

## **MINUTES OF THE 48<sup>th</sup> MEETING OF THE EXPERT APPRAISAL COMMITTEE (INFRASTRUCTURE-2) HELD ON 28-29 JANUARY, 2020**

**Venue:** Conference Hall (Indus), Jal Wing, Ground Floor, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 3

**Day- 1: Tuesday, 28<sup>th</sup> January, 2020**

**Time: 10:30 AM**

### **48.1 Opening Remarks of the Chairman**

### **48.2 Confirmation of the Minutes of the 47<sup>th</sup> Meeting of the EAC (Infra-2) held on 26-27 December, 2019 at New Delhi.**

The minutes of the 47<sup>th</sup> Meeting of the EAC (Infra-2) held on 26-27 December, 2019, was confirmed.

### **48.3 Consideration of Proposals**

#### **Agenda item No. 48.3.1.**

**Construction of new Terminal building (T3) & allied works at Biju Patnaik International Airport (B.P.I), Bhubaneswar by M/s Airports Authority of India - Terms of Reference**

**(IA/OR/MIS/131282/2019; F.No. 10-6/2020-IA-III)**

**48.3.1.1.** The project proponent and the accredited Consultant M/s Gaurang Environmental Solutions Pvt. Ltd. gave a detailed presentation on the salient features of the project and informed that:

- (i) The proposal is for grant of Terms of Reference (ToR) proposed construction of New Domestic Terminal (T3) Building & allied works {Separate service block, landscaping, Sewage treatment plant (STP), Under Ground (UG) water storage tanks & PHE works} at BPI Airport, Bhubaneswar by Airports Authority of India, BPI Airport, Bhubaneswar. The proposed expansion project is located at Biju Patnaik International Airport (BPI), Bhubaneswar, District Khordha, Odisha.
- (ii) The project/activity has applied under category A of item 7(a) 'Air Ports' of the Schedule to the EIA Notification, 2006 and its amendments. The Aerodrome Reference Point (ARP) Coordinates of the Aerodrome (AD) are Latitude 20°14'48" N and Longitude 85°49'07" E.
- (iii) Environmental Clearance had been obtained for existing terminal building vide letter F.No. 10-17/2008-IA.III dated 07.05.2008.
- (iv) The total airport area is 340.73 Ha and the area earmarked for the proposed expansion works is 10.085 Ha (service block: 1.24 Ha) within the existing airport premises. There is no additional requirement of land for the proposed developmental works.
- (v) The details of proposed new terminal building are as below. The plot area for proposed expansion is 1,00,850 sqm. (10.085 ha). Total built up area of the new terminal building will be 64,650 sqm. The number of floors will be Ground, Mezzanine & First. The height of terminal building will be 34.5 m. The green area will be approx. 12850 sqm. Details of other built up area are as under:

Particular	Detail
Service Block Area	Service Block: 2550 sqm. Pump Room: 2550 sqm. Basement for Plumbing Tanks & substation area: 2850 sqm Ground Floor for Electrical Sub: 1205 sqm First Floor staff office area: 595 sqm

- (vi) AAI is following GRIHA (Green Rating for Integrated Habitat Assessment) system for sustainable and environment friendly design. The new terminal building will be constructed as per the ECBC

(Energy Conservation Building Code) norms and designed to achieve the 4 star rating under GRIHA V-2015. Solar photo voltaic (PV) plant of capacity 500 KWp shall also be installed.

- (vii) During operation phase, net fresh water requirement is ~ 968 KLD and it shall be sourced from local municipal sources /ground water after obtaining due permission from CGWA. Waste water generated from operations will be treated in proposed STP and treated water will be reused for landscaping, sanitation & flushing etc. within airport premises.
- (viii) The total power requirement is 3200 kW (4000 kVA) to be sourced from 33/0.433 KV of proposed Substation and 4 Nos. 2000 kVA; (3W +1S) of DG Sets will used as backup source. Project Site elevation 138 ft. or about 42 metres above MSL. No tree cutting is proposed. Only site clearing will be done.
- (ix) ESZ boundary of Chandaka Dampara Wildlife Sanctuary is at ~ 1.5 km towards NNW direction. Following protected & reserve forests fall in the study area i.e. 10 km radius of the project site: Ghatikia P.F. ~3.7 km NW, Bharatpur P.F.~4.2 km NNW, Nuapalli P.F. ~7.0 km NNW, Bharatpur P.F. ~8.3 km NNW, Mendhashala P.F. ~9.0 km WNW.
- (x) There are no natural water bodies or courses within the core zone. Following water bodies fall in the study area i.e. 10 km radius of the project site: Gangua Nala ~4.3 km SE, Daya River ~5.1 km SSE, Bhargabi River ~6.3 km ESE, Khushabdra Nadi ~9.5 km ENE.
- (xi) Following protected monuments of cultural importance as per Odisha State Archaeology, Govt. of Odisha, also fall within the study area: Yameshwar Temple ~2.0 km SE, Mohini Temple ~2.3 km ESE, Dakara Bhivisanesvara Temple ~2.3 km ESE, Lingaraja Temple ~2.4 ESE, Svarnajalesvara Temple ~2.6 km SE, Parsuramesvara Temple ~2.7 km ESE, Rajrani Temple ~3.1 km ESE, Sukhmesvara Temple ~ 3.2 km SE, Udaygiri & Khandagiri Caves ~3.4 km WNW, Panchu Pandava Caves ~3.7 km East, Brahmeshwar temple ~4.0 km ESE, Dhauligiri Shanti Stupa ~6.8 km SSE, Ashoka Rock edicts ~7.3 km SSW.
- (xii) Total Cost of the project is Rs. 913.08 Crore.
- (xiii) No litigation is pending against the project.
- (xiv) Employment potential: During the project operation stage, for the purposes of day-today professional and maintenance works, about 3100 nos. staff is envisaged.
- (xv) Benefits of the project: The project will boost economic growth benefiting the whole region through the generation of both direct and indirect economic value. The construction and operation of new terminal building will generate direct employment opportunity, indirectly contributed jobs through supply chain, enhance induced impact through tourism. The project will also lead to development in the nearby areas through proposed CER activities

**48.3.1.2.** During deliberations, the EAC noted the following:-

- (i) The proposal is for grant of Terms of Reference to the project "Construction of new Terminal building (T3) & allied works" at Biju Patnaik International Airport (B.P.I), Bhubaneswar by M/s Airports Authority of India.
- (ii) The project/activity is covered under category A of item 7(a) 'Air Ports' of the Schedule to the EIA Notification, 2006 and its amendments, and requires appraisal at Central level by sectoral EAC.
- (iii) Earlier, Environmental Clearance for construction of terminal building & allied works (peak hour passenger capacity of 800) was granted by MoEF&CC, vide letter F.No. 10-17/2008-IA.III dated 07.05.2008.

**48.3.1.3.** *The EAC was informed that Biju Patnaik International (BPI) Airport (IATA: BBI, ICAO: VEBS) located in Bhubaneswar is the only main international airport in the state of Odisha & is well connected to all the major cities of India through regular flights. BPI Airport has two active scheduled passenger terminals i.e. Terminals 1 and 2 for domestic and international passengers respectively. During the*

year 2017-18, Bhubaneswar Airport handled 3.25 million passengers, becoming the 15<sup>th</sup> busiest airports in India. The existing traffic trend at the BPI airport exceeds its terminal capacity of 2.5 million, therefore the AAI has proposed new Domestic Terminal (T3) Building & allied works to meet the requirements of increased passenger traffic. The area earmarked for the proposed expansion works is 10.085 Ha & for service block is 1.24 Ha within the existing airport premises. There is no additional requirement of land for the proposed developmental works.

Consent to Operate for the Existing project was granted by State Pollution Control Board, Odisha vide Consent order no. 2800 dated 05.04.2016 and was valid up to 31.03.2019. The application for renewal of consent to operate was submitted to SPCB, Odisha on 23.03.2019 is under process.

After detailed deliberations on the proposal, the Committee recommended for grant of Terms of Reference as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity and the following ToR in addition to Standard ToR for preparation of EIA-EMP report:

- (i) Importance and benefits of the project.
- (ii) Submit status of clearance from National Board for Wild Life (NBWL).
- (iii) Certified Compliance Report issued by the MoEF&CC, Regional Office or concerned Regional Office of Central Pollution Control Board or the Member Secretary of the respective State Pollution Control Board for the conditions stipulated in the earlier environmental clearances issued to the project along with an action taken report on issues which have been stated to be partially complied or non/not complied.
- (iv) The EIA will discuss the compliance to the Pollution Control Laws and the notifications under the E.P. Act 1986 and get a certified report from the Pollution Control Board.
- (v) The E.I.A. will give a justification for land requirements along with a comparison to the guidelines established by the Airport Authority of India/Ministry of Civil Aviation in this regards.
- (vi) A toposheet of the study area of radius of 10 km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet (including all eco-sensitive areas and environmentally sensitive places).
- (vii) Layout maps of proposed project indicating runway, airport building, parking, greenbelt area, utilities etc.
- (viii) Cost of project and time of completion.
- (ix) Submit Fire NOC for existing project from concerned Department.
- (x) The impacts of demolition and the activities related thereto shall be examined and a management plan drawn up to conform to the Construction and Demolition rules under the E.P. Act, 1986.
- (xi) The report shall examine the details of excavations, its impacts and the impacts of transport of excavated material. A detailed Management Plan shall be suggested.
- (xii) Detail plan for 'deplane waste' and impact of noise on the sensitive environment specially the wildlife sanctuaries and national parks.
- (xiii) An assessment of the cumulative impact of all development and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA. The Plan to be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xiv) The E.I.A. should specifically address to vehicular traffic management as well as estimation of vehicular parking area inside the Airport premises.

- (xv) An onsite disaster management plan shall be drawn up to account for risks and accidents. This onsite plan shall be dovetailed with the onsite management plan for the district.
- (xvi) A note on appropriate process and materials to be used to encourage reduction in carbon foot print. Optimize use of energy systems in buildings that should maintain a specified indoor environment conducive to the functional requirements of the building by following mandatory compliance measures (for all applicable buildings) as recommended in the Energy Conservation Building Code (ECBC) 2017 of the Bureau of Energy Efficiency, Government of India. The energy system includes air conditioning systems, indoor lighting systems, water heaters, air heaters and air circulation devices.
- (xvii) Details shall be provided regarding the solar generation proposed and the extent of substitution, along with compliance to the ECBC rules.
- (xviii) Details of emission, effluents, solid waste and hazardous waste generation and their management. Air quality modeling and noise modeling shall be carried out for the emissions from various types of aircraft.
- (xix) The impact of aircraft emissions in different scenarios of idling, taxiing, take off and touchdown shall be examined and a management plan suggested.
- (xx) The impact of air emissions from speed controlled and other vehicles plying within the Airport shall be examined and management plan drawn up.
- (xxi) The management plan will include compliance to the provisions of the MSW Rules, 2016.
- (xxii) A detailed management plan, drawn up in consultation with the competent District Authorities, shall be submitted for the regulation of unauthorized development and encroachments within a 05 Km radians of the Airport.
- (xxiii) The E.I.A. will also examine the impacts of construction and operation of the proposed STP and draw up a detailed plan for management including that for odour control.
- (xxiv) Classify all Cargo handled as perishable, explosive, solid, petroleum products, Hazardous Waste, Hazardous Chemical, Potential Air Pollutant, Potential Water Pollutant etc. and put up a handling and disposal management plan.
- (xxv) Noise monitoring and impact assessment shall be done for each representative area (as per the Noise Rules of MoEF&CC). A noise management plan shall be submitted to conform to the guidelines of the MoEF&CC and the DGCA.
- (xxvi) Noise monitoring shall be carried out in the funnel area of flight path.
- (xxvii) Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- (xxviii) Ground water abstraction and rain water recharge shall be as prescribed by the CGWA. A clearance/permission of the CGWA shall be obtained in this regards.
- (xxix) Details of fuel tank farm and its risk assessment.
- (xxx) The E.I.A. should present details on the compliance of the project to the Fly Ash notification issued under the E.P. Act of 1986.
- (xxxi) The report should give a detailed impact analysis and management plan for handling of the following wastes for the existing and proposed scenarios.
  - (a) Trash collected in flight and disposed at the Airport including the segregation mechanism.
  - (b) Toilet wastes and sewage collected from aircrafts and disposed at the Airport.
  - (c) Maintenance and workshop wastes.
  - (d) Wastes arising out of eateries and shops situated within the airport.
- (xxxii) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any

notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

- (xxxiii) Submit an affidavit signed by the Board of Directors, that there is no violation and no part of the project has been implemented without Environmental Clearance.
- (xxxiv) Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- (xxxv) Plan for Corporate Environment Responsibility (CER) as specified under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 01.05.2018 shall be prepared and submitted along with EIA Report.
- (xxxvi) A tabular chart with index for point wise compliance of above ToR.

*It was recommended that 'ToR' along with Public Hearing prescribed by the Expert Appraisal Committee (Infrastructure-2) should be considered for preparation of EIA/ EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.*

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#### **Agenda item No. 48.3.2.**

**Development of Greenfield 'Jewar International Airport' Phase-I & II, Gautam Buddh Nagar, Uttar Pradesh by M/s Directorate of Civil Aviation, Government of Uttar Pradesh - Reconsideration for Environmental Clearance**

**(IA/UP/MIS/74694/2018; F.No. 10-31/2018-IA-III)**

**48.3.2.1.** The EAC noted the following:-

- (i) The proposal is for grant of Environmental Clearance to the project Development of Greenfield 'Jewar International Airport' Phase-I & II, Gautam Buddh Nagar, Uttar Pradesh by M/s Directorate of Civil Aviation, Government of Uttar Pradesh.
- (ii) The project/activity is covered under category 'A' of item 7(a) 'Airports' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central Level by sectoral EAC.
- (iii) ToR was granted by MoEFCC vide letter F.No.10-31/2018-IA-III dated 12.06. 2018.
- (iv) Public hearing was conducted on 27.11. 2018 at Primary School, Village Kishorepur, Jewar.
- (v) The proposal was earlier considered by the EAC (Infra-2) in its 42<sup>nd</sup> meeting held during 10-12 July, 2019, wherein the EAC observed that the EIA/EMP report submitted by the project proponent does not cover the all environmental aspect of the proposed airport. After detailed deliberation EAC asked the project proponent to submit additional details. Project Proponent has submitted the additional information on Ministry's website on 04.01.2020.

**48.3.2.2.** *The project proponent has submitted point wise reply to the queries raised by the EAC in its previous meeting held during 10-12 July, 2019. The details are as follows:*

- (i) **Status of permission for tree cutting from Forest Department.**

Forest Department has granted the permission for felling of 11,460 trees standing within the proposed site vide letter no. 2307/22-1 dated 10.12.2019 and 2342/22-1 dated 12.12.2019. Total 11,460 trees need to be felled/ shifted due to the project. The details of trees are as follows:

S. No.	Village Name	Number of Trees need to cut	Number of Trees need to shift	Total
1.	Ranhera	4659	61	4720
2.	Rohi	3204	12	3216
3.	Parohi	153	0	153
4.	Kishorepur	554	06	560
5.	Dayantpur	2680	99	2779
6.	Banwaribans	32	0	32
	<b>Total</b>	<b>11282</b>	<b>178</b>	<b>11460</b>

(ii) **Afforestation plan for plantation.**

Afforestation Action Plan has been prepared by DFO Gautam Buddha Nagar as follows:

S. No.	No. of Trees to be planted	Proposed Location	Proposed Area (ha)	Cost for Afforestation (Rs.)	Period
1	60,000	Proposed green belt of Sector- 22D and Sector 29-30	30	1,42,63,000	2019-20 to 2022-23
2	52,820	11 ha in Murshadpur forest block and 15.5 ha in Gulistanpur forest block	26.5	1,21,32,718	
<b>Total</b>	<b>1,12,820</b>		<b>56.5</b>	<b>2,63,95,718</b>	<b>2019-20 to 2022-23</b>

The cost for Compensatory Afforestation is 10 times i.e. Rs. 2,63,95,718 has been already transferred to Forest Department vide cheque no. 275502 dated 13.12.2019 and also the tree feeling cost has been given to the Forest Department vide cheque no. 275503 dated 13.12.2019

(iii) **Restoration plan for water bodies including channels.**

Restoration plan for water bodies including channels present and proposed scenario - wise is as follows:

Name of drain	Present Scenario	Proposed Scenario
Pathwaya Nala	Pathwaya Nala, running north-south at east end needs diversion for the development of airport.	Pathwaya Nala is 74.4 km in length. This is a natural drain. From 49.0 km to 54.4 km of this drain would get affected as this stretch falls within proposed airport site. Total cost of re-establishment has been proposed as Rs.2479.35 lakhs.
Drainage of Bajauta Distributory	Bajauta Distributory is 23 km in length having peak discharge of 52 cumec.	From 0 km to 0.450 km of this distributor need to be diverted since it is falling within proposed air port site. Hence, by providing head regulator and cross regulator the diversion of Bajauta Distributory has been proposed for about 1km.
Dayantpur Minor	Dayantpur Minor is 3.1 km in length having peak discharge of 23 cumec.	From 1.765 km to 3.100 km of this drain is falling within the project site having command area in 340 ha of within proposed boundary of Jewar Airport. Hence, Dayanapur Minor has been handed over for the development of Airport Project. Thus, the length of Dayanapur Minor will be curtailed from 0.000 km to 1.765 km and re-establishment of this drain has been proposed.
Drainage of the Kishorepur Minor:	Kishorepur minor, running from NW to SE is cutting the site diagonally.	Kishorepur Minor is 4.8 km in length having peak discharge of 5.5 cumec and Cultural Command Area of 610 ha. Since the drain entirely falling within proposed project site, it has been handed over for the project. Head to tail of Kishorepur Minor and its command area is falling within project site, hence it has been handed over for the project.

(iv) **Conservation plan for Birds and Fauna in consultation with Wildlife Institute of India (WII).**

Wildlife Institute of India (WII) has been engaged for development of Conservation Plan for Birds and fauna. Interim Report and Inception Report prepared by WII has been submitted. The Final Report in this regard is expected by end of July, 2020. Proponent will ensure the implementation of WII's recommendation throughout the project cycle during preconstruction, construction and operational stages.

The present document summarizes work done between 02.11.2019 – 15.12.2019 including field surveys and lab-based work. A total of six species of mammals were observed in the proposed GJIA site as well as within its 10 km buffer. A total of 60 species of bird species were recorded during the present survey. A total of 28 independent groups of Blackbuck were observed during the present survey. In the proposed Greenfield Jewar International Airport (GJIA) site, they can be observed on the eastward of the Jewar-Bulandshahar road towards the south-east corner. A total of 21 independent groups of Nilgai were observed during the present survey. During survey, Golden Jackal (*Canis aureus*) on two separate occasions comprising two individuals on each occasion were observed. Jungle Cat (*Felis chaus*) was observed twice as a single individual in the proposed GJIA site. In total, 64 sarus cranes in 21 independent observations were observed across the landscape during the survey. Egyptian vulture (*Neophron percnopterus*) is an endangered species that was recorded at a few places on four different occasions during the survey. A total of 24 independent observations of Indian Peafowl were made across the GJIA landscape. A total of 99 perennial water bodies were recorded across the GJIA landscape

(v) **Study on filling of 14 ponds and mitigation measures especially with respect to water conservation.**

14 ponds (Total Area: 3.85 ha) located within proposed site are likely to be getting affected due to the proposed development. The details are as follows:

Details of ponds located within proposed Jewar International Airport						
S. No.	Area of pond (sqm)	Latitude	Longitude	Revenue Village Name	Survey No/s	Remarks
1	833.76	28°10'54.78"N	77°34'33.79"E	Dayanatpur	1014	Pvt.
2	4002.81	28°10'42.82"N	77°34'44.01"E	Dayanatpur	1054,1055	1054 (Pvt.)/1055 (Pvt.)
3	1473.32	28°10'48.76"N	77°35'40.95"E	Dayanatpur	1164,1210	1164 (Govt.-Khad Gadde), 1210 (Govt.- Abadi)
4	932.299	28°10'36.94"N	77°35'33.45"E	Dayanatpur	1267	Pvt.
5	2021.32	28°10'31.60"N	77°35'35.80"E	Dayanatpur	1258	1258 (Govt.- Graveyard)
6	503.676	28°10'28.72"N	77°35'29.04"E	Dayanatpur	1827	Pvt.
7	8766.33	28°9'56.76"N	77°35'59.51"E	Kishorpur	162	162 (Govt.-Pond)
8	619.148	28°10'44.89"N	77°36'11.35"E	Rohi	96	Pvt.
9	5357.07	28°10'50.97"N	77°36'31.31"E	Rohi	46, 48, 49	46 (Pvt.), 48 (Pvt. & Govt.), 49 (Pvt. & Govt.)
10	1800.63	28°09'59.63"N	77°37'24.88"E	Rohi	598	Govt.
11	9463.3	28°10'07.24"N	77°37'39.88"E	Rohi	652, 651	652 (Govt.-Pond), 651 (Govt.-Nabin Prati)
12	990.611	28°10'03.58"N	77°37'41.01"E	Rohi	650	650 (Govt.-Pond)
13	1336.26	28°10'01.94"N	77°37'43.37"E	Rohi	969	969 (Govt.-Pond)

14	409.94	28°09'35.59"N	77°37'47.06"E	Parohi	336	Private
<b>Total Area (sqm)</b>						<b>38,510.474</b>
<b>Total Area (ha)</b>						<b>3.85</b>

9 Land parcels of total area **6.3370 ha** in Jewar Tehsil have been allocated by Revenue Department for creation of new pond as a mitigative action. The details are as follows:

<b>Land Allocated by Collector, Gautam Buddha Nagar for Creation of New Pond</b>					
<b>Number</b>	<b>Village Name</b>	<b>Land use</b>	<b>Survey No.</b>	<b>Gata No.</b>	<b>Area (ha)</b>
1	Aakalpur	Barren	239	297	1.3590
2	Faloda Bangar	Barren	647	746 Kha	2.5630
3	Takipur Bangar	Barren	338	236 Ma	0.0760
4	Takipur Bangar	Barren	338	237 Ma	0.0250
5	Takipur Bangar	Barren	338	246	1.0050
6	Takipur Bangar	Barren	338	277 Ma	0.2020
7	Takipur Bangar	New Fallow Land	336	236 Ma	0.0410
8	Takipur Bangar	New Fallow Land	336	242	1.0120
9	Takipur Bangar	New Fallow Land	336	277 Mi	0.0540
<b>Total Land (ha)</b>					<b>6.3370</b>

(vi) **Wind rose diagram for one year.**

Submitted

(vii) **Revised Corporate Environment Responsibility (CER) plan as compensatory afforestation cannot be part of CER.**

The estimated capital cost of the project is Rs. 37,540 million for Phase I and Rs. 35,370 million for Phase II. Therefore, CER (Corporate Environment Responsibility) cost is **Rs. 187.895 million** for **Phase I** and **Rs. 177.095 million** for **Phase II**. The allocated CER budget would get allocated in villages like Rampur Bangar, Nilalouni, Dungarpur Rilka, Chandpur and Achheja Buzurg.

*The EAC, based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held on all the issues, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other Standard EC Conditions as specified by the Ministry vide OM dated 04.01.2019 for the said project/activity (specified at **Annexure-1** of the minutes), while considering for accord of environmental clearance:*

- As proposed, Environmental Clearance is for 'Development of Greenfield 'Jewar International Airport' Phase-I & II, Gautam Buddh Nagar, Uttar Pradesh by M/s Directorate of Civil Aviation, Government of Uttar Pradesh.
- The land acquisition / purchase shall be in conformity to the LARR Act, 2013 and any other laws and regulations governing land acquisition.
- Clearance from Directorate General of Civil Aviation (DGCA) and Airports Authority of India (AAI) for safety and project facilities shall be obtained.
- 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.
- Conservation plan for Birds and Fauna in consultation with Wildlife Institute of India (WII) shall be submitted within six month from grant of this clearance and shall be implemented in letter and spirit.



- (vi) Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities shall be complied with.
- (vii) Total water requirement is estimated as 17267.5 KLD, while fresh water requirement will be 3040.8 KLD. The water for the project during operation and construction phase will be drawn from Jewar distributary and Kasna STP located at Greater Noida. As proposed, no ground water shall be used in the project.
- (viii) Aircraft maintenance, sensitivity of the location where activities are undertaken, and control of runoff of potential contaminants, chemicals etc shall be properly implemented and reported.
- (ix) Waste water generated from the Airport will be treated in Sewage Treatment Plant of 12 MLD capacity. Treated waste water will be used for landscaping and flushing. There will be zero discharge of treated waste water from airport.
- (x) During construction and operational phase AAQ monitoring should include PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, NH<sub>3</sub>, CO, CH<sub>4</sub> and Benzene.
- (xi) During airport operation period, noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations. A monitoring station for ambient air and noise levels shall be provided in the village nearest to the airport.
- (xii) Traffic Management Plan as submitted shall be implemented in letter and spirit. Apart, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time. Traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
- (xiii) An onsite disaster management plan shall be drawn up to account for risks and accidents. This onsite plan shall be dovetailed with the onsite management plan for the district.
- (xiv) Top soil shall be separately stored and used in the development of green belt.
- (xv) Green belt shall be developed in area as provided in project details, with native tree species in accordance with Forest Department. The greenbelt shall inter-alia cover the entire periphery of the Air Port. Plantation activity should be taken up under the expert guidance for forest department of Government of Uttar Pradesh. As far as possible monocultural plantation should be avoided.
- (xvi) The plantation species in and around Airport site should be carefully chosen to avoid bird nesting and to improve pollution control and noise control measures. Water intensive and/or invasive species should not be used for landscaping.
- (xvii) The proposed 10 times compensatory plantation need to be monitored by the Government of Uttar Pradesh so that the target of planting 1,12,820 saplings is achieved in a time bound manner, their survival rate is monitored and mortality is replenished. In case of non-survival of any transplanted tree, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree) shall also be done and maintained.
- (xviii) A water security plan to the satisfaction of the CGWA shall be drawn up to include augmenting water supply and sanitation facilities and recharge of ground water in at least two villages and schools, as part of the C.S.R. activities.
- (xix) Energy conservation measures like installation of LED should be integral part of the project design and should be in place before project commissioning.

- (xx) Initiatives such as Green Infrastructure Development program, adoption of less emission intensive technologies, renewable energy program, electrical vehicles and Airport Carbon Accreditation need to be adopted to reduce its impact on climate change and Green House Gas (GHG) emissions as per environmental best practices governing Greenfield airports.
- (xxi) Provision of Electro-mechanical doors for toilets meant for disabled passengers shall be ensured. Children nursing/feeding room shall be located conveniently near arrival and departure gates.
- (xxii) The project proponent shall comply with the International Best Practices on environment management as applicable to the Airport project.
- (xxiii) The company shall draw up and implement a Corporate Social Responsibility Plan as per the Company's Act of 2013.
- (xxiv) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018, and proposed by the project proponent, an amount of Rs. **187.895 million** for **Phase I** and **INR 177.095 million** for **Phase II** @0.5% of the project cost shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as **Health Related Facilities** (Construction of toilets and water tank in community as part of Swachh Bharat Abhiyan, Construction of Health Centre, Refurbishment and maintenance of existing Health Centre Organizing Health camps, Organizing Special Health Camps for eye, heart and maternal health Mobile Health Clinic), **Education Related Facilities** (Refurbishment of existing schools, Strengthening of ITI at Jewar and Scholarship for student), **Solid waste Management Facilities** (Providing VATs for Municipal Solid Waste in villages, Developing MSW disposal site with management, Providing training for solid waste management to villagers), **Social Facilities** (Installation of Hand-pumps, Repair and Maintenance of Hand-pumps/deep tube wells used for drinking water, Construction and Maintenance of village roads @ 50 km/year and Providing solar light in village common areas) and **Miscellaneous Facilities** (Skill Development- basic training programmes and Creation of irrigation facilities for farmers. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

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### Agenda item No. 48.3.3.

#### **Construction of New Integrated Terminal Building with Allied Works at Imphal International Airport, Imphal by M/s Airports Authority of India, Imphal - Reconsideration for Environmental Clearance**

**(IA/MN/MIS/127582/1990; F.No. 10-75/2018-IA-III)**

#### **48.3.3.1. The EAC noted the following:-**

- (i) The proposal is for grant of Environmental Clearance to the project "Construction of New Integrated Terminal Building with Allied Works at Imphal International Airport, Imphal by M/s Airports Authority of India, Imphal.
- (ii) The project/activity is covered under category A of item 7(a) 'Air Ports' of the Schedule to the EIA Notification, 2006 and its amendments, and requires appraisal at Central level by sectoral EAC.
- (iii) Terms of Reference (ToR) was granted by MoEF&CC vide letter F.No.10-75/2018-IA-III dated 03.12.2018.
- (iv) Public Hearing was conducted on 18.11.2019 at the Changangei Community Hall (close to the site) by Manipur Pollution Control Board.

- (v) The proposal was considered by the EAC (Infra-2) in its 47<sup>th</sup> Meeting held during 26-27 December, 2019 wherein, the EAC asked the project proponent to submit additional information.
- (vi) Project Proponent has submitted the additional information on Ministry's website on 09.01.2020.

**48.3.3.2.** *The project proponent informed the EAC that the new terminal building and allied facilities at Imphal International Airport will be above ground. 120000 Cum earth filling quantity was worked out at preliminary stage. After approval of plans and fixing the plinth level, total earth filling quantity have been worked out as 99166 cum. 20044 cum excavated earth will be generated during excavation of new terminal building foundations, sumps and rainwater pond, etc. from the site. Same shall be used for filling at the site. Balance filling earth requirement is estimated 79122 cum, which will be procured by the contractor from approved borrow areas. Excavated earth will be temporarily stored at the site for further filling at the site. Mitigation measures will be adopted during excavation, storage and filling of earth at the site.*

*The existing old passenger's terminal building at Imphal International Airport to handle 500 passengers at a time (250 arriving + 250 departing) is now insufficient and congested for handling increasing numbers of passengers. The existing terminal building at Imphal International Airport has saturated and remains congested. In view of the future traffic growth at Imphal International Airport, there is immediate requirement of new terminal building at the Imphal International Airport. New integrated terminal building has been designed for 200 international and 1000 Domestic passengers at a time with swing operations.*

*The EAC, based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held on all the issues, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other Standard EC Conditions as specified by the Ministry vide OM dated 04.01.2019 for the said project/activity (specified at **Annexure-1** of the minutes), while considering for accord of environmental clearance:*

- (i) Clearance from Directorate General of Civil Aviation (DGCA) and Airports Authority of India (AAI) for safety and project facilities shall be obtained.
- (ii) 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.
- (iii) Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities shall be complied with.
- (iv) Total water requirement is estimated as 814 KLD, while fresh water requirement will be 300 KLD. Water requirement will be met through rainwater ponds. As proposed, no ground water shall be used in the project.
- (v) Aircraft maintenance, sensitivity of the location where activities are undertaken, and control of runoff of potential contaminants, chemicals etc shall be properly implemented and reported.
- (vi) Waste water generated from the Airport will be treated in MBBR based Sewage Treatment Plant of 600 KLD capacity. Treated waste water will be used for green belt, flushing and HVAC. There will be zero discharge of treated waste water from airport.
- (vii) During construction and operational phase AAQ monitoring should include PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, NH<sub>3</sub>, CO, CH<sub>4</sub> and Benzene.
- (viii) During airport operation period, noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations. A monitoring station for ambient air and noise levels shall be provided in the village nearest to the airport.
- (ix) Traffic Management Plan as submitted shall be implemented in letter and spirit. Apart, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved

upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time. Traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

- (x) An onsite disaster management plan shall be drawn up to account for risks and accidents. This onsite plan shall be dovetailed with the onsite management plan for the district.
- (xi) No tree cutting/transplantation of existing trees has been proposed in the instant project. The landscape planning should include plantation of native species. The plantation species should be carefully chosen to avoid bird nesting and to improve pollution control and noise control measures. Water intensive and/or invasive species should not be used for landscaping. As proposed, 69,687.17 sqm (31.7% of the total area) shall be provided for green belt development and landscaping.
- (xii) A water security plan to the satisfaction of the CGWA shall be drawn up to include augmenting water supply and sanitation facilities and recharge of ground water in at least two villages and schools, as part of the C.S.R. activities.
- (xiii) The company shall draw up and implement a Corporate Social Responsibility Plan as per the Company's Act of 2013.
- (xiv) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018, and proposed by the project proponent, an amount of Rs. 3.65 Crores @0.5% of the project cost shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as Construction of community toilets at Lamjaotongba, Langing, Taobungkhok, Changangei, Ningombam, Kadampokpi, Ghari Villages, Desilting of Ponds in Lamjaotongba, Langing, Taobungkhok, Changangei, Ningombam, Kadampokpi, Ghari villages for rain water accumulation, Solid waste collection and disposal facilities at Lamjaotongba, Langing, Taobungkhok, Changangei, Ningombam, Kadampokpi, Ghari Villages, Construction of Drainage Channels in Lamjaotongba, Langing, Taobungkhok, Changangei, Ningombam, Kadampokpi, Ghari Villages and Digital Class Room in Lamjaotongba, Langing, Taobungkhok, Changangei, Ningombam, Kadampokpi, Ghari Villages. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

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#### **Agenda item No. 48.3.4.**

#### **Development of Greenfield Non-Major Port at Ramayapatnam in Prakasam District of Andhra Pradesh State by M/s Government of Andhra Pradesh - Terms of Reference**

**(IA/AP/MIS/136641/2020; F.No. 10-8/2020-IA-III)**

**48.3.4.1.** The project proponent and the accredited Consultant M/s Indomer Coastal Hydraulics (P) Ltd. gave a detailed presentation on the salient features of the project and informed that:

- (i) The Government of Andhra Pradesh is proposing to develop a green field port at Ramayapatnam in Andhra Pradesh to meet the ever increasing cargo demand in the State. Geographical coordinates of Ramayapatnam where port is proposed are 15°02'55"N latitude and 80°02'50" E longitude. It is planned to develop the port as all-weather port with world class terminal facilities well suited to meet the present and future needs of the trades and also suitable to develop as a major port.

- (ii) The Port will have an artificial deep sea harbour along an open straight sea coast and is protected by providing northern caisson breakwater of length 2.0 km and southern rubble mound breakwater of length 4.4 km with concrete capping for the Phase – 1 development.
- (iii) The approach to the port is through a channel of 14 km in length, dredged to -15.5 m deep and equipped with night navigational facilities. The permissible fully laden draught is 12.6 m to handle Panamax size vessels of 80,000 DWT during Phase – 1 and the vessel size subsequently will be increased to 125,000 DWT to commercially carry bulk cargo of coal, ore, containers and other commodity raw materials, to and from the hinterland and overseas and also through coastal shipping. The approach channel and the turning circle would need to be dredged up to a depth required for berthing of Panamax vessels during first phase and ultimately Cape size vessels during subsequent phases. The estimated dredging quantity is about 27 m cu m for Phase – 1 development. The hydrodynamic and siltation model studies carried out for the port have revealed that about 0.4 m cu m per annum of sand would likely to be deposited in the harbour basin and port channels which require maintenance dredging.
- (iv) The width proposed for the approach channel is 250 m with side slopes of 1:7 for two way traffic flow. A 600 m diameter turning circle that is 2.5 to 3.0 m times the length of the largest vessel is proposed in the harbour basin. Navigational aids along the approach channel consisting of leading lights, breakwater lights and a single station lighthouse onshore would be provided.
- (v) The Ramayapatnam port will be developed in an area of 802 acres during first phase and 3437 acres for the ultimate projected traffic, for the creation of permanent marine facilities for mechanized cargo handling, transportation and storage / retrieval to meet the demands of trade and shipping activities. Green belt will be provided in 37 acres during the first phase and greenery area will be increased to 100 acres during the ultimate phase. No forest land to be acquired for the project.
- (vi) The Feasibility Study carried out in 2016 has estimated a project cost of Rs. 4240 Crores for initial development and the final stage development cost would be around Rs. 10,000 Crores for handling the ultimate stage cargo projected.

**48.3.4.2.** The EAC noted the following:-

- (i) The proposal is for grant of Terms of Reference to the project Development of Greenfield Non-Major Port at Ramayapatnam in Prakasam District of Andhra Pradesh State by M/s Government of Andhra Pradesh.
- (ii) The project/activity is covered under category 'A' of item 7 (e) i.e. 'Ports, harbours, break waters, dredging' of the schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level by sectoral EAC.

**48.3.4.3.** *The project proponent informed the EAC that the Government of Andhra Pradesh is proposing to develop a green field port at Ramayapatnam in Andhra Pradesh to meet the ever increasing cargo demand in the State. The proposed port location does not have Mangroves, Coral Reefs, Turtles, Sea grass & Seaweeds, Endangered Species, Marine National Park and Marine Sanctuary.*

*After detailed deliberations on the proposal, the Committee recommended for grant of Terms of Reference as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity and the following ToR in addition to Standard ToR for preparation of EIA/EMP report:*

- (i) Importance and benefits of the project.
- (ii) Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale.
- (iii) Recommendation of the Maharashtra CZMA.
- (iv) Submit superimposing of latest CZMP as per CRZ (2011) on the CRZ map.
- (v) Submit a complete set of documents required as per para 4.2 (i) of CRZ Notification, 2011.

- (vi) Submit Certified Compliance Report issued by the MoEF&CC, Regional Office or concerned Regional Office of Central Pollution Control Board or the Member Secretary of the respective State Pollution Control Board for the conditions stipulated in the earlier environmental clearance issued for the project along with an action taken report on issues which have been stated to be partially complied or non/not complied.
- (vii) Hydrodynamics study on impact of dredging on flow characteristics.
- (viii) Oil spill contingency plan in case of barge collision or grounding.
- (ix) Flooding and related impact on creek and control area during the cyclonic storm should be studied.
- (x) Ship navigational studies for the entrance channel should be carried out.
- (xi) The project proponents shall satisfactorily address to all the complaints/suggestions that have been received against the project till the date of submission of proposals for Appraisal.
- (xii) The EIA would give a detailed analysis of the Impacts of storage and handling and the management plan of each cargo type along with the proposed compliance to the Hazardous Chemicals Storage rules.
- (xiii) Study the impact of dredging and dumping on marine ecology and draw up a management plan through the NIO or any other institute specializing in marine ecology.
- (xiv) Details of Emission, effluents, solid waste and hazardous waste generation and their management in the existing and proposed facilities.
- (xv) Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- (xvi) Permission from CGWA in case of groundwater use being proposed for the project.
- (xvii) Wastewater Management Plan.
- (xviii) Details of Environmental Monitoring Plan.
- (xix) To prepare a detailed biodiversity impact assessment report and management plan through the NIO or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity. The report shall study the impact on the estuary and the sea and include the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standard survey methods.
- (xx) A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point.
- (xxi) A certificate from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
- (xxii) A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project.
- (xxiii) A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- (xxiv) An assessment of the cumulative impact of all development and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA.

- (xxv) Disaster Management Plan for the project.
- (xxvi) Details and status of court case pending against the project, if any.
- (xxvii) Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- (xxviii) Plan for Corporate Environment Responsibility (CER) as specified under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 01.05.2018 shall be prepared and submitted along with EIA Report.
- (xxix) A tabular chart with index for point wise compliance of above ToRs.

*It was recommended that 'ToR' along with Public Hearing prescribed by the Expert Appraisal Committee (Infrastructure-2) should be considered for preparation of EIA/EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.*

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#### **Agenda item No. 48.3.5.**

#### **Expansion of Waterfront Development Plan for Mundra Port by APSEZ, Mundra, Gujarat by M/s Adani Ports and Special Economic Zone Limited - Amendment in Terms of Reference**

**(IA/GJ/MIS/131179/2019; F.No. 10-24/2019-IA-III)**

**48.3.5.1.** The project proponent and the accredited Consultant M/s Cholamandalam MS Risk Services Limited gave a detailed presentation on the salient features of the project and informed that:

- (i) The waterfront development has been accorded Environmental and CRZ clearance as per EIA Notification, 2006 and Coastal Regulation Zone Notification, 2011 vide letter No: 10-47/2008-IA.III dated 12.01.2009 and addendum letter No. 10-47/2008-IA.III dated 19.01.2009. The extension of validity for Environmental and CRZ clearance has been given vide letter F.No. 10-47/2008-IA.III dated 07.10.2015 with validity up to 11.01.2019.
- (ii) Since all the activities in-line to existing Environment & CRZ Clearance was not completed, it was utmost importance to restore the current Environment & CRZ Clearance. Hence, proposal for expansion of WFDP with minor modification as per business requirement was prepared and submitted to MoEF&CC for obtaining ToR.
- (iii) MoEF&CC has granted Terms of Reference to the project vide letter F.No.10-24/2019-IA-III dated 17.05.2019 and subsequent amendment dated 27.09. 2019.
- (iv) Now, APSEZ has requested amendment in ToR for public hearing exemption considering the following facts:
  - The current expansion will be taken up within the existing approved area. No additional land will be acquired. Hence No R&R involved.
  - No additional coastal land will be developed beyond the earlier approved master plan and hence no impact on local fishing activity.
  - APSEZ has already undertaken various Public hearings, inline to the EIA Notification, 2006 in the Mundra region since 2008 and have addressed the public views and commitments effectively.
  - Public hearings that has been conducted in the region are as follows-
    - ❖ Waterfront Development Plan in Mundra, Kutch district, Gujarat in Year 2008.
    - ❖ Development of Multiproduct Special Economic Zone in Mundra, Kutch district, Gujarat in Year 2010.

- ❖ Development of Ship breaking facility near Mundra West Port, Mundra, Kutch district, Gujarat in Year 2013.
- ❖ Development of a Commercial Airport at Mundra, Kutch district, Gujarat in Year 2018.
- (v) All the issues raised by people during various Public Hearings have been implemented by APSEZ and as part of expansion proposal all the issues have been addressed.
- (vi) There is no change in any of the components/configuration of the project that has been accorded ToR on 17.05.2019 & amended vide letter dated 27.09.2019.

**48.3.5.2.** The EAC noted the following:-

- (i) The proposal is for grant of Amendment in Terms of Reference to the Expansion of Waterfront Development Plan for Mundra Port by APSEZ, Mundra, Gujarat by M/s Adani Ports and Special Economic Zone Limited.
- (ii) The project/activity is covered under category 'A' of item 7 (e) i.e. 'Ports, harbours, break waters, dredging' of the schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level by sectoral EAC.
- (iii) The Terms of Reference was granted by MoEFCC vide letter F.No. 10-24/2019-IA-III dated 17.05.2019 followed by amendment in ToR dated 27.09.2019.

**48.3.5.3.** *The project proponent informed the EAC that the entire port limit is part of notified SEZ as per Ministry of commerce & industry Notification. As per Para 7.III.(i). (b) of EIA Notification 2006 and its subsequent amendment, PH is exempted for all projects or activities located within industrial estates or parks (item 7(c) of the schedule) approved by the concerned authorities.*

*There is no additional hydrodynamic impacts are envisaged, all the impacts are predicted & management plan are arrived as a part of CIA. Over all there is positive impact in mangroves (as per NCSCM study), increase mangrove cover – 246 Ha (2011-2017). Overall 4 Public Hearings are conducted in the region. All the issues raised by people during various Public Hearings have been implemented by APSEZ and as part of expansion proposal all the issues have been addressed. All the impacts are predicted & managements plan are arrived. No new impacts are envisaged. Effectively implemented Environmental Management Plan and regularly carrying out Environmental Monitoring*

*APSEZ has carried out Cumulative Impact Assessment Study (CIA) for Master plan of Port & SEZ for 2030 (including all approved & existing project – 10 km). Cumulative Impact Assessment study was carried out by NABET accredited Environmental Consultant covering baseline data collection, mathematical modelling and other technical studies to identify the potential impacts and develop macro level management plan, which will be jointly implemented in consultation with concerned authorities. APSEZ has made detailed presentation on CIA to EAC committee during 45<sup>th</sup> EAC meeting, held on 18.10.2019. APSEZ has effectively implemented Environmental Management Plan and has been regularly carrying out Environmental Monitoring for various environmental aspects. Half yearly Compliance reports are regularly submitted to the concerned authorities. Regional office of MoEF&CC has carried out inspection of the entire waterfront Development number of times and there were no non-compliance observed. Last Inspection was carried out on 04.09.2019 (No non-compliance as per RO-MoEF&CC report)*

*The EAC deliberated upon the information provided by the project proponent and exempted Public Hearing as per para 7(ii) of EIA Notification, 2006 and its subsequent amendments for preparation of EIA/EMP report.*

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#### **Agenda item No. 48.3.6.**

**Development of Port facilities at Haldia Dock-II at Mouza Shalukkhali & Rupnarayanchak, P.S. Satahata, District East Mednipore in West Bengal by M/s Kolkata Port Trust - Amendment in Environmental and CRZ Clearance**



**(IA/WB/MIS/123291/2019; F.No. 11-140/2010-IA-III)**

**48.3.6.1.** The project proponent and the accredited Consultant M/s Envirotech East Pvt Ltd gave a detailed presentation on the salient features of the project and informed that:

- (i) The project of “Development of Port Facilities at Haldia Dock-II at Mouza Shalukkhali & Rupnarayanchak, P.S. Sutahata, District East Mednipore in West Bengal by M/s Kolkata Port Trust” was granted Environmental & CRZ Clearance on 30.07.2015 with 04 numbers dry bulk cargo handling jetty. The project was not implemented due to lack of response from the bidders.
- (ii) Now the instant proposal is replacement of fourth jetty to liquid cargo jetty from the already approved dry bulk cargo jetty at a project cost of Rs. 172.52 Crores on design built, finance operate and transfer (DBFOT) basis to accommodate additional liquid cargo & to ease the congestion at the existing berths of Haldia Dock. The project involves the pre-project activities such as survey, planning and detailed designed of terminal facilities, construction of jetty with accessories, installation of topside facilities, such as, marine unloading arms, flexible hoses, jetty head pipe manifold with headers, jetty infrastructure such as fire fighting system and pollution control including the approach road to the jetty from the nearest road way. The connecting pipeline from the jetty head to tankage to terminal to the users will be respective user agencies. The jetty will be built on RCC piling system around 1200 mm.dia, Approach Trestle and RCC deck structure. This consists of service platforms of size 30 m x 20 m Breasting dolphins, mooring dolphins of size 15 m x 15 m each, 1.5 m wide walkways interconnecting berthing dolphins with mooring dolphins. The length of Approach trestle will be around 1.6 km from the shore having total width of 14 m with access road of 7 m with overhang of 5.8 m to accommodate pipelines for cargo discharge.
- (iii) The jetty will handle different cargo like Paraxylene/edible oil, chemicals, POL products (class ‘A’, ‘B’ & ‘C’) LPG & LNG. The jetty will accommodate ships of LOA 100 m to 230 m with maximum cargo load of 23,000 MT. and draft of 9 m. The cargo will be handled by flexible hose for Paraxylene and other chemical cargo and marine unloading arms for LPG, LNG, petroleum products. The deck elevation will be kept at + 8.7 m above CD. The jetty will have elaborate fire fighting facility as per OISD norm consisting of fire water system, foam system smoke detection, DCP Protection system, tower monitor etc. The power will be obtained from WBSEDCL. The electrical facilities will include Substation building, lighting, flame proof equipment and standby generator set of 500 KVA. The total handling capacity of the jetty will be around 2.43 MMTPA.

**Table 1: Basic Reasons for Seeking Amendment in Existing EC**

<b>Project Details</b>	<b>Reasons of Amendment sought for already issued EC and CRZ Clearance on 30.07.2015</b>	<b>Details of ToR Obtained</b>
<b>The Environment and CRZ Clearance was obtained on 30.07.2015 for 4 dry bulk cargo handling jetties.</b>  The project for which the EC was obtained consisted of 4 nos. dry bulk cargo jetties from Jetty No. 1 to Jetty No. 4 out of which Jetty No. 1 and 4 were multipurpose dry bulk cargo handling jetties where as Jetty No. 2 and 3 were mechanized dry bulk cargo handling jetties.	Because of market demand subsequently developed after the receipt of EC, it was henceforth decided to convert the multipurpose jetty i.e. Jetty No. 4 from dry bulk cargo handling jetty to liquid cargo handling jetty (to handle POL products chemicals, paraxylene, etc. as detailed in Table 2 under 1 <sup>st</sup> amendment of ToR dated 20.09.2016.	The 1 <sup>st</sup> ToR was obtained on 20.09.2016 based on different type of liquid bulk cargo handling facilities as detailed in the table below.
	Subsequent to the development stated above in 2018, it was decided to add LPG and LNG to this liquid cargo handling jetty after excluding the handling of chemicals as envisaged in the year 2016.	Accordingly, application was made for change in liquid bulk cargo profile as detailed in the Table 2 as per 2 <sup>nd</sup> amendment of ToR, which was obtained on 06.09.2018.
<b>The amendment in EC and CRZ Clearance sought for will consist of 3 no. dry bulk cargo jetties and 1 no. liquid bulk cargo jetty as per project profile as stated under 2<sup>nd</sup> amendment of ToR dated 06.09.2018 (Table 2).</b>		

**N.B.: Till date no construction activity has been undertaken at site.**

**Table 2: The Salient Features of the Overall Project Scenario**

ATTRIBUTES	As per EC & CRZ (30.07.2015)	As per 1 <sup>st</sup> Amended ToR (20.09.2016)	As per 2 <sup>nd</sup> Amended ToR (06.09.2018)
<b>Capacity</b>	23.4 MMTPA	20.89 MMTPA	21.48 MMTPA
<b>Cargo Profile</b>	Dry Bulk 23.4 MMTPA	<ul style="list-style-type: none"> <li>• Dry Bulk 19.05 MMTPA</li> <li>• Liquid Bulk 1.84 MMTPA</li> </ul>	<ul style="list-style-type: none"> <li>• Dry Bulk 19.05 MMTPA</li> <li>• Liquid Bulk 2.43 MMTPA</li> </ul>
<b>Type of Cargo</b>	Coking coal, thermal coal & other bulk cargo	Paraxylene, Phosphoric Acid, Benzene, PY Gas, CBFS, Butadiene, MEG, Ammonia, Acetic Acid, Butene-1, Styrene Monomer	LPG and LNG /Paraxylene Edible Oil & Chemicals / POL Products (Class-A, B & C)
<b>No. of Jetty</b>	4 (all for dry bulk cargo)	4 (3 for dry bulk cargo & 1 for liquid bulk cargo)	4 (3 for dry bulk cargo & 1 for liquid bulk cargo)
<b>Jetty location &amp; Length</b>	Same	Same	Same
<b>Project Area</b>	160 acres	160 acres	160 acres
<b>Project Cost</b>	Rs. 1707.5 Crores	Rs. 1474.0 Crores	Rs. 1474.0 Crores

**48.3.6.2.** The EAC noted the following:-

- The proposal is for grant of Amendment in Environmental and CRZ Clearance to the project Development of Port facilities at Haldia Dock-II at Mouza Shalukkhali & Rupnarayanchak, P.S. Sutahata, District East Medinipur in West Bengal by M/s Kolkata Port Trust.
- The project/activity is covered under category 'A' of item 7 (e) i.e. 'Ports, harbours, break waters, dredging' of the schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level by sectoral EAC.
- The Environmental and CRZ Clearance was granted by MoEFCC vide letter F.No. 11-140/2010-IA-III dated 30.07.2015.

**48.3.6.3.** The EAC was informed that the Environmental and CRZ Clearance was granted by MoEFCC vide letter F.No. 11-140/2010-IA-III dated 30.07.2015. Subsequently, Kolkata Port Trust decided to install one liquid cargo jetty as displacement of one multipurpose dry bulk cargo jetty to make project viable. Accordingly, online application was submitted to MoEF&CC for getting amendment in Environmental Clearance for the revised project. MoEF&CC issued ToR vide letter dated 20.09.2016 for undertaking the EIA study for the revised project. In the meantime, the liquid Cargo profile along with the cargo handling capacity was slightly revised in the context of the prevailing market condition. Accordingly, application was made for Amendment of TOR. MoEF&CC issued Amendment in ToR vide letter dated 20.09.2016 for undertaking the EIA study for the further revised project. The West Bengal State Coastal Zone Management Authority (WBSCZMA) has recommended the proposal vide letter no. 2041/EN/T-II-4/005/2014 dated 17.10.2019.

The Committee deliberated upon the proposal and information submitted by the project proponent. The Committee recommended the following Amendment in the Environmental Clearance letter F.No. 11-140/2010-IA-III dated 30.07.2015:

ATTRIBUTES	Details as per EC & CRZ Clearance dated 30.07.2015	Amendment Recommended
<b>Capacity</b>	23.4 MMTPA	21.48 MMTPA
<b>Cargo Profile</b>	Dry Bulk 23.4 MMTPA	Dry Bulk 19.05 MMTPA

		Liquid Bulk 2.43 MMTPA
<b>Type of Cargo</b>	Coking coal, thermal coal & other bulk cargo	LPG and LNG /Paraxylene, Edible Oil & Chemicals / POL Products (Class-A, B & C)
<b>No. of Jetty</b>	4 (all for dry bulk cargo)	4 (3 for dry bulk cargo & 1 for liquid bulk cargo)
<b>Project Cost</b>	Rs. 1707.5 Crores	Rs. 1474.0 Crores

*Following additional condition has been recommended:*

- (i) All the recommendations and conditions specified by the West Bengal Coastal Zone Management Authority (WBCZMA) vide letter No. 2041/EN/T-II-4/005/2014 dated 17.10.2019, shall be complied with.
- (ii) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018, and proposed by the project proponent, an amount of Rs. 15.37 Crore shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as Local Infrastructure Development (Construction and repairing of Metal Road (15 km) in villages (@Rs. 30.0 Lakhs per Km), Construction of W/C/Toilet (2) each - 20 numbers in schools & villages (@ Rs. 3.0 Lakhs per set of 2 Toilets), Street Lighting (solar) provision at suitable public places - 70 nos. (@ Rs. 1.0 Lakh per Solar Light), Development of Parks and Tree Plantation Programme in the nearby villages, Development of local Schools in nearby areas (Construction of buildings etc)) and Other Local Development Activities (Sponsoring the projects for improving Agricultural productivity for the local crops, Training to unemployed educated local youth for skill development youth through National Skill Development Corporation, Govt. of India Scheme, Primary Health Care Centres in the nearby villages, Infrastructure for development of self-help groups among local women). The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the Regional Office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

*All other Terms and conditions stipulated in the Environmental & CRZ Clearance letter F.No. 11-140/2010-IA-III dated 30.07.2015, shall remain unchanged.*

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#### **Agenda item No. 48.3.7.**

#### **Deepening of Approach Channel for Capesize vessels at Mormugao Port by M/s Mormugao Port Trust - Reconsideration for Environmental and CRZ Clearance**

**(IA/GA/MIS/94186/2016; F.No. 10-23/2014-IA.III)**

##### **48.3.7.1. The EAC noted the following:-**

- (i) The proposal is for grant of Environmental and CRZ Clearance to the project "Deepening of Approach Channel for Capesize vessels" at Mormugao Port by M/s Mormugao Port Trust.
- (ii) The project/activity is covered under category 'A' of item 7 (e) i.e. Ports, harbours, break waters, dredging' of the schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level.
- (iii) Terms of Reference (ToR) was granted by MoEFCC vide letter F.No. 10-23/2016-IA-III dated 10.10.2016.
- (iv) Public hearing was conducted on 27.04.2017, 02.05.2017, 03.05.2017 and 04.05.2017.
- (v) The project is recommended by Goa Coastal Zone Management Authority (GCZMA) vide Letter No. GCZMA/S/15-16/16/1960 dated 24.01.2019.

- (vi) The proposal was earlier considered by the EAC (Infra-2) in its 42<sup>nd</sup> Meeting of Expert Appraisal Committee (Infra-2) held during 10-12 July, 2019, wherein, the EAC asked the project proponent to submit additional information.
- (vii) Project Proponent has submitted the additional information on Ministry's website on 18.12.2019.

**48.3.7.2.** *The EAC also deliberated on the certified compliance report letter No. EP/12.1/26, 30,49,2 of 13-14 & 2 of 15-16/Goa dated 05.04.2019 issued by the MoEF&CC's Regional Office (South Zone), Bangalore. As per the compliance report most of the conditions of the Environmental Clearance are found to be complied.*

*The project proponent informed that Source apportionment study was not included in TOR issued by MOEF&CC on 16.02.2016. However, as per the directives of Goa Pollution Control Board, MPT has appointed IIT, Mumbai to carry out source apportionment study. IIT, Mumbai has submitted preliminary report in February 2019, Phase one report in September 2019 and raw data report in December 2019. IIT Mumbai has requested GSPCB for the extension of time for submission of Final Report and the same is consented by GSPCB. Regarding anoxic conditions at bottom dissolved oxygen is less than 2 mg/l, it was informed that CSIR-NIO, Goa has carried out Marine Biodiversity Study. As stated by NIO, Goa the DO values of bottom water samples showed lower values. This is believed to be due to stratification of water columns during post monsoon season. Stratification occurs in the water masses with difference in properties forming a horizontal layer that act as a barrier for mixing. The stratification may occur due to difference in water temperature or other physical properties.*

*The EAC, therefore, based on the information submitted, examination of the submitted documents, clarifications provided by the project proponent during appraisal of the project and after detailed deliberations on all the issues recommends the project for grant of environment clearance along with the following additional conditions over and above the Standard EC conditions stipulated by the Ministry for this category of project (specified at **Annexure-4** of the minutes) vide OM dated 04.01.2019, while considering the grant of Environmental and CRZ Clearance:*

- (i) Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- (ii) All the recommendations and conditions specified by the Goa State Coastal Zone Management Authority (GCZMA) who has recommended the project vide letter No. GCZMA/S/15-16/16/1960 dated 24.01.2019 shall be complied with.
- (iii) 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.
- (iv) The project proponent shall comply with the air pollution mitigation measures as submitted.
- (v) The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.
- (vi) Dredging shall not be carried out during the fish breeding season.
- (vii) Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment including turbidity and turbidly should be monitored during the dredging.
- (viii) No underwater blasting is permitted.
- (ix) Dredged material shall be disposed safely in the designated areas so that the dumped dredge material does not enter Thane creek and some part of the dredged material may also be utilized for beach nourishment. With the enhanced quantities, the impact of dumping on the coastal environment should be studied and necessary measures shall be taken on priority basis if any adverse impact is observed.

- (x) Shoreline should not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring report.
- (xi) While carrying out dredging, an independent monitoring shall be carried out by Government Agency/Institute to check the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.
- (xii) Packaged drinking water will be used in dredgers for workers during dredging phase. The toilets will be equipped with bio digesters.
- (xiii) Marine ecological studies and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, Crabs, Catfishes, Prawns, Silver bellies and Flat fishes etc prepared by CSIR-National Institute of Oceanography (NIO) as given in the EIA-EMP Report shall be complied with in letter and spirit.
- (xiv) A copy of the Marine and riparian biodiversity management plan duly validated by the State Biodiversity Board shall be obtained and implement in letter and spirit.
- (xv) A continuous monitoring programme covering all the seasons on various aspects of the coastal environs need to be undertaken by a competent organization available in the State or by entrusting to the National Institutes/renowned Universities/accredited Consultant with rich experiences in marine science aspects. The monitoring should cover various physico-chemical parameters coupled with biological indices such as microbes, plankton, benthos and fishes on a periodic basis during construction and operation phase of the project. Any deviations in the parameters shall be given adequate care with suitable measures to conserve the marine environment and its resources.
- (xvi) The recommendations of apportionment study carried out by IIT, Bombay should be implemented and a copy of the report should be submitted to MoEF&CC.
- (xvii) Continuous online monitoring of for air and water covering the total area shall be carried out and the compliance report of the same shall be submitted along with the 6 monthly compliance report to the regional office of MoEF&CC.
- (xviii) Effective and efficient pollution control measures like covered conveyors/stacks (coal, iron ore and other bulk cargo) with fogging/back filters and water sprinkling commencing from ship unloading to stacking to evacuation shall be undertaken. Coal and iron ore stack yards shall be bounded by thick two tier green belt with proper drains and wind barriers wherever necessary.
- (xix) Sediment concentration should be monitored fortnightly at source and disposal location of dredging while dredging.
- (xx) Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components as part of the management plan. Marine ecology shall be monitored regularly also in terms of all micro, macro and mega floral and faunal components of marine biodiversity.
- (xxi) Rock blasting, which adversely affects the local biota, is planned while dredging.
- (xxii) There are chances of fish mortality due to blasting. During blasting, monitoring should be carried out for the health of fish also.
- (xxiii) Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life, particularly benthos. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
- (xxiv) Necessary arrangements for the treatment of the effluents and solid wastes/ facilitation of reception facilities under MARPOL must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986. The provisions of Solid Waste

Management Rules, 2016. E- Waste Management Rules, 2016, and Plastic Waste Management Rules, 2016 shall be complied with.

- (xxv) All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- (xxvi) Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.
- (xxvii) Necessary arrangement for general safety and occupational health of people should be done in letter and spirit.
- (xxviii) All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to the RO, MoEF&CC along with half yearly compliance report.
- (xxix) The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013.
- (xxx) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018, project proponent has proposed an amount of Rs. 2.17 Crores (0.75% of the project cost) under Corporate Environment Responsibility (CER) Plan for the activities such as Resurfacing of Roads in Mormugao Municipal area, Construction of drain cross drainage works including RCC precast covers over drain wherever required in Mormugao Municipal area, Electrification of public roads using solar power panels, Plantation of saplings in Mormugao Municipal area with three (3) years maintenance through Social Forestry Division. Forest Department Government of Goa, Distribution of saplings to primary secondary school and Higher secondary children alongwith development of Nursery of plants, Woman upliftments and distribution of grant for sanitation facilities for self-help groups in Mormugao Municipal area, Heath Education and importance of hygiene among girls child at Primary, Secondary school and Higher secondary school of Mormugao Municipal area Skill Development among Higher secondary school of Mormugao municipal area and Construction of toilet block facilities for public in Mormugao Municipal area. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

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#### **Agenda item No. 48.3.8.**

#### **Redevelopment of Berths 8, 9 and Barge Berth at the Port of Mormugao, Goa by M/s Mormugao Port Trust - Reconsideration for Environmental and CRZ Clearance**

**(IA/GA/MIS/93270/2015; F.No. 10-33/2015-IA-III)**

##### **48.3.8.1. The EAC noted the following:-**

- (i) The proposal is for grant of Environmental and CRZ Clearance to the project "Redevelopment of Berths 8, 9 and Barge Berth" at the Port of Mormugao, Goa by M/s Mormugao Port Trust.
- (ii) The project/activity is covered under category 'A' of item 7 (e) i.e. Ports, harbours, break waters, dredging' of the schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level.
- (iii) Terms of Reference (ToR) was granted by MoEFCC vide letter F.No. 10-33/2015-IA.III dated 16.02.2016.
- (iv) Public hearing was conducted on 28.04.2017, 04.05.2017, and 05.05.2017.
- (v) The project is recommended by Goa Coastal Zone Management Authority (GCZMA) vide Letter No. GCZMA/S/18-19/51/1961 dated 24.01.2019.

- (vi) The proposal was earlier considered by the EAC (Infra-2) in its 42<sup>nd</sup> Meeting of Expert Appraisal Committee (Infra-2) held during 10-12 July, 2019, wherein, the EAC asked the project proponent to submit additional information. Project Proponent has submitted the additional information on Ministry's website on 18.12.2019.

**48.3.8.2.** *The EAC also deliberated on the certified compliance report letter No. EP/12.1/26, 30,49,2 of 13-14 & 2 of 15-16/Goa dated 05.04.2019 issued by the MoEF&CC's Regional Office (South Zone), Bangalore. As per the compliance report most of the conditions of the Environmental Clearance are found to be complied.*

*The project proponent informed that Source apportionment study was not included in TOR issued by MOEF&CC on 16.02.2016. However, as per the directives of Goa Pollution Control Board, MPT has appointed IIT, Mumbai to carry out source apportionment study. IIT, Mumbai has submitted preliminary report in February 2019, Phase one report in September 2019 and raw data report in December 2019. IIT Mumbai has requested GSPCB for the extension of time for submission of Final Report and the same is consented by GSPCB.*

*The EAC, therefore, based on the information submitted, examination of the submitted documents, clarifications provided by the project proponent during appraisal of the project and after detailed deliberations on all the issues recommends the project for grant of environment clearance along with the following additional conditions over and above the Standard EC conditions stipulated by the Ministry for this category of project (specified at **Annexure-4** of the minutes) vide OM dated 04.01.2019, while considering the grant of Environmental and CRZ Clearance:*

- (i) Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- (ii) All the recommendations and conditions specified by the Goa State Coastal Zone Management Authority (GCZMA) who has recommended the project vide letter No. GCZMA/S/18-19/51/1961 dated 24.01.2019 shall be complied with.
- (iii) 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.
- (iv) The project proponent shall comply with the air pollution mitigation measures as submitted.
- (v) The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.
- (vi) Dredging shall not be carried out during the fish breeding season.
- (vii) Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment including turbidity and turbidity should be monitored during the dredging.
- (viii) No underwater blasting is permitted.
- (ix) Dredged material shall be disposed safely in the designated areas so that the dumped dredge material does not enter Thane creek and some part of the dredged material may also be utilized for beach nourishment. With the enhanced quantities, the impact of dumping on the coastal environment should be studied and necessary measures shall be taken on priority basis if any adverse impact is observed.
- (x) Shoreline should not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring report.
- (xi) While carrying out dredging, an independent monitoring shall be carried out by Government Agency/Institute to check the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.

- (xii) The recommendations of apportionment study carried out by IIT, Bombay should be implemented and a copy of the report should be submitted to MoEF&CC.
- (xiii) The total fresh water requirement during construction phase has been estimated as 60 m<sup>3</sup> will be met from existing sources of Mormugao port. Fresh water requirement during operation phase has been estimated as 40 KLD. The water will be taken from Public Works Department (PWD), Goa.
- (xiv) The quantity of domestic sewage generated during operation phase is about 32 KLD and shall be treated in the existing Sewage Treatment Plants of MPT. Treated water shall be used for green belt development.
- (xv) Marine ecological studies and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, Crabs, Catfishes, Prawns, Silver bellies and Flat fishes etc. prepared by CSIR-National Institute of Oceanography (NIO) as given in the EIA-EMP Report shall be complied with in letter and spirit.
- (xvi) A copy of the Marine and riparian biodiversity management plan duly validated by the State Biodiversity Board shall be obtained and implement in letter and spirit.
- (xvii) A continuous monitoring programme covering all the seasons on various aspects of the coastal environs need to be undertaken by a competent organization available in the State or by entrusting to the National Institutes/renowned Universities/accredited Consultant with rich experiences in marine science aspects. The monitoring should cover various physico-chemical parameters coupled with biological indices such as microbes, plankton, benthos and fishes on a periodic basis during construction and operation phase of the project. Any deviations in the parameters shall be given adequate care with suitable measures to conserve the marine environment and its resources.
- (xviii) Continuous online monitoring of for air and water covering the total area shall be carried out and the compliance report of the same shall be submitted along with the 6 monthly compliance report to the regional office of MoEF&CC.
- (xix) Effective and efficient pollution control measures like covered conveyors/stacks (coal, iron ore and other bulk cargo) with fogging/back filters and water sprinkling commencing from ship unloading to stacking to evacuation shall be undertaken. Coal and iron ore stack yards shall be bounded by thick two tier green belt with proper drains and wind barriers wherever necessary.
- (xx) Sediment concentration should be monitored fortnightly at source and disposal location of dredging while dredging.
- (xxi) Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components as part of the management plan. Marine ecology shall be monitored regularly also in terms of all micro, macro and mega floral and faunal components of marine biodiversity.
- (xxii) Rock blasting, which adversely affects the local biota, is planned while dredging.
- (xxiii) There are chances of fish mortality due to blasting. During blasting, monitoring should be carried out for the health of fish also.
- (xxiv) Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life, particularly benthos. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
- (xxv) Necessary arrangements for the treatment of the effluents and solid wastes/ facilitation of reception facilities under MARPOL must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986. The provisions of Solid Waste Management Rules, 2016. E- Waste Management Rules, 2016, and Plastic Waste Management Rules, 2016 shall be complied with.



- (xxvi) All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- (xxvii) Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.
- (xxviii) Necessary arrangement for general safety and occupational health of people should be done in letter and spirit.
- (xxix) All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to the RO, MoEF&CC along with half yearly compliance report.
- (xxx) The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013.
- (xxxi) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018, project proponent has proposed an amount of Rs. 2.87 Crores (0.25% of the project cost) under Corporate Environment Responsibility (CER) Plan for the activities such as Paved shoulder for Roads in Mormugao Municipal area to reduce dust emission, Construction of drain cross drainage works including RCC precast covers over drain wherever required in Mormugao Municipal area, Electrification of public roads using solar power panels, Plantation of saplings in Mormugao Municipal area with three (3) years maintenance through Social Forestry Division. Forest Department Government of Goa, Distribution of saplings to primary secondary school and Higher secondary children along with development of Nursery of plants, Woman upliftments and distribution of grant for sanitation facilities for self-help groups in Mormugao Municipal area, Heath Education and importance of hygiene among girls child at Primary, Secondary school and Higher secondary school of Mormugao Municipal area, Skill Development among Higher secondary school of Mormugao municipal area and Construction of toilet block facilities for public in Mormugao Municipal area. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

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#### **Agenda item No. 48.3.9.**

#### **Proposed Recreational Park 'Bharat Vandana Park' at Sector-20 Dwarka, South West Delhi Developed By M/s Delhi Development Authority - Terms of Reference**

**(IA/DL/MIS/134502/2020; F.No. 21-5/2020-IA-III)**

**48.3.9.1.** The project proponent and the accredited Consultant M/s Amaltas Enviro Industrial Consultants LLP (AEC) gave a detailed presentation on the salient features of the project and informed that:

- (i) The project is new and located at Sector-20, Dwarka, South West Delhi. Site co-ordinates of the project site is 28°34'35.84"N Latitude and 77°3'27.87"E Longitude.
- (ii) The total plot area of the proposed Recreational Park "Bharat Vandana Park" is 8,09,371.28 sqm. FSI area is sqm and total construction (Built-up) area of 16,282 sqm. Recreational Park is planned and proposed to be constructed in lines with green building principles and LEED-IGBC (Indian Green Building Council) platinum rating standards. The park shall serve as a landmark to the city and one of its kinds in Delhi and NCR. The park visions to integrate various experiences and activities that would engage people of all ages and cultures.
- (iii) During construction phase, total water requirement is expected to be 450 ML. which will be met by treated water from DJB during the construction phase, soak pits and septic tanks will be

provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.

- (iv) During operational phase, total water demand of the project is expected to be approx. 2,641 KLD and the same will be met by Delhi Jal Board and recycled water. Daily fresh water will be 350 KLD however Recycled water will be 747 KLD. The domestic sewage will be treated through sewage treatment plant of capacity 200 KLD each (5 Nos.), the treated domestic wastewater shall be recycle and re use within premises. The treated sewage will be re used for flushing (550 KLD) greenbelt development (795 KLD), surplus treated water requirement shall be met by CSTP located in sector- 16 Dwarka.
- (v) About 8.019 TPD solid wastes will be generated in the project. The biodegradable waste (4.81 TPD) will be processed in OWC and the non-biodegradable waste generated (2.405 TPD) will be handed over to authorized local vendor.
- (vi) Total power requirement during operation phase is 2.55 MVA and will be met from BSES. Transformer selected total max. Demand loads 2298.27 Kw & Proposed PSS - 4Nos. 800 kVA. In case of power failure, Total max. Demand loads 1166.27 KW DG Selection- 4 Nos. DG sets of - 380 kVA capacities will be provided as power back-up for building.
- (vii) Roof top rainwater of buildings will be collected in 4 Rainwater harvesting storage pits after filtration.
- (viii) Parking facility of 1,634 Nos for 4 wheelers, 250 Nos for 2 wheeler and 20 Nos for bus are proposed to be provided
- (ix) Proposed energy saving measures would save about 8-10% of power.
- (x) It is not located within 10 km of Eco Sensitive areas. Asola Bhatti Wildlife Sanctuary is 22.21 km and Okhla Bird Sanctuary is 25.57 km from the project site. Hence, no NBWL Clearance is required.
- (xi) Forest Clearance is not required:
- (xii) No court case pending against the project.
- (xiii) Investment/Cost of the project is Rs. 530 Crores.
- (xiv) Employment potential: During Construction phase approx. 600 persons shall get employment.
- (xv) Benefits of the project: Wastewater treatment, green belt, energy conservation, parking management, rainwater harvesting, Medical Facility Social.

**48.3.9.2.** The EAC noted the following:-

- (i) The proposal is for grant of Terms of Reference to the project Proposed Recreational Park 'Bharat Vandana Park" at Sector-20 Dwarka, South West Delhi Developed by M/s Delhi Development Authority in a total plot area of 8,09,371.28 sqm and built-up area of 16,282 sqm.
- (ii) The project/activity is covered under category 'B' of item 8 (b) i.e. Township and Area Development projects' of the schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level by SEIAA/SEAC, Delhi. However, due to absence of SEIAA/SEAC in Delhi, the proposal has been appraised at Central level by sectoral EAC

**48.3.9.3.** *The project proponent informed the EAC that the Delhi Development Authority envisaged planning, design & construction of BHARAT VANDANA PARK in sector 20, Dwarka South West District of Delhi. The park shall serve as a landmark to the city and one of its kind in Delhi and NCR. The park visions to integrate various experiences and activities that would engage people of all ages and cultures. Recreational Park is planned and proposed to be constructed in lines with green building principles and LEED-IGBC (Indian Green Building Council) platinum rating standards. The project will offer eco-friendly design, energy efficient systems, state of the art technology & compliance to all statutory regulations.*

*The Committee deliberated upon the proposal and after detailed deliberations, the Committee recommended the project for grant of Terms of Reference as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity and the following ToR in addition to Standard ToR for preparation of EIA-EMP report:*

- (i) A certificate from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
- (ii) An assessment of the cumulative impact of all development and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA. The Plan to be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (iii) The permission of the CGWA for abstraction of ground water, if any, and for basement/excavation dewatering.
- (iv) A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project.
- (v) A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point.
- (vi) A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- (vii) Submit detailed plan for tree plantation along with proposed cutting/translocation of trees.
- (viii) Plan for Corporate Environment Responsibility (CER) as specified under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 01.05.2018 shall be prepared and submitted along with EIA Report.

*It was recommended that 'ToR' prescribed by the Expert Appraisal Committee (Infrastructure-2) should be considered for preparation of EIA/ EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.*

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#### **Agenda item No. 48.3.10.**

**Construction of Affordable Housing Project at 48 Nos. of Plot, Khata No. 55, Ward No. 17, Birsanagar, Jamshedpur under Pradhan Mantri Awas Yojana by M/s Jharkhand Urban Infrastructure Development Company Limited - Terms of Reference**

**(IA/JH/MIS/136341/2020; F.No. 21-6/2020-IA-III)**

**48.3.10.1.** The project proponent and the accredited Consultant M/s Visiontek Consultancy Services Pvt. Ltd. gave a detailed presentation on the salient features of the project and informed that:

- (i) The project is located at 22°47'24.54"N Latitude and 86°15'57.12"E Longitude.
- (ii) The project is new. The total plot area is 1,96,893.46 sqm, FSI area is 3,89,070.57 sqm and total construction (Built-up) area of 4,28,521.99 sqm. The project will comprise of 30 Nos. of Buildings. Total 8948 flats (26 Nos. of Type - I Buildings (G+8) & 4 Nos. of Type - II Buildings (G+ 8)) shall be developed. Maximum height of the building is 26.70 m.
- (iii) During construction phase, total water requirement is expected to be 100 KLD which will be met by private water tanker. During the construction phase, soak pits and septic tanks will be

provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.

- (iv) During operational phase, total water requirement of the project is expected to be 6040 KLD and the same will be met by 4027 KLD fresh water from Municipal supply and 2013 KLD recycled water. Wastewater generated (5637 KLD) will be treated in 2 STPs of total 6200 KLD capacity. 2478 KLD of treated wastewater will be recycled and re-used (2013 KLD for flushing, 298 KLD for gardening, 167 KLD for general wash etc.). About 2877 KLD during dry season and 3175 KLD during wet season will be disposed in to municipal drain.
- (v) About 22370 kg/day or 22.37 Ton/day solid wastes will be generated in the project. The biodegradable waste (13422 kg/day) will be disposed through Govt. approved agency and the non-biodegradable waste generated (8948 kg/day) will be handed over to authorized local vendor.
- (vi) The total power requirement during construction phase is 500 kVA and will be met from State Electricity Board / DG Set and total power requirement during operation phase is 10,000 kVA and will be met from State Electricity Board.
- (vii) Parking facility for 664 Nos. of four wheelers and 2,788 Nos. of two wheelers is proposed to be provided (according to local norms).
- (viii) The Maximum Demand Load of the whole complex will be 8,000 KW / 10,000 kVA. About 20% of total hot water requirement will be fulfilled by Solar Water Heater. Total Hot Water Requirement will be 894 KLD. About 5% of Maximum Demand Load i.e 500 kVA will be provided by renewable source.
- (ix) It is located within 10 km of Eco Sensitive Zone. Dalma Wildlife Sanctuary is about 9.0 km from the boundary of the project site towards North West. Hence, NBWL Clearance is required for the project
- (x) Forest Clearance is not required.
- (xi) No Court case is pending against the project.
- (xii) Investment / Cost of the project is Rs. 610 Crore.
- (xiii) Employment potential: During the construction phase about 100 persons will be deployed on the site from nearby places. During operational phase also about 100 persons will be deployed from nearby places.
- (xiv) Benefits of the project: This project will increase the economic activities around the area, creating avenues for direct / indirect employment in the post project period. Business like small food vendors, shopping complexes, clubs etc. will be enhanced around the project. Total Population will be about 44,740. It will have a significant impact on the demography of the area. Once the project will become functional, it is expected that existing infrastructure (educational, medical, communication, roads etc) would be eventually enhanced with further development in the surroundings.

**48.3.10.2.** The EAC noted the following:-

- (i) The proposal is for grant of Terms of Reference to the project Construction of 'Affordable Housing Project' at 48 Nos. of Plot, Khata No. 55, Ward No. 17, Birsanagar, Jamshedpur under Pradhan Mantri Awas Yojana by M/s Jharkhand Urban Infrastructure Development Company Limited for plot area 1,96,893.46 sqm and built-up area of 4,28,521.99 sqm.
- (ii) The project/activity is covered under category 'B' of item 8 (b) i.e. Township and Area Development projects' of the schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level by SEIAA/SEAC, Jharkhand. However, due to absence of SEIAA/SEAC in Jharkhand, the proposal has been appraised at Central level by sectoral EAC

**48.3.10.3.** *The EAC noted that Dalma Wildlife Sanctuary is 9 km NW from the project site. However, in the Form-1 submitted by the project proponent it is mentioned that the proposal does not involve approval/clearance under the wildlife (Protection) Act, 1972. The EAC asked the project proponent to submit Revised Form-1 along with the EIA /EMP Report and also obtained necessary permission from NBWL. The Committee also asked the project proponent to review their proposal and reduce the number of flats and increase the green/open area and parking space.*

*The Committee deliberated upon the proposal and after detailed deliberations, the Committee recommended the project for grant of Terms of Reference as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity and the following ToR in addition to Standard ToR for preparation of EIA-EMP report:*

- (i) Submit Revised Form-1.
- (ii) Submit status of clearance from National Board for Wild Life (NBWL).
- (iii) The Air Quality Index shall be calculated for base level air quality.
- (iv) A detailed report on compliance to ECBC norms.
- (v) A certificate from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
- (vi) An assessment of the cumulative impact of all development and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA. The Plan to be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (vii) The permission of the CGWA for abstraction of ground water, if any, and for basement/excavation dewatering.
- (viii) A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project.
- (ix) A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point.
- (x) A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- (xi) Submit detailed plan for tree plantation along with proposed cutting/translocation of trees.
- (xii) Plan for Corporate Environment Responsibility (CER) as specified under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 01.05.2018 shall be prepared and submitted along with EIA Report.

*It was recommended that 'ToR' prescribed by the Expert Appraisal Committee (Infrastructure-2) should be considered for preparation of EIA/ EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.*

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**Day-2: Wednesday, 29<sup>th</sup> January, 2020**

**Agenda item No. 48.4.1.**

**Greenfield Common Hazardous Waste Treatment, Storage and Disposal Facility (CHWIF) cum Incineration facility at Plot No. 48, Village Rampara, Tehsil Chotila, District Surendranagar, Gujarat by M/s Varni Enviro Care Private Limited - Reconsideration for Terms of Reference (IA/GJ/MIS/95505/2019; F.No. 10-15/2019-IA-III)**

**48.4.1.1. The EAC noted the following:-**

- (i) The proposal is for grant of Terms of Reference to the project 'Greenfield Common Hazardous Waste Treatment, Storage and Disposal Facility (CHWIF) cum Incineration facility at Plot No. 48, Village Rampara, Tehsil Chotila, District Surendranagar, Gujarat by M/s Varni Enviro Care Private Limited.
- (ii) The project/activity is covered under category A of item 7(d) 'Common hazardous waste treatment, storage and disposal facilities (TSDFs)' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level by sectoral EAC.
- (iii) The proposal was earlier considered by the EAC (Infra-2) in its 39<sup>th</sup> Meeting of Expert Appraisal Committee (Infra-2) held during 26-28 March, 2019. The Committee noted that site-1 at village Rampara, which is proposed for the project is in the vicinity of the Rampara Reserve Forest (0.3 km). Committee also noted that nearest habitation is 0.3 km away from the site which is not in accordance with the CPCB Criteria. The Committee asked the project proponent to re-examine the proposal for its site suitability. The Committee asked the project proponent to submit additional details. The Project Proponent has submitted the additional information on Ministry's website on 18.12.2019.

**48.4.1.2.** *The project proponent informed the EAC that based on the site alternative criteria, Site 2 (Site near Surai Village) is preferred for the development of TSDF cum Incineration Facility. The EAC noted that now the project proponent has selected site 2 for the proposed TSDF and accordingly revised Form-1 has been submitted. However, revised pre-feasibility report for site-2 has not been prepared and submitted. The EAC deliberated upon the information provided by the project proponent and noted that with the change in site, whole proposal including the name of the project will changed.*

**Accordingly, the EAC asked the project proponent to withdraw the instant proposal and apply afresh for the proposed site-2.**

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**Agenda item No. 48.4.2.**

**Integrated Common Hazardous Waste Treatment Storage and Disposal Facility of Karnataka Waste Management Project, Dobaspet Industrial Area, Pemmanahalli and Village Thimmanayakanahalli, Taluka Nelamangala, District Bangalore Rural, Karnataka by M/s. Ramky Enviro Engineers Limited - Terms of Reference**

**(IA/KA/MIS/135629/2020; F.No. 10-7/2020-IA-III)**

**48.4.2.1.** The project proponent and the accredited Consultant M/s Ramky Enviro Services Private Ltd. gave a detailed presentation on the salient features of the project and informed that:

- (i) Karnataka Waste Management Project (KWMP), a division of M/s. Ramky Enviro Engineers Limited (REEL), proposes to obtain environmental clearance for the existing Integrated Common Hazardous Waste Treatment, Storage and Disposal Facility (ICHWTSDF) spread in an area of 93.18 acres at plot no. 7,8,9,75,76,77,78,79,80,81,82,83,84 and 85 of Dobaspet Industrial area (notified industrial area), Pemmanahalli and Thimmanayakanahalli Villages, Nelamangala Taluk, Bangalore Rural District, Karnataka with the facilities listed in the table below:

S.No	Name of the Facility	Existing Capacity
1	Secured Landfill (Direct Landfill (DLF) and Landfill after Treatment (LAT))	40,000 TPA
2	Hazardous waste Incineration	5.5 Million kcal/hr (1000 - 1500 kg/hr)

- (ii) The existing Integrated Common Hazardous Waste Treatment Storage and Disposal Facility (ICHWTSDF) is located in the notified Industrial Area of KIADB and land was provided by Government of Karnataka to M/s Ramky Enviro Engineers Limited for development of Treatment, Storage and Disposal Facility (TSDF). The total area of the facility is 93.18 acres and an area of 31.8 acres (33%) has been allocated for greenbelt.
- (iii) A minimum area of 10 m wide all along the boundary has been left for greenbelt. Also, one row of plants (both sides) has been planted along the internal roads within the project site to minimize the environmental impacts of the site on its surroundings. The existing greenbelt shall be further enhanced by increasing the plantation density as much as possible.
- (iv) The total water requirement is 115 KLD which will be sourced from tankers/rainwater harvesting.
- (v) The total power required for operations is 550 kVA which is sourced from Bangalore Electricity Supply Company Limited (BESCOM), DG set with 563 KVA capacity is used for power backup for emergency requirement.
- (vi) Wastewater/leachate generated shall be used in the spray drier connected to the incinerator or sent to solar evaporation pond or for usage in stabilization. Domestic wastewater shall be disposed of through the existing septic tank/soak pit. Incineration ash, sludge etc. generated in the facility shall be disposed of in the landfill, after treatment if necessary.
- (vii) The total cost of the project is Rs. 52 Crores.

**48.4.2.2.** The EAC noted the following:-

- (i) The proposal is for grant of Terms of Reference to the project 'Integrated Common Hazardous Waste Treatment Storage and Disposal Facility of Karnataka Waste Management Project, Dobaspet Industrial Area, Pemmanahalli and Village Thimmanayakanahalli, Taluka Nelamangala, District Bangalore Rural, Karnataka by M/s. Ramky Enviro Engineers Limited.
- (ii) The project/activity is covered under category A of item 7(d) 'Common hazardous waste treatment, storage and disposal facilities (TSDFs)' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level by sectoral EAC.

**48.4.2.3.** The project proponent has explained the chronology of the event before the EAC and informed that:

- The Government of Karnataka and Karnataka State Pollution Control Board (KSPCB) have identified TSDF site. The Government of Karnataka made an agreement with German Technical Cooperation (GTZ) for evolving an effective Hazardous Waste Management (HAWA) strategy in the State of Karnataka. Initially two sites i.e., one in Siddalagahatta Taluk in Kolar District and the other in Dobaspet, Bangalore Rural District were shortlisted by the KSPCB for setting up TSDF. Finally, Dobaspet site was found more suitable and identified for setting up TSDF to cater the need for the entire state. The KIADB acquired land for TSDF site.
- The Dobaspet site was notified for the TSDF purpose by the Government of Karnataka on 21.02.2003. Preliminary investigations and Environmental Impact Assessment (EIA) was completed in January 2004 under the GTZ-HAWA Project. The Technical Advisory Committee of KSPCB in their 272<sup>nd</sup> meeting held on 15.11.2003 recommended for establishment of TSDF at Dobaspet and authorized KSPCB to put up the project for Public Hearing as per the prevalent EIA Notification, 1994.
- Intensive Public Awareness Campaign about the project was conducted in the surroundings (5 km radius) of Dobaspet site from June, 2003 to January 2004, to appraise the entire stakeholders. The Deputy Commissioner, Bangalore Rural District has conducted Public Hearing on 20.02.2004, as per the provisions contained in the EIA Notification of 1994.

- The report of the public hearing panel was received by KSPCB vide letter no. CAL CR 369/2003-04 dated 18.03.2004. Accordingly, the KSPCB vide letter no. KSPCB/HWMC/AEO-1/EO/2003-04/686 dated 31.03.2004 forwarded the project report including EIA report and details of the public hearing along with its recommendation to the State Government.
- The state government accorded approval, as required under Rule 8 of Hazardous Waste (Management & Handling) Rules, vide a Government Order No. FEE 293 ECO 2002 Bangalore dated 21.04.2004, within the stipulated time. The conceptual design drawings and collection systems relating to TSDF including the final DPR was prepared in June 2004 by GTZ. State Cabinet Clearance has been obtained for the project in the month of June 2005.
- Government of Karnataka has issued final notification for acquisition of 93.18 acres of land. Accordingly, KIADB have acquired land by paying compensation to the land losers as per procedure.
- The KIADB has been designated as Contracting Authority and made responsible for construction of TSDF and they have awarded the work to M/s. Ramky Infrastructure Limited on 01.12.2006 after following detailed procedures. The Land Lease Agreement and Contract Agreement have been signed by Government of Karnataka and KIADB respectively with M/s. Ramky Infrastructure Limited and Ramky Enviro Engineers Ltd. (Consortium) on 1st December 2006.
- Consent for Establishment (CFE) was issued to Ramky in July 2007 by Karnataka State Pollution Control Board for handling of landfillable hazardous waste up to 40,000 TPA. The total area of the facility is 93.18 acres (37.83 hectares), out of which 26 acres is earmarked for Secured Landfill (SLF).
- Consent for Operation (CFO): The facility obtained Consent for Operation in June 2008 and the facility started receiving wastes from July 2008 onwards from member industries, which is disposed of in Secured Landfill (either directly or after stabilization, as required).
- MoEF&CC accorded Environmental Clearance on 19.09.2014 (vide file number 10-65/2012-IA.III) for setting up of 5.5 Million Kcal/hr (1000 – 1500 kg/hr) Incinerator at the existing TSDF, Dobaspet, Bangalore, Karnataka under item 7(d) of the EIA Notification, 2006 (i.e. all integrated facilities having incineration and landfill) so that the existing TSDF will become an Integrated Common Hazardous Waste Management Facility (ICHWMF).

*The EAC noticed that Environmental Clearance for setting up of incinerator at TSDF, Dobaspet, Bangalore, Karnataka by M/s Ramky Enviro Engineers Ltd has been granted by MoEF&CC vide letter F.No 10-65/2012-IA.III dated 19.09.2014. As per EC letter dated 19.09.2014, “the proposal involves setting up of incinerator facility of capacity 5.5 Million Kcal/Hr(1000 - 1500 kg/hr) within the existing Hazardous Waste Treatment and Disposal Facility of Karnataka Waste Management Project (KWMP) at Sy.No.7, 8, 9, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84 and 85 at Dobaspet, Bangalore Rural District, Karnataka State to dispose the Incinerable waste of the industries in a scientific manner, so that the existing TSDF will become an Integrated Common Hazardous Waste Management Facility (ICHWMF)”.*

NGT order dated 26.09.2019 disposed off the application vide OA No-654/2019 (WP Nos 51509/2016 & 52176 -52179 / 2016) stating that: “... while we do not interfere with the functioning of the TSDF, we direct that the TSDF must comply with the law and the requisite EC may be obtained. The project proponent may apply for EC within two months. The Appellate Authority may deal with the appeal said to be pending for about three years expeditiously in accordance with law.”

*It was deliberated that some key issues relating with the TSDF facility is under discussion between the Karnataka Industrial Area Development Board (KIADB) and Karnataka State Government. Further, the EAC was of the view that earlier, while granting the Environmental Clearance, the Ministry had endorsed the existence of the landfill site along with the proposal of incinerator. In the instant case, the project proponent has not proposed any expansion of the existing facility. Accordingly, the EAC opined that the project proponent may approach the Hon'ble National Green Tribunal for seeking*



clarification on further requirement of Environmental Clearance in view of the EC granted to the project proponent vide letter dated 19.09.2014. In view, the Committee opined that the Ministry may also seek opinion of the State Government in the matter.

**In view of the foregoing observations, the EAC recommended to defer the proposal. The proposal shall be reconsidered after the above details are addressed and submitted.**

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#### Agenda item No. 48.4.3.

#### **Integrated Common Hazardous Waste Treatment, Storage, Disposal & Recycling Facility at Industrial Growth Center (IGC), Maneri Village, Mandla District, Madhya Pradesh by M/s Ramky Enviro Engineers Limited - Environmental Clearance**

**(IA/MP/MIS/117811/2019; F.No. 10-40/2019-IA-III)**

**48.4.3.1.** The project proponent and the accredited Consultant M/s Ramky Enviro Services Private Ltd. gave a detailed presentation on the salient features of the project and informed that:

- (i) Ramky Enviro Engineers Limited (REEL) proposes to establish an Integrated Common Hazardous Waste Treatment, Storage, Disposal & Recycling Facility in an area of 19.77 acres (8 Ha.) at plot no. 11, 12, 13, 14, 18, 19, 20, 21, 27, 28, 29, 31, 32, 33, 34, 35, 36, 43 and 44, at Industrial Growth Centre (IGC), Maneri (V), Mandla (D), Madhya Pradesh. It shall be noted that MP Industrial Development Corporation Limited (Formerly MP AKVN), while allotting the land, has clubbed all the above plot numbers to a single plot and named it as Plot No. 2, without any change in the land area.
- (ii) Facilities proposed to be developed as part of this project include:

S. No.	Facility	Capacity
1	Secured Landfill (Direct Landfill)	250 TPD
2	Landfill after Treatment	400 TPD
3	Incineration*	55 TPD
4	Bio Medical Waste Treatment	12.5 TPD
5	Alternative Fuel and Raw Material Facility (AFRF)	55 TPD
6	E-Waste Recycling Facility (with Precious Metal Recovery)	82 TPD
7	Drum Decontamination Recycling Plant	10 TPD
8	Used / Spent Oil Recycling Facility	54 KLD
9	Lead Recycling Facility	65 TPD
10	Paper Recycling Facility	10 TPD
11	Plastics Recycling Facility	10 TPD
12	Solvent Recovery Facility	27 KLD
13	Aluminium Dross Reprocessing Facility	165 TPD
14	Spent Pot Liner (Carbon Portion) Reprocessing Facility	165 TPD
15	Spent Pot Liner (Refractory Portion) Reprocessing and Disposal Facility	165 TPD
16	Renewable Energy	2 MW
17	Waste to Energy	2 MW
* Common incinerator for Hazardous Waste and Bio Medical Waste		

- (iii) The total water requirement is estimated to be about 120 KLD. Water requirement shall be met through MP Industrial Development Corporation Limited (formerly known as AKVN)/Tankers/Bore well. It is proposed to treat all the wastewater and leachate within the project premises and it is proposed to reuse the treated water (Zero Liquid Discharge). The power requirement is estimated to be about 375 kVA.
- (iv) Power will be supplied by Madhya Pradesh State Electricity Board (MPSEB) and sufficient quantity of DG sets will be used for emergency power backup.

- (v) Secured Landfill shall be established in-line with the CPCB's 'Criteria for Hazardous Waste Landfills (HAZWAMS/17/2000-01)'. All possible measures shall be adopted at the proposed facility to avoid groundwater contamination. Groundwater monitoring wells (piezometric wells) shall be installed around the landfill site.
- (vi) Incinerator shall be equipped with air pollution control devices such as spray drier, wet alkaline scrubber etc. with a minimum stack height of 30 m to meet the emission standards. It is proposed to equip the incinerator facility with Continuous Emission Monitoring System (CEMS) and the emission data shall be transmitted to SPCB/CPCB.
- (vii) Leachate is expected to be generated from the secured landfill and stabilization operations. Special care shall be taken during monsoon to avoid excess leachate generation. Leachate generated shall be utilized for spraying back on the landfill and the excess leachate, after appropriate treatment, shall be disposed of in the spray drier attached to the incinerator. Greenbelt shall be developed in an area of not less than 33% of the total area. Greenbelt shall be developed with specific species as per CPCB's 'Guidelines for Developing Greenbelts (PROBES/75/1999-2000)'.
- (viii) ToR for the project was granted by MoEFCC vide letter F.No 10-40/2019-IA-III dated 05.12.2019.
- (ix) Public Hearing was exempted as per para 7(i) III stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP report, as the site is located in Notified Industrial Area.
- (x) Investment/Cost of the project: Rs. 40 Crores.
- (xi) Employment potential: During Construction and Operation phase Managerial staff -15, Skilled and semi-skilled manpower - 75 and indirect employment during operation will be around 100 persons.
- (xii) Benefits of the project: Facilitating better management of hazardous wastes, provides a one stop solution for the management of various types of wastes, Minimizes pollution load on environment with an additional benefit of green and clean surroundings, Possibility for recovery of materials thereby conserving the natural resources, Management of wastes is relatively easier and economically viable at a common facility, Most viable option in the absence or availability of expertise, Reduced environmental liability due to captive storage of hazardous waste in the premises of industries, Better occupational health and safety at individual industry level and Prevention of natural resource contamination.

**48.4.3.2. The EAC noted the following:-**

- (i) The proposal is for grant of Environmental Clearance to the project 'Integrated Common Hazardous Waste Treatment, Storage, Disposal & Recycling Facility at Industrial Growth Center (IGC), Maneri Village, Mandla District, Madhya Pradesh by M/s Ramky Enviro Engineers Limited.
- (ii) The project/activity is covered under category A of item 7(d) 'Common hazardous waste treatment, storage and disposal facilities (TSDFs)' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level by sectoral EAC.
- (iii) ToR for the project was granted by MoEFCC vide letter F.No 10-40/2019-IA-III dated 05.12.2019.
- (iv) Public Hearing was exempted as per para 7(i) III stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP report, as the site is located in Notified Industrial Area.

**48.4.3.3. The EAC deliberated upon the EIA Report submitted by the project proponent and observed a number of deficiencies as follows:**

- a. The EIA does not give details of industries, their nature and type of hazardous waste generated that will go into proposed TSDF.

- b. There is mix up of units in the EIA report. Both British system (acres) and metric system (square meters) are used in the report. Single system need to be used.
- c. Fresh water requirement for various activities like gardening, incineration, biomedical waste treatment etc, need to be justified. Explore the possibility of use of treated wastewater for such activity.
- d. There is no data of quantity of different type of waste that would go into incinerator. There is no mention of the capacity of incinerator in the project description.
- e. The project description indicates generation of 2 MW of power each from renewable and Waste to Energy. Lay out plan does not reflect the location of the facility. There is no clarity on how the industry is going to achieve this. The EIA report is silent on Waste to Energy system to be adopted and power generation from Renewable sources.
- f. In baseline data collection, report mentions that data is generated during October to December but is silent on all other aspects like frequency of collection. There is no clarity-if data (including micro-meteorology) is collected twice a week or for the entire duration of the period of study.
- g. No quality assurance of Ecological data. For example-Dalbergia latifolia is said to be present in the buffer zone but common name is indicated as Sitala (spelling error) *D. sisoo* is different from *D. latifolia*. Among fauna, Green Parakeet (*Psittacara holochlorus*) is mentioned. The species of parakeet mentioned is native of Central America and not found in India.
- h. Impacts and mitigation does not mention incremental increase (for each parameter like air, water, noise, vibration etc,) due to project and project related activities. Quantification is the need in an EIA and mitigation recommended should correspond to the impacts. Treatment descriptions are schematic flow sheets and do not mention the capacities or mass balance. While mentioning odour control it only mentions, as care shall be taken to avoid smell nuisance. What kind of care is to be mentioned.
- i. Additional studies (chapter 7) cover Risk and disaster. It is a stand-alone chapter and findings of this chapter are not integrated on chapter 4-impact and mitigation.

The EAC asked the project proponent to review the EIA and resubmit Revised EIA addressing all deficiencies mentioned in above paras.

***In view of the foregoing observations, the EAC recommended to defer the proposal. The proposal shall be reconsidered after the above details are addressed and submitted.***

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#### **Agenda item No. 48.4.4.**

**Expansion of existing Common Hazardous Waste Treatment, Storage and Disposal Facilities (CHWTSDf) to Integrated Common Hazardous Waste Treatment, Storage and Disposal Facilities (ICHWTSDf) located at Plot No. 672, Kumbhi village, Akbarpur Tehsil, Kanpur Dehat, Uttar Pradesh by M/s Ramky Enviro Engineers Ltd - Reconsideration for Environmental Clearance**

**(IA/UP/MIS/67005/2017; F.No. 10-49/2017-IA.III)**

##### **48.4.4.1. The EAC noted the following:-**

- (i) The proposal is for grant of Environmental Clearance to the project 'Expansion of existing Common Hazardous Waste Treatment, Storage and Disposal Facilities (CHWTSDf) to Integrated Common Hazardous Waste Treatment, Storage and Disposal Facilities (ICHWTSDf)

located at plot no. 672, Kumbhi village, Akbarpur Tehsil, Kanpur Dehat, Uttar Pradesh by M/s Ramky Enviro Engineers Ltd.

- (ii) The project/activity is covered under category A of item 7(d) 'Common hazardous waste treatment, storage and disposal facilities (TSDFs)' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level by sectoral EAC.
- (iii) ToR for the project was granted by MoEFCC vide letter F.No. 10-49/2017-IA-III dated 08.09.2017.
- (iv) Public Hearing was conducted on 07.02.2018.
- (v) The proposal was earlier considered by the EAC (Infra-2) in its 30<sup>th</sup> Meeting of Expert Appraisal Committee (Infra-2) held during 29-30 April, 2017, 32<sup>nd</sup> meeting held on 2-4 July, 2018, 34<sup>th</sup> meeting held during 24-26 September, 2018 and 47<sup>th</sup> meeting held during 26-27 December, 2019. The Committee asked the project proponent to submit Plan for Corporate Environment Responsibility (CER) as specified under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 01.05.2018.
- (vi) Project Proponent has submitted the additional information on Ministry's website on 23.05.2018, 02.08.2018, 02.12.2019 and 09.01.2020.

**48.4.4.2.** *The project proponent submitted the Corporate Environment Responsibility (CER) as per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018. The project proponent has proposed that an amount of Rs. 0.85 Crores (@ 1% of project Cost) shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as health checkups, provision of drinking water supply, farmer trainings, improving sanitation facilities and solid waste management practices, plantation drives, renovation of roads, cross drains, skill development training, installation of solar lights, rain water harvesting and soil conservation measures etc.*

*The EAC, based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held on all the issues, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other Standard EC Conditions as specified by the Ministry vide OM dated 04.01.2019 for the said project/activity (specified at **Annexure-2** of the minutes) while considering for accord of environmental clearance:*

- (i) 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.
- (ii) The Project proponent should ensure that the TSDF fulfils all the provisions of Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016.
- (iii) Fresh water of 106 KLD will be met from ground water/Tanker water supply. No ground water abstraction shall be done without prior permission from CGWA.
- (iv) It shall be ensured that all the trees and other plantation are of the non edible varieties and do not in any way encourage the incorporation of toxic materials in the food chain.
- (v) The TSDF should only handle the waste generated from the member units.
- (vi) Analysis of Dioxins and Furans shall be done through CSIR – National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram or equivalent NABL Accredited laboratory.
- (vii) The project proponents shall adhere to all conditions as prescribed in the Protocol for 'Performance Evaluation and Monitoring of the Common Hazardous Waste Treatment, Storage and Disposal Facilities' published by the CPCB in May, 2010.
- (viii) Incinerator shall be designed as per CPCB guidelines. Energy shall be recovered from incinerator.

- (ix) Sufficient number of Piezometer wells shall be installed in and around the project site to monitor the ground water quality in consultation with the State Pollution Control Board / CPCB. Trend analysis of ground water quality shall be carried out each season and information shall be submitted to the SPCB and the Regional Office of MoEF&CC.
- (x) Ambient air quality monitoring shall be carried out in and around the landfill site at up wind and downwind locations.
- (xi) Environmental Monitoring Programme shall be implemented as per EIA report and guidelines prescribed by CPCB for hazardous waste facilities. Periodical ground water/soil monitoring to check the contamination in and around the site shall be carried out.
- (xii) The Company shall ensure proper handling of all spillages by introducing spill control procedures for various chemicals.
- (xiii) On line real time continuous monitoring facilities shall be provided as per the CPCB or State Board Directions.
- (xiv) No non hazardous wastes, as defined under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, shall be handled in the premises.
- (xv) Project Proponent shall develop green belt with native plant species that are significant and used for the pollution abatement. At least 10 m thick greenbelt shall be developed in the periphery of hazardous waste facility.
- (xvi) Project should ensure that the site is properly cordoned off from general movement and no unauthorized person or goods permitted to enter the premises. Necessary security provision should be made as a condition in the Authorisation under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 to prevent unwanted access.
- (xvii) Pre medical check-up to be carried out on workers at the time of employment and regular medical record to be maintained.
- (xviii) Emergency plan shall be drawn in consultation with SPCB/CPCB and implemented in order to minimize the hazards to human health or environment from fires, explosion or any unplanned sudden or non sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water.
- (xix) Rain water runoff from other hazardous waste management area shall be collected and treated in the effluent treatment plant.
- (xx) The Project proponent shall not store the Hazardous Wastes more than the quantity that has been permitted by the CPCB/SPCB.
- (xxi) The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.
- (xxii) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018, and as proposed, a fund of Rs. 0.85 Crores (@ 1% of project Cost) shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as health checkups, provision of drinking water supply, farmer trainings, improving sanitation facilities and solid waste management practices, plantation drives, renovation of roads, cross drains, skill development training, installation of solar lights, rain water harvesting and soil conservation measures etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

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#### **Agenda item No. 48.4.5.**

**Multi Level Parking cum Shopping & Office Complex Project at Plot No. P2, District Centre, Wazirpur (Netaji Subhash Place), New Delhi by M/s Best International Projects Pvt Ltd - Amendment in Environmental Clearance**

**(IA/DL/MIS/136370/2020; F.No. 21-9/2020-IA-III)**

**48.4.5.1.** The project proponent and the accredited Consultant M/s Grass Roots Research and Creation (GRC) India (P) Ltd gave a detailed presentation on the salient features of the project and informed that:

- (i) The project is a Multi Level Parking cum Shopping & Office Complex at Plot No. P2, District Centre, Wazirpur (Netaji Subhash Place), New Delhi is being developed by M/s Best International Projects Pvt. Ltd and has been granted Environment Clearance from State Level Environment Impact Assessment Authority, Delhi vide letter F. No. 123/DPCC/SEIAA-SEAC/11/2565-2569 dated 16.03.2012 for plot area 3,784.916 sqm and built-up area 25,835.59 sqm.
- (ii) The Project comprises of Offices and Showroom/Commercial as per earlier EC application.
- (iii) Now, amendment in the Environmental Clearance has been sought. There are changes in the usage of commercial area on ground floor and first floor to banquet hall. After change in usage, project will comprises of Offices, Showroom/Commercial and Banquet Hall. Due to which population, waste water generation and STP capacity is increased.
- (iv) Following amendment is sought:

Details	As per EC accorded	After change in the usage
Population	1780 Persons	3457 Persons
Domestic water requirement	37.735 KLD	126 KLD
Waste water generation	33.96 KLD	108 KLD
STP Capacity	41 KL	130 KL
Solid waste generation	kg/day	Kg/day

- (v) All necessary permissions such as CTE, Water permission, Electricity permission & Fire safety certificate from concerned departments have been taken.

**48.4.5.2.** The EAC noted the following:-

- (i) The proposal is for grant of Amendment in Environmental Clearance to the project Multi Level Parking cum Shopping & Office Complex Project at Plot No. P2, District Centre, Wazirpur (Netaji Subhash Place), New Delhi by M/s Best International Projects Pvt. Ltd.
- (ii) The project/activity is covered under category 'B' of item 8(a) 'Building and Construction projects' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level. However, due to absence of SEIAA/SEAC in Delhi, the proposal has been appraised at Central level by sectoral EAC.
- (iii) Earlier, Environment Clearance has been granted by State Level Environment Impact Assessment Authority, Delhi vide letter F. No. 123/DPCC/SEIAA-SEAC/11/2565-2569 dated 16.03.2012 for plot area 3,784.916 sqm and built-up area 25,835.59 sqm.

**48.4.5.3.** The EAC during deliberation noted that the environmental Clearance was granted to the project on 16.03.2012 which was valid up to 15.03.2019. Now, the project proponent has proposed changes in the usage of commercial area on ground floor and first floor to banquet hall. After change in usage, project will comprises of Offices, Showroom/Commercial and Banquet Hall. Due to which population, waste water generation and STP capacity is increased. The EAC opined that in the instant case amendment could not be granted as the environmental clearance is not valid. EAC asked the project proponent to apply in modernization category for the proposed changes.

**The committee after deliberation upon the proposal decided to reject the proposal and suggested the project proponent to apply afresh in modernization category.**

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#### **Agenda item No. 48.4.6.**

#### **Expansion of Dr. Baba Saheb Ambedkar Government Hospital at Sector-6, Rohini Delhi by M/s Public Works Department GNCTD - Environmental Clearance**

**(IA/DL/MIS/108652/2019; F.No. 21-7/2020-IA-III)**

**48.4.6.1.** The project proponent and the accredited Consultant M/s Amaltas Enviro Industrial Consultants LLP gave a detailed presentation on the salient features of the project and informed that:

- (i) The project is located at Sector-6, Rohini, Delhi. Site co-ordinates of the project is 28°42'50.25"N Latitude and 77°6'49.05"E Longitude.
- (ii) This is an Expansion of Dr. Baba Saheb Ambedkar Government Hospital. Total built-up area of the existing hospital is 97,523.139 sqm. The hospital was inaugurated by former Hon'ble Prime Minister Shri P.V. Narasimha Rao on 19.11.1991 and do not attract the EIA Notification, 2004 as well as 2006.
- (iii) The total plot area is 1,19,260.29 sqm, FSI area is 1,25,487.19 sqm and total construction (Built-up) area after expansion will be 1,31,244.257 sqm (Existing - 97,523.139 sqm and Expansion - 33,721.118 sqm). Maximum height of the hospital building is 41.45 metre.
- (iv) During construction phase, total water requirement is expected to be 1,045 ML which will be met by treated water from DJB during the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (v) During operational phase, total water demand of the project is expected to be 610 KLD and the same will be met by Delhi Jal Board (374 KLD fresh water) and remaining 236 KLD from recycled water. Wastewater generated from clinical activity (50 KLD) will be treated in ETP of 60 KLD; Domestic wastewater generation will be 245 KLD and will be treated in STP of 300 KLD. 236 KLD of treated wastewater will be recycled and used for flushing (75 KLD), gardening (29 KLD), HVAC (100 KLD) and DG cooling (32 KLD) etc.
- (vi) About 1.426 TPD solid wastes will be generated in the project. The biodegradable waste (0.439 TPD) will be processed in OWC and the non-biodegradable waste generated (0.219 TPD) will be handed over to authorized local vendor.
- (vii) Maximum Electrical load requirement after overall diversity factor works out to 3620 KW. Considering power factor of 85%, Peak Load will be 4260 KVA and will be met from BSES. Existing DG sets will be scraped and new DG sets 4 Nos. 1500 KVA will be added for standby capacity.
- (viii) Roof top rainwater of buildings will be collected in 24 Rainwater harvesting storage pits after filtration (Existing 19 and proposed 5).
- (ix) Parking facility for 1,438 ECS is proposed to be provided against the requirement of 1,435 ECS respectively (according to local norms).
- (x) Proposed energy saving measures would save about 8-10% of power.
- (xi) It is not located within 10 km of Eco Sensitive areas. Hence NBWL Clearance is not required.
- (xii) Forest Clearance is not required.
- (xiii) No court case is pending against the project.
- (xiv) Investment/Cost of the project is Rs. 194.91 Crores.
- (xv) Employment potential: During Construction phase approx. 100-150 persons shall get employment.
- (xvi) Benefits of the project: Wastewater treatment, green belt, energy conservation, parking management, rainwater harvesting, medical facility etc.

**48.4.6.2.** The EAC noted the following:-

- (i) The proposal is for grant of Environmental Clearance to the project Expansion of Dr. Baba Saheb Ambedkar Government Hospital at Sector-6, Rohini Delhi by M/s Public Works Department GNCTD for plot area 1,19,260.29 sqm and total built-up area of 1,31,244.257 sqm.
- (ii) The project/activity is covered under category 'B' of item 8(a) 'Building and Construction projects' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level. However, due to absence of SEIAA/SEAC in Delhi, the proposal has been appraised at Central level by sectoral EAC.

**48.4.6.3.** *The project proponent informed the EAC that Dr. Baba Sahab Ambedkar Government Hospital at sector- 6 Rohini, New Delhi was inaugurated by former Hon'ble Prime Minister Shri P.V. Narasimha Rao on 19.11.1991 and it do not attract the EIA notification 2004 as well as 2006. Consent to operate for the existing building has been obtained from DPCC vide Consent Order no. DPCC/BMW/2019/27 dated 09.12.2019 and is valid up to 04.03.2024.*

*It was informed that total number of existing trees at expansion site is 95, out of which 22 trees will be retained, 14 trees will be cut and 59 trees will be transplanted.*

*The EAC, based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held on all the issues, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other Standard EC Conditions as specified by the Ministry vide OM dated 04.01.2019 for the said project/activity (specified at **Annexure-8** of the minutes), while considering for accord of environmental clearance:*

- (i) 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.
- (ii) The project proponent shall provide for adequate fire safety measures and equipment as per National Building Code/required by Fire Service Act of the State and instructions issued by the local Authority/Directorate of fire, from time to time. Further, the project proponent shall take necessary permission/NOC regarding fire safety from Competent Authority as required.
- (iii) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (iv) As proposed, fresh water requirement from DJB shall not exceed 374 KLD. Consent to Operate (CTO)/Occupancy Certificate shall be issued only after getting necessary permission for required water supply from DJB/concerned authority.
- (v) Sewage shall be treated in the STP based on MBR Technology with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, gardening, HVAC and DG cooling etc). As proposed, excess treated water shall be used in nearby construction sites.
- (vi) The project proponents would devise a monitoring plan to the satisfaction of the State Pollution Control Board so as to continuously monitor the treated waste water being used for flushing in terms of faecal coliforms and other pathogenic bacteria.
- (vii) The project proponents would commission a third party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing (specially the bacterial counts), comparative bacteriological studies from toilet seats using recycled treated waters and fresh waters for flushing, and quality of water being supplied through spray faucets attached to toilet seats.



- (viii) The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. As proposed, 24 no. of rain water harvesting recharge pits (19 existing and 5 proposed) shall be provided for rain water harvesting after filtration as per CGWB guidelines.
- (ix) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. As proposed, 60 sqm area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from project will be sent to dumping site.
- (x) Laboratory wastes shall be managed in accordance to the BMW Rules, 2016 and the atomic Energy Commission regulations as applicable.
- (xi) Traffic Management Plan as submitted shall be implemented in letter and spirit. Further, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time. Traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
- (xii) No tree shall be cut/transplanted unless exigencies demand. Where absolutely necessary, tree cut/transplantation shall be with prior permission from the Tree Authority constituted as per the Delhi Preservation of Trees Act, 1994 (Delhi Act No. 11 of 1994). Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted). In case of cut/non-survival of any transplanted tree, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree) shall be done and maintained.
- (xiii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed 55,250.19 sqm (46.32% of total area) area shall be provided for green area development.
- (xiv) The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013.
- (xv) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018, the project proponent has proposed that an amount of Rs. 1.46 Crore (@ 0.75% of project Cost) shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as tree plantation drive, drinking water facilities, installation of solar lights in village common areas, solid waste management facilities and construction of public toilets under total sanitation campaign. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the Regional Office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

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#### **Agenda item No. 48.4.7.**

## Expansion of "V3S East Centre" (Commercial Complex) at Plot No.- 12, Laxmi Nagar District Centre, Vikas Marg, New Delhi by M/s V3S Infratech Limited - Environmental Clearance

(IA/DL/MIS/120350/2006; F.No. 21-8/2020-IA-III)

**48.4.7.1.** The project proponent and the accredited Consultant M/s Perfact Enviro Solutions Pvt. Ltd. gave a detailed presentation on the salient features of the project and informed that:

- (i) The project is located at Plot No. 12, Laxmi Nagar, District Centre, New Delhi. Latitude 28°38'14.31"N and Longitude 77°17'11.66"E
- (ii) The project is Expansion of "V3S East Centre (Commercial Complex)". Earlier Environmental Clearance was granted by MoEF vide letter F.No. 21-708/2006-IA.III dated 08.08.2007 for plot area 12,540 sqm and built-up area 39,093.14 sqm.
- (iii) After expansion total plot area will remain the same i.e. 12,540 sqm. The total FAR Area of the project will be increased from 19,588.02 sqm (including FAR area 1,042.29 sqm in Basement area) to 20,059.26 sqm. The other Non-FAR Area (as per bye-laws) of the project will be increased from 1,773.0 sqm to 5,892.619 sqm. The total basement area of the project including FAR in Basement level-1 will be 18,676.15 sqm and excluding FAR in basement level-1 will be 17,633.93 sqm. The built-up area of the project will be increased to 43,585.809 sqm and total no. of floors will be increased from 2B + G + 3 to 2B + G + 4 nos. Total no. of basement will be 2 nos. The maximum height of the building will be increased from 17.8 m to 23.8 m. The details of the building are as follows-

Particulars	Area as per Environment Clearance	Existing Area details	Proposed Area	Total after Expansion
<b>FAR Area</b>	-	19,588.02 sqm	471.24 sqm	20,059.26 sqm
<b>Non FAR Area</b>	-	1,773.0 sqm	4,119.619 sqm	5,892.619 sqm
<b>Built-up Area</b>	39,093.14 sqm	38,994.95 sqm	4,590.859 sqm	43,585.809 sqm
<b>No. of Floors</b>	2B+G+3	2B+G+3	1 No. of Floor	2B+G+4
<b>Activities</b>	Shops, Restaurant, Food Court, Coffee Shops & Multiplex			

- (iv) During the construction phase, total water requirement is expected to be 5 KLD for construction purpose which will be sourced through tankers. During the construction phase, septic tanks will be provided for the disposal of wastewater. Temporary sanitary toilets will be provided during peak labour force.
- (v) During the operational phase after expansion, the total water requirement of the project is expected to be 206 KLD and out of which 61 KLD of fresh water will be met from Delhi Jal Board and 145 KLD of water recycled water. Wastewater generated (162 KLD) will be treated in existing STP of capacity 165 KLD which will be augmented to 200 KLD. 145 KLD of treated water obtained from STP will be recycled and reused for flushing, gardening and cooling.
- (vi) About 0.465 TPD solid wastes will be generated in the project. The biodegradable waste (0.25 TPD) will be processed in OWC and the non-biodegradable waste generated (0.13 TPD), plastic waste (0.08 TPD) and inert waste (0.005 TPD) will be handed over to authorised local vendor.
- (vii) The total Power Requirement during the construction phase will be met by an existing power supply from BSES Yamuna Power Limited and total power requirement during operation phase will be 3000 KVA which will be met from BSES Yamuna Power Limited. Also, during power failure DG Set of capacity 3 x 1500 kVA and 1 x 500kVA are provided.
- (viii) Rooftop rainwater of the building is being collected in 3 RWH pits of total capacity 105 m<sup>3</sup> capacity for harvesting after filtration and recharging the groundwater.
- (ix) Parking facility of 445 ECS for four-wheelers and two-wheelers is proposed to be provided against the requirement of 417 ECS.

- (x) Proposed energy-saving measures would save about 11% due to the use of LED and addition solar provision will be provided.
- (xi) Okhla Bird Sanctuary is located at 8.01 km, SSE direction of the project location. The site is outside the notified boundaries of the Okhla Bird Sanctuary. Hence, NBWL Clearance is not required.
- (xii) Forest Clearance is not required.
- (xiii) No court case is pending against the project.
- (xiv) Investment /Cost of the Project after Expansion is Rs. 177.5 Crores (Rs. 12.5 Crores for the expansion).
- (xv) Employment potential: In construction phase 100 persons and 300 persons at the time of Operation Phase.
- (xvi) Benefits of the project: Employment opportunities provided due to the project will lead to better quality of life and will also set a standard for future developments in the area. The project will lead to an increase in the infrastructure of the area and encourage others for further development of the area. It will provide healthy, green & safe premises for living. People have more open and green spaces, bringing them closer to nature. People live, stay and recreate; and have immediate access to entertainment facilities in a single, spacious and secured area. Corporate Environment Responsibility will also be considered for the social benefits of the society.

**48.4.7.2. The EAC noted the following:-**

- (i) The proposal is for grant of Environmental Clearance to the project Expansion of "V3S East Centre" (Commercial Complex) at Plot No. 12, Laxmi Nagar District Centre, Vikas Marg, New Delhi by M/s V3S Infratech Limited for plot area 12,540 sqm and total built-up area of 43,585.809 sqm.
- (ii) The project/activity is covered under category 'B' of item 8(a) 'Building and Construction projects' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level. However, due to absence of SEIAA/SEAC in Delhi, the proposal has been appraised at Central level by sectoral EAC.
- (iii) Earlier, Environmental Clearance was granted by MoEF vide letter F.No. 21-708/2006-IA.III dated 08.08.2007 for plot area 12,540 sqm and built-up area 39,093.14 sqm.

**48.4.7.3. The project proponent informed the EAC that the proposed project is an Expansion of "V3S East Centre (Commercial Complex)" located at Plot No. 12, Laxmi Nagar, District Centre, New Delhi. The proposed project is being developed by M/s V3S Infratech Limited. Earlier, Environmental Clearance was granted by MoEF vide F.No. 21-708/2006-IA.III dated 08.08.2007 for plot area 12,540 sqm and built-up area 39,093.14 sqm. Now due to amendment in UBBL Bye Laws, FAR is being shifted to Non-FAR and vertical expansion has been proposed. The built-up area after expansion will be 43,585.809 sqm.**

*The EAC also deliberated on the certified compliance report letter No. 4-375/2007-RO(NZ)/639 dated 06.01.2020 issued by the MoEF&CC's Regional Office (Central Region), Lucknow. As per Compliance report, "it has been noticed that Pas have complied or are in the process of complying the environmental conditions stipulated for this project, however some non-compliance were also observed". The EAC noted that the project proponent vide its letter dated 27.01.2020 has submitted action taken report to MoEF&CC's Regional Office (Central Region), Lucknow on the non-complied conditions.*

*The EAC, based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held on all the issues, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other Standard EC Conditions as specified by the Ministry vide OM dated 04.01.2019 for the said project/activity (specified at **Annexure-8** of the minutes), while considering for accord of environmental clearance:*

- (i) 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.
- (ii) The project proponent shall provide for adequate fire safety measures and equipment as per National Building Code/required by Fire Service Act of the State and instructions issued by the local Authority/Directorate of fire, from time to time. Further, the project proponent shall take necessary permission/NOC regarding fire safety from Competent Authority as required.
- (iii) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (iv) As proposed, fresh water requirement from DJB shall not exceed 61 KLD. Consent to Operate (CTO)/Occupancy Certificate shall be issued only after getting necessary permission for required water supply from DJB/concerned authority.
- (v) Sewage shall be treated in the STP based on SAFF Technology with tertiary treatment i.e. Ultra Filtration. The treated water from STP shall be recycled/re-used for Flushing, gardening and cooling. As proposed, no treated water shall be discharged to municipal drain.
- (vi) The project proponents would devise a monitoring plan to the satisfaction of the State Pollution Control Board so as to continuously monitor the treated waste water being used for flushing in terms of faecal coliforms and other pathogenic bacteria.
- (vii) The project proponents would commission a third party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing (specially the bacterial counts), comparative bacteriological studies from toilet seats using recycled treated waters and fresh waters for flushing, and quality of water being supplied through spray faucets attached to toilet seats.
- (viii) The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. As proposed, 3 no. of rain water harvesting recharge pit (existing) shall be provided for rain water harvesting after filtration as per CGWB guidelines.
- (ix) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. As proposed, 50 sqm area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from project will be sent to dumping site.
- (x) Traffic Management Plan as submitted shall be implemented in letter and spirit. Further, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time. Traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
- (xi) No tree cutting/transplantation has been proposed in the instant project. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive

species should not be used for landscaping. As proposed 1254 sqm (10% of total area) area shall be provided for green area development.

- (xii) The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013.
- (xiii) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018, the project proponent has proposed that an amount of Rs. 0.125 Crore (@ 1% of project Cost) shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as Adoption of pond of Mondoli village which is situated at distance of 0.93 Km in SE direction of the project site for its cleanliness and beautification by development of embankment and maintenance and Providing stand alone solar light in Shankar Vihar Park which is at a distance of 0.12 Km, NEE from the project site. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the Regional Office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

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#### **Agenda item No. 48.4.8.**

#### **Proposed Construction of Super Specialty Hospital at Siraspur, New Delhi by M/s Health Project Division (North), PWD - Reconsideration for Environmental Clearance**

**(IA/DL/MIS/123025/2019; F.No. 21-77/2019-IA-III)**

**48.4.8.1.** The project proponent and the accredited Consultant M/s Grass Roots Research and Creation (GRC) India (P) Ltd gave a detailed presentation on the salient features of the project and informed that:

- (i) The project is located at Siraspur, New Delhi. Latitude 28°45'28.68"N and Longitude 77°08'45.38"E.
- (ii) The project is new. The total plot area is 80,838 sqm. FSI area is 60,561 sqm and total built-up area of 94,778 sqm. The project comprises of Hospital Block (1168 Beds), Nurse Station, Diagnostic Center and Food Court. Maximum height of the building is 41.2 m.
- (iii) The total water requirement for the construction Project is estimated to be approx. 190 ML. The water supply during Construction phase will be met through STP Treated water/Private water tanker. During the construction phase, soak pits and septic tanks are provided for disposal of waste water. Temporary toilets will be provided for labourers.
- (iv) During operation phase, total water requirement will be 1278 KLD and will be met from Delhi Jal Board (487 KLD fresh water) and recycled water (411 KLD) and 379 KLD treated water from other sources. The treated water (411 KLD) from STP shall be recycled/re-used for flushing (172 KLD), gardening (42 KLD) and HVAC (197 KLD) etc). As proposed, excess treated water from ETP (98 KLD) shall be discharge to external sewer.
- (v) About 3564 kg/day solid waste will be generated from the project. The biodegradable waste (1425.6 kg/day) will be processed in OWC, Inert waste (356.4 kg/day) will be used for land filling and the non-biodegradable waste generated (1782 kg/day) will be handed over to vendors.
- (vi) The power will be supplied by State Electricity Board. The maximum demand load for the project will be approx. 8,000 kVA for the project.
- (vii) Rooftop rainwater of buildings will be collected in 06 RWH Pits.
- (viii) Parking facility for 1212 ECS is proposed to be provided against the requirement of 1211 ECS.
- (ix) Proposed energy saving measures: Energy will be saved using energy efficient lighting fixtures, Electronic Ballast, Timer based lighting and APFC Panel.
- (x) There is no Eco-Sensitive zone within 10 km radius. Hence, NBWL Clearance is not required.

- (xi) Forest Clearance is not required.
- (xii) There is no court case pending against the project.
- (xiii) Estimated Cost of the project is 487.41 Crores.
- (xiv) Employment potential: It will generate direct and indirect employment opportunities for both skilled and unskilled labor during construction & operation phase.
- (xv) Benefits of the project: Direct & Indirect employment opportunities and Infrastructural Development of the Area.

**48.4.8.2.** The EAC noted the following:-

- (i) The proposal is for grant of Environmental Clearance to the project Proposed Construction of Super Specialty Hospital at Siraspur, New Delhi by M/s Health Project Division (North), PWD for plot area 80,338 sqm and total built-up area of 92,266 sqm.
- (ii) The project/activity is covered under category 'B' of item 8(a) 'Building and Construction projects' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level. However, due to absence of SEIAA/SEAC in Delhi, the proposal has been appraised at Central level by sectoral EAC.
- (iii) The proposal was considered by the EAC (Infra-2) in its 45<sup>th</sup> Meeting of the EAC (Infra-2) held during 17-18 October, 2019, wherein, the EAC during deliberation noted that the project proponent has not mentioned the built-up area in the Form-1. Also there were many discrepancies in the Form-1, Form- 1A and Conceptual Plan. The EAC asked the project proponent to rectify all the discrepancies and submit revised Form-1, Form- 1A and Conceptual Plan.
- (iv) The project proponent submitted/uploaded the additional information on 11.12.2019 on Ministry's website.

**48.4.8.2.** *The EAC was informed that Public Work Department (Health), Govt. of NCT Delhi proposes a Super Specialty Hospital Project at Siraspur, New Delhi in the total plot area measuring 80,838 sqm with estimated built-up area of 94,778 sqm. The project comprises of Hospital Block (1168 Beds), Nurse Station, Diagnostic Center and Food Court.*

*The EAC, based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held on all the issues, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other Standard EC Conditions as specified by the Ministry vide OM dated 04.01.2019 for the said project/activity (specified at **Annexure-8** of the minutes), while considering for accord of environmental clearance:*

- (i) 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.
- (ii) The project proponent shall provide for adequate fire safety measures and equipment as per National Building Code/required by Fire Service Act of the State and instructions issued by the local Authority/Directorate of fire, from time to time. Further, the project proponent shall take necessary permission/NOC regarding fire safety from Competent Authority as required.
- (iii) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (iv) As proposed, fresh water requirement from DJB shall not exceed 487 KLD. Consent to Operate (CTO)/Occupancy Certificate shall be issued only after getting necessary permission for required water supply from DJB/concerned authority.

- (v) Sewage shall be treated in the STP based on MBR Technology with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, gardening and HVAC etc). As proposed, excess treated water from ETP shall be discharge to external sewer.
- (vi) The project proponents would devise a monitoring plan to the satisfaction of the State Pollution Control Board so as to continuously monitor the treated waste water being used for flushing in terms of faecal coliforms and other pathogenic bacteria.
- (vii) The project proponents would commission a third party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing (specially the bacterial counts), comparative bacteriological studies from toilet seats using recycled treated waters and fresh waters for flushing, and quality of water being supplied through spray faucets attached to toilet seats.
- (viii) The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. As proposed, 6 no. of rain water harvesting recharge pits shall be provided for rain water harvesting after filtration as per CGWB guidelines.
- (ix) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. As proposed, 200 sqm area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from project will be sent to dumping site.
- (x) Laboratory wastes shall be managed in accordance to the BMW Rules, 2016 and the atomic Energy Commission regulations as applicable.
- (xi) Traffic Management Plan as submitted shall be implemented in letter and spirit. Further, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time. Traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
- (xii) No tree cutting/transplantation has been proposed in the instant project. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed 41,841 sqm (51.75% of total area) area shall be provided for green area development.
- (xiii) The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013.
- (xiv) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018, the project proponent has proposed that an amount of Rs. 7.31 Crore (@ 1.5% of project Cost) shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as maintenance/construction of roads and drains in consultation with local authorities in nearby villages, providing computer labs, benches, fans etc. in local schools, setting up of a vocational training centre in the nearby villages, up gradation of sanitation facilities in nearby villages, plantation in nearby villages, providing medical equipments to government hospitals and dispensaries, solar power including electrification in nearby villages. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed

under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the Regional Office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

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#### **Agenda item No. 48.4.9.**

**Proposed Commercial Cum Multiplex With MLCP Block PD Plot, Jasola Apollo Metro Station, Sarita Vihar, Mathura Road, New Delhi by M/s DMRC Ltd through lessee M/s Pacific Development Corporation Ltd - Reconsideration for Environmental Clearance**

**(IA/DL/MIS/119584/2019; F.No.21-75/2019-IA-III)**

##### **48.4.9.1. The EAC noted the following:-**

- (i) The proposal is for grant of Environmental Clearance to the project Proposed Commercial Cum Multiplex With MLCP Block PD Plot, Jasola Apollo Metro Station, Sarita Vihar, Mathura Road, New Delhi by M/s DMRC Ltd through lessee M/s Pacific Development Corporation Ltd for plot area 16,888.65 sqm and total built-up area of 50,938.232 sqm.
- (ii) The project/activity is covered under category 'B' of item 8(a) 'Building and Construction projects' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level. However, due to absence of SEIAA/SEAC in Delhi, the proposal has been appraised at Central level by sectoral EAC.
- (iii) The proposal was considered by the EAC (Infra-2) in its 45<sup>th</sup> Meeting of the EAC (Infra-2) held during 17-18 October, 2019 and 47<sup>th</sup> Meeting held during 26-27 December, 2019, wherein the EAC sought some additional information. The EAC deliberated upon the information provided by the project proponent and noted that the information in respect to query no (iv) was not addressed properly, also 30 sqm area as earmarked for solid waste management is not adequate. Accordingly, Committee asked the project proponent to submit the proper justification that the area/space provided is adequate as per the technology proposed. The information is to be provided on the same day of the meeting. However, the project proponent fails to submit the requisite information.
- (iv) The project proponent submitted/uploaded the additional information on 18.11.2019 and 09.01.2020 on Ministry's website.

**48.4.9.2. The EAC, based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held on all the issues, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other Standard EC Conditions as specified by the Ministry vide OM dated 04.01.2019 for the said project/activity (specified at **Annexure-8** of the minutes), while considering for accord of environmental clearance:**

- (i) 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.
- (ii) The project proponent shall provide for adequate fire safety measures and equipment as per National Building Code/required by Fire Service Act of the State and instructions issued by the local Authority/Directorate of fire, from time to time. Further, the project proponent shall take necessary permission/NOC regarding fire safety from Competent Authority as required.
- (iii) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.



- (iv) As proposed, fresh water requirement from Municipal supply shall not exceed 26 KLD. Consent to Operate (CTO)/Occupancy Certificate shall be issued only after getting necessary permission for required water supply from DJB/concerned authority.
- (v) Sewage shall be treated in the STP based on MBBR Technology with tertiary treatment i.e. Ultra Filtration. The treated water from STP shall be recycled/re-used for Flushing, horticulture and HVAC. As proposed, no treated water shall be discharged to municipal drain.
- (vi) The project proponents would devise a monitoring plan to the satisfaction of the State Pollution Control Board so as to continuously monitor the treated waste water being used for flushing in terms of faecal coliforms and other pathogenic bacteria.
- (vii) The project proponents would commission a third party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing (specially the bacterial counts), comparative bacteriological studies from toilet seats using recycled treated waters and fresh waters for flushing, and quality of water being supplied through spray faucets attached to toilet seats.
- (viii) The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. As proposed, 5 no. of rain water harvesting recharge pit shall be provided for rain water harvesting after filtration as per CGWB guidelines.
- (ix) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. As proposed, 30 sqm area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from project will be sent to dumping site.
- (x) Traffic Management Plan as submitted shall be implemented in letter and spirit. Further, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time. Traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
- (xi) No tree cutting/transplantation has been proposed in the instant project. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed 2,545.119 sqm (15% of total area) area shall be provided for green area development.
- (xii) The company shall draw up and implement Corporate Social Responsibility Plan as per the Company's Act of 2013.
- (xiii) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018, the project proponent has proposed that an amount of Rs. 1.53 Crore (@ 1.5% of project Cost) shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as Promoting Education by Constructing school roads, boundary, setting up computer lab. Providing chairs and fans at schools, Women entrepreneurship & forming self-help group and providing skill based training, Setting up Vocational Training Institutes for the Skill development (Electrician, Beautician, retail, digital awareness, evening class for local labour children) for livelihood

generation, Providing safe drinking water in schools and Construction/Renovation of toilets and building infrastructure in the schools. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the Regional Office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

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#### **48.5 Any other item with the permission of Chair.**

##### **48.5.1. 'Modernization of Sir Ganga Ram Hospital' at Sir Ganga Ram Hospital Marg, Rajinder Nagar, New Delhi by M/s Sir Ganga Ram Hospital (F. No. 21-103/2018-IA-III)**

**48.5.1.1.** Matter relates to Environmental Clearance to the project 'Modernization of Sir Ganga Ram Hospital' at Sir Ganga Ram Hospital Marg, Rajinder Nagar, New Delhi by M/s Sir Ganga Ram Hospital granted by MoEFCC vide file F.No. 21-103/2018-IA-III dated 27.12.2018. As per the EC Letter Part A-Specific condition no. (xxxv) "the project proponent will use gas based power generating standby systems". Now, the project proponent has made a request to install DG set in place of gas based power generator. The matter has been examined in the Ministry. It has been decided to place the matter before the EAC (infra-2) in its meeting scheduled to be held during 28-29 January, 2020.

The project proponent informed the EAC that at present the DG sets of capacity 2 x 1875 kVA, 2 x 2000 kVA, 3 x 625 kVA & 3 x 750 kVA has already been installed at the site. M/s Cummins India Ltd. have informed that the diesel based DG should be used where grid is available and gas gensets are installed where continuous run is required to act as a main source of power. Due to space constraints in the hospital, it is not possible to install gas based gensets which required 4 to 5 times space of DG sets. The hospital requires running of genset rarely because power supply is available from two sources on 11 kV line. This is evident from the record of running of existing DG sets for an average of 15 minutes per day during last two years. It may be seen that 4 nos. DG sets had run for total of 731 hours in two years to meet the requirement due to both load beyond the maximum sanctioned load of 4 MVA on 11 KV line and due to power shut down.

Now, after commissioning of 33 kV sub-stations, which is under construction in the complex, there will hardly be any running of DG set required as full load will be available through grid because of no restriction. This will also be available through two sources being hospital. The sanctioned load is 10 MVA to meet entire demand of 9 MVA as mentioned in proposal. Also there will be hardly any power cut/tripping on 33 KV line, therefore no standby power unit is required but considering the hospital, where emergency /critical services involving life threatening situation, standby power back is a must. The startup time of Gas based Gensets are more viz-a-viz start up time required for Diesel based Gensets.

**48.5.1.2.** *The EAC deliberated upon the proposal and opined that due to very less use and for a short span, it will not be feasible for the project proponent to install Gas based DG sets. The EAC recommended amending the Specific condition no. (xxxv) of the EC letter F.No. 21-103/2018-IA-III dated 27.12.2018 as follows:*

"The project proponent shall use diesel power generating sets for standby power systems. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets and low sulphur diesel shall be used. The location of the DG sets may be decided in consultation with Delhi Pollution Control Committee".

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**LIST OF PARTICIPANTS OF EAC (INFRASTRUCTURE-2) IN 48<sup>th</sup> MEETING OF EAC  
(INFRASTRUCTURE-2) HELD ON 28-29 JANUARY, 2020**

S. No.	Name	Designation	Attendance		Signature
			28.01.2020	29.01.2020	
1.	Prof. T. Haque	Chairman	P	P	
2.	Dr. N. P. Shukla	Member	P	P	
3.	Dr. H. C. Sharatchandra	Member	P	P	
4.	Shri V. Suresh	Member	P	P	
5.	Dr. V. S. Naidu	Member	P	P	
6.	Shri B. C. Nigam	Member	P	P	
7.	Dr. Manoranjan Hota	Member	A	A	
8.	Dr. Dipankar Saha	Member	P	P	
9.	Dr. Jayesh Ruparelia	Member	P	P	
10.	Dr. (Mrs.) Mayuri H. Pandya	Member	P	P	
11.	Dr. M. V. Ramana Murthy	Member	P	A	
12.	Prof. Dr. P.S.N. Rao	Member	A	A	
13.	Dr. Subrata Bose	Scientist F & Member Secretary	P	P	

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**ANNEXURE-1****Standard EC Conditions for Project/Activity 7(a): Airport****I. Statutory compliance:**

- (i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- (ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- (iii) The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan/Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).
- (iv) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- (v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- (vi) Clearance from Directorate General of Civil Aviation (DGCA) and Airports Authority of India (AAI) for safety and project facilities shall be obtained.
- (vii) A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- (viii) All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.

**II. Air quality monitoring and preservation:**

- (i) The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub> in reference to PM emission, and SO<sub>2</sub> and NO<sub>x</sub> in reference to SO<sub>2</sub> and NO<sub>x</sub> emissions) within and outside the airport area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- (ii) Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
- (iii) A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
- (iv) Soil and other construction materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty material wet
- (v) The excavation working area should be sprayed with water after operation so as to maintain the entire surface wet.
- (vi) Excavated materials shall be handled and transported in a manner that they do not cause any problems of air pollution.
- (vii) The soil/construction materials carried by the vehicle should be covered by impervious sheeting to ensure that the dusty materials do not leak from the vehicle.

**III. Water quality monitoring and preservation:**

- (i) Run off from chemicals and other contaminants from aircraft maintenance and other areas within the airport shall be suitably contained and treated before disposal. A spillage and contaminant containment plan shall be drawn up and implemented to the satisfaction of the State Pollution Control Board.
- (ii) Proper drainage systems, emergency containment in the event of a major spill during monsoon season etc. shall be provided.
- (iii) The runoff from paved structures like Runways, Taxiways, can be routed through drains to oil separation tanks and sedimentation basins before being discharged into rainwater harvesting structures.
- (iv) Storm water drains are to be built for discharging storm water from the air-field to avoid flooding/water logging in project area. Domestic and industrial waste water shall not be allowed to be discharged into storm water drains.
- (v) Rain water harvesting for roof run-off and surface run-off, as plan submitted should be implemented. Rain water harvesting structures shall conform to CGWA designs. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease.
- (vi) Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
- (vii) Sewage Treatment Plant shall be provided to treat the wastewater generated from airport. Treated water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression
- (viii) A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
- (ix) A detailed drainage plan for rain water shall be drawn up and implemented.

**IV. Noise monitoring and prevention:**

- (i) Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- (ii) Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.
- (iii) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
- (iv) During airport operation period, noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
- (v) Where construction activity is likely to cause noise nuisance to nearby residents, restrict operation hours between 7 am to 6 pm.

**V. Energy Conservation measures:**

- (i) Energy conservation measures like installation of LED/CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning.

**VI. Waste management:**

- (i) Soil stockpile shall be managed in such a manner that dust emission and sediment runoff are minimized. Ensure that soil stockpiles are designed with no slope greater than 2:1 (horizontal/vertical).
- (ii) The project activity shall conform to the Fly Ash notification issued under the E.P. Act of 1986.
- (iii) Solid inert waste found on construction sites consists of building rubble, demolition material, concrete; bricks, timber, plastic, glass, metals, bitumen etc shall be reused/recycled or disposed off as per Solid Waste Management Rules, 2016 and Construction and Demolition Waste Management Rules, 2016.
- (iv) Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
- (v) The project proponents shall implement a management plan duly approved by the State Pollution Control Board and obtain its permissions for the safe handling and disposal of:
  - a. Trash collected in flight and disposed at the airport including segregation, collection and disposed.
  - b. Toilet wastes and sewage collected from aircrafts and disposed at the Airport.
  - c. Wastes arising out of maintenance and workshops
  - d. Wastes arising out of eateries and shops situated inside the airport complex.
  - e. Hazardous and other wastes
- (vi) The solid wastes shall be segregated as per the norms of the Solid Waste Management Rules, 2016. Recycling of wastes such as paper, glass (produced from terminals and aircraft caterers), metal (at aircraft maintenance site), plastics (from aircrafts, terminals and offices), wood, waste oil and solvents (from maintenance and engineering operations), kitchen wastes and vegetable oils (from caterers) shall be carried out. Solid wastes shall be disposed in accordance to the Solid Waste Management Rules, 2016 as amended.
- (vii) A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- (viii) Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

**VII. Green Belt:**

- (i) Green belt shall be developed in area as provided in project details, with native tree species in accordance with Forest Department. The greenbelt shall inter alia cover the entire periphery of the Air Port.
- (ii) Top soil shall be separately stored and used in the development of green belt.

**VIII. Public hearing and Human health issues:**

- (i) Construction site should be adequately barricaded before the construction begins.
- (ii) Traffic congestion near the entry and exit points from the roads adjoining the airport shall be avoided. Parking should be fully internalized and no public space should be utilized.
- (iii) Provision of Electro-mechanical doors for toilets meant for disabled passengers. Children nursing/feeding room to be located conveniently near arrival and departure gates.
- (iv) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- (v) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (vi) Occupational health surveillance of the workers shall be done on a regular basis.

**IX. Corporate Environment Responsibility:**

- (i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 01.05.2018, as applicable, regarding Corporate Environment Responsibility.
- (ii) The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- (iii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- (iv) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- (v) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

**X. Miscellaneous:**

- (i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- (iv) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- (v) The project proponent shall 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.
- (vi) The criteria pollutant levels namely; PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels) shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

- (vii) The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- (viii) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- (ix) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- (x) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- (xi) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- (xii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- (xiii) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xiv) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.
- (xv) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts/NGT and any other Court of Law relating to the subject matter.
- (xvi) Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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**ANNEXURE-2****Standard EC Conditions for Project/Activity 7(d): Common hazardous waste treatment, storage and disposal facilities (TSDFs)****I. Statutory compliance:**

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area)
- iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- v. The Project proponent should ensure that the TSDF fulfils all the provisions of Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016.
- vi. The project proponents shall adhere to all conditions as prescribed in the Protocol for 'Performance Evaluation and Monitoring of the Common Hazardous waste treatment, storage and disposal facilities' published by the CPCB in May, 2010.
- vii. Incinerator shall be designed as per CPCB guidelines. Energy shall be recovered from incinerator.
- viii. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- ix. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- x. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities

**II. Air quality monitoring and preservation:**

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub> in reference to PM emission, and SO<sub>2</sub> and NO<sub>x</sub> in reference to SO<sub>2</sub> and NO<sub>x</sub> emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- iv. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.
- v. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- vi. Appropriate Air Pollution Control (As proposed, air pollution control device viz. gas quencher; treatment with mixture of hydrated lime and activated powder for adsorption of partial acidity and VOCs (if any); bagfilter/ESP for removal of particulate matter; venturi scrubber followed by packed bed scrubber with caustic circulation to neutralize the acidic vapours in flue gas; and demister column for arresting water carry over will be provided to the incinerator) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- vii. The periodical monitoring of Dioxins and Furans in the Stack emissions shall be carried out. Analysis of Dioxins and Furans shall be done through CSIR-National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram or equivalent NABL Accredited laboratory
- viii. Gas generated in the Land fill should be properly collected, monitored and flared
- ix. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 02 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 02 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

**III. Water quality monitoring and preservation:**

- i. The project proponent shall install continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. Sufficient number of Piezometer wells shall be installed in and around the project site to monitor the ground water quality in consultation with the State Pollution Control Board / CPCB. Trend analysis of ground water quality shall be carried out each season and information shall be submitted to the SPCB and the Regional Office of MoEF&CC.
- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. No discharge in nearby river(s)/pond(s).
- v. The depth of the land fill site shall be decided based on the ground water table at the site.
- vi. The Company shall ensure proper handling of all spillages by introducing spill control procedures for various chemicals.
- vii. All leachates arising from premises should be collected and treated in the ETP followed by RO. RO rejects shall be evaporated in MEE. Toxicity Characteristic Leaching Procedure (TCLP) test to be performed on leachates.
- viii. The Company shall review the unit operations provided for the treatment of effluents, specially the sequencing of MEE after tertiary treatment, the source of permeate when no R.O. is recommended and the treatment of MEE condensate. The scheme for treatment of effluents shall be as permitted by the Pollution Control Board/Committee under the provisions of consent to establish.

- ix. Scrubber water, leachate water or wheel wash effluent shall be treated in the effluent treatment plant followed by RO to achieve zero liquid discharge.
- x. Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
- xi. Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused within the project.
- xii. A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
- xiii. Rain water runoff from hazardous waste storage area shall be collected and treated in the effluent treatment plant.
- IV. Noise monitoring and prevention:**
  - i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
  - ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
  - iii. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
- V. Energy Conservation measures:**
  - i. Energy conservation measures like installation of LED/CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning.
- VI. Waste management:**
  - i. The TSDF should only handle the waste generated from the member units.
  - ii. Periodical soil monitoring to check the contamination in and around the site shall be carried out.
  - iii. No non-hazardous wastes, as defined under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, shall be handled in the premises.
  - iv. The Project proponent shall not store the Hazardous Wastes more than the quantity that has been permitted by the CPCB/SPCB.
  - v. The solid wastes shall be segregated, managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
  - vi. A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
  - vii. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
- VII. Green Belt:**
  - i. Green belt shall be developed in an area as provided in project details, with native tree species in accordance with Forest Department. The greenbelt shall inter alia cover the entire periphery of the project site.
  - ii. Top soil shall be separately stored and used in the development of green belt.
- VIII. Public hearing and Human health issues:**
  - i. Traffic congestion near the entry and exit points from the roads adjoining the project site shall be avoided. Parking should be fully internalized and no public space should be utilized.
  - ii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
  - iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
  - iv. Occupational health surveillance of the workers shall be done on a regular basis.
- IX. Corporate Environment Responsibility:**
  - i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 01.05.2018, as applicable, regarding Corporate Environment Responsibility.
  - ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
  - iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
  - iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
  - v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- X. Miscellaneous:**
  - i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
  - ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
  - iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
  - iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
  - v. The project proponent shall 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.
  - vi. The criteria pollutant levels namely; PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.



- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts/NGT and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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**ANNEXURE-3****Standard EC Conditions for Project/Activity 7(da): Bio-Medical Waste Treatment Facilities****I. Statutory compliance:**

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area)
- iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- v. Transportation and handling of Bio-medical Wastes shall be as per the Bio-Medical Waste Management Rules, 2016 including the section 129 to 137 of Central Motor Vehicle Rules 1989.
- vi. Project shall fulfill all the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 including collection and transportation design etc and also guidelines for Common Hazardous Waste Incineration - 2005, issued by CPCB Guidelines of CPCB/MPPCB for Bio-medical Waste Common Hazardous Wastes incinerators shall be followed.
- vii. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- viii. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- ix. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities

**II. Air quality monitoring and preservation:**

- i. The project proponent shall install emission monitoring system including Dioxin and furans to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. Periodical air quality monitoring in and around the site including VOC, HC shall be carried out.
- iii. Incineration plants shall be operated (combustion chambers) with such temperature, retention time and turbulence, so as to achieve Total Organic Carbon (TOC) content in the slag and bottom ashes less than 3%, or their loss on ignition is less than 5% of the dry weight of the material.
- iv. Venturi scrubber (alkaline) should be provided with the incinerator with stack of adequate height (Minimum 30 meters) to control particulate emission within 50mg/Nm<sup>3</sup>.
- v. Appropriate Air Pollution Control (APC) system shall be provided for fugitive dust from all vulnerable sources, so as to comply prescribed standards. All necessary air pollution control devices (quenching, Venturi scrubber, mist eliminator) should be provided for compliance of emission standards.
- vi. Masking agents should be used for odour control.

**III. Water quality monitoring and preservation:**

- i. The project proponent shall install effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. Waste water generated from the facility shall be treated in the ETP and treated waste water shall be reused in the APCD connected to the incinerator. The water quality of treated effluent shall meet the norms prescribed by State Pollution Control Board. Zero discharge should be maintained.
- iii. Process effluent/any waste water should not be allowed to mix with storm water.
- iv. Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
- v. Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused within the project.
- vi. A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
- vii. The leachate from the facility shall be collected and treated to meet the prescribed standards before disposal.
- viii. Magnetic flow meters shall be provided at the inlet and outlet of the ETP & all ground water abstraction points and records for the same shall be maintained regularly.
- ix. Rain water runoff from hazardous waste storage area shall be collected and treated in the effluent treatment plant.

**IV. Noise monitoring and prevention:**

- i. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

**V. Energy Conservation measures:**

- i. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas

**VI. Waste management:**

- i. Incinerated ash shall be disposed at approved TSDF and MoU made in this regard shall be submitted to the Ministry prior to the commencement.
- ii. The solid wastes shall be segregated as per the norms of the Solid Waste Management Rules, 2016.
- iii. A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- iv. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016
- v. No landfill site is allowed within the CBWTF site
- vi. The Project proponent shall not store the Hazardous Wastes more than the quantity that has been permitted by the CPCB/SPCB.

**VII. Green Belt:**

- i. Green belt shall be developed in area as provided in project details, with native tree Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.

**VIII. Public hearing and Human health issues:**

- i. Feeding of materials/Bio-medical waste should be mechanized and automatic no manual feeding is permitted.
- ii. Proper parking facility should be provided for employees & transport used for collection & disposal of waste materials.
- iii. Necessary provision shall be made for fire-fighting facilities within the complex.
- iv. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- v. Emergency plan shall be drawn in consultation with SPCB/CPCB and implemented in order to minimize the hazards to human health or environment from fires, explosion or any unplanned sudden or gradual release of hazardous waste or hazardous waste constituents to air, soil or surface water.
- vi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- vii. Occupational health surveillance of the workers shall be done on a regular basis.

**IX. Corporate Environment Responsibility:**

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 01.05.2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

**X. Miscellaneous:**

- i. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- v. The project proponent shall 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.
- vi. The criteria pollutant levels namely; PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts/NGT and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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**ANNEXURE-4****Standard EC Conditions for Project/Activity 7(e): Port, Harbor, Break water, Dredging****I. Statutory compliance:**

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable. No dredging is allowed in protected habitat areas without prior permission from NBWL.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).
- iv. Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- v. All the recommendations and conditions specified by State Coastal Zone Management Authority for the project shall be complied with.
- vi. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- vii. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- viii. All excavation related dewatering shall be as duly authorized by the CGWA. A NOC from the CGWA shall be obtained for all dewatering and ground water abstraction.
- ix. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- x. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.

**II. Air quality monitoring and preservation:**

- i. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub> in reference to PM emission, and SO<sub>2</sub> and NO<sub>x</sub> in reference to SO<sub>2</sub> and NO<sub>x</sub> emissions) within and outside the project area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- ii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards.
- iii. Shrouding shall be carried out in the work site enclosing the dock/proposed facility area. This will act as dust curtain as well achieving zero dust discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations, preventing waste dispersion, improving working conditions through provision of shade for the workers.
- iv. Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion.
- v. The Vessels shall comply the emission norms prescribed from time to time.
- vi. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
- vii. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

**III. Water quality monitoring and preservation:**

- i. The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.
- ii. Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.
- iii. No ships docking at the proposed project site will discharge its on-board waste water untreated in to the estuary/ channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site.
- iv. Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.
- v. The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.
- vi. Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
- vii. Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
- viii. Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression.
- ix. A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
- x. No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.
- xi. All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body.

**IV. Noise monitoring and prevention:**

- i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

- ii. Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.
- iii. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
- iv. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

**V. Energy Conservation measures:**

- i. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.

**VI. Waste management:**

- i. Dredged material shall be disposed safely in the designated areas.
- ii. Shoreline should not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring report.
- iii. Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.
- iv. The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
- v. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
- vi. A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- vii. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.
- viii. Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism for integration of terminals oil contingency plan with the overall area contingency plan under the co-ordination of Coast should be covered

**VII. Green Belt:**

- i. Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
- ii. Top soil shall be separately stored and used in the development of green belt.

**VIII. Marine Ecology:**

- i. Dredging shall not be carried out during the fish breeding and spawning seasons.
- ii. Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment.
- iii. The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.
- iv. While carrying out dredging, an independent monitoring shall be carried out through a Government Agency/Institute to assess the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.
- v. A detailed marine biodiversity management plan shall be prepared through the NIO or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and submitted to and implemented to the satisfaction of the State Biodiversity Board and the CRZ authority. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, sub-tidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods and include underwater photography.
- vi. Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components including all micro, macro and mega floral and faunal components of marine biodiversity.
- vii. The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.

**IX. Public hearing and Human health issues:**

- i. The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.
- ii. Workers shall be strictly enforced to wear personal protective equipments like dust mask, ear muffs or ear plugs, whenever and wherever necessary/ required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.
- iii. In case of repair of any old vessels, excessive care shall be taken while handling Asbestos & Freon gas. Besides, fully enclosed covering should be provided for the temporary storage of asbestos materials at site before disposal to CTSDf.
- iv. Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/ accidents.
- v. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- vi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- vii. Occupational health surveillance of the workers shall be done on a regular basis.

**X. Corporate Environment Responsibility:**

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 01.05.2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.

- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

**XI. Miscellaneous:**

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- v. The project proponent shall 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.
- vi. The criteria pollutant levels namely; PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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**ANNEXURE-5****Standard EC Conditions for Project/Activity 7(g): Aerial ropeways****I. Statutory compliance:**

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area)
- iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- V. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- VI. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
- II. Air quality monitoring and preservation:**
  - i. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub> in reference to PM emission) covering upwind and downwind directions.
  - ii. Appropriate Air Pollution Control (APC) system (both during the construction and operation) shall be provided for all the dust generating points *inter alia* including loading, unloading, transfer points, fugitive dust from all vulnerable sources, so as to comply prescribed standards.
  - iii. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
  - iv. Adequate parking shall be constructed at upper terminal and lower terminal. PP shall ensure smooth traffic management.
- III. Water quality monitoring and preservation:**
  - i. Storm water from the project area shall be passed through settling chamber.
  - ii. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
  - iii. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
  - iv. Prior permission from competent authority shall be obtained for use of fresh water.
  - v. No wastewater shall be discharged in open. Appropriate Water Pollution Control system shall be provided for treatment of waste water.
  - vi. A certificate from the competent authority, in case of discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
- IV. Noise monitoring and prevention:**
  - i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
  - ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time..
- V. Energy Conservation measures:**
  - i. Energy conservation measures like installation of LED/CFLs/TFLs for lighting should be integral part of the project design and should be in place before project commissioning.
  - ii. Solar energy shall be used in the project i.e. at upper terminal and lower terminal to reduce the carbon footprint.
- VII. Waste management**
  - i. The solid wastes shall be segregated, managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
  - ii. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016.
  - iii. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
- VIII. Public hearing and Human health/safety issues:**
  - i. Comply with the safety procedures, norms and guidelines (as applicable) as outlined in IS 5228, IS 5229 and IS 5230, code of practice for construction of aerial ropeways, Bureau of Indian Standards.
  - ii. Maintaining hoists and lifts, lifting machines, chains, ropes, and other lifting tackles in good condition.
  - iii. Ensuring that walking surfaces or boards at height are of sound construction and are provided with safety rails or belts.
  - iv. The project should conform to the norms prescribed by the Director General Mine safety. Necessary clearances in this regard shall be obtained.
  - v. Adequate infrastructure, including power, shall be provided for emergency situations and disaster management.
  - vi. Adequate first aid facility shall be provided during construction and operation phase of the project.
  - vii. Regular safety inspection shall be carried out of the ropeway project and a copy of safety inspection report should be submitted to the Regional Office.
  - viii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- IX. Corporate Environment Responsibility:**
  - i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 01.05.2018, as applicable, regarding Corporate Environment Responsibility.
  - ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any

infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

**X. Miscellaneous:**

- i. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- v. The project proponent shall 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.
- vi. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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**ANNEXURE-6****Standard EC Conditions for Project/Activity 7(h): Common Effluent Treatment plants (CETPs)****I. Statutory compliance:**

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area)
- iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- v. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- vi. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- vii. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

**II. Air quality monitoring and preservation:**

- i. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Diesel generating sets shall be installed, in the downwind directions.
- ii. Appropriate Air Pollution Control (APC) system shall be provided for fugitive dust from all vulnerable sources, so as to comply prescribed standards.

**III. Water quality monitoring and preservation:**

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
- iii. There shall be flow meters at inlet and outlet of CETP to monitor the flow. Suitable meters shall be provided to measure the quantity of effluent received, quantity of effluent recycled/reused and discharged.
- iv. The units and the CETP will maintain daily log book of the quantity and quality of discharge from the units, quantity of inflow into the CETP, details of the treatment at each stage of the CETP including the raw materials used, quantity of the treated water proposed to be recycled, reused within the Industrial park/units, quantity of the treated effluent discharged. All the above information shall be provided on-line of the web site exclusively prepared for the purpose by the CETP owner. The website shall be accessible by the public. The financial and energy details of the CETP will also be provided along with details of the workers of the CETP.
- v. The CETP operator will maintain an annual register of member units which will contain the details of products with installed capacities and quality and quantity of effluents accepted for discharge. This will form a part of the initial and renewal applications for consent to operate to be made before the State Pollution Control Board.
- vi. No changes in installed capacity, quality or quantity of effluents as agreed upon in the initial MOU between the operator and the member units, addition of any new member units shall be carried without prior approval of the ministry
- vii. The Unit shall inform the State Pollution Control Board at least a week prior to undertaking maintenance activities in the recycle system and store/dispose treated effluents under their advice in the matter.
- viii. The unit shall also immediately inform the Pollution Control Board of any breakdown in the recycling system, store the effluents in the interim period and dispose effluents only as advised by the Pollution Control Board.
- ix. The MoU between CETP and member units shall indicate the maximum quantity of effluent to be sent to the CETP along with the quality.
- x. The unit shall maintain a robust system of conveyance for primary treated effluents from the member units and constantly monitor the influent quality to the CETP. The Management of the CETP and the individual member shall be jointly and severally responsible for conveyance and pre-treatment of effluents. Only those units will be authorized to send their effluents to the CETP which have a valid consent of the Pollution Control Board and which meet the primary treated standards as prescribed. The CETP operator shall with the consent of the State Pollution Control Board retain the powers to delink the defaulter unit from entering the conveyance system.
- xi. The effluent from member units shall be transported through pipeline. In case the effluent is transported thorough road, it shall be transported through CETP tankers only duly maintaining proper manifest system. The vehicles shall be fitted with proper GPS system.
- xii. Before accepting any effluent from member units, the same shall be as permitted by the SPCB in the consent order. No effluent from any unit shall be accepted without consent from SPCB under the Water Act, 1974 as amended.
- xiii. Treated water shall be disposed on land for irrigation. An irrigation management plan shall be drawn up in consultation with and to the satisfaction of the State Pollution Control Board.
- xiv. The Project proponents will build operate and maintain the collection and conveyance system to transport effluents from the industrial units in consultation with and to the satisfaction of the State Pollution Control Board and ensure that the industrial units meet the primary effluent standards prescribed by the State Pollution Control Board.
- xv. The State Pollution Control Board will also evaluate the treatment efficiency of the Effluent Treatment Plant (ETP) and its capability of meeting the prescribed standards. The final scheme of treatment would be such as is approved by the Pollution Control Board in the Consent to Establish.
- xvi. The project proponents will create an institutional arrangement for the involvement of individual members in the management of the CETP.

**IV. Noise monitoring and prevention:**

- i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.

- iii. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
- V. Waste management:**
  - i. ETP sludge generated from CETP facility shall be handled and disposed to nearby authorized TSDF site as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
  - ii. Non Hazardous solid wastes and sludge arising out of the operation of the CETP shall be adequately disposed as per the Consent to be availed from the State Pollution Control Board. Non Hazardous solid wastes and sludge shall not be mixed with Hazardous wastes.
  - iii. The CETP shall have adequate power back up facility, to meet the energy requirement in case of power failure from the grid.
  - iv. The site for aerobic composting shall be selected and developed in consultation with and to the satisfaction of the State Pollution Control Board. Odour and insect nuisance shall be adequately controlled.
  - v. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
  - vi. The solid wastes shall be segregated, managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
- VI. Energy Conservation measures:**
  - i. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
  - ii. Provide LED lights in their offices and residential areas
- VII. Green Belt:**
  - i. Green belt shall be developed in area as provided in project details, with native tree Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
- VIII. Public hearing and Human health issues:**
  - i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
  - ii. Adequate infrastructure, including power, shall be provided for emergency situations and disaster management.
  - iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
  - iv. Occupational health surveillance of the workers shall be done on a regular basis.
- IX. Corporate Environment Responsibility:**
  - i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 01.05.2018, as applicable, regarding Corporate Environment Responsibility.
  - ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
  - iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
  - iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
  - v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- X. Miscellaneous:**
  - i. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.
  - ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
  - iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
  - iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
  - v. The project proponent shall 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.
  - vi. The criteria pollutant levels or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
  - vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of operation by the project.
  - viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
  - ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
  - x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
  - xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
  - xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
  - xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
  - xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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**ANNEXURE-7****Standard EC Conditions for Project/Activity 7(i): Common Municipal Solid Waste Management Facility (CMSWMF)**

- I. Statutory compliance:**
  - i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
  - ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
  - iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area)
  - iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
  - v. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
  - vi. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
  - vii. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.
- II. Air quality monitoring and preservation:**
  - i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. (for projects involving incineration).
  - ii. As proposed, air pollution control device viz. gas quencher; treatment with mixture of hydrated lime and activated powder for adsorption of partial acidity and VOCs (if any); bagfilter/ESP for removal of particulate matter; venturi scrubber followed by packed bed scrubber with caustic circulation to neutralize the acidic vapours in flue gas; and demister column for arresting water carry over will be provided to the incinerator. Online pollutant monitoring shall be provided as per CPCB guidelines for monitoring particulate matter, SO<sub>2</sub>, NO<sub>x</sub> and CO from the incinerator stack. The periodical monitoring of Dioxins and Furans in the Stack emissions shall be carried out.
  - iii. Analysis of Dioxins and Furans shall be done through CSIR-National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram or equivalent NABL Accredited laboratory.
  - iv. Incinerator shall be designed as per CPCB guidelines. Energy shall be recovered from incinerator.
  - v. Gas generated in the Land fill should be properly collected, monitored and flared.
  - vi. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub> in reference to PM emission, and SO<sub>2</sub> and NO<sub>x</sub> in reference to SO<sub>2</sub> and NO<sub>x</sub> emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- III. Water quality monitoring and preservation:**
  - i. The project proponent shall install continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
  - ii. Sufficient number of Piezometer wells shall be installed in and around the project site to monitor the ground water quality in consultation with the State Pollution Control Board / CPCB. Trend analysis of ground water quality shall be carried out each season and information shall be submitted to the SPCB and the Regional Office of MoEF&CC.
  - iii. The depth of the land fill site shall be decided based on the ground water table at the site.
  - iv. Rain water runoff from the landfill area and other hazardous waste management area shall be collected and treated in the effluent treatment plant.
  - v. Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
  - vi. The Company shall ensure proper handling of all spillages by introducing spill control procedures for various chemicals.
  - vii. All leachates arising from premises should be collected and treated in the ETP followed by RO. RO rejects shall be evaporated in MEE. Toxicity Characteristic Leaching Procedure (TCLP) test to be performed on leachates.
  - viii. Scrubber water, leachate water or wheel wash effluent shall be treated in the effluent treatment plant followed by RO to achieve zero liquid discharge.
  - ix. Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused within the project.
  - x. A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
- IV. Waste management:**
  - i. No non-hazardous wastes, as defined under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, shall be handled in the premises.
  - ii. The solid wastes shall be segregated, managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
  - iii. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
  - iv. A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- V. Transportation:**
  - i. Project should ensure that the site is properly cordoned off from general movement and no unauthorized person or goods permitted to enter the premises. Necessary security provision should be made as a condition in the Authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 to prevent unwanted access.
  - ii. Traffic congestion near the entry and exit points from the roads adjoining the project site shall be avoided. Parking should be fully internalized and no public space should be utilized.
  - iii. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 02 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be

based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 02 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

**VI. Green belt:**

- i. Green belt shall be developed in an area as provided in project details, with native tree species in accordance with Forest Department. The greenbelt shall inter alia cover the entire periphery of the project site.
- ii. Top soil shall be separately stored and used in the development of green belt.

**VII. Public hearing and Human health/safety issues:**

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- iii. Occupational health surveillance of the workers shall be done on a regular basis.

**VIII. Corporate Environment Responsibility:**

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 01.05.2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

**IX. Miscellaneous:**

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently. (for projects involving incineration)
- ii. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed (For projects involving only Landfill without incineration)
- iii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iv. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall 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.
- vii. The criteria pollutant levels namely; PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain (in case of incineration involved).
- viii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- ix. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- x. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- xi. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xii. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xiii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiv. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xvi. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvii. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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**ANNEXURE-8****Standard EC Conditions for Project/Activity 8(a/b): Building and Construction projects / Townships and Area Development projects****I. Statutory compliance:**

- i. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- ii. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc as per National Building Code including protection measures from lightning etc.
- iii. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- iv. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- v. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- vi. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
- vii. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- viii. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
- ix. The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste Management Rules, 2016, shall be followed.
- x. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

**II. Air quality monitoring and preservation:**

- i. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
- ii. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub>) covering upwind and downwind directions during the construction period.
- iv. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
- v. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
- vi. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
- vii. Wet jet shall be provided for grinding and stone cutting.
- viii. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- ix. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Management Rules 2016.
- x. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- xi. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- xii. For indoor air quality the ventilation provisions as per National Building Code of India.

**III. Water quality monitoring and preservation:**

- i. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.
- ii. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- iii. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
- iv. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- v. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
- vi. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- vii. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- viii. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- ix. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- x. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- xi. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.

- xii. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
- xiii. All recharge should be limited to shallow aquifer.
- xiv. No ground water shall be used during construction phase of the project.
- xv. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.
- xvi. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- xvii. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
- xviii. No sewage or untreated effluent water would be discharged through storm water drains.
- xix. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
- xx. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- xxi. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- IV. Noise monitoring and prevention:**
  - i. Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
  - ii. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
  - iii. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
- V. Energy Conservation measures:**
  - i. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
  - ii. Outdoor and common area lighting shall be LED.
  - iii. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
  - iv. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
  - v. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.
  - vi. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.
- VI. Waste Management:**
  - i. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
  - ii. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
  - iii. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
  - iv. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
  - v. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
  - vi. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
  - vii. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
  - viii. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27<sup>th</sup> August, 2003 and 25<sup>th</sup> January, 2016. Ready mixed concrete must be used in building construction.
  - ix. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
  - x. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.
- VII. Green Cover:**
  - i. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).

- ii. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
  - iii. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
  - iv. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- VIII. Transport**
- i. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
    - a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
    - b. Traffic calming measures.
    - c. Proper design of entry and exit points.
    - d. Parking norms as per local regulation.
  - ii. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
  - iii. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
- IX. Human health issues:**
- i. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
  - ii. For indoor air quality the ventilation provisions as per National Building Code of India.
  - iii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
  - iv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
  - v. Occupational health surveillance of the workers shall be done on a regular basis.
  - vi. A First Aid Room shall be provided in the project both during construction and operations of the project.
- X. Corporate Environment Responsibility:**
- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 01.05.2018, as applicable, regarding Corporate Environment Responsibility.
  - ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
  - iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
  - iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- XI. Miscellaneous:**
- i. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.
  - ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
  - iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
  - iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
  - v. The project proponent shall 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.
  - vi. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
  - vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
  - viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
  - ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change (MoEF&CC).
  - x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
  - xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
  - xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.



- xiii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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