>25° 8'30.08"N</td><td>81°58'37.91"E</td></tr>
<tr><td>C</td><td>25° 7'56.61"N</td><td>81°57'11.21"E</td></tr>
<tr><td>D</td><td>25° 6'41.43"N</td><td>81°55'42.74"E</td></tr>
<tr><td>E</td><td>25° 7'52.27"N</td><td>81°55'42.74"E</td></tr>
<tr><td>F</td><td>25° 7'52.27"N</td><td>81°55'13.10"E</td></tr>
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<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1</td><td>25° 8'1.03"N</td><td>81°55'41.51"E</td></tr>
<tr><td>2</td><td>25° 7'47.12"N</td><td>81°56'23.92"E</td></tr>
<tr><td>3</td><td>25° 6'58.24"N</td><td>81°55'46.90"E</td></tr>
<tr><td>4</td><td>25° 7'25.45"N</td><td>81°55'10.34"E</td></tr>
</table>
C. Proposed Ash pond with Green Belt
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1</td><td>25° 6'45.99"N</td><td>81°55'1.42"E</td></tr>
<tr><td>2</td><td>25° 6'54.23"N</td><td>81°53'52.67"E</td></tr>
<tr><td>3</td><td>25° 7'3.48"N</td><td>81°53'51.70"E</td></tr>
<tr><td>4</td><td>25° 7'24.83"N</td><td>81°54'43.69"E</td></tr>
</table></td><td></td></tr>
<tr><td>6.</td><td>Elevation of the project site</td><td>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.</td><td>--</td></tr>
<tr><td>7.</td><td>Involvement of Forest land if any.</td><td>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.
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”.</td><td>Nil</td></tr>
<tr><td>8.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>No water body within the Project site
Study area 10 km form the project area.
<table>
<tr><th>Water body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Tons River</td><td>950 m</td><td>WNW</td></tr>
</table>
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.</td><td>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.</td></tr>
</table>

S. No.	Particulars	Details	Remarks
9.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any with in the study area		--
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	--

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

				Technology
				Operational Stage-I: 2 x 660 MW (based on Supercritical Technology) Proposed Stage-II: 3 x 800 MW (based on Ultra Supercritical Technology)

23.1.9: 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:

						Linkage
Existing					Ash content in coal 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)	

						Linkage
Proposed TPP					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

23.1.10: Water requirement: Existing Water requirement is 95,416 m^3/day (allotted water for Stage-I (1320 MW -2x660 MW) is 1,07,649 m^3/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 m^3/day (30 cusecs). 12,000 m^3/day (5 cusec) shall be taken from surplus water from stage -I and balance 60,000 m^3/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 m^3/MWhr.

23.1.11: 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.

23.1.12: Baseline Environmental Studies:

<table>
<tr><th>Period</th><th>Post-monsoon 2023 (1st October 2023 to 31st December 2023)</th></tr>
<tr><td>AAQ parameters at 10 Locations (min and max)</td><td>
<table>
<tr><td>PM_{10} (µg/m^3)</td><td>42 – 94</td></tr>
<tr><td>$PM_{2.5}$ (µg/m^3)</td><td>17 – 54</td></tr>
<tr><td>SO_2 (µg/m^3)</td><td>5.4 – 13.9</td></tr>
<tr><td>NO_2 (µg/m^3)</td><td>9.0 – 17.3</td></tr>
<tr><td>CO (mg/m^3)</td><td>0.12 – 0.29</td></tr>
</table>
</td></tr>
<tr><td>Incremental GLC level</td><td>
• PM = 2.42 (µg/ m^3) (Level at 0.5 km in W Direction)
• SO_2 = 10.12 (µg/ m^3) (Level at 1.0 km in W Direction)
• NOx = 10.12 (µg/ m^3) (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 Desulphurization (FGD) system will be installed 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 by pass 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. NOx emission from the steam generator shall be controlled by low NOx Burners/System and combustion staging. For the control of Fugitive dust emission in and
</td></tr>
</table>

<table>
<tr><th>Period</th><th>Post-monsoon 2023 (1st October 2023 to 31st December 2023)</th></tr>
<tr><td></td><td>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 a nd coal stock yard and ash dykes.</td></tr>
<tr><td>Ground water quality at 12 locations</td><td>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 C u)- < 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</td></tr>
<tr><td>Surface water quality at 6 locations</td><td>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 P b)- <0.01, Cadmium (as Cd)-<0.01, Chromium (as Cr)- <0.05, Arsenic (as As)- <0.02 5 and Mercury (as Hg) - <0.001</td></tr>
<tr><td>Effluent generation de tails and its treatment</td><td>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 w astewater, only 150 m^3/hr requires treatment through ETP before re-use. The ETP cap acity 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 re used in plantation in the project premises.</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>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 t he 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 schoo l, college and hospital present near to the project site. The daytime noise levels vary b etween 43.2 dB(A) to 45.4 dB(A) while the night time noise level varied between 37.4 dB(A) to 39.6 dB(A). The noise levels at these sensitive locations were found well wit hin standard for silence zones for daytime 50 dB(A) and night time 40 dB(A).</td></tr>
<tr><td>Traffic assessment stu dy findings</td><td>• 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>
<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>
<tr><th>Road</th><th>V (Volume PCU/hr.)</th><th>C (Capacity PCU/hr.)</th><th>Proposed V/C Ratio</th><th>LOS</th></tr>
</table>
* Note: Capacity as per IRC-64:1990 Guidelines for capacity for roads.</td></tr>
</table>

<table>
<tr><td>Period</td><td colspan="2">Post-monsoon 2023 (1st October 2023 to 31st December 2023)</td></tr>
<tr><td></td><td colspan="2">Conclusion: The level of service (LOS) will be the same i.e. “A” after including additional traffic due to the proposed project</td></tr>
<tr><td>Soil Quality at 10 Locations</td><td colspan="2">pH range:7.38 to 7.89,
Bulk density: 1.18 to 1.29 gm/cm^3,
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 %</td></tr>
<tr><td>Flora and fauna</td><td colspan="2">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.</td></tr>
<tr><td>Hydrogeology study</td><td>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.
<table>
<tr><td>Area of the land already developed as green belt</td><td>163 Ha</td></tr>
<tr><td>Area of future plantation planned on MUNPL acquired land (budget)</td><td>318 Ha
(Rs.32.62 Cr.)</td></tr>
<tr><td>Total Green belt within MUNPL Land</td><td>481 Ha</td></tr>
<tr><td>Total area of MUNPL Land (1295 Ha available+ 110 Ha proposed)</td><td>1405 Ha</td></tr>
<tr><td>Percentage of Green Belt (Existing an</td><td>34.24 %</td></tr>
</table>
</td><td>NIH Roorkee</td></tr>
</table>

Period	Post-monsoon 2023 (1st October 2023 to 31st December 2023)	
	d Proposed) to total project land | (481 Ha/ 1405 Ha) **c) Continuous monitoring of the groundwater.** Regular monitoring of Ground water quality in nearby v illages and around ash pond is being carried out through CSIR-IITR, Lucknow. Further, ground water level (ope n well) monitoring in surrounding 14 villages has been d one through an accredited third party (M/s Prakriti Cons ultant Services, Lucknow) and the report has been subm itted to Integrated Regional office, MoEF&CC, Luckno w on 03.02.2025. The activities shall be carried out on r egular basis. MUNPL-MEJA project submit that, the project's treatment system includes several components designed to ensure wat er quality throughout various stages of the process. These c omponents consist of following: 1. Ash Water Recirculating System (AWRS), 2. Coal Slurry Settling Ponds (CSSP), 3. Effluent Treatment Plant (ETP) and 4. Sewage Treatment Plant (STP). Each of these plants serves a specific function to maximise recycle and reuse of the treated effluents, to maintain optim al operational conditions and environmental compliance. Environment conservation and its awareness to the public a re being carried in the surrounding villages on prominent e nvironment days including World Water Day on 22nd Marc h every year. On World Water Day emphasising about imp ortance of water its conservation, and protection is carried t hrough activities like 1. Organising Nukkad natak in surrounding villages, s chools and market areas. 2. Organised cycle rally campaign, quiz and drawing c ompetitions in neighbouring schools. 3. Spreading awareness through banners at prominent locations. 4. Awareness on growing low water consuming specie s like Karanj and drought resistant species. 5. Mass plantation drive by MUNPL in local schools a nd village panchayath bhawans. Communication is strengthened through coordination with l ocal authorities and nearby communities to ensure they are aware and necessary preventive measures are taken at com munity level.	
Impact study on bio-diversity and aquat ic ecology	**Recommendations of study:** For the proposed power plant, intake screens or meshes sha ll 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 organism s such as fish and frogs from entering into water supply sys	--

Period	Post-monsoon 2023 (1st October 2023 to 31st December 2023)	
	tem, thereby aiding in maintaining the aquatic ecological ba lance of the River Ganga. 1. The design and concept of the proposed power plant is b ased 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 requir ement of both stages, existing and proposed. Water drawl fr om the river shall be regulated as per the instruction of Stat e Irrigation Dept. 3. The aquatic ecology will be sustainable, and project will not have any significant impact even after the operation of t he proposed power plant. For conservation of Schedule – I species present in the stud y area, a Wildlife Conservation Plan has been prepared in c onsultation with DFO and a budget of Rs. 3.51 Crores has b een earmarked for the same.	
Risk assessment study	LDO Tank of 2000 KL is envisaged, Dyke for LDO storag e tank shall be provided. A quantitative risk assessment for LDO has been carried ou t and provided in Chapter 7 of the Final EIA/EMP report.	

23.1.13: The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

23.1.14: Public Consultation:

Public Hearing Action Plan

S. No.	Proposed CER works to address the issues raised during Public He aring	Total Estimated Cost (Rs. Crores)	Estimated Timelines
1	Installation of 10 hand pump, 05 solar high mast light, 15 solar streetlig	1.25	01-02 Year

S. No.	Proposed CER works to address the issues raised during Public Hearing	Total Estimated Cost (Rs. Crores)	Estimated Timelines
	hts, and construction of public road in village Gadewara (400 m)		
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 street lights (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 bul	1.00	01-02 Year

S. No.	Proposed CER works to address the issues raised during Public Hearing	Total Estimated Cost (Rs. Crores)	Estimated Timelines
	kers shall be constructed matching with the construction of Kohdar-Meja-Khiri road		
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.*

23.1.15: 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**

23.1.16: 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 planation 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 alre	1	Already d	Already	

S. No.	Description	Area (Ha)	Time Period	Budget	Remarks
	ady developed as gre en belt	63	one	done	
2	Area of future planta tion planned on MU NPL 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 ye ars.**
3	Area of future planta tion planned on MU NPL 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.

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

Year	Quantity Generated (LMT)	Quantity utilized (LMT)	% of Utilization	Balance Quantity (LMTP)	No of storage silos with capacity
FY 2021-22	18.23	13.21	72.46	5.02	**HCSD Silos:** 03 (each of capacity 525 MT) **Fly ash silos:** 04 (each capacity 1200 MT)
FY 2022-23	15.73	9.82	62.39	5.91	
FY 2023-24	17.85	12.63	70.78	5.22	

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 pon	High Concentrated Slurry Lining. Bentonite			N.A.

S.No.	Details of Ash pond	Lagoon 1	Lagoon 2	Lagoon 3	Total
	d: HDPE lining of LDPE Innin g or clay Inning or No lining	lining provided in OFL.			
9.	Mode of disposal: Dry disposal or wet slurry (in case of wet slu rry please specify whether HCS D 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 (A WRS) 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 stabili ty study was conducted and na me of organization who conduct ed the study:	Ash Dyke stability carried on 25.11.2021 by IIT Roorkee.			N.A.
14.	Last date when the audit was co nducted and name of the organi zation who conducted the audit:	Audit carried on 25.04.2024 by Motilal Nehru National Institute of Technolo gy, 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 Ge neration (MTPA)	Proposed G eneration (MTPA)	Total	Utilization (MTPA)	% of Utiliz ation	Balancing Quantity	No of stora ge 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 Silo s:** 03 (each o f capacity 52 5 MT) **Fly ash silo s:** 04 (each c apacity 1200 MT)
AU details with Operation of Stage-I and Commissioning and Operation of one unit of 800M W in Stage-II : 2x660 MW(Stg-I) + 1x800 MW (Stg-II)							
2030-31	25.55	15.49	41.04	32.83	80	8.21	
AU details with Operation of Stage-I and Commissioning and Operation of all 3 units in Stag e-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 of 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".	

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

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

S. No.	Case Type	Number
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 cusac 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.

23.1.19: 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.

S.N	Description	Action Plan
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 ash ponds be ensured.	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 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 emis

S.N	Description	Action Plan
		sion as well as low flue gas exit temperature, which shall improve climatic c onditions. 6. As a mitigation measure, MUNPL has already undertaken plantation activities i n nearby settlements close to the project boundary. Additionally, as part of th e 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 vil lage & Vijay Degree College, which shall work as barrier between the schoo l, village and project boundary to mitigate noise and dust exposure.
8	PP should install solar pane ls on the plant buildings an d provide solar street lights in the nearby villages.	The project of 3.5 MW capacity for rooftop solar is in progress under existing Sta ge-I and the target for completion of the same is March'26. Additionally, installation of 1.5 MW rooftop solar panel within plant buildings has been included in the scope of Stage-II EPC package. MUNPL has demonstrated its commitment to sustainability and corporate social r esponsibility by executing several solar-powered projects over the last three years. Below is a summary of the projects along with their respective contract values: i. Installation works of 01 Off grid Solar Power System (5 KW) at Women Degr ee College, Kaithwal, Ladiyari. The contract value was **Rs. 7.84 Lakh.** ii. Installation of 294 Nos. Solar Powered Street Lights in the nearby villages of MUNPL. The contract value was **Rs. 60.90 Lakh.** iii. Installation of 20 Nos. Solar Powered High Mast in the nearby villages of M UNPL. The contract value was **Rs. 25.53 Lakh.** **Grand Total: Rs. 94.27 Lakh** The above initiatives highlight MUNPL's efforts to promote renewable energy, im prove community infrastructure, and support education and public welfare through sustainable solutions. 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: i. Installation of 200 Nos. Solar Powered Street Lights in the nearby villages of MUNPL. The contract value is **Rs. 42.19 Lakh.** ii. Installation of 15 Nos. Solar Powered High Mast in the nearby villages of M UNPL. The contract value is **Rs. 19.14 Lakh.** **Grand Total: Rs. 61.33 Lakh (Proposed)** These planned initiatives further underscore MUNPL's commitment to leveraging solar energy for sustainable development, enhancing community infrastructure, an d improving the quality of life in nearby villages.
9	The sub-committee also vis ited the Environmental Lab of the project. A few more environmental monitoring i nstruments are required to be added in the Lab. An en vironmental management c ell Head should be deputed with Environmental Scienc e/ Environmental Engineeri ng qualification for proper environmental management of the plant.	a) SOx, NOx, Methane, CO, VOCs measuring instruments are available at site. b) Ozone kit is under procurement with an estimated cost of ₹ 2.50 lacs. Target for supply is June 2025. c) Orders for procurement of Water testing kit and RADON meter have been place d with a value of ₹ 20,702/-. Target for supply is March 2025. d) SPM portable monitoring instruments is under procurement with estimated valu e of ₹ 60000/-. Target for supply is September 2025. Further, Environmental Management cell is headed by Senior Executive and repor t directly to CEO and is supported by 2 specialists in Chemistry (for environment l ab) and 2 specialists in Environmental Science (for environmental management of the plant).
10	The tractor-mounted water sprinkling system should b e replaced by the truck-mo unted system.	Contract proposal has been processed for deployment of Truck mounted Sprinklin g system with an estimated cost of ₹ 10.85 lacs per annum and is expected to be awarded by July 2025.

S.N	Description	Action Plan
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 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.	NIT for widening of Kohdar-Khiri Road has been done by PWD. 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.

ADS Information in chronology:

23.1.20: The proposal was initially considered in 16th EAC meeting of Reconstituted EAC (Thermal) held on 12/12/2024. Proposal was deferred for want of following additional information. Proponent uploaded the additional information on 05/02/2025. Point-wise reply to the additional information sought is furnished as below:

S. No.	ADS Point	Reply/Response of PP
1	Total land requirement of the project is 1409 Ha. Out of 1409 Ha, 1295 Ha is reported to be under the possession of the PP and 114 Ha is under acquisition process. However, PP has not made available the relevant records pertaining to the acquisition of 114 Ha land as per the MoEF&CC O.M. dated 7/10/2014.	For the proposed project total land for the construction of main plant is available with MUNPL. Out of the total requirement of 114 Ha land, 110 Ha (Govt land) is needed for the additional Ash Dyke and balance 4 Ha (Pvt. Land) is needed for Railway Siding augmentation. Regarding resumption of Govt. land for additional Ash Dyke near Salaiya Kalan, proposal is under process. Tehsildar Meja, Prayagraj vide their communication dated 11.12.2024, indicated that the resumption proposal wrt required land is under process and thereafter the land may be provided to MUNPL Stage-II. The proposal has been agreed by the Land Management Committee of the village for handing over the land to MUNPL. In this regard, relevant letter dt 19.12.2024 issued by the Chief Revenue Officer, Prayagraj and letter dated 11.12.2024 issued by Tehsildar, Meja are attached. Regarding Railway Siding near Amiliya Kala, proposal is under pro

S. No.	ADS Point	Reply/Response of PP
		cess. Letter submitted to Special Land Acquisition Officer (SLAO) vide letter dt:25.11.2024. Copy of the letter is submitted.
2	A village Mai Khurd and one School/college is located very near to the project site, and there will be significant environmental impact of the proposed expansion project on the residents, students and staff PP needs to submit the mitigation measures for the same.	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 CO2 (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/Nm3 as per MoEF&CC norms. 5. Use of Wet Flue Gas Desulphurization (FGD) will reduce the PM and SO2 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 green belt 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.
3	As per the DSS available on Parivesh, there is a presence of Reserved/Protected Forest within the project site. In this regard, PP informed that there is no reserved forest and/or protected forest within the existing plant area. However, proponent has not submitted the credible document from DFO regarding no involvement of forest land despite the EDS raised by the Ministry.	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. 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, letter dated 24.12.2024 from DFO Prayagraj, states 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”. Rele

S. No.	ADS Point	Reply/Response of PP
		vant documents from DFO dt 10.10.2011 and 24.12.2024 are submi tted.
4	HFL data of the Tons River located at a distance of 0.95 km from the project site has not been submitte d. Further, certificate from state irrigation departme nt stating plant facilities are not located in the flood plain of Tons river has also not been submitted by t he proponent as per MoEF&CC OM dated 14/02/2 022 despite the EDS raised by the Ministry.	Certificate received from Chief Engineer (Water Resources) Irrigati on and Water Resources Department, Govt of UP, regarding HFL le vel of River Tons dt.10.01.2025 is submitted.
5	Committee noted that contradicting statements hav e been made by the proponent in the Common Appl ication Form (CAF), presentation made before the EAC and in the brief summary with respect to the a rea requirement for the project. For instance, in the ATR submitted to Regional office the area of green belt is 293 Ha whereas in the under the land break up for the project the area of green belt is mentione d as 217 Ha. Project proponent to revisit the area re quirement for the project and the factual data on the land requirement for the existing and expansion pro ject needs to be submitted.	MUNPL submits that a typographical error in green belt area in Co mmon Application Form (CAF) is regretted. As per direction of EA C in ADS query point no f, and during site visit, MUNPL has incre ase the green belt area from 293 Ha. to 466.03 Ha. within the projec t area i.e. 33% of total project are (1409 Ha.). Revised land-use brea kup has been submitted.
6	Total land is 1409 Ha. Out of 1409 Ha, green belt i s proposed only in 217 Ha within the project site w hich is worked out to be only 15.41% of the total ar ea. It has been proposed that the remaining green b elt will be carried out outside the plant site in an are a of 271.5Ha of land of degraded forest area (not to be acquired) under DFO-Prayagraj, which is not ac ceptable as it will not help in mitigating the environ mental impact of the project. Project proponent shal l revisit the green belt development action plan and submit the revised plan for development of 33% of total project area under green cover.	MUNPL submits that a typographical error in green belt area in Co mmon Application Form (CAF) is regretted. As per direction of EA C in ADS query point no e, and during site visit, MUNPL has incre ase the green belt area from 293 Ha. to 466.03 Ha. within the projec t area i.e. 33% of total project are (1409 Ha.). Over and above the g reenbelt, as carbon sink, additional planation shall be done in 271 H a of degraded forest area. MUNPL has earmarked a total budget of Rs.55.42 Cr for greenbelt development. Out of this, an action plan f or development of green belt in 401 Ha. land with estimated cost of Rs. 38.72 Cr has already been provided by DFO Prayagraj. Additio nally, MUNPL has allocated an extra budget of Rs.16.7 Cr for gree nbelt development, which shall be carried out through Social Forest ry Department, Prayagraj and internal resources is pending approva l from DFO. Revised green belt details has been submitted.
7	The Committee deliberated on the certified complia nce report of Regional Office and observed that seri ous non-conformities have been reported by RO wi th respect to the existing EC conditions namely lan d requirement of project, break up of land requirem ent, area earmarked for the green belt development, cycles of concentration of cooling water, complianc e to the conditions with respect to change of coal so urce and filing ash utilization returns etc. The com mittee opined to obtain the closure report from RO on the observed nonconformities.	IRO submitted the observation on ATR of MUNPL Meja on 16.12. 2024. MUNPL submitted ATR dt 10.01.2025 on IRO observation d t 16.12.2024 and it was submitted.
8	Approval from the Competent Authority for withdr awal of water of 72,000 KLD from River Ganga is yet to be obtained.	• Total water requirement for Stage-II is 30 Cusecs (72,000 KLD). • Water quantity of 05 Cusecs (12,000 KLD) will be made available from existing stage-I. • Water Requirement is of 25 Cusecs (60,000 KLD). In meeting of Chief Secretary (GoUP), dated 02.01.25, directions w

S. No.	ADS Point	Reply/Response of PP
		ere given to Irrigation & Water Resource Department, GoUP to issue letter for water allocation from UP share.
9	The concentrations of different pollutants in existing ambient air quality levels are relatively high and suggested the PP to calculate the predictions of annual average ambient air quality data at various locations for existing unit. The predicted values of air pollutant concentrations arising out of air quality modeling after additional 3 X 800 MW plant shall also be rechecked as there should be substantial increase in concentrations of different pollutants after the proposed expansion. Action plan for controlling the AAQ level through pollution control systems shall be submitted. Additional air pollution control measures for existing unit be mentioned.	The prediction of annual average ambient air quality data from October 2023 to September 2024 is calculated and submitted. The model has been rechecked, and the predicted values are found increased from the base line values. Whereas SO_2 and NOX values are well within the permissible limits, PM values are slightly above the annual standard. Wet FGD of both units of stage -I is commissioned and put in use which will further mitigate the impacts of pollutants on ambient air quality. Further, following measures shall be taken to mitigate the impact on ambient air due to the proposed expansion project (3x800 MW). Proposed Mitigation measures are as follows: i. State-of-the-art “Ultra Super Critical Technology” with higher efficiency has lesser emission of CO2 (12-13 % less with respect to sub critical units). ii. Increase of number of Dry fly ash closed wagon rakes through railways to further reduce the vehicular emission. iii. Use of Low NOx burner will reduce NOx emission. iv. Use of highly efficient ESP will reduce PM emission to less than 30mg/Nm3 as per MoEF&CC norms. v. Use of Wet Flue Gas Desulphurization (FGD) will reduce the PM and SO2 emission as well as low flue gas exit temperature, which shall improve climatic conditions. vi. Additional plantation on 303 Ha land shall be developed on MUNPL land.

Ambient Air Quality Locations		Maximum Annual Average Baseline (µg/m³)				Maximum Incremental Concentration (µg/m³)			Maximum Resultant Concentration (µg/m³)				Annual Average NAAQS Standards (µg/m³)	
Monitoring location	Distance (Km)	Direction	PM	SO_2	NO_x	PM	SO_2	NO_x	PM	SO_2	NO_x	PM_{10}	SO_2	NO_x
AAQ1	Project site	--	74	10.7	14.6	2.42	8.06	8.06	76.42	18.76	22.66	60	50	40
AAQ2	0.7	SW	72	9.9	13.4	1.1	3.66	3.66	73.1	13.56	17.06	60	50	40
AAQ3	1.5	NE	68	8.7	12.1	2.01	6.71	6.71	70.01	15.41	18.81	60	50	40
AAQ4	5.2	NE	70	8.4	11.2	1.21	4.02	4.02	71.21	12.42	15.22	60	50	40
AAQ5	9.4	E	72	9.1	12.4	1.44	4.8	4.8	73.44	13.9	17.2	60	50	40
AAQ6	2.0	S	65	8.3	11	1.02	3.39	3.39	66.02	11.69	14.39	60	50	40
AAQ7	3.5	NE	67	8.1	11.5	1.8	6	6	68.8	14.1	17.5	60	50	40
AAQ8	2.1	W	67	7.9	11.1	2.3	7.68	7.68	69.3	15.58	18.78	60	50	40
AAQ9	0.9	E	70	8.7	12	1.96	6.55	6.55	71.96	15.25	18.55	60	50	40
AAQ10	7.0	NE	67	7.8	11.4	1.55	5.17	5.17	68.55	12.97	16.57	60	50	40

<table>
<tr><th>S. No.</th><th>ADS Point</th><th>Reply/Response of PP</th></tr>
<tr><td>10</td><td>Action plan to control the $PM_{2.5}$ levels below the NAAQS shall be submitted as the same is exceeding the NAAQS norms. Further, the monitored values of PM2.5 is reported to be more than PM10 which is not correct and needs to be revisited.</td><td>MUNPL-MEJA submits that the baseline monitoring was carried from October to December 2023 by M/s. EQMS GLOBAL PVT. LTD. (NABET Accredited EIA Consultant, MoEF&CC) Certificate No.: NABET/EIA/2225/RA 0303 (Valid up to Nov 23, 2025). Ten air samples were collected and analysed.
i. Particulate Matter PM_{10} and $PM_{2.5}$ levels in all the monitoring locations are within the standard i.e. NAAQMS level 100 µg/m^3 and 60 µg/m^3 respectively.
ii. The monitored values of $PM_{2.5}$ is less than PM_{10}.
EIA baseline readings of PM_{10} and PM $_{2.5}$ are presented below table:</td></tr>
<tr><td></td><td colspan="2">
<table>
<tr><th rowspan="2">Location Code</th><th rowspan="2">Location</th><th colspan="4">PM_{10} (µg/m^3)</th><th colspan="4">$PM_{2.5}$ (µg/m^3)</th></tr>
<tr><th>Max</th><th>Min</th><th>Mean</th><th>98 %tile</th><th>Max</th><th>Min</th><th>Mean</th><th>98 %tile</th></tr>
<tr><td>AAQ-1</td><td>Project Site (Meja TPP Main Entry Gate)</td><td>94</td><td>51</td><td>75</td><td>93</td><td>54</td><td>23</td><td>42</td><td>54</td></tr>
<tr><td>AAQ-2</td><td>Salaya Kala near Ash Pond</td><td>88</td><td>46</td><td>70</td><td>88</td><td>51</td><td>20</td><td>39</td><td>51</td></tr>
<tr><td>AAQ-3</td><td>Patai Dandi Village</td><td>82</td><td>44</td><td>67</td><td>81</td><td>50</td><td>18</td><td>37</td><td>49</td></tr>
<tr><td>AAQ-4</td><td>Rithaiya Village</td><td>84</td><td>42</td><td>69</td><td>83</td><td>49</td><td>17</td><td>36</td><td>48</td></tr>
<tr><td>AAQ-5</td><td>Sukath near meja tehsil</td><td>90</td><td>45</td><td>72</td><td>90</td><td>52</td><td>21</td><td>40</td><td>52</td></tr>
<tr><td>AAQ-6</td><td>Son Barsi</td><td>80</td><td>42</td><td>65</td><td>79</td><td>48</td><td>17</td><td>35</td><td>47</td></tr>
<tr><td>AAQ-7</td><td>Gadeva Village</td><td>81</td><td>44</td><td>67</td><td>81</td><td>47</td><td>18</td><td>35</td><td>47</td></tr>
<tr><td>AAQ-8</td><td>Piprau Village</td><td>83</td><td>42</td><td>65</td><td>81</td><td>50</td><td>17</td><td>36</td><td>49</td></tr>
<tr><td>AAQ-9</td><td>Korhar Village</td><td>85</td><td>46</td><td>70</td><td>84</td><td>51</td><td>20</td><td>38</td><td>50</td></tr>
<tr><td>AAQ-10</td><td>Bhendewara Village</td><td>82</td><td>43</td><td>67</td><td>81</td><td>44</td><td>18</td><td>34</td><td>44</td></tr>
<tr><td colspan="2">NAAQ Standard</td><td colspan="4">100</td><td colspan="4">60</td></tr>
</table>
</td></tr>
<tr><td>11</td><td>Effluent generation is reported to be 2065m3/hr whereas proposed ETP capacity is mentioned as 2500 m3 only which appears to be inadequate. PP shall revise the ETP capacity and submitted the same along with the treatment details with flow diagram. Details of water quality both at the inlet and outlet needs to be submitted.</td><td>Proposed wastewater generated from various process is reused with in the plant processes with and without treatment. Out of 2065 m3/hr of wastewater, only 150 m3/hr requires treatment through ETP before re-use. The ETP capacity is of 300 m3/hr which is adequate. (Inadvertently the capacity of ETP was mentioned as 2500 m3). Water quality of ETP inlet and outlet is submitted.</td></tr>
<tr><td>12</td><td>Wildlife conservation (WLC) plan for conservation of schedule I species is yet to be approved by the CWLW of the state.</td><td>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.</td></tr>
<tr><td>13</td><td>Recommendations of the hydrogeology study and the time bound action plan for complying with the recommendations of the study report has not been furnished.</td><td>Detailed hydrogeological study of the project site and surrounding 10 km study was conducted by National Institute of Hydrology (NIH), Roorkee, Uttarakhand.</td></tr>
</table>

S. No.	ADS Point	Reply/Response of PP
14	Details of the bio-diversity assessment study carried out and impact on aquatic flora & fauna, recommendations of the study report along the time bound action plan for complying with the recommendations of the study report has not been furnished. The aquatic ecosystem services of existing water bodies with detail flora and fauna which are making their habitat on these ecosystems shall also be worked out and submitted.	The biodiversity study has been conducted covering Flora and Fauna in the study area. Floristic Composition in the study area consists of 53 tree species, 26 shrub species, 21 herbs and 26 grasses, climber and weeds. Details are submitted. Floristic Survey was carried out to record the Phyto-sociological characters of plant species (trees, shrubs and herbs) in reserved forest of Singhpur Khurd, Mudpela and Salaiya Kalan during the baseline survey from October to December 2023. Primary Ethnobotanical survey detailing importance of plant species in study area for the people was carried out. Agricultural crop details are provided after a thorough primary and secondary data analysis. There are no national park, biosphere reserve, wildlife sanctuary, important bird area, wetland present in the study area. However, Faunal Diversity survey was carried and identified 14 mammal species, spotted 47 birds and 10 herpetofauna (amphibians, snakes and lizards). An action plan ie., Wildlife Conservation Plan for 7 numbers of species (Black buck, Porcupine, Jungle Cat, Hyena, Rat Snake, Russell's Viper and Peafowl) identified under Schedule-I is provided in consultation with DFO-Prayagraj. The Wildlife Conservation Plan of 10yrs for wildlife habitat management and its preservation was furnished by DFO-Prayagraj with budget provision of Rs. 3.51 Crore. Aquatic Ecology Study was carried on two water bodies River Tons and River Ganga covering their upstream and downstream. Surface water samples were collected and classified into Phytoplankton (18 species), Zooplanktons (16 species) and identified 12 fish varieties. **Recommendations:** 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. These intake screens/meshes will prevent larger aquatic organisms such as fish and frogs from entering water supply system, thereby aiding in maintaining the aquatic ecological balance of the River Ganga.
15	On perusal of the videography of the public hearing, participants have pointed out serious environmental issues, mainly pertaining to fly ash/ air pollution w.r.t existing unit which have not been neither addressed in the EIA report nor in the action plan submitted by the proponent. These issues should have been addressed for the existing unit as well. PP shall furnish the issues raised during public hearing as well as in the written representations in verbatim along with the time bound action plan for addressing PH issues as per the MoEF&CC OM dated 30/09/2020.	The public hearing was carried on 24.06.2024. Issues raised during PH as well as updated time bound action plan is provided. **Actions taken to mitigate air pollution due to fugitive ash are as below:**
16	Action plan submitted by the proponent to address the issues raised during public hearing is very sketchy and not in conformity to the actual issues raised during public hearing.	PH action plan and CER details are submitted by PP.
17	It appears from the Public Hearing that people have	Existing and proposed mitigation measures to control fugitive dust

S. No.	ADS Point	Reply/Response of PP
	concerns about ash transportation, and ambient air quality. PP is requested to submit the action taken r egarding the same.	around ash pond and due to ash transportation, are as follows: **Existing mitigation measures**: 1. FGD of both the units are in operation. 2. Ash pond Lagoon-II and Lagoon-III are water covered. 3. Dry fly ash is being transported through Closed wagon rakes of r ailways which will further reduce the vehicular emission. 4. In Ash pond 30 nos. of water sprinklers are provided to supress f ugitive dust. 5. Water sprinkling along the roads/ approaches in and around Ash Pond is being carried out regularly with 02 nos water tankers. Furth er additional 02 more water tankers are deployed for sprinkling alon g the approach roads to plant and township. 6.Fog Cannon is deployed in Ash Pond as well as in surrounding ar eas to suppress fugitive dust. 7. During coal unloading at Wagon Tippler pre-wetting and dust su ppression system is in service. 8. In Coal yard 88 nos of water sprinklers are installed and in servic e. 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:** 1. State of Art Technology "Ultra Super Critical Technology" with higher efficiency has lesser emission of CO2 (12-13 % less with res pect to sub critical units). 2. Increase of number of Dry fly ash closed wagon rakes through ra ilways 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 of MoEF & CC norms. 5. Use of Wet Flue Gas Desulphurization (FGD) will reduce the P M and SO_2 emission as well as low flue gas exit temperature, thus i mprove climatic conditions. 6. Additional plantation on 303 Ha land shall be developed on MU NPL land. Plantation activities shall be completed progressively in consultatio n with Social Forestry Dept and in-house resources.
18	Existing green belt for the present unit is developed is only in 12.59% of the project area. Project propo nent may kindly explain the reasons for not develop ing green belt in 33% of the project area shall be su bmitted. Further, PP is misleading the Committee b y projecting 271.5 Ha situated outside the project ar ea as a green belt area for the expansion project whi ch is totally unacceptable as it will not help in mitig ating the environmental impact of the project.	In STAGE-I, Environment Clearance was obtained on 10.01.2011 with all the conditions for greenbelt development have been compli ed. As per directions of EAC Committee in ADS and during site visit, MUNPL Meja has identified area for green cover of 33.08% within acquired land and details of which are given below: 1. Existing green belt: 163 Ha 2. Proposed green belt: 303 Ha, 3. Total area of green belt: 466 Ha (33.08% of 1409 Ha.)
19	As the part of proposed expansion, PP is proposing a new ash pond in an area of 110 Ha. This needs to be revisited and the area for new ash pond shall be done away with by evacuating ash in the existing as h dyke. Proper ash utilization of the legacy ash and ash of existing unit will free the space in the existin g ash pond. Action plan in this regard shall be sub mitted by the proponent.	**For the proposed expansion** Further, there is a restriction in movement of Ash trucks/bulkers by the District Administration due to which ash utilization is severely r estricted. As a case in point for the FY 23-24, out of 365 days, only 229 days were available for ash transportation and for FY 24-25, on ly 245 days are expected to be available for transportation of ash. L atest few communications are submitted.

S. No.	ADS Point	Reply/Response of PP
		In addition to this, ash bulker movement is allowed in night only aft er 11 PM to next day morning 5 AM. Consequently, there is a need for buffer storage capacity for ash for sustainable plant operation. MUNPL-MEJA current Ash utilization in existing project (Stage-I) of MUNPL for FY 2024-25 is around 84% till December 2024.
20	Ash utilization for the existing unit is very poor and reported to be only 62.39% for the year 2023-24. R evised time bound ash management plans shall be s ubmitted. The plan shall inter-alia include ash pond details, infrastructure facilities, ash generation and utilization as per the ash utilization notification dat ed 31/12/2021 and its subsequent amendments as w ell as legacy ash utilization if any	As per the Ash notification dt 31.12.2021, the 4yr cycle for Ash Uti lization plan shall start from 2022-23 to 2025-26. Ash utilization pl an has been submitted.
21	Ash pond calculation with respect to life of lagoon 1 to 3 and proposed ash pond shall be revisited as t he life of the ash pond is mentioned as 1 year to 2 y ears only.	Ash pond calculation has been submitted.
22	EAC suggested that Carbon emissions need to be as sessed and brief plan for carbon emission mitigatio n shall be submitted by the PP.	**MUNPL-MEJA Response :** Following measures for carbon emission mitigation and its impact a dopted: 1. In Stage-I, boilers are designed for Super critical technolog y. CO2 generation is approx. 843.03 gm/kWh. In Stage-I I, Ultra Supercritical Technology boilers will be installed. Due to which, CO2 generation will be approx. 830.47 g m/kWh. 2. Creating extensive plantation: In and around the project, an area of 466 Ha (existing green belt 16 3 Ha and proposed green belt 303 ha) of green cover shall be devel oped within project area out of total land of 1409 Ha. Over and above the greenbelt, as carbon sink, additional planation s hall be done in 271 Ha of degraded forest area. Native species of tre es shall be planted in consultation with DFO, Social Forestry Depar tment.
23	Total 73 cases are pending in various courts against Meja Stage –I project. PP shall clarify the cases wh ich are related to the environmental issues of the ex isting power plant. There is also a case pertaining t o water drawl by the project. The up-to-date status be submitted.	Of the 73 cases pending against MUNPL, there is only one environ ment related case. Moreover, for the pending environment case bef ore NGT-Principal Bench Delhi where apprehensions regarding wat er usage from Ganges at Sangam and its impact on water availabilit y thereof have been raised. 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 subm itting that “MUNPL is not using water which is beyond the limits or criteria and laws established by MoEF&CC.” Next hearing is scheduled on 3rd March’25. The details of case is su bmitted.
24	Action plan for setting up of in-house Environment	**Environmental Lab is available with following facilities:**

<table>
<tr><th>S. No.</th><th>ADS Point</th><th>Reply/Response of PP</th></tr>
<tr><td></td><td>al lab with an environmental specialist having day t o day monitoring instruments such as portable anal ysers for SOx,NOx,CO,CH4,O3,VOCs, decibel lev el and water parameters shall be submitted. The en vironmental lab shall also be equipped with portabl e Automatic Weather Monitoring stations in and ar ound vicinity of the plant for regular weather variat ions monitoring.</td><td>1. Water testing facility
2. Offline Stack monitoring instrument for PM, SO2, NOx are avail able.
3. Noise measuring instrument.
4. Online measuring instruments like humidity, Wind speed, Wind direction, Max/Min temperature, Solar radiation and rain gauge ava ilable and in service.
5. Continuous Emission Monitoring Systems are available for both t he units for PM, SO2, NOx.
6. Environmental lab is managed by 2 specialist in Chemistry and 2 in Environmental Science.
Further, to strengthen environment lab, portable analysers for SOx, NOx, CO, CH4, O3, VOCs & portable automatic weather monitori ng station in the vicinity of the plant will be made available within 9 months, for which action has been initiated.
Organization chart of Environment Lab is submitted.</td></tr>
<tr><td>25</td><td>Action plan for diversion of 500 m road which can reduce the heavy pollution load due to coal transpor t and congestion in local market area having dense population and settlements eg schools, hospitals, Te hsil etc shall be submitted along with the budgetary provisions.</td><td>MUNPL submits the following:
2. NIT for widening and strengthening of Kohdar-Meja-Khiri road by PWD-Prayagraj has been issued on 09.12.2024.
3. Approx. 100 m long approach road to ash dyke for diversion of a sh bulkers shall be constructed matching with the construction of K ohdar-Meja-Khiri road. A budget provision of Rs. 1 Crore has been made.</td></tr>
<tr><td>26</td><td>Land use changes in the study area for the past 15y r-10yr-5yr-latest shall be submitted along with satel lite image containing details of vegetation cover, w ater bodies and settlements.</td><td>Land use change detection has been conducted over the past 10 yea rs (as per the data available from NRSA) using data from Bhuvan N RSA for the years 2015, 2018, and the most recent data from 2023. Land use analysis was carried out using remote sensing data and su bmitted.</td></tr>
<tr><td>27</td><td colspan="2">In addition to the above, EAC noted that one public representation is received on the instant proposal stating the following i ssues. EAC opined that project proponent shall submit the point wise response on the same.
<table>
<tr><th>S. No.</th><th>Public Representation</th><th>Meja Response</th></tr>
<tr><td>1</td><td>A map of eco-sensitive areas, inclu ding the distance and location of re served forests within the study are a, has not been provided; only a list is included.</td><td>The study area does not contain any National Parks, Wildlife Sanctuari es, Biosphere Reserves, or wetlands that meet national or international standards. However, there are some forest patches within 10 km of the study area. A topographic map showing the forests and other sensitive features in the study area was presented in the EIA report. However, a map displaying Eco sensitive areas within the 10 km radius.</td></tr>
<tr><td>2</td><td>The watershed action plan is overly basic and lacks the necessary comp onents to qualify as a comprehensi ve action plan. It must include deta iled aspects such as soil
erosivity factors, an erosion-prone Area map, and other relevant calcu lations. It should also include detail ed site-specific interventions along with estimated cost. Measures for p rotection and development of water bodies in the surrounding villages be also included.</td><td>Detailed Water Shed action plan shall be prepared through NIH-Roork ee. However detailed study shall be carried out through NIH-Roorkee/ MNIT Prayagraj and report shall be submitted by 31.12.2025.</td></tr>
<tr><td>3</td><td>In contrast, a proper watershed acti</td><td></td></tr>
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</table>

S. No.	ADS Point	Reply/Response of PP
	on plan provides a thorough analysis of critical factors, including erosion, rainfall, geology, slope, elevation, vegetation cover, wasteland, and soil quality. It also includes the origination, execution, and finalization of the action plan in alignment with the new guidelines.	
4	Additionally, the justification for the intervention sites for watershed development plan is inadequate and not justified by field visit photographs.	
5	The flora and fauna list, authenticated by the Divisional Forest Officer (DFO), is not attached in the annexure.	As per the ToR conditions, a flora and fauna list authenticated by the Divisional Forest Officer (DFO) was not mentioned. However, a request letter has been submitted to DFO Prayagraj on 04.01.2025 for authentication. Certificate is awaited.
6	There are no photographs of field survey ecology at all.	Ecology study photographs are submitted.
7	No habitation map is provided in the socio-economic part.	A topographic map of the study area, showing all the settlement/ habitations, is provided in EIA report. Additionally, a separate map depicting the settlements within the study area.
8	In some places which year Census data used is not specified.	Methodology primarily involved reviewing published secondary data (District Census Statistical Handbooks for 2011 and Primary Census Abstracts for 2001 and 2011) related to population, density, household size, sex ratio, social stratification, literacy rate, occupational structure, and other basic amenities within the 10 km radius of the study area.
9	No photographs for field socioeconomic survey are in the report.	The Socio-economic survey was carried out in the following villages of Kohdar, Salaiya Khurd, Jhadiyahi, Mai Khurd, Patai Dandi and Piprau. Photographs of Socio-economic survey are submitted.
10	No sample size or the list of the villages surveyed are mentioned.	The sample size represents approx. 5 to 6% of the total population. The socio-economic survey was conducted in the villages of Kohdar, Salaiya Khurd, Jhadiyahi, Mai Khurd, Patai Dandi and Piprau along with six nearby villages surrounding the project site. In each village, 5 to 10 individuals were consulted for the availability of basic amenities present in the villages, pollution related issues in the villages and basic facilities being provided by MUNPL to the villages. Informal consultations with local residents were held, and an assessment of basic amenities and utilities was also carried out. A questionnaire and office notebook were used to record all collected data.
11	No clear bifurcation between primary and secondary data in socio-economic study.	Primary and secondary data bifurcation provided in Social section of the EIA report.
12	DEM (Digital Elevation Map) although it has been mentioned that 10 mts. Resolution map is to be shown but it is not of 10 m resolution..	Digital Elevation Map (DEM) was not included as a condition in TOR. However, DEM map was created using the 30m resolution SRTM NASA Earth data to assess the elevation of the project site and study area.
13	Some of the maps are scanned with no proper demarcation of the project site. The project site is instead depicted by a star mark.	It is a large-scale map in which the site boundary cannot be marked properly. Hence an indicative mark has been provided.
14	In noise monitoring silence zone is not considered and only commercial, industrial and residential areas a	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

S. No.	ADS Point	Reply/Response of PP
	re considered as per NABET guide lines.	the nighttime 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 nighttime 40 dB(A). The details are submitted.
15	No field monitoring (air, water, soil, noise) geo tagged photographs of sample collection are shown in the report.	All photographs given in the EIA report are provided as Annexure. However, all the Geotagged photographs are submitted.
16	Following standards referred are incorrect on Page No. 129 in Table 3.9: **a**. Standard of PM2.5 **b.** In EIA report NH3 test method is mentioned as APHA 401 whereas, in the lab report in annexure it is mentioned IS 5182 (Part 25). **c.** The standards of Benzene (C6H6), Benzo(a)pyrene and metals are not mentioned.	**a.** Sampling methodology for PM2.5 is corrected as IS:5182(Part-IV) and the same is submitted. **b**. It has been corrected as per test report as IS 5182 (Part 25). **c.** Standard for the Benzene (C6H6), Benzo(a)pyrene and metals is submitted.
17	On page no. 134 NAAQ Standard for Nickel in ambient air is incorrect.	It is a typo error. The Standard for Nickel (Ni) is 20 ng/m3
18	On Page No. 152 the tolerance limit is given as per IS 2296 which is now withdrawn by BIS.	Yes, it is acknowledged that IS 2296 has been withdrawn by BIS. However, since no new standard has been issued as a replacement, the old standard was mentioned. Nevertheless, we have assessed the surface water quality based on the Best Designated Use Criteria set by the Central Pollution Control Board (CPCB) and same is submitted.

23.1.21: 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.

23.1.22: Written submissions:

Project proponent submitted the following written submissions during the meeting:

3.1.3. Deliberations by the committee in previous meetings

Date of EAC 1 :12/12/2024

Deliberations of EAC 1 :

Observations and deliberation of the EAC

16.1.18: The Committee observed and noted the following:

1. A map of eco-sensitive areas, including the distance and location of reserved forests within the study area, has not been provided; only a list is included.
2. The watershed action plan is overly basic and lacks the necessary components to qualify as a comprehensive action plan. It must include detailed aspects such as soil erosivity factors, an erosion-prone area map, and other relevant calculations. It should also include detailed site specific interventions along with estimated cost. Measures for protection and development of water bodies in the surrounding villages be also included.
3. In contrast, a proper watershed action plan provides a thorough analysis of critical factors, including erosion, rainfall, geology, slope, elevation, vegetation cover, wasteland, and soil quality. It also includes the origination, execution, and finalization of the action plan in alignment with the new guidelines.
4. Additionally, the justification for the intervention sites for watershed development plan is inadequate and not justified by field visit photographs.
5. The flora and fauna list, authenticated by the Divisional Forest Officer (DFO), is not attached in the annexure.
6. There are no photographs of field survey ecology at all.
7. No habitation map is provided in the socio-economic part.
8. In some places which year Census data used is not specified.
9. No photographs for field socio- economic survey are there in the report.
10. No sample size or the list of the villages surveyed are mentioned.
11. No clear bifurcation between primary and secondary data in socio-economic study.
12. DEM (Digital Elevation Map) although it has been mentioned that 10 mts. Resolution map is to be shown but it is not of 10 m resolution.
13. Some of the maps are scanned with no proper demarcation of project site. The project site is instead depicted by a star mark.
14. In noise monitoring silence zone is not considered and only commercial, industrial and residential areas are considered as per NABET guidelines.
15. No field monitoring (air, water, soil, noise) geo tagged photographs of sample collection are shown in the report.
16. Following standards referred are incorrect on Page No. 129 in Table 3.9:
    a. Standard of PM2.5
    b. In EIA report NH3 test method is mentioned as APHA 401 whereas, in the lab report in annexure it is mentioned IS 5182 (Part 25).
    c. The standards of Benzene (C6H6), Benzo(a)pyrene and metals are not mentioned.
17. On page no. 134 NAAQ Standard for Nickel in ambient air is incorrect.
18. On Page No. 152 tolerance limit is given as per IS 2296 which is now withdrawn by BIS.

Recommendations of the Committee:

16.1.19: In view of the foregoing and after detailed deliberations, the EAC ***deferred*** the proposal cited above and sought for additional information on the points as mentioned under s.no. v of the observations as mentioned above for further consideration of the proposal. In addition to the above, sub-committee of EAC shall undertake site visit to ascertain the various environmental issues pertaining to the instant project and furnish a report.

Date of EAC 2 :24/02/2025

Deliberations of EAC 2 :

Observations and deliberation of the EAC

20.1.20: The Committee observed and noted the following:

i. Instant proposal is for expansion of Meja Coal Based Thermal Power Project from 1320 MW (2x660) to 3720 MW (with 3x800 MW- Stage II) by M/s. Meja Urja Nigam Private Limited located at Tehsil Meja, District Prayagraj, Uttar Pradesh.

ii. The committee noted the following discrepancies in the proposal:

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)". However it has come to notice that PA's have acquired around 2762.63 acre of land, which is 1762.63 acre 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 as given at para no. 20.1.7 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.

iii. 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.

Recommendations of the Committee:

20.1.21: In view of the foregoing and after detailed deliberations, the EAC ***deferred*** the proposal cited above and sought for additional information on the points as mentioned under s.no. ii & iii of the observations as mentioned above for further consideration of the proposal.

3.1.4. Deliberations by the EAC in current meetings

Observations and deliberation of the EAC

23.1.23: The Committee observed and noted the following:

Recommendations of the Committee:

23.1.24: In view of the foregoing and after detailed deliberations, the committee ***recommended*** the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to uploading of written submission on PARIVESH Portal and stipulation of the following specific conditions and general conditions based on project specific requirements:

3.1.5. Recommendation of EAC

Recommended (Subject to submission of requisite information/ documents)

3.1.6. Details of Environment Conditions

3.1.6.1. Specific

[A] Environmental Management	
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.
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.
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.
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.
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.
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.
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.
8.	Ash pond area and fly ash utilization shall be as per Fly Ash Notification issued by Ministry/ CPCB from time to time.
9.	Project proponent shall ensure that pipelines carrying the fly ash and effluent shall be inspected regularly for any leakages.
1	Effluent of 3600 KLD will be treated through Effluent Treatment Plant. As committed by the Project proponent,

0.	Zero liquid discharge shall be adopted for the existing and the proposed plant. No wastewater will be discharged outside the project site.
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 Bulkers 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.
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.
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.
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.
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.
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.
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.
18.	PP shall deploy vacuum based vehicle for everyday cleaning of the road in and around plant site at least for 5 KM.
19.	Environment Audit of plant shall be done annually and report shall be submitted to Regional office of the Ministry.
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.

21.	Oil and grease recovered from the treatment plant should be disposed only through authorized recyclers.
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.
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.
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.
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.
[B] Socio-economic	
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.
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.
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.
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.
[C] Miscellaneous	
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.
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.	All necessary clearance from the concerned Authority, as may be applicable should be obtained prior to commencement of project or activity.

3.1.6.2. Standard

1(d)	**Thermal Power Plants**
Statutory compliance	
1.	Emission Standards for Thermal Power Plants as per Ministry's Notification S.O. 3305(E) dated 7.12.2015, G.S.R.593(E) dated 28.6.2018 and as amended from time to time shall be complied.
2.	Part C of Schedule II of Municipal Solid Wastes Rules, 2016 dated 08.04.2016 as amended from time to time shall be complied for power plants based on Municipal Solid Waste.
3.	MoEF&CC Notifications on Ash Utilization S.O. 5481 (E) dated 31/12/2021 as amended from time to time shall be complied.
4.	MoEF&CC Notifications on Water Consumption vide Notification No. S.O. 3305 (E) dated 07.12.2015 read with G.S.R 593 (E) dated 28.6.2018 as amended from time to time shall be complied.
5.	The recommendation from Standing Committee of NBWL under the Wildlife (Protection) Act, 1972 should be obtained, if applicable.
6.	No Objection Certificate from Ministry of Civil Aviation be obtained for installation of requisite chimney height and its siting criteria for height clearance.
Ash content/mode of transporatation of coal	
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.
Air quality monitoring and Management	
1.	Flue Gas Desulphurisation System shall be installed based on Lime/Ammonia dosing to capture Sulphur in the flue gases to meet the SO2 emissions standard as per G.S.R. 682 (E) dated 05.09.2022 and amended from time to time.
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/Nm3.
3.	High efficiency Electrostatic Precipitators (ESPs) shall be installed in each unit to ensure that particulate matter (PM) emission to meet the stipulated standards of 30 mg/Nm3.
4.	Stacks of prescribed height 220 m & 150 m shall be provided with continuous online monitoring instruments for SO2, Nox and Particulate Matter as per extant rules.
5.	Exit velocity of flue gases shall not be less than 20-25 m/s. Mercury emissions from stack shall also be monitored periodically.
6.	Continuous Ambient Air Quality monitoring system shall be set up to monitor common/criteria pollutants from the flue gases such as PM10, PM2.5, SO2, NOXwithin the plant area at least at one location. The monitoring of other locations (at least three locations outside the plant area covering upwind and downwind directions at an angle of 120° each) shall be carried out manually.

7.	Adequate dust extraction/suppression system shall be installed in coal handling, ash handling areas and material transfer points to control fugitive emissions.
8.	Appropriate Air Pollution Control measures (DEs/DSs) be provided at all the dust generating sources including sufficient water sprinkling arrangements at various locations viz., roads, excavation sites, crusher plants, transfer points, loading and unloading areas, etc.
Noise pollution and its control measures	
1.	The Ambient Noise levels shall meet the standards prescribed as per the Noise Pollution (Regulation and Control) Rules, 2000.
2.	Persons exposed to high noise generating equipment shall use Personal Protective Equipment (PPE) like earplugs/ear muffs, etc.
3.	Periodical medical examination on hearing loss shall be carried out for all the workers and maintain audiometric record and for treatment of any hearing loss including rotating to non-noisy/less noisy areas.
Human Health Environment	
1.	Bi-annual Health check-up of all the workers is to be conducted. The study shall take into account of chronic exposure to noise which may lead to adverse effects like increase in heart rate and blood pressure, hypertension and peripheral vasoconstriction and thus increased peripheral vascular resistance. Similarly, the study shall also assess the health impacts due to air polluting agents.
2.	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.
Water quality monitoring and Management	
1.	Induced/Natural draft closed cycle wet cooling system including cooling towers shall be set up with minimum Cycles of Concentration (COC) of 5.0 or above for power plants using fresh water to achieve specific water consumption of 3.0 m3/MWhr.
2.	In case of the water withdrawal from river, a minimum flow 15% of the average flow of 120 consecutive leanest days should be maintained for environmental flow whichever is higher, to be released during the lean season after water withdrawal for proposed power plant.
3.	Records pertaining to measurements of daily water withdrawal and river flows (obtained from Irrigation Department/Water Resources Department) immediately upstream and downstream of withdrawal site shall be maintained.
4.	Regular (at least once in six months) monitoring of groundwater quality in and around the ash pond area including presence of heavy metals (Hg, Cr, As, Pb, etc.) shall be carried out as per CPCB guidelines. Surface water quality monitoring shall be undertaken for major surface water bodies as per the EMP. The data so obtained should be compared with the baseline data so as to ensure that the groundwater and surface water quality is not adversely impacted due to the project & its activities.
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.	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.
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;
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.
Risk Mitigation and Disaster Management	
1.	Adequate safety measures and environmental safeguards shall be provided in the plant area to control spontaneous fires in coal yard, especially during dry and humid season.
2.	Storage facilities for auxiliary liquid fuel such as LDO and HFO/LSHS shall be made as per the extant rules in the plant area in accordance with the directives of Petroleum & Explosives Safety Organisation (PESO). Sulphur Content in the liquid fuel should not exceed 0.5%.
3.	Ergonomic working conditions with First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.
4.	Safety management plan based on Risk Assessment shall be prepared to limit the risk exposure to the workers within the plant boundary.
5.	Regular mock drills for on-site emergency management plan and Integrated Emergency Response System shall be developed for all kind of possible disaster situations.
Green belt and Biodiversity conservation	
1.	Green belt shall be developed in an area of 33% of the total project with indigenous native tree species in accordance with CPCB guidelines. The green belt shall inter-alia cover an entire periphery of the plant.
2.	In-situ/ex-situ Conservation Plan for the conservation of flora and fauna should be prepared and implemented.
Waste management	
1.	Solid waste management should be planned in accordance with extant Solid Waste Management Rules, 2016.
2.	Toxicity Characteristic Leachate Procedure (TCLP) test shall be conducted for any substance, potential of leaching heavy metals into the surrounding areas as well as into the groundwater.
3.	Ash pond shall be lined with impervious liner as per the soil conditions. Adequate dam/dyke safety measures shall also be implemented to protect the ash dyke from getting breached.
4.	Fly ash shall be collected in dry form and ash generated shall be used in phased manner as per provisions of the Notification on Fly Ash Utilization issued by the Ministry 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.
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.
Monitoring of compliance	
1.	Environmental Audit of the project be taken up by the third party for preparation of Environmental Statement as per Form-V & Conditions stipulated in the EC and report be submitted to the Ministry.

2.	Resettlement & Rehabilitation Plan as per the extant rules of Govt. of India and respective State Govt. shall be followed, if applicable.
3.	Energy Conservation Plan to be implemented as envisaged in the EIA / EMP report. Renewable Energy Purchase Obligation as set by MoP/State Government shall be met either by establishing renewable energy power plant (such as solar, wind, etc.) or by purchasing Renewable Energy Certificates.
4.	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.
5.	The project proponent shall (Post-EC Monitoring): a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government; b. upload the clearance letter on the web site of the company as a part of information to the general public. c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forest and Climate Change (MoEF&CC) at http://parviesh.nic.in. d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically; e. monitor the criteria pollutants level namely; PM (PM10& 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.
Corporate Environmental Responsibility (CER) activities	
1.	CER activities will be carried out as per Ministry's OM F.No.22- 65/2017- IA.III dated 30th September, 2020 and 22-65/2017- IA.III dated 25.02.2021 or as proposed by the PP in reference to Public Hearing or as earmarked in the EIA/EMP report along with the detailed scheduled of implementation with appropriate budgeting. Statement on the commitments (activity-wise) made during public hearing to facilitate the discussion on the CER in compliance of the shall be submitted.

4. Any Other Item(s)

N/A

5. List of Attendees

Sr. No.	Name	Designation	Email ID	Remarks
1	Dr Santoshkumar Hampannavar	Member (EAC)	san**********@yahoo.com	Present
2	Dr Umesh Jagannathrao Kahalekar	Member (EAC)	uka*******@rediffmail.com	Present
3	Shri K B Biswas	Member (EAC)	bis*********@gmail.com	Present
4	Dr Nazimuddin	Member (EAC)	naz*******@nic.in	Absent
5	Shri Mahi Pal Singh	Member (EAC)	mps********@nic.in	Present
6	Sundar Ramanathan	Scientist - F	r.s*****@nic.in	Present

7	Sh Inder Pal Singh Matharu IFS	Chairman, EAC	mat********@gmail.com	Present
8	Sh Lalit Kapur	Member (EAC)	lka********@yahoo.com	Present
9	Sh Savalge Chandrasekhar	Member (EAC)	sav*****@gmail.com	Present
10	Prof Shyam Shanker Singh	Member (EAC)	sin********@gmail.com	Present
11	Dr Vinod Agrawal	Member (EAC)	vin*****@yahoo.com	Present
12	Shri Harmeet Sahaney	Member (EAC)	har**********@imd.gov.in	Absent
13	Prof R M Bhattacharjee	Member (EAC)	rmb**********@iitism.ac.in	Absent

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

Date of zero draft MoM sent to Chairman: 11/04/2025
Approval by Chairman: 15/04/2025
Uploading on PARIVESH: 15/04/2025

SUMMARY RECORD OF THE TWENTY-THIRD (23RD) MEETING OF EXPERT APPRAISAL COMMITTEE (EAC) HELD ON 04TH APRIL 2025 FOR ENVIRONMENT APPRAISAL OF THERMAL SECTOR PROJECTS THROUGH VIRTUAL MODE.

04TH APRIL, 2025 [FRIDAY]

At the outset, Shri. Inder Pal Singh Matharu (I.F.S Retd.), Chairman, Expert Appraisal Committee (Thermal Power & Coal Mining) welcomed the Expert members & other participants and requested to start the proceeding as per the agenda listed for this meeting. The list of members who participated in the meeting is at **Annexure – I**. The Standard/Generic ToR conditions shall be system generated through the PARIVESH Portal.

Confirmation of the minutes of the 22nd meeting of the EAC (Thermal): The minutes of the 22nd meeting of the EAC (Thermal) held during 19/03/2025 has been confirmed by the EAC.

Agenda No 23.1

23.1 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 – Reconsideration for grant of Environmental Clearance based on ADS reply – regarding.**

[Proposal No: IA/UP/THE/495375/2024; F.No. J-13012/03/2008- IA.II (T)]

23.1.1: 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.

Name of the EIA consultant: M/s. EQMS Global Pvt Limited [NABET Certificate No.: NABET/EIA/2225/RA 0303, valid up to 23/11/2025].

The above project 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 again listed for consideration before the EAC in its 23rd meeting held on 04.04.2025.

Details of the proposal, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

23.1.2: 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).

23.1.3: 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	2nd 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)

23.1.4: 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 coal by road and Extension of validity of Environmental Clearance	MoEF&CC	J.13012/03/2008-IA.II (T)	28.03.2019

S. No	Facility	Issuing Authority	Details of Letter No.	Date of issuance
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.

23.1.5: 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

23.1.6: 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. The observations of Regional Office, Action Taken report of the proponent and the present status as reported in the recent closure report dated 24/02/2025 are as below:

S. No.	Details	IRO Observation dated 24.02.2025	Response by PP
i	As per the specific, condition no. III "land requirement shall be restricted to 1100 acre (including ash pond).	As per the submitted reply, it has been observed that the PP's have acquired land for both the stages, which has also mentioned in the EIA report, not in the	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: <u>Table 1: Land break-up of existing under possession (Stage-I & II) and Additional land requirement for Stage-II</u>

<table>
<tr><th>S. No.</th><th>Details</th><th>IRO Observation dated 24.02.2025</th><th>Response by PP</th></tr>
<tr><td></td><td>However, it has come to notice that PA's have acquired around 2762.63 acre of land, which is 1762.63 acre more as mentioned in the EC.</td><td>preamble/condition of EC date 2011. Besides, as per the submitted breakup of land for Stage I & II, 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 i.e., 1100 Acres (445.45 Ha).</td><td>
<table>
<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>
<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>Additional 21 Ha land proposed for green belt</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>
</table>
</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Details</th><th>IRO Observation dated 24.02.2025</th><th>Response by PP</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><td>Grand Total (Ha)</td><td>1405</td><td>-</td></tr>
<tr><td colspan="3">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 & railway siding area thus total greenbelt in existing plant is 163 Ha.</td></tr>
<tr><td colspan="3">Footnote no. 2. Includes Public roads, vegetable market, Parking, admin building, undulating land, drains, dry fly ash silo, outside area, open areas etc.</td></tr>
</table>

Greenbelt details within the Total Project Land is given in Table 2.

<u>Table 2 : Greenbelt area details within Total Project Land</u>

<table>
<tr><th>Sl. No.</th><th>Description (A)</th><th>Existing Greenbelt area in Ha (B)</th><th>Proposed Greenbelt area in Ha (C)</th></tr>
<tr><td>1</td><td>Plant area</td><td>10</td><td>21.15</td></tr>
<tr><td>2</td><td>Ash Pond area</td><td>0</td><td>14.41</td></tr>
<tr><td>3</td><td>Township area</td><td>22</td><td>5.05</td></tr>
<tr><td>4</td><td>Railway Siding area</td><td>44</td><td>76</td></tr>
<tr><td>5</td><td>Existing Green belt (other area within Project Land)</td><td>87</td><td>0</td></tr>
<tr><td>6</td><td>Proposed Greenbelt (other area within Project Land)</td><td>0</td><td>207.42 (186.42+21)</td></tr>
<tr><td>7</td><td>Total (Sum of Sl. No. 1 to 6)</td><td>163</td><td>324</td></tr>
<tr><td colspan="2">Grand Total (B7+ C7)</td><td colspan="2">487 Ha</td></tr>
</table>

Total Project Land: 1405 Ha. Percentage of Green Belt area w.r.t. Total Project Land (487x100/1405) is 34.66%
</td></tr>
<tr><td>ii</td><td>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</td><td>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.</td><td>The land break-up table earlier submitted on 27.11.2024 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 Stage-II is given in Table 1 above.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Details</th><th>IRO Observation dated 24.02.2025</th><th>Response by PP</th></tr>
<tr><td></td><td>the EC condition.</td><td></td><td></td></tr>
<tr><td>iii</td><td>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.</td><td>Based on the submitted document, it has been observed that the Ministry issued OM vide letter no. J-13012/8/2009-IA.II (T) dt 11.11.2020 with six additional conditions. However, PA have change coal sources in the year 2021, further, the Ministry issued OM vide letter no. J-13012/8/2009-IA .II (T) dt 06.12.2023 gives cushion to such thermal powers who have changed their sources with the same additional condition, imposed vide OM dt 11.11.2020, including modified conditions as “Project shall achieve 100% fly ash utilization within four years of the commissioning of the plant”, which is not comply by this project so far.

Besides, PA’s have also submitted future projections of the fly ash utilization for the financial year 24-25 (Jan-March 25) and financial year 25-26, which shows fly ash</td><td>As per MoEF&CC notification dated 31.12.2021, first ash compliance cycle for stations (for MUNPL, Meja) is 04 years i.e., from 01.04.2022 to 31.03.2026 (since Ash Utilization is ranging between 60% to 80%) and accordingly the station to comply 100% ash utilization by FY2025-26.

Table 3 : Ash Utilization for first compliance cycle of 4yrs

<table>
<tr><td>Financial Year</td><td>Ash Production (LMT)</td><td>Total AU (LMT)</td><td>Total AU (%)</td></tr>
<tr><td>FY 2022-23</td><td>15.73</td><td>9.82</td><td>62.39</td></tr>
<tr><td>FY 2023-24</td><td>17.85</td><td>12.63</td><td>70.78</td></tr>
<tr><td>FY 2024-25 up to Dec’24</td><td>15.24</td><td>12.86</td><td>84.00</td></tr>
<tr><td>FY 24-25
Jan to Mar’25 (Projected)</td><td>3.81</td><td>3.05</td><td>80.00</td></tr>
<tr><td>FY 25-26 (Projected)</td><td>25.55</td><td>39.82</td><td>155.85</td></tr>
<tr><td>Total
(In first compliance cycle of 4yrs)</td><td>78.18</td><td>78.18</td><td>100</td></tr>
</table>

During the compliance period station has to achieve average ash utilization of 100% at the end of compliance cycle i.e 31.03.2026.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Details</th><th>IRO Observation dated 24.02.2025</th><th>Response by PP</th></tr>
<tr><td></td><td></td><td>utilization up to 100% at the end of the compliance cycle.</td><td></td></tr>
<tr><td>iv</td><td>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.</td><td>It has been found that the PAs have yet not submitted fly ash return to this office. It is required to submit fly ash returns to this office regularly.

Based on the submitted document, it has been observed that the Ministry issued OM vide letter no. J- 13012/8/2009-IA .II (T) dt 11.11.2020 with six additional conditions. However, PA have change coal sources in the year 2021, further, the Ministry issued OM vide letter no. J- 13012/8/2009-IA .II (T) dt 06.12.2023 gives cushion to such thermal powers who have changed their sources with the same additional condition, imposed vide OM dt 11.11.2020, including modified conditions as “Project shall achieve 100% fly ash utilization within four years of the commissioning of the plant”, which is not comply by this project so far.</td><td>The monthly report regarding generation, ash utilization and disposal of fly ash is being submitted to CPCB every month regularly. Further, Fly ash return to MoEF&CC and its regional office for FY 23-24 was submitted on 07.09.2024 and submission of the same shall be ensured on regular basis.

As per MoEF&CC notification dated 31.12.2021, first ash compliance cycle for stations (for MUNPL, Meja) is 04 years i.e. from 01.04.2022 to 31.03.2026 (since Ash Utilization is ranging between 60 % to 80%) and accordingly the station to comply 100% ash utilization by FY2025-26. Ash Utilization for first compliance cycle of 4yrs is reproduced in Table 3 given below:

Table 3: Ash Utilization for first compliance cycle of 4yrs

<table>
<tr><th>Financial Year</th><th>Ash Production (LMT)</th><th>Total AU (LMT)</th><th>Total AU (%)</th></tr>
<tr><td>FY 2022-23</td><td>15.73</td><td>9.82</td><td>62.39</td></tr>
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During the compliance period station has to achieve average ash utilization of 100% at the end of compliance cycle i.e 31.03.2026.</td></tr>
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S. No.	Details	IRO Observation dated 24.02.2025	Response by PP
		Besides, PA's have also submitted future projections of the fly ash utilization for the financial year 24-25 (Jan-March, 25) and financial year 25-26, which shows fly ash utilization up to 100% at the end of the compliance cycle.	

In addition to the above, status of installation of Flue Gas Desulphurization is furnished as per the MoEF&CC Notification dated 05/09/2022:

1. 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. SO_2 emission is up to 31st December 2026.
2. MEJA Stage-I, erection & commissioning works of both units of Flue Gas Desulphurization (FGD) are completed. Trail run done in January-February 2024.
3. The utility has been put in to regular services with effect from 28.02.2025.

23.1.7: 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)

<table>
<tr><th>S. No.</th><th>Particulars</th><th colspan="5">Details</th><th>Remarks</th></tr>
<tr><td>2.</td><td>Land use break up</td><td colspan="5">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:

<u>Table 1: Land break-up of existing under possession (Stage-I & II) and Additional land requirement for Stage-II</u>
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<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>Additional 21 Ha land proposed for green belt</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>
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</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Total (Ha): Existing and Proposed</td><td>1295</td><td>110</td><td>-</td></tr>
<tr><td>Grand Total (Ha)</td><td colspan="2">1405</td><td>-</td></tr>
<tr><td colspan="4">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 & railway siding area thus total greenbelt in existing plant is 163 Ha.</td></tr>
<tr><td colspan="4">Footnote no. 2. Includes Public roads, vegetable market, Parking, admin building, undulating land, drains, dry fly ash silo, outside area, open areas etc.</td></tr>
</table>

Greenbelt details within the Total Project Land is given in Table 2.

<table>
<tr><th>Sl. No.</th><th>Description (A)</th><th>Existing Greenbelt area in Ha (B)</th><th>Proposed Greenbelt area in Ha (C)</th></tr>
<tr><td>1</td><td>Plant area</td><td>10</td><td>21.15</td></tr>
<tr><td>2</td><td>Ash Pond area</td><td>0</td><td>14.41</td></tr>
<tr><td>3</td><td>Township area</td><td>22</td><td>5.05</td></tr>
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<tr><td>6</td><td>Proposed Greenbelt (other area within Project Land)</td><td>0</td><td>207.42 (186.42+21)</td></tr>
<tr><td>7</td><td>Total (Sum of Sl. No. 1 to 6)</td><td>163</td><td>324</td></tr>
<tr><td colspan="2">Grand Total (B7+ C7)</td><td colspan="2">487 Ha</td></tr>
</table>

Total Project Land: 1405 Ha. Percentage of Green Belt area w.r.t. Total Project Land (487x100/1405) is 34.66%.
</td><td></td></tr>
<tr><td>3.</td><td>Land acquisition details as per MoEF&CC O.M. Dated 7/10/2014 & 20/02/2025</td><td colspan="2">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.
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.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>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.</td><td></td></tr>
<tr><td>4.</td><td>Existence of Habitation & involvement of R&R, if any.</td><td>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
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>50 Houses in Ash Dyke Area</td><td>Adjacent to the existing Ash Dyke</td><td>South-West</td></tr>
</table></td><td>R&R for Project Affected Families (PAFs) shall be as per the LARR 2013 and as per directions of the State Government.</td></tr>
<tr><td>5.</td><td>Latitude and Longitude of all corners of the project site.</td><td>A. Existing Plant site
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>A</td><td>25° 9'9.74"N</td><td>81°56'35.07"E</td></tr>
<tr><td>B</td><td>25° 8'30.08"N</td><td>81°58'37.91"E</td></tr>
<tr><td>C</td><td>25° 7'56.61"N</td><td>81°57'11.21"E</td></tr>
<tr><td>D</td><td>25° 6'41.43"N</td><td>81°55'42.74"E</td></tr>
<tr><td>E</td><td>25° 7'52.27"N</td><td>81°55'42.74"E</td></tr>
<tr><td>F</td><td>25° 7'52.27"N</td><td>81°55'13.10"E</td></tr>
</table>
B. Existing Ash Pond
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1</td><td>25° 8'1.03"N</td><td>81°55'41.51"E</td></tr>
<tr><td>2</td><td>25° 7'47.12"N</td><td>81°56'23.92"E</td></tr>
<tr><td>3</td><td>25° 6'58.24"N</td><td>81°55'46.90"E</td></tr>
<tr><td>4</td><td>25° 7'25.45"N</td><td>81°55'10.34"E</td></tr>
</table>
C. Proposed Ash pond with Green Belt
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1</td><td>25° 6'45.99"N</td><td>81°55'1.42"E</td></tr>
<tr><td>2</td><td>25° 6'54.23"N</td><td>81°53'52.67"E</td></tr>
<tr><td>3</td><td>25° 7'3.48"N</td><td>81°53'51.70"E</td></tr>
<tr><td>4</td><td>25° 7'24.83"N</td><td>81°54'43.69"E</td></tr>
</table></td><td>--</td></tr>
<tr><td>6.</td><td>Elevation of the project site</td><td>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.</td><td>--</td></tr>
<tr><td>7.</td><td>Involvement of Forest land if any.</td><td>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</td><td>Nil</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>and vetted to ensure that no forest land, whether classified as reserved, protected, or otherwise is involved within the project area.

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”.</td><td></td></tr>
<tr><td>8.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>No water body within the Project site
Study area 10 km form the project area.
<table><tr><th>Water body</th><th>Distance</th><th>Direction</th></tr><tr><td>Tons River</td><td>950 m</td><td>WNW</td></tr></table>
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.</td><td>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.</td></tr>
<tr><td>9.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area</td><td><u>Study area:</u> Nil

Status of NBWL approval: Not Applicable
List of Reserved and protected forests:
<table><tr><th>S. No.</th><th>Name</th><th>Distance (in km)</th><th>Direction</th></tr><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 colspan="2">(Along Southern Boundary)</td></tr><tr><td>5</td><td>Salaiya Khurd Reserved Forest</td><td colspan="2">(Along Southern Boundary)</td></tr></table></td><td>--</td></tr>
</table>

S. No.	Particulars	Details	Remarks
		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	--

23.1.8: 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 adopted
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)

23.1.9: 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 document
Existing TPP	Coal: 7.34 MMTPA	NCL & CCL	250 (from NCL) 550 (from CCL)	By rail	Ash content in coal 34-43(%) Sulphur in coal 0.3 to 0.5(%) Moisture 13 to 14 (%)	Agreement for NCL done on 3.02.2024

Details	Fuel requirement (Million Metric Tonnes Per Annum)	Source	Distance from site (Kms)	Mode of Transportation	Coal characteristics (Worst case scenario)	Linkage document
					GCV in coal 3000 Kcal/Kg (NCL) 3900 Kcal/Kg (CCL)	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 3900 Kcal/Kg	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	-	-

23.1.10: Water requirement: Existing Water requirement is 95,416 m^3/day (allotted water for Stage-I (1320 MW -2x660 MW) is 1,07,649 m^3/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 m^3/day (30 cusecs). 12,000 m^3/day (5 cusec) shall be taken from surplus water from stage -I and balance 60,000 m^3/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 m^3/MWhr.

23.1.11: 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.

23.1.12: Baseline Environmental Studies:

Period	Post-monsoon 2023 (1st October 2023 to 31st December 2023)	
AAQ parameters at 10 Locations (min and max)	PM_{10} (µg/m^3)	42 – 94
	$PM_{2.5}$ (µg/m^3)	17 – 54

Period	Post-monsoon 2023 (1st October 2023 to 31st December 2023)
	SO_2 (µg/m^3) 5.4 – 13.9 NO_2 (µg/m^3) 9.0 – 17.3 CO (mg/m^3) 0.12 – 0.29
Incremental GLC level	• PM = 2.42 (µg/ m^3) (Level at 0.5 km in W Direction) • SO_2 = 10.12 (µg/ m^3) (Level at 1.0 km in W Direction) • NOx = 10.12 (µg/ m^3) (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 Desulphurization (FGD) system will be installed 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. NOx emission from the steam generator shall be controlled by low NOx 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

<table>
<tr><th>Period</th><th>Post-monsoon 2023 (1st October 2023 to 31st December 2023)</th></tr>
<tr><td>Effluent generation details and its treatment</td><td>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.</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>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).</td></tr>
<tr><td>Traffic assessment study findings</td><td>• 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>
<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>
<tr><td>NH-135C</td><td>84 PCU</td><td>1500 PCU/hour</td><td>0.56</td><td>A</td></tr>
</table>
• PCU load after proposed project will be (84 Existing +70 additional)154 PCU/hr and level of service (LOS) will be:
<table>
<tr><th>Road</th><th>V (Volume PCU/hr.)</th><th>C (Capacity PCU/hr.)</th><th>Proposed V/C Ratio</th><th>LOS</th></tr>
<tr><td>NH-135C</td><td>154</td><td>1500</td><td>0.102</td><td>A</td></tr>
</table>
* Note: Capacity as per IRC-64:1990 Guidelines for capacity for roads.

Conclusion: The level of service (LOS) will be the same i.e. “A” after including additional traffic due to the proposed project</td></tr>
<tr><td>Soil Quality at 10 Locations</td><td>pH range:7.38 to 7.89,
Bulk density: 1.18 to 1.29 gm/cm^3,
Electrical conductivity (EC): 340 to 480 µmhos/cm,</td></tr>
</table>

Period	Post-monsoon 2023 (1st October 2023 to 31st December 2023)	
	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 %	
Flora and fauna	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.	
Hydrogeology study	**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: **a) Complete lining of drain carrying effluents for disposal to prevent leaching of heavy metals and groundwater contamination.** 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. **b) Creating plantations and irrigate them.** 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.	NIH Roorkee

Period	Post-monsoon 2023 (1st October 2023 to 31st December 2023)

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)

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.

d) Maximum recycle and reuse of the treated effluents in the plant.

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:

1. Ash Water Recirculating System (AWRS),
2. Coal Slurry Settling Ponds (CSSP),
3. Effluent Treatment Plant (ETP) and
4. Sewage Treatment Plant (STP).

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.

e) Public awareness raising programmes are also important for the preventive measures.

Environment conservation and its awareness to the public are being carried in the surrounding villages on

Period	Post-monsoon 2023 (1st October 2023 to 31st December 2023)	
	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 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. 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.	
Impact study on bio-diversity and aquatic ecology	**Recommendations of study:** 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. 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. 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.	--

Period	Post-monsoon 2023 (1st October 2023 to 31st December 2023)	
	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.	

23.1.13: 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	

S. No.	Type of Waste	Source	Quantity generated	Mode of Treatment	Disposal	Remarks
3	Gypsum	TPP	4,34,250 TPA	-	Sent to end users	

23.1.14: 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	a. Issuance of PAP card for displace people b. Employment for project affected people c. Cases filed against the displaced people during the agitation should be withdrawn d. Provided basic infrastructure to local like hospital, light, education, play ground, maintenance and repair of village road and drains etc. e. Provided pollution control measures. Boundary wall along the ash pond to control dust etc. f. Plantation etc.
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

S. No.	Proposed CER works to address the issues raised during Public Hearing	Total Estimated Cost (Rs. Crores)	Estimated Timelines
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.*

23.1.15: 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

S. No	Description of Item	Existing (Rs. In Crores)		Proposed (Rs. In Crores)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
(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**

23.1.16: 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 planation 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	63	From	Rs. 6.46 Crore	Plantation in MUNPL land of 63 Ha (**19.45 %** of planned green belt area

S. No.	Description	Area (Ha)	Time Period	Budget	Remarks
	on MUNPL acquired land		FY 2030-31 to FY 2032-33		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.

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

Year	Quantity Generated (LMT)	Quantity utilized (LMT)	% of Utilization	Balance Quantity (LMTP)	No of storage silos with capacity
FY 2021-22	18.23	13.21	72.46	5.02	**HCSD Silos:** 03 (each of capacity 525 MT) **Fly ash silos:** 04 (each capacity 1200 MT)
FY 2022-23	15.73	9.82	62.39	5.91	
FY 2023-24	17.85	12.63	70.78	5.22	

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.

S.No.	Details of Ash pond	Lagoon 1	Lagoon 2	Lagoon 3	Total
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 (each of capacity 525 MT) **Fly ash silos:** 04 (each capacity 1200 MT)
AU details with Operation of Stage-I and Commissioning and Operation of one unit of 800MW in Stage-II : 2x660 MW(Stg-I) + 1x800 MW (Stg-II)							
2030-31	25.55	15.49	41.04	32.83	80	8.21	
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	1 Years 9 months (w.r.t. total ash generation of Stage-II)

S. No.	Details of Ash Pond	Earlier	Optimised
		(w.r.t. total ash generation of Stage-II)	
6.	Type lining carried in ash pond: HDPE lining of 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".	

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

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

S. No.	Case Type	Number
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 cusac 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.

23.1.19: 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 ash ponds be ensured.	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 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.

S.N	Description	Action Plan
		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 nearby villages.	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 has been included in the scope of Stage-II EPC package. 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: 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.** ii. Installation of 294 Nos. Solar Powered Street Lights in the nearby villages of MUNPL. The contract value was **Rs. 60.90 Lakh.** iii. Installation of 20 Nos. Solar Powered High Mast in the nearby villages of MUNPL. The contract value was **Rs. 25.53 Lakh.** **Grand Total: Rs. 94.27 Lakh** The above initiatives highlight MUNPL's efforts to promote renewable energy, improve community infrastructure, and support education and public welfare through sustainable solutions. 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:

S.N	Description	Action Plan
		i. Installation of 200 Nos. Solar Powered Street Lights in the nearby villages of MUNPL. The contract value is **Rs. 42.19 Lakh.** ii. Installation of 15 Nos. Solar Powered High Mast in the nearby villages of MUNPL. The contract value is **Rs. 19.14 Lakh.** **Grand Total: Rs. 61.33 Lakh (Proposed)** 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.
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.	a) SOx, NOx, Methane, CO, VOCs measuring instruments are available at site. b) Ozone kit is under procurement with an estimated cost of ₹ 2.50 lacs. Target for supply is June 2025. 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. d) SPM portable monitoring instruments is under procurement with estimated value of ₹ 60000/-. Target for supply is September 2025. 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).
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 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.	NIT for widening of Kohdar-Khiri Road has been done by PWD. 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.

S.N	Description	Action Plan
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.

ADS Information in chronology:

23.1.20: The proposal was initially considered in 16th EAC meeting of Reconstituted EAC (Thermal) held on 12/12/2024. Proposal was deferred for want of following additional information. Proponent uploaded the additional information on 05/02/2025. Point-wise reply to the additional information sought is furnished as below:

S. No.	ADS Point	Reply/Response of PP
1	Total land requirement of the project is 1409 Ha. Out of 1409 Ha, 1295 Ha is reported to be under the possession of the PP and 114 Ha is under acquisition process. However, PP has not made available the relevant records pertaining to the acquisition of 114 Ha land as per the MoEF&CC O.M. dated 7/10/2014.	For the proposed project total land for the construction of main plant is available with MUNPL. Out of the total requirement of 114 Ha land, 110 Ha (Govt land) is needed for the additional Ash Dyke and balance 4 Ha (Pvt. Land) is needed for Railway Siding augmentation. Regarding resumption of Govt. land for additional Ash Dyke near Salaiya Kalan, proposal is under process. Tehsildar Meja, Prayagraj vide their communication dated 11.12.2024, indicated that the resumption proposal wrt required land is under process and thereafter the land may be provided to MUNPL Stage-II. The proposal has been agreed by the Land Management Committee of the village for handing over the land to MUNPL. In this regard, relevant letter dt 19.12.2024 issued by the Chief Revenue Officer, Prayagraj and letter dated 11.12.2024 issued by Tehsildar, Meja are attached. Regarding Railway Siding near Amiliya Kala, proposal is under process. Letter submitted to Special Land Acquisition Officer (SLAO) vide letter dt:25.11.2024. Copy of the letter is submitted.
2	A village Mai Khurd and one School/college is located very near to the project site, and there will be significant environmental impact of the proposed expansion project on the residents, students and staff PP needs to submit the mitigation measures for the same.	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.

S. No.	ADS Point	Reply/Response of PP
		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 CO2 (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/Nm3 as per MoEF&CC norms. 5. Use of Wet Flue Gas Desulphurization (FGD) will reduce the PM and SO2 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.
3	As per the DSS available on Parivesh, there is a presence of Reserved/Protected Forest within the project site. In this regard, PP informed that there is no reserved forest and/or protected forest within the existing plant area. However, proponent has not submitted the credible document from DFO regarding no involvement of forest land despite the EDS raised by the Ministry.	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. 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, letter dated 24.12.2024 from DFO Prayagraj, states that "No land of the Forest Department has been acquired in the village Mudpela situated in Tehsil Meja for the construction of

S. No.	ADS Point	Reply/Response of PP
		railway line for Meja Thermal Power Project". Relevant documents from DFO dt 10.10.2011 and 24.12.2024 are submitted.
4	HFL data of the Tons River located at a distance of 0.95 km from the project site has not been submitted. Further, certificate from state irrigation department stating plant facilities are not located in the flood plain of Tons river has also not been submitted by the proponent as per MoEF&CC OM dated 14/02/2022 despite the EDS raised by the Ministry.	Certificate received from Chief Engineer (Water Resources) Irrigation and Water Resources Department, Govt of UP, regarding HFL level of River Tons dt.10.01.2025 is submitted.
5	Committee noted that contradicting statements have been made by the proponent in the Common Application Form (CAF), presentation made before the EAC and in the brief summary with respect to the area requirement for the project. For instance, in the ATR submitted to Regional office the area of green belt is 293 Ha whereas in the under the land break up for the project the area of green belt is mentioned as 217 Ha. Project proponent to revisit the area requirement for the project and the factual data on the land requirement for the existing and expansion project needs to be submitted.	MUNPL submits that a typographical error in green belt area in Common Application Form (CAF) is regretted. As per direction of EAC in ADS query point no f, and during site visit, MUNPL has increase the green belt area from 293 Ha. to 466.03 Ha. within the project area i.e. 33% of total project are (1409 Ha.). Revised land-use breakup has been submitted.
6	Total land is 1409 Ha. Out of 1409 Ha, green belt is proposed only in 217 Ha within the project site which is worked out to be only 15.41% of the total area. It has been proposed that the remaining green belt will be carried out outside the plant site in an area of 271.5Ha of land of degraded forest area (not to be acquired) under DFO-Prayagraj, which is not acceptable as it will not help in mitigating the environmental impact of the project. Project proponent shall revisit the green belt development action plan and submit the revised plan for development of 33% of total project area under green cover.	MUNPL submits that a typographical error in green belt area in Common Application Form (CAF) is regretted. As per direction of EAC in ADS query point no e, and during site visit, MUNPL has increase the green belt area from 293 Ha. to 466.03 Ha. within the project area i.e. 33% of total project are (1409 Ha.). Over and above the greenbelt, as carbon sink, additional planation shall be done in 271 Ha of degraded forest area. MUNPL has earmarked a total budget of Rs.55.42 Cr for greenbelt development. Out of this, an action plan for development of green belt in 401 Ha. land with estimated cost of Rs. 38.72 Cr has already been provided by DFO Prayagraj. Additionally, MUNPL has allocated an extra budget of Rs.16.7 Cr for greenbelt development, which shall be carried out through Social Forestry Department, Prayagraj and internal resources is pending approval from DFO. Revised green belt details has been submitted.
7	The Committee deliberated on the certified compliance report of Regional Office and observed that serious non-conformities have been reported by RO with respect to the existing EC conditions namely land requirement of project, break up of land requirement, area earmarked for the green belt development, cycles of concentration of cooling water, compliance to the conditions with respect to change of coal source and filing ash utilization returns etc. The committee opined to obtain the closure report from RO on the observed nonconformities.	IRO submitted the observation on ATR of MUNPL Meja on 16.12.2024. MUNPL submitted ATR dt 10.01.2025 on IRO observation dt 16.12.2024 and it was submitted.

<table>
<tr><th>S. No.</th><th>ADS Point</th><th>Reply/Response of PP</th></tr>
<tr><td>8</td><td>Approval from the Competent Authority for withdrawal of water of 72,000 KLD from River Ganga is yet to be obtained.</td><td>• Total water requirement for Stage-II is 30 Cusecs (72,000 KLD).
• Water quantity of 05 Cusecs (12,000 KLD) will be made available from existing stage-I.
• Water Requirement is of 25 Cusecs (60,000 KLD).
In meeting of Chief Secretary (GoUP), dated 02.01.25, directions were given to Irrigation & Water Resource Department, GoUP to issue letter for water allocation from UP share.</td></tr>
<tr><td>9</td><td>The concentrations of different pollutants in existing ambient air quality levels are relatively high and suggested the PP to calculate the predictions of annual average ambient air quality data at various locations for existing unit. The predicted values of air pollutant concentrations arising out of air quality modeling after additional 3 X 800 MW plant shall also be rechecked as there should be substantial increase in concentrations of different pollutants after the proposed expansion. Action plan for controlling the AAQ level through pollution control systems shall be submitted. Additional air pollution control measures for existing unit be mentioned.</td><td>The prediction of annual average ambient air quality data from October 2023 to September 2024 is calculated and submitted.
The model has been rechecked, and the predicted values are found increased from the base line values. Whereas SO_2 and NOX values are well within the permissible limits, PM values are slightly above the annual standard. Wet FGD of both units of stage -I is commissioned and put in use which will further mitigate the impacts of pollutants on ambient air quality. Further, following measures shall be taken to mitigate the impact on ambient air due to the proposed expansion project (3x800 MW).
Proposed Mitigation measures are as follows:
i. State-of-the-art “Ultra Super Critical Technology” with higher efficiency has lesser emission of CO2 (12-13 % less with respect to sub critical units).
ii. Increase of number of Dry fly ash closed wagon rakes through railways to further reduce the vehicular emission.
iii. Use of Low NOx burner will reduce NOx emission.
iv. Use of highly efficient ESP will reduce PM emission to less than 30mg/Nm3 as per MoEF&CC norms.
v. Use of Wet Flue Gas Desulphurization (FGD) will reduce the PM and SO2 emission as well as low flue gas exit temperature, which shall improve climatic conditions.
vi. Additional plantation on 303 Ha land shall be developed on MUNPL land.</td></tr>
</table>

Ambient Air Quality Locations		Maximum Annual Average Baseline (µg/m³)				Maximum Incremental Concentration (µg/m³)			Maximum Resultant Concentration (µg/m³)			Annual Average NAAQS Standards (µg/m³)		
Monitoring location	**Distance (Km)**	**Direction**	**PM**	**SO_2**	**NO_x**	**PM**	**SO_2**	**NO_x**	**PM**	**SO_2**	**NO_x**	**PM_{10}**	**SO_2**	**NO_x**
AAQ1	Project site	--	74	10.7	14.6	2.42	8.06	8.06	76.42	18.76	22.66	60	50	40

S. No.	ADS Point	Reply/Response of PP

	AAQ2	0.7	SW	72	9.9	13.4	1.1	3.66	3.66	73.1	13.56	17.06	60	50	40
	AAQ3	1.5	NE	68	8.7	12.1	2.01	6.71	6.71	70.01	15.41	18.81	60	50	40
	AAQ4	5.2	NE	70	8.4	11.2	1.21	4.02	4.02	71.21	12.42	15.22	60	50	40
	AAQ5	9.4	E	72	9.1	12.4	1.44	4.8	4.8	73.44	13.9	17.2	60	50	40
	AAQ6	2.0	S	65	8.3	11	1.02	3.39	3.39	66.02	11.69	14.39	60	50	40
	AAQ7	3.5	NE	67	8.1	11.5	1.8	6	6	68.8	14.1	17.5	60	50	40
	AAQ8	2.1	W	67	7.9	11.1	2.3	7.68	7.68	69.3	15.58	18.78	60	50	40
	AAQ9	0.9	E	70	8.7	12	1.96	6.55	6.55	71.96	15.25	18.55	60	50	40
	AAQ10	7.0	NE	67	7.8	11.4	1.55	5.17	5.17	68.55	12.97	16.57	60	50	40

10 Action plan to control the $PM_{2.5}$ levels below the NAAQS shall be submitted as the same is exceeding the NAAQS norms. Further, the monitored values of PM2.5 is reported to be more than PM10 which is not correct and needs to be revisited.

MUNPL-MEJA submits that the baseline monitoring was carried from October to December 2023 by M/s. EQMS GLOBAL PVT. LTD. (NABET Accredited EIA Consultant, MoEF&CC) Certificate No.: NABET/EIA/2225/RA 0303 (Valid up to Nov 23, 2025). Ten air samples were collected and analysed.

i. Particulate Matter PM_{10} and $PM_{2.5}$ levels in all the monitoring locations are within the standard i.e. NAAQMS level 100 µg/m^3 and 60 µg/m^3 respectively.

ii. The monitored values of $PM_{2.5}$ is less than PM_{10}.

EIA baseline readings of PM_{10} and PM $_{2.5}$ are presented below table:

Location Code	Location	PM_{10} (µg/m^3)				$PM_{2.5}$ (µg/m^3)			
		Max	Min	Mean	98 %tile	Max	Min	Mean	98 %tile
AAQ-1	Project Site (Meja TPP Main Entry Gate)	94	51	75	93	54	23	42	54
AAQ-2	Salaya Kala near Ash Pond	88	46	70	88	51	20	39	51
AAQ-3	Patai Dandi Village	82	44	67	81	50	18	37	49
AAQ-4	Rithaiya Village	84	42	69	83	49	17	36	48

S. No.	ADS Point	Reply/Response of PP

AAQ-5	Sukath near meja tehsil	90	45	72	90	52	21	40	52
AAQ-6	Son Barsi	80	42	65	79	48	17	35	47
AAQ-7	Gadeva Village	81	44	67	81	47	18	35	47
AAQ-8	Piprau Village	83	42	65	81	50	17	36	49
AAQ-9	Korhar Village	85	46	70	84	51	20	38	50
AAQ-10	Bhendewara Village	82	43	67	81	44	18	34	44
NAAQ Standard		100				60			

11	Effluent generation is reported to be 2065m3/hr whereas proposed ETP capacity is mentioned as 2500 m3 only which appears to be inadequate. PP shall revise the ETP capacity and submitted the same along with the treatment details with flow diagram. Details of water quality both at the inlet and outlet needs to be submitted.	Proposed wastewater generated from various process is reused within the plant processes with and without treatment. Out of 2065 m3/hr of wastewater, only 150 m3/hr requires treatment through ETP before re-use. The ETP capacity is of 300 m3/hr which is adequate. (Inadvertently the capacity of ETP was mentioned as 2500 m3). Water quality of ETP inlet and outlet is submitted.
12	Wildlife conservation (WLC) plan for conservation of schedule I species is yet to be approved by the CWLW of the state.	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.
13	Recommendations of the hydrogeology study and the time bound action plan for complying with the recommendations of the study report has not been furnished.	Detailed hydrogeological study of the project site and surrounding 10 km study was conducted by National Institute of Hydrology (NIH), Roorkee, Uttarakhand.
14	Details of the bio-diversity assessment study carried out and impact on aquatic flora & fauna, recommendations of the study report along the time bound action plan for complying with the recommendations of the study report has not been furnished. The aquatic ecosystem services of existing water bodies with detail flora and fauna which are making their habitat on these ecosystems shall also be worked out and submitted.	The biodiversity study has been conducted covering Flora and Fauna in the study area. Floristic Composition in the study area consists of 53 tree species, 26 shrub species, 21 herbs and 26 grasses, climber and weeds. Details are submitted. Floristic Survey was carried out to record the Phyto-sociological characters of plant species (trees, shrubs and herbs) in reserved forest of Singhpur Khurd, Mudpela and Salaiya Kalan during the baseline survey from October to December 2023. Primary Ethnobotanical survey detailing importance of plant species in study area for the people was carried out. Agricultural crop details are provided after a thorough primary and secondary data analysis. There are no national park, biosphere reserve, wildlife sanctuary, important bird area, wetland present in the study area. However, Faunal Diversity survey was carried and identified 14 mammal species, spotted 47 birds and 10 herpetofauna (amphibians, snakes and lizards). An action plan ie., Wildlife Conservation Plan for 7 numbers of species (Black buck, Porcupine, Jungle Cat, Hyena, Rat Snake, Russell's Viper and Peafowl) identified under Schedule-I is

S. No.	ADS Point	Reply/Response of PP
		provided in consultation with DFO-Prayagraj. The Wildlife Conservation Plan of 10yrs for wildlife habitat management and its preservation was furnished by DFO-Prayagraj with budget provision of Rs. 3.51 Crore. Aquatic Ecology Study was carried on two water bodies River Tons and River Ganga covering their upstream and downstream. Surface water samples were collected and classified into Phytoplankton (18 species), Zooplanktons (16 species) and identified 12 fish varieties. **Recommendations:** 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. These intake screens/meshes will prevent larger aquatic organisms such as fish and frogs from entering water supply system, thereby aiding in maintaining the aquatic ecological balance of the River Ganga. • 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. • Two Water Reservoir of 29 lakh 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. • The aquatic ecology will be sustainable, and project will not have any significant impact even after the operation of the proposed power plant.
15	On perusal of the videography of the public hearing, participants have pointed out serious environmental issues, mainly pertaining to fly ash/ air pollution w.r.t existing unit which have not been neither addressed in the EIA report nor in the action plan submitted by the proponent. These issues should have been addressed for the existing unit as well. PP shall furnish the issues raised during public hearing as well as in the written representations in verbatim along with the time bound action plan for addressing PH issues as per the MoEF&CC OM dated 30/09/2020.	The public hearing was carried on 24.06.2024. Issues raised during PH as well as updated time bound action plan is provided. **Actions taken to mitigate air pollution due to fugitive ash are as below:** • Fly ash transportation through closed wagon Railway Rakes has commenced from 02.12.2024, which has largely mitigated the problem. • 30 nos of water sprinklers are provided to supress fugitive dust. • 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. • Fog Cannon is deployed to suppress fugitive dust. • Bottom Ash Lagoon-II and Bottom Ash Lagoon-III are water submerged. • 3,68,000 nos. plants have been planted and certified by DFO corresponding to 163 Ha MUNPL land. • Tree plantation is being carried out in the available /empty land in and around MUNPL Plant boundary & Ash dykes

S. No.	ADS Point	Reply/Response of PP
		which will improve the ambient air quality as well as reduce the noise pollution. • A comprehensive action plan of 10 Years for plantation along with maintenance was developed by the Forestry Division Prayagraj on 23.08.2024 for plantation i.e. 130 Ha of MUNPL Land and 271 Ha of degraded Forest land. • Further, 173 Ha additional land has been identified for green belt development within MUNPL land.
16	Action plan submitted by the proponent to address the issues raised during public hearing is very sketchy and not in conformity to the actual issues raised during public hearing.	PH action plan and CER details are submitted by PP.
17	It appears from the Public Hearing that people have concerns about ash transportation, and ambient air quality. PP is requested to submit the action taken regarding the same.	Existing and proposed mitigation measures to control fugitive dust around ash pond and due to ash transportation, are as follows: **Existing mitigation measures**: 1. FGD of both the units are in operation. 2. Ash pond Lagoon-II and Lagoon-III are water covered. 3. Dry fly ash is being transported through Closed wagon rakes of railways which will further reduce the vehicular emission. 4. In Ash pond 30 nos. of water sprinklers are provided to supress 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:** 1. State of Art Technology "Ultra Super Critical Technology" with higher efficiency has lesser emission of CO2 (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 of MoEF & CC norms.

S. No.	ADS Point	Reply/Response of PP
		5. Use of Wet Flue Gas Desulphurization (FGD) will reduce the PM and SO_2 emission as well as low flue gas exit temperature, thus improve climatic conditions. 6. Additional plantation on 303 Ha land shall be developed on MUNPL land. Plantation activities shall be completed progressively in consultation with Social Forestry Dept and in-house resources.
18	Existing green belt for the present unit is developed is only in 12.59% of the project area. Project proponent may kindly explain the reasons for not developing green belt in 33% of the project area shall be submitted. Further, PP is misleading the Committee by projecting 271.5 Ha situated outside the project area as a green belt area for the expansion project which is totally unacceptable as it will not help in mitigating the environmental impact of the project.	In STAGE-I, Environment Clearance was obtained on 10.01.2011 with all the conditions for greenbelt development have been complied. As per directions of EAC Committee in ADS and during site visit, MUNPL Meja has identified area for green cover of 33.08% within acquired land and details of which are given below: 1. Existing green belt: 163 Ha 2. Proposed green belt: 303 Ha, 3. Total area of green belt: 466 Ha (33.08% of 1409 Ha.)
19	As the part of proposed expansion, PP is proposing a new ash pond in an area of 110 Ha. This needs to be revisited and the area for new ash pond shall be done away with by evacuating ash in the existing ash dyke. Proper ash utilization of the legacy ash and ash of existing unit will free the space in the existing ash pond. Action plan in this regard shall be submitted by the proponent.	**For the proposed expansion** • Existing Stage-I HCSD lagoon can be used for HCSD disposal of Stage-II. • However, 110 Ha additional land will be required for Bottom Ash lagoon of Stage-II because the available Bottom Ash lagoon is not adequate for for proper sedimentation & decantation of slurry from all the five units (2x660MW+3x800MW) and for storage of decantated water in Overflow Lagoon for re-use. Further, there is a restriction in movement of Ash trucks/bulkers by the District Administration due to which ash utilization is severely restricted. As a case in point for the FY 23-24, out of 365 days, only 229 days were available for ash transportation and for FY 24-25, only 245 days are expected to be available for transportation of ash. Latest few communications are submitted. In addition to this, ash bulker movement is allowed in night only after 11 PM to next day morning 5 AM. Consequently, there is a need for buffer storage capacity for ash for sustainable plant operation. MUNPL-MEJA current Ash utilization in existing project (Stage-I) of MUNPL for FY 2024-25 is around 84% till December 2024.
20	Ash utilization for the existing unit is very poor and reported to be only 62.39% for the year 2023-24. Revised time bound ash management plans shall be submitted. The plan shall inter-alia include ash pond details, infrastructure facilities, ash generation and utilization as per the ash utilization notification dated	As per the Ash notification dt 31.12.2021, the 4yr cycle for Ash Utilization plan shall start from 2022-23 to 2025-26. Ash utilization plan has been submitted.

S. No.	ADS Point	Reply/Response of PP
	31/12/2021 and its subsequent amendments as well as legacy ash utilization if any	
21	Ash pond calculation with respect to life of lagoon 1 to 3 and proposed ash pond shall be revisited as the life of the ash pond is mentioned as 1 year to 2 years only.	Ash pond calculation has been submitted.
22	EAC suggested that Carbon emissions need to be assessed and brief plan for carbon emission mitigation shall be submitted by the PP.	**MUNPL-MEJA Response :** Following measures for carbon emission mitigation and its impact adopted: 1. In Stage-I, boilers are designed for Super critical technology. CO2 generation is approx. 843.03 gm/kWh. In Stage-II, Ultra Supercritical Technology boilers will be installed. Due to which, CO2 generation will be approx. 830.47 gm/kWh. 2. Creating extensive plantation: In and around the project, an area of 466 Ha (existing green belt 163 Ha and proposed green belt 303 ha) of green cover shall be developed within project area out of total land of 1409 Ha. Over and above the greenbelt, as carbon sink, additional planation shall be done in 271 Ha of degraded forest area. Native species of trees shall be planted in consultation with DFO, Social Forestry Department.
23	Total 73 cases are pending in various courts against Meja Stage –I project. PP shall clarify the cases which are related to the environmental issues of the existing power plant. There is also a case pertaining to water drawl by the project. The up-to-date status be submitted.	Of the 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. 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." Next hearing is scheduled on 3rd March'25. The details of case is submitted.
24	Action plan for setting up of in-house Environmental lab with an environmental specialist having day to day monitoring instruments such as portable analysers for SOx,NOx,CO,CH4,O3,VOCs, decibel level and water parameters shall be submitted. The environmental lab shall also be equipped with portable Automatic Weather Monitoring stations in and around vicinity of the plant for regular weather variations monitoring.	**Environmental Lab is available with following facilities:** 1. Water testing facility 2. Offline Stack monitoring instrument for PM, SO2, NOx are available. 3. Noise measuring instrument. 4. Online measuring instruments like humidity, Wind speed, Wind direction, Max/Min temperature, Solar radiation and rain gauge available and in service. 5. Continuous Emission Monitoring Systems are available for both the units for PM, SO2, NOx.

<table>
<tr><th>S. No.</th><th>ADS Point</th><th>Reply/Response of PP</th></tr>
<tr><td></td><td></td><td>6. Environmental lab is managed by 2 specialist in Chemistry and 2 in Environmental Science.

Further, to strengthen environment lab, portable analysers for SOx, NOx, CO, CH4, O3, VOCs & portable automatic weather monitoring station in the vicinity of the plant will be made available within 9 months, for which action has been initiated.

Organization chart of Environment Lab is submitted.</td></tr>
<tr><td>25</td><td>Action plan for diversion of 500 m road which can reduce the heavy pollution load due to coal transport and congestion in local market area having dense population and settlements eg schools, hospitals, Tehsil etc shall be submitted along with the budgetary provisions.</td><td>MUNPL submits the following:
1. In order to reduce pollution on road due to transportation of ash by ash-bulkers, transportation of ash through closed wagon railway rakes has already been started.
2. NIT for widening and strengthening of Kohdar-Meja-Khiri road by PWD-Prayagraj has been issued on 09.12.2024.

3. 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. A budget provision of Rs. 1 Crore has been made.</td></tr>
<tr><td>26</td><td>Land use changes in the study area for the past 15yr-10yr-5yr-latest shall be submitted along with satellite image containing details of vegetation cover, water bodies and settlements.</td><td>Land use change detection has been conducted over the past 10 years (as per the data available from NRSA) using data from Bhuvan NRSA for the years 2015, 2018, and the most recent data from 2023. Land use analysis was carried out using remote sensing data and submitted.</td></tr>
<tr><td>27</td><td colspan="2">In addition to the above, EAC noted that one public representation is received on the instant proposal stating the following issues. EAC opined that project proponent shall submit the point wise response on the same.
<table>
<tr><th>S. No.</th><th>Public Representation</th><th>Meja Response</th></tr>
<tr><td>1</td><td>A map of eco-sensitive areas, including the distance and location of reserved forests within the study area, has not been provided; only a list is included.</td><td>The study area does not contain any National Parks, Wildlife Sanctuaries, Biosphere Reserves, or wetlands that meet national or international standards. However, there are some forest patches within 10 km of the study area. A topographic map showing the forests and other sensitive features in the study area was presented in the EIA report. However, a map displaying Eco sensitive areas within the 10 km radius.</td></tr>
<tr><td>2</td><td>The watershed action plan is overly basic and lacks the necessary components to qualify as a comprehensive action plan. It must include detailed aspects such as soil
erosivity factors, an erosion-prone Area map, and other relevant calculations. It should also include detailed site-specific interventions along with estimated cost. Measures for protection and development of water bodies in the surrounding villages be also included.</td><td>Detailed Water Shed action plan shall be prepared through NIH-Roorkee. However detailed study shall be carried out through NIH-Roorkee/MNIT Prayagraj and report shall be submitted by 31.12.2025.</td></tr>
</table></td></tr>
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S. No.	ADS Point		Reply/Response of PP
	3	In contrast, a proper watershed action plan provides a thorough analysis of critical factors, including erosion, rainfall, geology, slope, elevation, vegetation cover, wasteland, and soil quality. It also includes the origination, execution, and finalization of the action plan in alignment with the new guidelines.	
	4	Additionally, the justification for the intervention sites for watershed development plan is inadequate and not justified by field visit photographs.	
	5	The flora and fauna list, authenticated by the Divisional Forest Officer (DFO), is not attached in the annexure.	As per the ToR conditions, a flora and fauna list authenticated by the Divisional Forest Officer (DFO) was not mentioned. However, a request letter has been submitted to DFO Prayagraj on 04.01.2025 for authentication. Certificate is awaited.
	6	There are no photographs of field survey ecology at all.	Ecology study photographs are submitted.
	7	No habitation map is provided in the socio-economic part.	A topographic map of the study area, showing all the settlement/ habitations, is provided in EIA report. Additionally, a separate map depicting the settlements within the study area.
	8	In some places which year Census data used is not specified.	Methodology primarily involved reviewing published secondary data (District Census Statistical Handbooks for 2011 and Primary Census Abstracts for 2001 and 2011) related to population, density, household size, sex ratio, social stratification, literacy rate, occupational structure, and other basic amenities within the 10 km radius of the study area.
	9	No photographs for field socioeconomic survey are in the report.	The Socio-economic survey was carried out in the following villages of Kohdar, Salaiya Khurd, Jhadiyahi, Mai Khurd, Patai Dandi and Piprau. Photographs of Socio-economic survey are submitted.
	10	No sample size or the list of the villages surveyed are mentioned.	The sample size represents approx. 5 to 6% of the total population. The socio-economic survey was conducted in the villages of Kohdar, Salaiya Khurd, Jhadiyahi, Mai Khurd, Patai Dandi and Piprau along with six nearby villages surrounding the project site. In each village, 5 to 10 individuals were consulted for the availability of basic amenities present in the villages, pollution related issues in the villages and basic facilities being provided by MUNPL to the villages. Informal consultations with local residents were held, and an assessment of basic amenities and utilities was also carried out. A questionnaire and office notebook were used to record all collected data.
	11	No clear bifurcation between primary and secondary data in socio-economic study.	Primary and secondary data bifurcation provided in Social section of the EIA report.
	12	DEM (Digital Elevation Map) although it has been mentioned that 10 mts. Resolution map is to be shown but it is not of 10 m resolution..	Digital Elevation Map (DEM) was not included as a condition in TOR. However, DEM map was created using the 30m resolution SRTM NASA Earth data to assess the elevation of the project site and study area.
	13	Some of the maps are scanned with no proper demarcation of the project site. The project site is instead depicted by a star mark.	It is a large-scale map in which the site boundary cannot be marked properly. Hence an indicative mark has been provided.

S. No.	ADS Point		Reply/Response of PP
	14	In noise monitoring silence zone is not considered and only commercial, industrial and residential areas are considered as per NABET guidelines.	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 nighttime 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 nighttime 40 dB(A). The details are submitted.
	15	No field monitoring (air, water, soil, noise) geo tagged photographs of sample collection are shown in the report.	All photographs given in the EIA report are provided as Annexure. However, all the Geotagged photographs are submitted.
	16	Following standards referred are incorrect on Page No. 129 in Table 3.9: **a**. Standard of PM2.5 **b.** In EIA report NH3 test method is mentioned as APHA 401 whereas, in the lab report in annexure it is mentioned IS 5182 (Part 25). **c.** The standards of Benzene (C6H6), Benzo(a)pyrene and metals are not mentioned.	**a.** Sampling methodology for PM2.5 is corrected as IS:5182(Part-IV) and the same is submitted. **b**. It has been corrected as per test report as IS 5182 (Part 25). **c.** Standard for the Benzene (C6H6), Benzo(a)pyrene and metals is submitted.
	17	On page no. 134 NAAQ Standard for Nickel in ambient air is incorrect.	It is a typo error. The Standard for Nickel (Ni) is 20 ng/m3
	18	On Page No. 152 the tolerance limit is given as per IS 2296 which is now withdrawn by BIS.	Yes, it is acknowledged that IS 2296 has been withdrawn by BIS. However, since no new standard has been issued as a replacement, the old standard was mentioned. Nevertheless, we have assessed the surface water quality based on the Best Designated Use Criteria set by the Central Pollution Control Board (CPCB) and same is submitted.

23.1.21: 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.

23.1.22: 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 n 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

23.1.23: 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 m^3/day (allotted water for Stage-I (1320 MW -2x660 MW) is 1,07,649 m^3/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 m^3/day (30 cusecs). 12,000 m^3/day (5 cusec) shall be taken from surplus water from stage -I and balance 60,000 m^3/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/Nm^3. 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 SO_2 gas shall be captured in limestone slurry (to limit SO_2 emission below 100 mg/Nm^3) to produce gypsum.

xvii. Total wastewater generation from the existing and expansion project is 3600 KLD. The Effluent Treatment Plant (ETP) of 300 m^3/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:

23.1.24: In view of the foregoing and after detailed deliberations, the committee ***recommended*** the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to uploading of written submission on PARIVESH Portal and stipulation of the following specific conditions and general conditions based on project specific requirements:

A. Specific conditions

[A] Environmental Management

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.

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.

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.

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.

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.

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.

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.

8) Ash pond area and fly ash utilization shall be as per Fly Ash Notification issued by Ministry/ CPCB from time to time.

9) Project proponent shall ensure that pipelines carrying the fly ash and effluent shall be inspected regularly for any leakages.

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.

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 Bulkers 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.

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.

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.

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.

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.

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.

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.

18) PP shall deploy vacuum based vehicle for everyday cleaning of the road in and around plant site at least for 5 KM.

19) Environment Audit of plant shall be done annually and report shall be submitted to Regional office of the Ministry.

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.

21) Oil and grease recovered from the treatment plant should be disposed only through authorized recyclers.

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

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.

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.

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.

[B] Socio-economic

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.

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.

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.

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.

[C] Miscellaneous

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.

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) All necessary clearance from the concerned Authority, as may be applicable should be obtained prior to commencement of project or activity.

B. General conditions

A. Statutory compliance:

1. Emission Standards for Thermal Power Plants as per Ministry's Notification S.O. 3305 (E) dated 7.12.2015, G.S.R.593 (E) dated 28.6.2018 and as amended from time to time shall be complied.
2. Part C of Schedule II of Municipal Solid Wastes Rules, 2016 dated 08.04.2016 as amended from time to time shall be complied for power plants based on Municipal Solid Waste.
3. MoEF&CC Notifications on Ash Utilization S.O. 5481 (E) dated 31/12/2021 as amended from time to time shall be complied.
4. MoEF&CC Notifications on Water Consumption vide Notification No. S.O. 3305 (E) dated 07.12.2015 read with G.S.R 593 (E) dated 28.6.2018 as amended from time to time shall be complied.
5. The recommendation from Standing Committee of NBWL under the Wildlife (Protection) Act, 1972 should be obtained, if applicable.
6. No Objection Certificate from Ministry of Civil Aviation be obtained for installation of requisite chimney height and its siting criteria for height clearance.

B. Ash content/ mode of transportation of coal:

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.

C. Air quality monitoring and Management:

1. Flue Gas Desulphurisation System shall be installed based on Lime/Ammonia dosing to capture Sulphur in the flue gases to meet the SO_2 emissions standard as per G.S.R. 682 (E) dated 05.09.2022 and amended from time to time.
2. Selective Catalytic Reduction (SCR) system or the Selective Non-Catalytic Reduction (SNCR) system or Low NOX Burners with Over Fire Air (OFA) system shall be installed to achieve NO_X emission standard of 100 mg/Nm^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.
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.

5. Exit velocity of flue gases shall not be less than 20-25 m/s. Mercury emissions from stack shall also be monitored periodically.
6. Continuous Ambient Air Quality monitoring system shall be set up to monitor common/criteria pollutants from the flue gases such as PM_{10}, $PM_{2.5}$, SO_2, NO_X within the plant area at six 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.
7. Adequate dust extraction/suppression system shall be installed in coal handling, ash handling areas and material transfer points to control fugitive emissions.
8. Appropriate Air Pollution Control measures (Des/DSs) be provided at all the dust generating sources including sufficient water sprinkling arrangements at various locations viz., roads, excavation sites, crusher plants, transfer points, loading and unloading areas, etc.

D. Noise pollution and its control measures:

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

E. Human Health Environment:

1. Bi-annual Health check-up of all the workers is to be conducted. The study shall take into account of chronic exposure to noise which may lead to adverse effects like increase in heart rate and blood pressure, hypertension and peripheral vasoconstriction and thus increased peripheral vascular resistance. Similarly, the study shall also assess the health impacts due to air polluting agents.
2. 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.

F. Water quality monitoring and Management:

1. Induced/Natural draft closed cycle wet cooling system including cooling towers shall be set up with minimum Cycles of Concentration (COC) of 5.0 or above for power plants using fresh water to achieve specific water consumption of 3.0 m^3/MWhr.
2. In case of the water withdrawal from river, a minimum flow 15% of the average flow of 120 consecutive leanest days should be maintained for environmental flow whichever is higher, to be released during the lean season after water withdrawal for proposed power plant.

3. Records pertaining to measurements of daily water withdrawal and river flows (obtained from Irrigation Department/Water Resources Department) immediately upstream and downstream of withdrawal site shall be maintained.
4. Regular (at least once in six months) monitoring of groundwater quality in and around the ash pond area including presence of heavy metals (Hg, Cr, As, Pb, etc.) shall be carried out as per CPCB guidelines. Surface water quality monitoring shall be undertaken for major surface water bodies as per the EMP. The data so obtained should be compared with the baseline data so as to ensure that the groundwater and surface water quality is not adversely impacted due to the project & its activities.
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. 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.
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;
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.

G. Risk Mitigation and Disaster Management:

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

H. Green belt and Biodiversity conservation:

1. Green belt shall be developed in an area of 33% of the total project with indigenous native tree species in accordance with CPCB guidelines. The green belt shall inter-alia cover an entire periphery of the plant.
2. In-situ/ex-situ Conservation Plan for the conservation of flora and fauna should be prepared and implemented.

I. Waste management:

1. Solid waste management should be planned in accordance with extant Solid Waste Management Rules, 2016.
2. Toxicity Characteristic Leachate Procedure (TCLP) test shall be conducted for any substance, potential of leaching heavy metals into the surrounding areas as well as into the groundwater.
3. Ash pond shall be lined with impervious liner as per the soil conditions. Adequate dam/dyke safety measures shall also be implemented to protect the ash dyke from getting breached.
4. Fly ash shall be collected in dry form and ash generated shall be used in phased manner as per provisions of the Notification on Fly Ash Utilization issued by the Ministry 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.
5. Unutilized ash shall be disposed off in the ash pond in the form of High Concentration Slurry method and Lean Slurry method. Ash water recycling system shall be set up to recover supernatant water.

J. Monitoring of compliance:

1. Environmental Audit of the project be taken up by the third party for preparation of Environmental Statement as per Form-V & Conditions stipulated in the EC and report be submitted to the Ministry.
2. Resettlement & Rehabilitation Plan as per the extant rules of Govt. of India and respective State Govt. shall be followed, if applicable.
3. Energy Conservation Plan to be implemented as envisaged in the EIA / EMP report. Renewable Energy Purchase Obligation as set by MoP/State Government shall be met either by establishing renewable energy power plant (such as solar, wind, etc.) or by purchasing Renewable Energy Certificates.
4. 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.
5. The project proponent shall (Post-EC Monitoring):
    a. Send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
    b. upload the clearance letter on the web site of the company as a part of information to the general public.

c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forest and Climate Change (MoEF&CC) at http://parviesh.nic.in.

d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;

e. monitor the criteria pollutants level namely; PM (PM_{10} & $PM_{2.5}$ in case of ambient AAQ), SO_2, 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.

K. Corporate Environmental Responsibility (CER) activities:

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

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ANNEXURE-I

LIST OF PARTICIPANTS OF EAC (THERMAL) IN 23rd MEETING HELD ON 04TH APRIL, 2025 THROUGH VIRTUAL MODE

S. No.	Name & Address	Role	04.04.2025
1.	Shri Inder Pal Singh Matharu, (I.F.S. Retd.)	Chairman	Present
2.	Shri Lalit Kapur	Member	Present
3.	Dr. Umesh Jagannathrao Kahalekar	Member	Present
4.	Dr. Santosh Kumar Hampannavar	Member	Present
5.	Shri Savalge Chandrasekhar	Member	Present
6.	Shri K. B. Biswas	Member	Present
7.	Prof. Shyam Shanker Singh	Member	Present
8.	Dr. Vinod Agrawal	Member	Present
9.	Dr Nazimuddin, Scientist - F	Representative of Central Pollution Control Board	Absent
10.	Shri Mahi Pal Singh, Chief Engineer	Representative of Central Electricity Authority (CEA)	Present
11.	Shri Harmeet Sawhney	Representative of Indian Meteorological Department (IMD)	Absent
12.	Prof. R M Bhattacharjee	Representative of IIT/ISM Dhanbad	Absent
13.	Shri Sundar Ramanathan	Scientist 'F' & Member Secretary	Present
14.	Dr. Rajesh Prasad Rastogi	Scientist 'D'	Present

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ANNEXURE-II

APPROVAL OF CHAIRMAN – EAC

Re: Final MoM of 23ND EAC - Thermal held on 4 APRIL 2025 - Approval of Chairman - reg.

IS Inderpal Singh Matharu <matharu0204@gmail.com>
Tue, 15 Apr 2025 12:20:51 PM +0530 INBOX

To "Sundar Ramanathan" <r.sundar@nic.in>

Cc "RAJESH PRASAD RASTOGI" <rp.rastogi@gov.in>

Tags

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The email has been sent from an external organization. Be alert when clicking any links, downloading attachments or sending sensitive information to this sender.

Dear Sundar ji,
I have gone through the final MoM, All the points which were observed and discussed have been incorporated. hence the MoM is approved.
Yours sincerely
Inder Pal Singh matharu
Chairman
EAC Coal mining and Thermal Power
MoEFCC, GOI