

MINUTES OF THE 33RD MEETING OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE (EAC) ON ENVIRONMENTAL IMPACT ASSESSMENT (EIA) OF THERMAL POWER PROJECTS HELD ON 30TH NOVEMBER, 2022

The 33rd Meeting of the re-constituted EAC (Thermal Power) organized by the Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, Aliganj, Jor Bagh Road, New Delhi was held on 30th November, 2022 through video conference under the Chairmanship of Shri Gururaj P. Kundargi. The list of Members participated in the meeting is at **Annexure**.

Agenda Item No. 33.1: Confirmation of the Minutes of the 32nd EAC meeting

The Minutes of the 32nd EAC (Thermal Power) meeting held on 2nd November, 2022 were confirmed in the meeting.

Agenda Item No. 33.2

Expansion of Waste to Energy Plant up to 40 MW at Old NDMC Compost Plant, Behind CRRI, Okhla, New Delhi by M/s Timarpur-Okhla Waste Management Company Limited – Environmental Clearance – reg.

[Proposal No. IA/DL/THE/289431/2019; F. No. J-13012/09/2018-IA.II (T)]

33.2.1 The proposal is for grant of Environment Clearance to the project for expansion of Waste to Energy Plant up to 40 MW at Old NDMC Compost Plant, Behind CRRI, Okhla, New Delhi by M/s Timarpur-Okhla Waste Management Company Limited.

33.2.2 The Project Proponent and the accredited Consultant M/s Mantec Consultant Pvt. Ltd, made a detailed presentation on the salient features of the project and informed that:

- i. The proposal is for environmental clearance to the project for expansion of Waste to Energy Plant up to 40 MW located at Old NDMC Compost Plant, Behind CRRI, Okhla, New Delhi by M/s by M/s Timarpur-Okhla Waste Management Company Limited.
- ii. The project proposal was considered by the Expert Appraisal Committee (Thermal) in its 19th meeting held during 25.07.2018 and recommended for grant of Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter No. J-13012/09/2008-IA.II (T): dated:20.08.2018.
- iii. The Thermal Power projects are listed at S.N 1(d) of the Schedule to the Environment Impact Assessment (EIA) Notification under category ‘A’ and are appraised at Central Level by Expert Appraisal Committee (EAC).
- iv. The details of ECs (including amendments and extension of validity) of existing Units etc.

EC/ EC amendments	Date
Environmental Clearance vide MoEF&CC’s letter no. 23-1/2006-IA.III dated for existing “Waste to Energy” for 15 MW	21.03.2007

The EC amended for 16 MW vide letter no. 23-1/2006-IA-III	09.05.2007
EC amendment for 23 MW vide MoEF&CC's letter No. J-13012/09/2008-IA.I(T)	15.01.2020

- v. Existing land area is 24444.0 m^2 ., additional 6000 m^2 land will be used for proposed expansion. The land required for the project is already in possession of project proponent within the existing facility.
- vi. Industry has developed green belt in an area of 20% which is less than 33% out of total area of the project.
- vii. The total cost of the project is Rs. 570 Crore (existing investment of Rs 270 crores and expansion project it will be Rs. 300 Crore). Total capital cost earmarked towards environmental pollution control measures is Rs 30.7 crores. and the recurring cost (operation and maintenance) will be about Rs 7.25 crores per annum.
- viii. Total Employment will be 150 persons as 13 direct & 24 persons indirect after expansion. Industry proposes to allocate Rs 31.58 cores @ of 10.53 % towards CER (as per Ministry's OM dated 30.09.2020).
- ix. Nearest sensitive Areas around the project boundary:

Okhla Bird Sanctuary	1.62 km, E
Jahapanah RF	4 km, SW
Asola Wildlife Sanctuary	5.68 km,SSW
Tilpat forest	9.74 km, SSE
Central Ridge RF	10.81km, NW
City Forest Hauzrani	7.42km, WSW

- x. State Boundaries located near project site:
 - a) Delhi-Haryana 5.29 km, SSE
 - b) Delhi-UP state Boundary 2.56 km, E
- xi. Ambient air quality monitoring was carried out at 12 locations during March to May 2018 and March to May 2022 and the baseline data indicates the ranges of concentrations as: PM10 (205.7 $\mu\text{g}/\text{m}^3$ to 356 $\mu\text{g}/\text{m}^3$), PM2.5 (115.4 $\mu\text{g}/\text{m}^3$ - 160.4 $\mu\text{g}/\text{m}^3$), SO2 (12.9 $\mu\text{g}/\text{m}^3$ to 35.6 $\mu\text{g}/\text{m}^3$) and NO2 (38.1 $\mu\text{g}/\text{m}^3$ to 177.4 $\mu\text{g}/\text{m}^3$). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 356 $\mu\text{g}/\text{m}^3$, 58.002 $\mu\text{g}/\text{m}^3$ and 177.424 $\mu\text{g}/\text{m}^3$ with respect to PM_{10&2.5}, SO_x and NO_x.
- xii. The total water requirement for the project during operation will be approx. 1375 KLD including 500 KLD for existing plant. The source of water is Okhla Sewage Treatment Plant, located adjacent to the project site.
- xiii. Permission for allocation of water obtained vide letter dated 22-06-2007.from DJB. Authority/ Water Board for the 15 MLD quantity.

- xiv. Effluent will be treated and recycle and reuse. The plant will be based on Zero Liquid discharge system.
- xv. Power requirement is met by self-generated electricity in existing as well as in proposed. For emergency power requirement existing unit has one DG set of capacity 320 kVA & additional one DG set of capacity 320 kVA will be installed as per CPCB norms.
- xvi. Existing unit has 3 nos RDF fired boiler of 18.75 TPH capacity. Additionally, two (2 nos) RDF fired boiler of 21 TPH capacity will be installed. Bag filter with a stack of height of 60 m will be installed to control the particulate emissions within the statutory limit of for the proposed boilers.
- xvii. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 16-08-2022. The main issues raised during the public hearing are related to Employment, and Environment.
- xviii. The IRO, MoEF&CC vide letter dated 7.09.2022 has forwarded the Certified compliance report of existing EC.
- xix. The silent features of the project are as under: -

Name of the Proposal	Expansion of Waste to Energy Plant up to 40 MW at Old NDMC Compost Plant, Behind CRRI, Okhla, New Delhi by M/s Timarpur-Okhla Waste Management Company Limited – Environmental Clearance – reg.
Location (Including coordinates)	Old NDMC Compost Plant, Behind CRRI, Okhla, New Delhi-110025. 28°33'14.17"N 77°16'50.53"E 28°33'07.82"N 77°16'53.19"E 28°33'04.99"N 77°16'44.33"E 28°33'11.30"N 28°33'11.30"N
Seismic zone	Seismic Zone IV
Attracts the General Conditions (Yes/No)	Yes
Powerhouse Installed Capacity	Up to 40 MW (17 MW- Proposed +23MW- Existing)
Generation of Electricity Annually	Approx 123000 MW-Proposed (Approx.123000 MW Proposed+166453 MW Existing) Total-289453 MW/Annum (Approx)
No. of Units	289453000 Units/Annum (Approx)
Cost of project	Approx. Rs. 300 Cr. (expansion project)
Total area of Project	Total plot area – 60702.86 sq. m.
Details of consultant and status of accreditation	MANTEC CONSULTANTS PVT. LTD NABET Certification No – NABET/EIA/2023/IA0064 (Rev. 01) Valid up to 20.04.2023

Any litigation/Court case pertaining to the project	Yes, Civil Appeal No. 13120/2017 filed by Ravinder Channa & Others against judgement dated 02/02/2017 of Hon'ble NGT in OA No. 22(THE) of 2013.
Is the proposal under any investigation? If so, details thereof.	NA
Any violation cases pertaining to the project:	No
Certified EC compliance report (if applicable)	Latest certified compliance copy report from the R.O. (Jaipur) of MOEF & CC has been accorded vide File No: IV/ENV/DLI/1395/2018 Dated: 07.09.2022
Status of Stage- I FC	NA
Additional detail (If any)	NA
Is FRA (2006) done for FC-I	NA
Advertisement for PH with date	14.07.2022
Date of PH	16.08.2022
Venue	Sarvodaya Kanya Vidyalaya Govt. Boys Senior Secondary School (Ram Krishna), Madanpur Khadar, Delhi-110076.
Chaired by	Ms. Isha Khosla (District Magistrate, South-East District) Sh. Shailendra Kumar Singh (Additional District Magistrate, Southeast Delhi)
Main issues raised during PH	Employment generation, environment, and safety related issues.
Fuel to be used:	RDF (MSW based)
Quantity of Fuel required per Annum:	Total-988250 TPA (335000 TPA-Proposed+ 653250 TPA-Existing)
Fly Ash Disposal System Proposed	Dry fly ash collection system is proposed.
Quantity of a. Fly Ash to be generated b. Bottom Ash to be generated:	Fly Ash-15 TPD (15 TPD-Proposed +30 TPD-Existing) Total-45 TPD Bottom Ash-144 TPD (144 TPD-Proposed +296 TPD-Existing) Total-440 TPD
Fly Ash utilization (details)	Brick manufacturing. and unsuitable ash to be send to the allotted landfill site by MCD
Stack Height (m) & Type of Flue	Stack height – 60 mtrs. & Bi flue type.

33.2.3 The EAC during deliberations noted the following:

The proposal is for grant of environmental clearance to the project for expansion of Waste to Energy Plant up to 40 MW at Old NDMC Compost Plant, Behind CRRI, Okhla, New Delhi by M/s Timarpur-Okhla Waste Management Company Limited.

The project/activity is covered under category A of item 1(d) 'Thermal Power Plants' of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry.

The details of environmental clearance/ amendment issued by the Ministry is as under: -

- Environmental Clearance vide MoEF&CC's letter no. 23-1/2006-IA.III dated 21.03.2007 for existing "Waste to Energy" for 15 MW
- The EC got amended for 16 MW vide letter no. 23-1/2006-IA.III on 09.05.2007.
- Further, again EC got amendment for 23 MW vide MoEF&CC's letter No. J-13012/09/2008-IA.I (T) dated 15.01.2020

The ToR for the project was granted on 20.08.2018. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 16-08-2022. The main issues raised during the public hearing are related to Air pollution, Foul smell, employment, and environment etc.

The total water requirement for the project during operation will be approx. 1375 KLD including 500 KLD for existing plant. The source of water is Okhla Sewage Treatment Plant, located adjacent to the project site. The plant will be based on Zero Liquid discharge system.

Permission for allocation of water obtained vide letter dated 22-06-2007. from DJB. Authority/ Water Board for the 15 MLD quantity.

The IRO, MoEF&CC vide letter dated 7.09.2022 has forwarded the Certified compliance report of existing EC. The EAC found the compliance report to be satisfactory.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

Earlier, the Ministry vide letter dated 15.01.2020 granted amendment in EC with the condition that "any further expansion beyond 23 MW Power Generation Capacity shall not be permitted at the same site considering the proximity of Sukhdev Vihar Residential colony located at less than 100 m from the site". In this context the committee was of the view that as per the project details submitted by the project proponent and presented before the EAC during presentation the proposed expansion can be taken up in ecologically sustainable manner subject to compliance of suitable environment safeguard measures and their compliance in letter and spirit. So, the condition imposed by the MoEF&CC may be reviewed.

33.2.4 *The EAC after detailed deliberations on the information submitted and as presented during the meeting **recommended** for grant of Environmental Clearance to the project for expansion of Waste to Energy Plant up to 40 MW at Old NDMC Compost Plant, Behind CRRI, Okhla, New Delhi submitted by M/s Timarpur-Okhla Waste Management Company Limited subject to compliance of following specific environmental safeguard conditions, in addition to the standard EC conditions stipulated for the thermal power plants:*

Environmental Management

- i. *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- ii. *Green belt with Miyawaki plantation (Three row plantation) along the plant boundary shall be developed with more than 90% survival rate of the plant species. It would be ensured that total 33% area of total project cover area is under green cover.*
- iii. *Extensive green cover within 2 km range of the plant boundary shall be developed. An action plan in this regard to be prepared in consultation with CPCB/expert institution and submitted before Regional Office of the Ministry within 3 months.*
- iv. *24X7 online monitoring system for ambient air quality shall be established with its connectivity with SPCB and CPCB server. Stack monitoring shall be done through 24X7 online monitoring system. The emission Standards for Municipal Solid Waste based Thermal Power Plants as per Municipal Solid Waste Rules, 2016 dated 8.4.2016 (S.O. 1357 (E)) shall be complied (Refer Part C of Schedule II of Municipal Solid Waste Rules, 2016 dated 8.4.2016 (S.O. 1357 (E))).*
- v. *Adequate dust extraction system such as cyclones/bag filters and water spray system in dusty areas such as waste delivery points, transfer areas and other vulnerable dusty areas shall be provided along with an environment friendly sludge disposal system. Water Sprinkling on roads shall be done in every 6 hours in winter season and 3 hours in summer season of roads within 1 km range approaching the plant. A logbook shall be maintained for the activity and be in six-monthly compliance report.*
- vi. *LED display of air quality (Continuous Online monitoring) shall be installed on the roadside (within 1 km range) and nearby hotspots viz. residential colony, Schools Hospitals; maintenance of devices shall be done on regular basis.*
- vii. *Everyday cleaning of road/Paved roads within 1 km range of plant site shall be ensured throughout the year through vaccum based vehicle.*
- viii. *Environment Audit of plant shall be done annually and report shall be submitted to Regional office of the Ministry.*
- ix. *Project proponent shall explore the use of treated sewage water from the Sewage Treatment Plant of Municipality / local bodies/ similar organization located within 50km radius of the proposed power project to minimize the water drawl from surface water bodies.*
- x. *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. Zero liquid discharge shall be adopted. 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.*
- xi. *Oil and grease recovered from the treatment plant should be disposed only through authorized recyclers.*
- xii. *Harnessing solar power within the premises of the plant particularly at available roof tops shall be carried out and status of implementation including actual generation of solar power shall be*

submitted along with half yearly monitoring report.

- xiii. Fly ash handling shall be done strictly as per extent rules/regulations of the Ministry/CPCB issued from time to time.*
- xiv. Monitoring of surface water quality and Ground Water quality shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall also be undertaken and results/findings submitted along with half yearly monitoring report.*
- xv. A well designed rain-water harvesting system shall be put in place within six months, which shall comprise of rain water collection from the built up and open area in the plant premises and detailed record kept of the quantity of water harvested every year and its use.*
- xvi. No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up/ operation of the power plant.*
- xvii. A detailed ecological monitoring and survey covering forestry, fisheries, wildlife and its habitat shall be done once in two years to assess the impacts of project on the local environment and ecology. Monitoring report shall be uploaded on the Parivesh Portal and a copy of the same be submitted to the regional office of MoEF&CC.*
- xviii. 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.*
- xix. 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.*
- xx. In view of proximity of the project from Okhla Bird Sanctuary, the PP shall obtain necessary permissions from NBWL, if applicable.*
- xxi. A Special Purpose Vehicle (SPV) be formed by the Municipal Corporation of Delhi for effective implementation of Environmental Safeguard measures and for ensuring the compliance of critical environmental standards in consultation with Union Territory of Delhi.*

Socio-economic

- xxii. Public grievance redressal system shall be established under supervision of project head. The functioning of the system shall be reviewed every month.*
- xxiii. 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 5km radius of the project cover area, creation of sacred groves etc. 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.*

- xxiv. *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.*
- xxv. *The Project Proponent shall submit the time- bound action plan to the concerned regional office of the Ministry within 6 months from the date of issuance of Environmental Clearance for undertaking the CER activities, committed during public consultation by the project proponent and as discussed by the EAC, in terms of the provisions of the MoEF&CC Office Memorandum No.22-65/2017-IA.III dated 30 September, 2020. The action plan shall be implemented within three years of commencement of the project.*
- xxvi. *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*

Miscellaneous

- xxvii. *Consent to Establish/Operate 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.*
- xxviii. *All necessary clearance from the concerned Authority, as may be applicable should be obtained prior to commencement of project or activity.*
- xxix. *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.*
- xxx. *The energy sources for lighting purposes shall preferably be LED based.*

Agenda Item No. 33.3

Expansion by addition of 1x350 MW Imported Coal based Thermal Power Plant (Phase-II) at village Kamalanga, in Odapada Taluk, Dhenkanal District, Odisha by M/s GMR Kamalanga Energy Limited – Extension Validity of EC – reg.

[Proposal No. IA/OR/THE/293656/2022; F. No. J-13012/73/2011-IA.II (T)]

33.3.1 The proposal is for extension of validity of Environmental Clearance (EC) granted by the Ministry vide letter dated 5th December, 2011 for the project expansion by addition of 1x350 MW Imported Coal based Thermal Power Plant (Phase-II) at village Kamalanga, in Odapada Taluk, Dhenkanal District, Odisha in favor of M/s GMR Kamalanga Energy Limited.

33.3.2 The project proponent made a detailed presentation through Video Conferencing (VC) on the project. PP has requested for extension of validity of EC for 5 more years with the justification as under;

Reason for not commissioned the project in time: -

- (i) No project work due to the Covid 19 pandemic from April 2020 to April 2022
- (ii) Non-availability of Power purchase agreement
- (iii) The coal supply was hit because of Hon'ble Supreme Court's decision on Coal Mining allocation, and ultimately which hit the Power Sector
- (iv) The price of coal in international market was very high
- (v) Delay in offshore material supply

Necessity of Validity Extension –

As GKEL has set up common infrastructure facilities like MGR, Direct Road, Switch Yard, Transmission line, Coal Handling Plant, Ash Handling Plant, Coal Yard & Water System, STP, ETP in line with 4 x 350 MW (including 1 x 350MW) and we have already implemented more than 63% of the overall Project Works. 90% of Civil work including chimney construction is completed. Adequate land is also available for installation of FGD & Future Ash pond of this project, so further validity extension of EC is required for getting the Power Purchase Agreement (PPA), Fuel supply Agreement (FSA) and their by getting the finance and achieving financial closure and completion of the Project activities.

33.3.3 The EAC during deliberations noted the following:

The proposal is for extension of validity of Environmental Clearance (EC) granted by the Ministry vide letter dated 5th December, 2011 for completion of the expansion project by addition of 1x350 MW Imported Coal based Thermal Power Plant (Phase-II) at village Kamalanga, in Odapada Taluk, Dhenkanal District, Odisha.

The Environment Clearance was granted for Expansion of existing 3 x 350 MW Thermal power project by addition of 1 x 350 MW Coal based Thermal Power Plant by MoEF&CC vide F. No. J-13012/73/2011-IA.II (T) on dated 05.12.2011 followed by amendment in EC dated 11.1.2019 and extension of validity of EC dated 11.04.2019 till 4.12.2021. The existing EC dated 5.12.2011 is valid upto 4.12.2022 including the time period (1 year) exempted due to Corona Pandemic.

The project proponent has informed that they have completed more than 63% of project work and sought extension of validity of EC for 5 more years. However, as per the Ministry's Notification dated 12.04.2022 the EC validity may be extended for one more year after completing 10 years.

33.3.4 *The EAC after detailed deliberations on the information submitted and as presented during the meeting recommended for extension of validity of the EC dated 5th December, 2011 for Expansion by addition of 1x350 MW Imported Coal based Thermal Power Plant (Phase-II) at village Kamalanga, in Odapada Taluk, Dhenkanal District, Odisha by M/s GMR Kamalanga Energy Limited for a period of one year, i.e. till 3rd December, 2023, to commission the plant and start the operation of the project as per the capacity mentioned in the EC.*

Agenda Item No. 33.4

Expansion Project of 4X600 MW of M/s Jindal Power Ltd. at Village Tamnar, Taluk Gharghoda, District Raigarh (Chhattisgarh) by M/s Jindal Power Ltd. – Amendment of Environmental

Clearance (EC) – reg.

[Proposal No. IA/CG/THE/293669/2022; F. No. J-13012/117/2008-IA.II (T)]

33.4.1 The proposal is for amendment in Environmental Clearance (EC) granted by the Ministry vide letter dated 18.03.2011 for the project Expansion Project of 4X600 MW of M/s Jindal Power Ltd. at Village Tamnar, Taluk Gharghoda, District Raigarh (Chhattisgarh) in favour of M/s Jindal Power Ltd.

33.4.2 The project proponent made a detailed presentation through Video Conferencing (VC) on the project and informed that:

- i. M/s Jindal Power Ltd. (JPL) was granted Environment Clearance (EC) by the Ministry of Environment & Forests for expansion of 4x250 MW by addition of 4x600 MW thermal power plant vide letters no J-13012/117/2008-IA.II(T) dated 18.03.2011 and dated 04.11.2011.
- ii. As per the EC dated 18.03.2011, a separate ash dyke was to be constructed for 4x 600 MW. However, the ash dyke for 4x 600 MW could not be constructed as the land for the proposed ash dyke area became part of coal block. Subsequently, MoEF&CC vide letter dated 26.04.2017 granted permission to construct the ash dyke for 4x 600 MW at an alternate location outside the coal block area.
- iii. However, Consent to Establish (CTE) for the same was granted by Chhattisgarh Environment Conservation Board (CECB) vide letter dated 27.04.2022.
- iv. MoEF&CC vide letter no. J-13012/117/2008-IA.II(T) dated 28.08.2020 and dated 28.10.2021 granted amendment in EC permitting use of existing ash dyke of 4x250 MW for disposal of unutilized ash of 4x600 MW till December, 2022.
- v. As the bottom ash from the power plant has to be evacuated in slurry form and disposed to ash pond before same can be dried and utilized. Accordingly, the Company has been disposing the unutilized ash from 4x600 MW in the existing ash dyke of 4x 250 MW.
- vi. Due to the non-availability of the ash dyke for 4x600 TPP, it becomes imperative to continue use of the existing ash dyke for disposal of bottom ash and unutilized ash from 4x600 MW TPP to ensure unhindered operation of the plant.
- vii. The proposal is for extension of permission for use of existing ash dyke of 4x250 MW for disposal of unutilized ash of 4x600 MW till June, 2024.
- viii. Process of land acquisition for the ash dyke at the new location has been completed. The possession of the land has been granted by Revenue Department, Govt. of Chhattisgarh to Chhattisgarh State Industrial Development Corporation (CSIC). The allotment of land to JPL and signing of lease deed is under process. The Company will be able to commence construction work of dyke only after allotment of land by CSIDC to the Company. It is expected that the Company will be able to start the construction of ash dyke for 4x600 MW TPP from January, 2023 onwards.
- ix. The construction scheduled for ash dyke for 4x600 MW is as under:

PROJECT DETAILS -NEW ASH DYKE FOR 4X600 MW OPJSTPP, TAMNAR			
S. NO.	WORK DESCRIPTION FOR NEW DYKE OF ASH POND 1A	START DATE (MM/DD/Y YY)	END DATE (MM/DD/Y YY)
1	PREPARATION OF DRAWING OF BUND, PIPE PEDEUSTAL, DECANTATION WELL, RECOVERY PUMP HOUSE / POND &		11/30/2022

	ELECTRICAL ROOM. ITS APPROVAL		
2	POSSESSION OF LAND		11/30/2022
3	PREPARATION OF BOQ, TENDER DOCUMENT AND AWARD OF CONTRACT OF NEW ASH DYKE PACKAGES		12/20/2022
4	MOBILIZATION OF RESOURCES AND CONSTRUCTION OF SITE OFFICE	12/20/2022	12/31/2022
5	STRIPPING AND GRADING OF THE BUND AREA, LAYING OF SAND BLANKET, SAND CHIMNEY, SANDFILTER AND CONSTRUCTION OF ROCKE TOE WITH DRAINAGE OF NEWASH DYKE	1/1/2023	10/30/2023
6	CONSTRUCTION OF EARTH WORK AND FORMATION OF BUND NEW ASH DYKE	1/15/2023	11/30/2023
7	CONSTRUCTION OF ASH DISPOSAL PIPE PEDESTAL, DECANTATION WELL, RECOVERY PUMP HOUSE / POND & ELECTRICAL ROOM ETC.	2/1/2023	12/31/2023
8	HDPE LINING, SAND CUSHION & PCC COVER THE ENTIRE BOTTOM OF ASH DYKE WITH UPSTREAM SLOPES & SLAG ROAD	4/1/2023	1/31/2024
9	LAYING OF ASH DISPOSAL PIPE LINE, PUMPING SYSTEM AND ELECTRICAL SYSTEM.	5/1/2023	3/31/2024
10	CHARGING OF ASH POND -1A WITH RECOVERY PUMPING SYSTEM		4/1/2024
S.NO.	WORK DESCRIPTION FOR NEW DYKE OF ASH POND 1B		
1	STRIPPING AND GRADING OF THE BUND AREA, LAYING OF SAND BLANKET, SAND CHIMNEY, SANDFILTER AND CONSTRUCTION OF ROCKE TOE WITH DRAINAGE OF NEW ASH DYKE	3/1/2023	6/30/2023
2	CONSTRUCTION OF EARTH WORK AND FORMATION OF BUND NEW ASH DYKE	4/15/2023	11/30/2023
3	CONSTRUCTION OF ASH DISPOSAL PIPE PEDESTAL, DECANTATION WELL, ETC.	10/1/2023	1/15/2024
4	HDPE LINING, SAND CUSHION & PCC COVER THE ENTIRE BOTTOM OF ASH DYKE WITH UPSTREAM SLOPES & SLAG ROAD	10/1/2023	2/28/2024
5	LAYING OF ASH DISPOSAL PIPE LINE & PUMPING SYSTEM	1/1/2024	6/25/2024
6	CHARGING OF ASH POND-1B WITH RECOVERY		6/30/2024

	PUMPING SYSTEM		
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Justification: -

As per the EC dated 18.03.2011, a separate ash dyke was to be constructed for 4x 600 MW. However, the ash dyke for 4x 600 MW could not be constructed as the land for the proposed ash dyke area became part of coal block.

33.4.3 The EAC during deliberations noted the following:

The proposal is for amendment in Environmental Clearance (EC) granted by the Ministry vide letter dated 18.03.2011 for the project expansion Project of 4X600 MW of M/s Jindal Power Ltd. at Village Tamnar, Taluk Gharghoda, District Raigarh (Chhattisgarh) in favour of M/s Jindal Power Ltd.

Earlier, The environment clearance was granted by the Ministry for expansion of 4x250 MW by addition of 2x600 MW thermal power plant vide letters no J-13012/117/2008-IA.II (T) dated 18.03.2011 and expansion by addition of 2x600 MW of 2400 MW (4x600 MW) dated 04.11.2011.

The project proponent has informed that as per the EC dated 18.03.2011, a separate ash dyke was to be constructed for 4x 600 MW. However, the ash dyke for 4x 600 MW could not be constructed as the land for the proposed ash dyke area became part of coal block and requested for extension of permission for use of existing ash dyke of 4x250 MW for disposal of unutilized ash of 4x600 MW till June, 2024.

33.4.4 *The EAC after detailed deliberations on the information submitted and as presented during the meeting **recommended** for extension of time till June, 2024 to use the existing ash dyke of 4x250 MW for disposal of unutilized ash of 4x600 MW.*

Agenda Item No. 33.5

Vallur Thermal Power Station (VTPS) - Illegal Ash Pond Expansion - Show Cause Notice - reg.

33.5.1 The Member Secretary informed the EAC that the aforesaid project was given show cause notice on 09.01.2019 in view of observed non compliances of EC conditions as reported by the Integrated Regional Office of the Ministry vide letter dated 9.07.2018. The PP submitted the reply of the reply to the show cause notice vide letter dated 21.11.2019. Thereafter, the MoEF&CC, vide letter dated 8.11.2021, has requested the Regional Office, to carryout site visit and provide the compliance verification report on response submitted by the NTECL to the show cause notice dated 09.01.2019. The IRO submitted the compliance verification report vide letter dated 4.01.2022 in the Ministry.

The issues mentioned in the show cause notice and reply submitted by the project authorities along with compliance verification report of IRO dated 04.01.2022 are mentioned in the table given as under:

Sr. No.	Issues raised in Showcause	Updated compliance	Status as on	of	Observation in Monitoring Report dated 04.01.2022 of IRO Chennai
1	not achieving	Ash Utilisation of	2019-		PP informed that fly ash utilization is being

<p>100% flyash utilisation</p>	<p>2020 is 121.01%, 2020-21 is 122.80% and that of for 2021-22 is 101.7% (up to 30 Aug 2021). Ash utilization more than 100% indicates the utilization of Legacy ash stored in the ash dyke. (Year 2019-20 :21.02%, 2020-20:21.80% and 2021-22 :1.02% (up to 30 Aug 2021) Non availability of Lagoon-1 is a major constraint in utilization of Legacy Ash. Withdrawal of show cause notice will facilitate construction of Lagoon-1 and discharge of ash into Lagoon-1. This will increase the ash uptake from Lagoon-2 increasing utilization of legacy ash</p>	<p>progressively increased since 2015-16. As per the fly ash notification dated 14-09-1999 and its subsequent amendments, thermal power station is supposed to achieve 100% fly ash utilization, four years from the date of commissioning of the power plant. As per the records made available during the visit, the commissioning date of the three units are given as below:</p> <table border="1" data-bbox="852 485 1395 789"> <thead> <tr> <th>Details</th> <th>Date of commissioning</th> </tr> </thead> <tbody> <tr> <td>Unit I: 500 MW (Phase I)</td> <td>29/11/2012</td> </tr> <tr> <td>Unit II: 500 MW (Phase I)</td> <td>25/08/2013</td> </tr> <tr> <td>Unit III: 500 MW (Phase II)</td> <td>26/02/2015</td> </tr> </tbody> </table> <p>The PP has given the following updated status on fly ash utilization:</p> <table border="1" data-bbox="834 898 1411 1167"> <thead> <tr> <th>Year</th> <th>Percentage of flyash utilization</th> </tr> </thead> <tbody> <tr> <td>2019-2020</td> <td>121.01</td> </tr> <tr> <td>2020-21</td> <td>122.80</td> </tr> <tr> <td>2021-22 (up to 15th Dec 2021)</td> <td>82.63</td> </tr> </tbody> </table> <p>Further, the PP has informed that the ash utilization was maintained at 100 % till sept-2021. They have also informed that due to Advisory from Min of Power dt 22-09-2021, the free issue of pond ash was stopped and pond ash was auctioned for sale which took about two months. It was informed by the PP that non availability of Lagoon-I is a major constraint in utilization of Legacy Ash and construction of Lagoon-1 and discharge of ash into Lagoon-1 will increase the ash uptake from Lagoon-2 increasing utilization of legacy ash. During the visit, it was noted that unutilized fly ash is being disposed off in to the ash pond through lean slurry method in place of High Concentration Slurry Disposal (HCSD) as stipulated in EC condition. PP informed that they have approached MoEF vide letter dated 30/05/2008 for permission to use</p>	Details	Date of commissioning	Unit I: 500 MW (Phase I)	29/11/2012	Unit II: 500 MW (Phase I)	25/08/2013	Unit III: 500 MW (Phase II)	26/02/2015	Year	Percentage of flyash utilization	2019-2020	121.01	2020-21	122.80	2021-22 (up to 15th Dec 2021)	82.63
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			conventional type ash slurry system in place of HCSD. HDPE lining has not been provided in the ash pond (Lagoon -2) which is currently being used. PP informed that monitoring of heavy metals in the bottom ash and ash pond effluent is being carried out by the approved laboratory on yearly basis.																		
2	not developing greenbelt area with 25% of the total plant area	<p>Developing Green belt area:</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Year</th> <th>No of trees planted (Both inside and outside NTECL through TN Forest Dept)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2021-22 (Till now)</td> <td>3500</td> </tr> <tr> <td>2</td> <td>2020-21</td> <td>10000</td> </tr> <tr> <td>3</td> <td>2019-20</td> <td>10000</td> </tr> <tr> <td>4</td> <td>2018-19</td> <td>8000</td> </tr> <tr> <td>5</td> <td>2017-18</td> <td>4000</td> </tr> </tbody> </table> <p>Till Now, NTECL has planted 19,760 nos. of trees within the plant boundary and 24,000 nos. of trees outside the plant premises through TN Forest Department, Govt of Tamil Nādu. In addition, 50 acres of own land is kept unutilized with natural vegetation including mangroves. An Eco Park is being developed by Tamil Nadu State Forest Department in 32.37 acre out of above 50 acers of land owned by NTECL. NTECL has also undertaken Mangrove plantation in 37 acres of its land through M/s. M.S.Swaminathan Research Foundation, Chennai.</p>	S. No.	Year	No of trees planted (Both inside and outside NTECL through TN Forest Dept)	1	2021-22 (Till now)	3500	2	2020-21	10000	3	2019-20	10000	4	2018-19	8000	5	2017-18	4000	<p>The PP has made adequate mangrove of the area, plantation/green belt in the project area, through the TN Forest Department and M/s. M.S. Swaminathan Research Foundation, Chennai.</p> <p>The PP has initiated mangrove plantation in 14.97 hectares of its land through M/s. M.S. Swaminathan Research Foundation, Chennai. They have planted 19,760 nos. of trees within the plant boundary and 24,000 nos. of trees outside the plant premises through TN Forest Department. PP has informed that 32.37 hectares of own land is kept unutilized with natural vegetation including mangroves plantation by TN Forest Department. During the visit, it was suggested that NTECL shall continue to undertake plantations outside its premises.</p>
S. No.	Year	No of trees planted (Both inside and outside NTECL through TN Forest Dept)																			
1	2021-22 (Till now)	3500																			
2	2020-21	10000																			
3	2019-20	10000																			
4	2018-19	8000																			
5	2017-18	4000																			
3	not meeting	As per MOEF&CC	During the visit on 15.12.2021, the coal																		

	prescribed Sulphur & Ash contents	Notification dated 21.05.2020 the use of coal by Thermal Power Plants is permitted without stipulations as regards on ash content or distance from coal source. Therefore, the issue regarding noncompliance with respect to ash content is not applicable now. NTECL is monitoring SO 2 in ambient air and the same is well within the National Ambient Air Quality Standards. Further, to mitigate Sulphur Dioxide emissions from Flue Gas, NTECL has already awarded the contract of installing Flue Gas Desulphurization Units to M/s Tata Projects Ltd in April 2020. The construction work is in progress and best efforts are being made to complete as per the timeline given by CPCB/ MOEF&CC.	analysis report was made available by the Project Authority. The report for the month of Nov-2021 is attached in the Annexure-II of the report. The report shows the ash content in the coal is more than the stipulated value of 34 %. The PP informed that as per MOEF&CC Notification dated 21.05.2020 the use of coal by Thermal Power Plants is permitted without stipulations as regards on ash content or distance from coal source.
4	leakages in the seawater intake pipelines	Leakages observed during the visit have been attended. Desalination reject line is replaced with GRP line at a cost of Rs.100 lakhs and there are no leakages.	PP informed during the visit that their intake point is located on the seawater intake channel of North Chennai Thermal Power Station based on the CWPRS study
5	not setting up of High Slurry Disposal System (HCSD) for flyash disposal	As explained above NTECL has adopted lean slurry system and the project being in operation, it is not possible to change the system at this stage.	During the visit, it was noted that unutilized fly ash is being disposed off in to the ash pond through lean slurry method in place of High Concentration Slurry Disposal (HCSD) as stipulated in EC condition. PP informed that they have approached MoEF vide letter dated 30/05/2008 for permission to use conventional type ash slurry system in place of HCSD. HDPE lining has not been provided in the ash pond (Lagoon -2) which is currently being used. PP informed that monitoring of heavy metals in the bottom ash and ash pond effluent is being carried out by the approved laboratory on yearly basis.

6	not setting up dust extraction system at coal handling plant	Civil Works for Dust Extraction system completed in May 2021. Mechanical erection is in advanced stage of completion and is expected to be completed by Nov 2021. The works got delayed due to Covid 19 situation and shall be completed by November 2021.	Water spraying arrangement provided at coal conveyor belt, coal storage area and ash handling area. Bag filter is provided in ash handling area only. Bag filters and dust extraction system has not been completed in coal crusher unit and is in the process of installation as informed. PP informed that dust extraction system will be completed by Feb 2022.																				
7	exceeding the particulate matter emission standard of 50 mg/Nm³,	<p>PM levels are always within 50 mg/Nm³, with occasional excursions during Unit start up. Online Continuous Data is being provided to Care Air Centre, TNPCB. TNPCB measurements on 04.03.2021 shows Unit 1: 30 mg/Nm³ , Unit 2: 26 mg/Nm³ . The statistical data for the past three years is as follows.</p> <table border="1" data-bbox="448 1037 821 1451"> <thead> <tr> <th colspan="4">Average Annual daily Value Particulate Matter (PM) emissions (mg/Nm³)</th> </tr> <tr> <th>Year</th> <th>Unit-1</th> <th>Unit-2</th> <th>Unit-3</th> </tr> </thead> <tbody> <tr> <td>2019-20</td> <td>19.57</td> <td>23.61</td> <td>22.46</td> </tr> <tr> <td>2020-21</td> <td>23.28</td> <td>30.46</td> <td>24.82</td> </tr> <tr> <td>2021-22</td> <td>29.69</td> <td>34.64</td> <td>30.31</td> </tr> </tbody> </table>	Average Annual daily Value Particulate Matter (PM) emissions (mg/Nm ³)				Year	Unit-1	Unit-2	Unit-3	2019-20	19.57	23.61	22.46	2020-21	23.28	30.46	24.82	2021-22	29.69	34.64	30.31	PP informed during the visit that High efficiency Electrostatic Precipitators (ESPs) with a designed efficiency of 99.9% has been installed to limit the particulate emission does not exceed 100 mg/Nm ³ . As per the reports, the PM level from all the three Units is within the permissible limit of 50 mg/Nm ³ as stipulated in the MoEF&CC notification dated 7/12/2015.
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8	not implementing Rain Water Harvesting Scheme and	Construction of Rainwater harvesting system as recommended by M/s. WAPCOS Ltd is completed on 30.08.2020 at NTECL.	Rain water harvesting scheme is being implemented by PP. They have constructed the RWH structure through M/s WAPCOS Ltd. It was completed on 30-08-2020 as informed. The rainwater stored in both the ponds is being used for the purpose of horticulture. During the visit, the report prepared by the M/s. WAPCOS Ltd was produced																				
9	operating the plant without Consent to	NTECL is regularly applying and obtaining Consent to Operate under	Further, the PP has informed that the ash utilization was maintained at 100 % till sept-2021. They have also informed that due to																				

	<p>Operate including construction of ash pond in 130 acres (Lagoon-1) in the mangrove area and</p>	<p>Air & Water Acts for the project. During 2019 there were some procedural delays on the part of TNPCB. However, it is regularly obtained since 2019. Current Consent to Operate Air (No 2108231262811 dt 04.02.2021) and Water (No. 2108131262811 dated</p>	<p>Advisory from Min of Power dt 22-09-2021, the free issue of pond ash was stopped and pond ash was auctioned for sale which took about two months. It was informed by the PP that non availability of Lagoon-I is a major constraint in utilization of Legacy Ash and construction of Lagoon-1 and discharge of ash into Lagoon-1 will increase the ash uptake from Lagoon-2 increasing utilization of legacy ash.</p>
10	<p>non-demarcation of 114 acres of CRZ area which was to be left undisturbed</p>	<p>04.02.2021) granted to NTECL by TNPCB are valid till 31.03.2022.</p> <p>The Institute of remote Sensing(IRS), Anna University, competent authority, vide report dated 30/7/2018 clearly certified that the proposed site for Lagoon -1 is out of CRZ, as per the existing approved Coastal Zone Management Plan of Tamil Nādu.</p> <p>Further, the demarcation of balance CRZ land falling in NTECL boundary was carried out by IRS, Anna University and the report has been submitted to TNSCMZ vide letter dated 28.03.2019 for approval and for further submission to MOEF&CC. A copy of the report is enclosed for ready reference. The report from IRS, Anna University concludes that the undisturbed land falling within CRZ as per CRZ Notification 1991 (CRZ map prepared by IRS in 2007, approved by TNCZMA) is more than 114 acres which demonstrates the compliance with EC dated 18.04.2007 for the Vallur TPP, Phase-I. After scrutiny of the report, TNCZMA vide letter dated</p>	<p>As per the environmental clearance accorded, 114 acres of land falls within CRZ and this has to be left undisturbed.</p> <p>Now, physical demarcation of CRZ line has been carried out by the PP through the Institute of Remote Sensing (IRS), Anna university, vide report dated July 2018 which concludes that the undisturbed land falling within CRZ as per CRZ Notification 1991 (CRZ map prepared by IRS in 2007, approved by TNCZMA) is more than 114 acres (Annexure-1). As informed by the PP, the report has been submitted to TNCZMA vide letter dated 28.03.2019 for approval and for further submission to MOEF&CC.</p>

	<p>03.04.2019 requested NTECL to</p> <p>(a) Submit the HTL demarcation map along with project features as per CRZ Notification 2019 and approved CZMP 2018.</p> <p>(b) Indicate duly, area of 114 acers, where mangrove cultivation is proposed to be undertaken.</p> <p>To fulfill the above requirement, NTECL has approached IRS, Anna University again and submitted the (i) CRZ maps by superimposing Ash Dyke Lagoon-1 on CRZ map prepared by IRS in 2007, approved by TNCZMA, (ii) CRZ map as per CRZ Notification 2011 and (iii) CRZ map as per CRZ Notification 2019 respectively and submitted to TNCZMA vide letter dated 27.07.2019.</p> <p>It is submitted that NTECL has setup Vallur TPP (3 x 500 MW) station based on the Environmental clearance accorded in the years 2007 and 2009 and CRZ clearance accorded in 2009 in accordance with CRZ Notification 1991. The construction of ash dyke was started in the year 2010 even before CRZ Notification 2011 and all the components have been constructed except outer bund of Lagoon-1. The balance work of Lagoon-1 is only 1% of the approved capital cost of the project. The present construction work of Lagoon-1 is the balance</p>	
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	work of original ash dyke contract awarded in 2010 and prematurely terminated due to contractual issues. Since Lagoon-1 construction is neither a new industry nor expansion of existing industry, the CRZ Notification 2011 is not applicable in this case.	
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The Ministry has decided to examine the status of compliance of the issues mentioned in the Show-Cause notice dated 09.01.2019 in consultation with EAC. Accordingly, the matter has been listed in the agenda and project proponent is present for further clarification, if any.

33.5.2 The project proponent made a detailed presentation through Video Conferencing (VC) on the project and informed the following: -

- (i) EC and CRZ Clearance were accorded to Vallur STPP on 18.04.2007 (EC for Phase-I: 2x500 MW), 03.06.2009 (EC for Phase-II: 1x500 MW) and 14.07.2009 (CRZ Clearance for Phase-I & II: 3x500 MW). All the units are in commercial operation.
- (ii) Project has two lagoons for ash disposal while lagoon – 2 is in use, construction of lagoon-1 was stopped by Tamil Nadu SPCB on 01.06.2016 due to presence of some patches of mangroves in lagoon-1. However, the NOC was issued by TNSPCB on 12.07.2017.
- (iii) Construction of Lagoon-1 was again stopped on 24.01.2018 as per the instructions of District Administration and TNPCB based on allegations of villagers. However, clearance was given to NTECL on 04.09.2018 to resume the construction of Lagoon-1 and work started 05.09.2018.
- (iv) Again, based on allegations by villagers, High Court at Chennai vide interim order dated 19.11.2018 restrained NTECL from construction of Lagoon-I alleging violations of EC & CRZ clearances. Accordingly, the construction work was stopped on 26.11.2018.
- (v) Moreover, High Court at Chennai vide order dated 20.11.2018 restrained NTECL from discharging ash into Lagoon-II up to 18.12.2018 alleging that fly ash & bottom ash is disposed into unlined ash pond thereby contaminating ground water, thereby violating the EC conditions.
- (vi) Thereafter, Special Leave Petition (SLP) was filed by NTECL in Supreme Court on 15.01.2019 praying for grant of stay against interim order passed by High Court. Supreme Court Stayed the orders thereby allowing operation of the project to resume.
- (vii) Meanwhile, MOEF&CC vide letter dtd. 09.01.2019, issued show cause notice to NTECL and directed to stop the construction of Lagoon-I until further order from MOEF&CC.
- (viii) NTECL replied to the show cause notice of MoEF&CC on 21.01.2019 and through further communications to MoEF&CC on 28.10.2019, 06.09.2021, 08.11.2021 and 04.01.2022. The project was also inspected by Regional Office of MoEF&CC & TNSPCB.

33.5.3 The EAC during deliberations noted the following:

The environmental clearances was granted by the Ministry vide letter no. J-13011/33/2006-IA.II (T) dated 18th April, 2007 to the project for 3x500 MW Vallur Thermal Power Plant.

A compliant was received to the Ministry on 21st September, 2018 stating Fly ash is proposed to be

disposed in ash dyke which will destroy mangroves and saltpans. Ministry had requested its Regional office to conduct site visit and submit the factual report. Also, W.P. No. 30135 of 2018 and W.P. No. 30237 of 2018 were filed by Shri Ravimaran and Shri K Saravanan respectively before the Hon'ble High Court of Madras for alleged illegal construction of ash pond leading to CRZ violation and destruction of mangroves by M/s NTECL.

The site visit report of Regional Office has reported several non-compliances inter-alia include not achieving 100% flyash utilisation, not developing greenbelt area with 25% of the total plant area, not meeting prescribed Sulphur & Ash contents, leakages in the seawater intake pipeline, not setting up of High Slurry Disposal System (HCSD) for flyash disposal, not setting up dust extraction system at coal handling plant, exceeding the Particulate Matter (PM) emission standard of 50 mg/Nm³, not implementing Rain Water Harvesting Scheme and operating the plant without Consent to Operate including construction of ash pond in 130 acres (Lagoon-1) in the mangrove area and non-demarcation of 114 acres of CRZ area which was to be left undisturbed.

Accordingly, Ministry vide its letter dated 9th January, 2019 issued Show Cause Notice to PP regarding non-compliance of EC conditions based on report of Ministry's Regional Office dated 9th September, 2018.

After examination of the response from PP, it was decided in the Ministry to have verification report on compliance status reported by the project authorities from the IRO, MoEF&CC at Chennai. The IRO, MoEF&CC at Chennai vide letter dated 4.01.2022 provided its verification report and has informed that the site visit was conducted on 15.12.2021.

EAC examined the reply submitted by M/s NTECL to the Show Cause Notice issued by the Ministry on 21.01.2019 and through further communications to MoEF&CC on 23.09.2021 and 10.08.2022.

The EAC also enquired about presence of mangrove patches within the project cover area and recommended to leave the mangrove patches undisturbed and take appropriate measures for its protection. The project proponent confirmed that there is a mangrove patch of 8 acres at North West corner of Lagoon-1, the same would be left undisturbed. Accordingly, the project proponent has submitted the revised layout excluding the 8-acre area at North West corner of Lagoon-1, where mangrove patch is available.

33.5.4 *The EAC after detailed deliberations on the information submitted and as presented during the meeting found the reply submitted by the PP to Show Cause Notice and compliance status communicated to the Ministry satisfactory. EAC therefore recommended to lift the show cause subject to submission of affidavit that no construction will be done on mangrove area and the mangrove patch/patches will remain undisturbed.*

The meeting ended with vote of thanks to the Chair.

ATTENDANCE

S. No.	Name	Role	Attendance
1.	Shri Gururaj P. Kundargi	Chairman	P
2.	Dr. N. P. Shukla	Member	P
3.	Shri Suramya Vora	Member	P
4.	Dr. Santosh Kumar Hampannavar	Member	P
5.	Professor S S Rai,	Member	P
6.	Shri K.B. Biswas	Member	P
7.	Dr. Nandini. N	Member	P
8.	Shri M. P. Singh	Member (Representative of CEA)	P
9.	Shri Yogendra Pal Singh	Member Secretary	P

APPROVAL OF THE CHAIRMAN

From: gpkundargi@gmail.com

To: "Yogendra Pal Singh" <yogendra78@nic.in>

Sent: Monday, December 19, 2022 11:30:21 AM

Subject: Re: Draft MOM of the EAC (Thermal) 33rd meeting held on 30.11.2022-reg

Dear Dr Yogendra ji

Draft minutes are fine & Approved

You may take further needful action.

Thank you

G PKundargi