

**MINUTES OF 79<sup>th</sup> MEETING OF EXPERT APPRAISAL COMMITTEE (INFRASTRUCTURE-2) HELD ON 31<sup>st</sup> DECEMBER, 2021.**

**VENUE: Through Video Conferencing**

**DATE: 31<sup>st</sup> December, 2021**

**PROCEEDINGS**

**79.1 Opening Remarks of the Chairman:** The Chairman and Members extended warm welcome with each other and other participants of the meeting. It was noted that the Chairman of the EAC (Infra 2), Dr. N.P. Shukla, has been appointed as Full-time Independent Technical Member in the Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM). Since NOC from MoEF&CC for continuing as Chairman of EAC (Infra-2) in this regard is awaited, Dr. N.P. Shukla designated Dr. H.C. Sharatchandra as the interim Chairman for the 79<sup>th</sup> EAC meeting. Thereafter, the meeting was opened to start proceeding as per the agenda adopted for this meeting.

**79.2 Confirmation of Minutes of 78<sup>th</sup> Meeting of Expert Appraisal Committee (Infrastructure-2) held during 14-15<sup>th</sup> December, 2021.**

The Expert Appraisal Committee (Infrastructure-2), hereinafter called the EAC, was informed that no representation has been received regarding projects considered in 78<sup>th</sup> meeting. Minutes of 78<sup>th</sup> meeting of EAC were confirmed. The typo errors, if any noticed during processing of these cases may be corrected in the light of facts and figures provided by the respective Project Proponent.

**79.3 Consideration of Proposals:** The EAC considered proposals as per the agenda adopted for the 79<sup>th</sup> meeting. The details of deliberations held and decisions taken in the meeting are as under:

**AGENDA ITEM NO. 79.3.1**

**Development of Integrated Solid Waste Management Project including Sanitary Landfill (5 LMT) at Khasra No. 133-134, 136-170, Mangroli Dostpur village, Gautam Budh Nagar Taluk, Sector-167, Noida, Uttar Pradesh by M/s Noida Authority - Terms of Reference**

**(IA/UP/MIS/226743/2021; F. No. 21-121/2021-IA-III)**

1. The Project Proponent (M/s. Noida Authority) along with his consultant 'M/s. Ind Tech House Consult', made a presentation on the key parameters and salient features of the project to the EAC (Infra-2). The EAC took note of following key parameters and salient features of the project, as presented during the meeting; provided in the brief and application for this project:

- i. The project is located at Khasra No. 133-134, 136-170, Mangroli Dostpur village, Gautam Budh Nagar Taluk, Sector-167, NOIDA, Uttar Pradesh with coordinates 28°28'56.61"N Latitude and 77°24'38.92"E Longitude.
- ii. The project is new.
- iii. For setting up for the proposed facility, two sites were examined, one was in sector 145 in village Mubarakpur, Noida and the other one was at Village Mangroli Dostpur, Sector 167, Gautam Budh Nagar. Site in sector 167 was found more suitable for the proposed facility and the same was confirmed in the Resolution of Board meeting of NOIDA dated 31.01.2019.
- iv. The proposed Integrated MSW Processing and Disposal Facility will be established in an area of approx. 12.59 hectare including sanitary landfill area of 8.59 Ha. The details of the proposed site w.r.t permissible criteria are given as follows:

| <b>Location Criteria</b>  | <b>Village Mangroli Dostpur, Sector 167, Gautam Budh Nagar</b>  |
|---|---|
| <b>Lake or Pond:</b> No landfill should be constructed within 200 m of any lake or pond. Because of concerns regarding runoff of waste water contact, a surface water monitoring program should be established if a landfill is sited less than 200 m from a lake or pond.  | No lake or pond within 200 m radius of the site.  |
| <b>River:</b> No landfill should be constructed within 100 m of a navigable river or stream. The distance may be reduced in some instances for non-meandering rivers but a minimum of 30 m should be maintained in all cases.   | Yamuna River is 280 m away from project site.   |
| <b>Flood Plain:</b> No landfill should be constructed within a 100 year flood plain. A landfill may be built within the flood plains of secondary streams if an embankment is built along the stream side to avoid flooding of the area. However, landfills must not be built within the flood plains of major rivers unless properly designed protection embankments are constructed around the landfills. | The project site falls in the HFL zone of Yamuna river and has been confirmed vide letter from the irrigation department dated 02.03.2020 |

|   |   |
|---|---|
| <p><b>Highway:</b> No landfill should be constructed within 200 m of the right of way of any state or national highway. This restriction is mainly for aesthetic reasons. A landfill may be built within the restricted distance, but no closure than 50 m, if trees and berms are used to screen the landfill site.</p>              | <p>No national or state highway within 200 m of the site.</p>   |
| <p><b>Habitation:</b> A landfill site should be at least 500 m from a notified habitated area. A zone of 500 m around a landfill boundary should be declared a No-Development Buffer Zone after the landfill location is finalized.</p>   | <p>Dostpur Mangroli Bangar village population 2500 approx. – 200 m on SE.<br/>Nagli Sakpur village population 1800 approx. 900 m on SW.</p> |
| <p><b>Public Parks:</b> No landfill should be constructed within 300 m of a public park. A landfill may be constructed within the restricted distance if some kind of screening is used with a fence around the landfill and a secured gate.</p>  | <p>No public park within 300 m.</p>   |
| <p><b>Critical Habitat Area:</b> No landfill should be constructed within critical habitat areas. A critical habitat area is defined as the area in which one or more endangered species live. It is sometimes difficult to define a critical habitat area. If there is any doubt then the regulatory agency should be contacted.</p> | <p>No critical habitat area with the site.</p>  |
| <p><b>Wetland:</b> No landfill should be constructed within wetlands. It is often difficult to define a wetland area. Maps may be available for some wetlands, but in many cases such maps are absent or are incorrect. If there is any doubt, then the regulatory agency should be contacted.</p>                                    | <p>Not a wetland.</p>   |
| <p><b>Ground Water Table:</b> A landfill should not be constructed in areas where water table is less than 2 m below ground surface. Special design measures be adopted, if this cannot be adhered to.</p>  | <p>Ground water table is approx. 4 m BGL.</p>   |
| <p><b>Airports:</b> No landfill should be constructed within the limits prescribed by regulatory agencies (MoEF/CPCB/Aviation Authorities) from time to time.</p>   | <p>Hindon Airport - 25.52 km on NW<br/>IGI Airport, New Delhi - 26.69 km on NW.</p>   |

|  |   |
|--|---|
| <b>Water Supply Well:</b> No landfill should be constructed within 500 m of any water supply well. It is strongly suggested that this locational restriction be abided by at least for down gradient wells. Permission from regulatory agency may be needed if a landfill is to be sited within the restricted area. | No centralized water supply well exists around the project site. However, water supply pipelines are available in the area. |
| <b>Coastal Regulation Zone:</b> A landfill should not be sited in a coastal regulation zone.   | Site not located in a coastal regulation zone.  |
| <b>Unstable Zone:</b> A landfill should not be located in potentially unstable zones such as landslide prone areas, fault zone etc.  | Not in a potentially unstable zone.   |

- v. The facility will have a compost plant of capacity 1500 MT/day and inert waste landfill of capacity 5,00,000 MT. Collected solid waste will be transferred to the facility where organic wastes will be composted and the inert wastes will be disposed to landfill. The project details are given as follows:

| S. No. | Features          |  | Source/Remarks   |
|--------|-------------------|--|--|
| 1.     | Land Area         | 12.59 Ha<br>[8.59 ha (Landfill area)<br>+4 ha (Compost and processing area)] | Present land use is open land - change in land use is required for development of Solid Waste Management Facility. |
| 2.     | Water Requirement | Approx. 100 KLD  | Ground water (not for drinking purpose)  |
| 3.     | Power Requirement | 600 KW   | UPPCL Grid   |

- vi. Forest Clearance is not required.  
vii. NBWL Clearance is not required.  
viii. There is no court case pending against the project.  
ix. Estimated Cost of project is ₹22.47 Lacs.  
x. Benefits of the project – Proper management of waste as compared to current crude dumping leading to improved environment and aesthetics. Supports recycle & reuse of waste. The waste will be collected at one place, improving aesthetic of the area. Odours due to scattered decomposed waste, will be minimized. Substantial reduction (at least 80%) in the overall waste quantities requiring final disposal. Scientific disposal of Processing Rejects/Inerts in the proposed SLF to reduce the Greenhouse gases emission.

2. The EAC noted that the project/activity is covered under category 'B' of item 7(i) 'Common Municipal Solid Waste Management Facility (CMSWMF)' of the Schedule to the EIA Notification, 2006 and its subsequent amendments. However, General Condition is applicable since Uttar Pradesh - Haryana interstate boundary is located at a radial distance of 1.7 km from the proposed site. Therefore, the project comes under category 'A' and requires appraisal at Central level by sectoral EAC.

3. *The EAC (Infra-2), based on the information submitted, clarifications provided by the Project Proponent and detailed discussions held the location of the proposed project within the HFL zone of Yamuna river is not suitable for landfill site. Accordingly, the EAC decided to return the instant proposal in its present form and advised the project proponent to identify alternate sites conforming to the location criteria as specified by CPCB.*

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### **AGENDA ITEM NO. 79.3.2**

**Establishment of proposed facility for incineration of Hazardous waste and Non-Hazardous waste with a capacity of 300 TPM at Plot No. 43 & 44, KIADB Industrial Area, 2nd phase, Kudumalakunte Village, Kasaba Hobli, Gowribidanur Taluk, Chikkaballapura District, Karnataka by M/s HRS Incinerators – Terms of Reference**

**(IA/KA/MIS/245398/2021; F. No. 21-122/2021-IA-III)**

1. The Project Proponent (M/s HRS Incinerators) along with his team made a presentation on the key parameters and salient features of the project to the EAC (Infra-2). The EAC took note of following key parameters and salient features of the project, as presented during the meeting; provided in the brief and application for this project:

- i. The project is located at Plot No. 43 & 44, KIADB Industrial Area, 2<sup>nd</sup> phase, Kudumalakunte Village, Kasaba Hobli, Gowribidanur Taluk, Chikkaballapura District, Karnataka with site boundary coordinates as given below:

| <b>Boundary Points</b> | <b>Latitude</b> | <b>Longitude</b> |
|------------------------|-----------------|------------------|
| A                      | 13°42'8.35"N    | 77°30'8.94"E     |
| B                      | 13°42'8.35"N    | 77°30'7.60"E     |
| C                      | 13°42'6.77"N    | 77°30'7.58"E     |
| D                      | 13°42'6.72"N    | 77°30'8.94"E     |

- ii. The project is new.
- iii. The project for setting up of facility for incineration of hazardous waste and non-hazardous waste is proposed in land allotted by Karnataka Industrial Areas Development Board (KIADB) with a total plot area of 2025 sqm.
- iv. The salient features of the project are given as follows:

| Item                        | Description  |
|-----------------------------|--|
| Capacity of the unit        | 300 TPM  |
| Incinerator type & capacity | Rotary Kiln Incinerator with a 500 kg/hr waste processing capacity |
| Manpower                    | Total - 20 Nos   |
| Water requirement & source  | Total - 10 KLD Source - KIADB                                      |
| Power requirement           | Source - BESCO<br>Total -50 KVA                                    |
| Backup power (DG sets)      | Total -50 KVA  |

v. The land use breakup proposed is given as follows:

| Description of usage | Area in Sqm. | % Usage |
|----------------------|--------------|---------|
| Ground Coverage area | 832          | 41      |
| Driveway area        | 525          | 26      |
| Landscape area       | 668          | 33      |
| Total                | 2025         | 100     |

vi. The total fresh water demand for the proposed project is 9.9 KLD which will be met by KIADB. The details of water requirement and management are given as follows:

| S. No. | Purpose        | Fresh water (KLD) | Effluent Generation (KLD) | Treatment method                 |
|--------|----------------|-------------------|---------------------------|----------------------------------|
| 1      | Wet Scrubber   | 1                 | 0.75                      | Sent to CETP                     |
| 2      | Washing        | 5                 | 4.5                       | septic tank followed by soak pit |
| 3      | Domestic usage | 0.9               | 0.72                      |                                  |
| 4      | Gardening      | 3                 | -                         |                                  |
|        | Total          | 9.9               | 6.0                       |                                  |

vii. Details of solid waste and hazardous waste management are given as follows:

| S. No. | Waste Category | Types of Hazardous waste     | Quantity (KL or MT/Y) | Mode of disposal   |
|--------|----------------|------------------------------|-----------------------|--|
| 1      | 5.1            | Used oil                     | 1.5 KL                | Disposed to KSPCB authorized recyclers                       |
| 2      | 5.2            | Oil Contaminated filters     | 100 Nos               | Shall be stored in a secured manner and incinerated in-house |
| 3      | 5.2            | Oil soaked cotton waste      | 0.5 Ton               | Shall be stored in a secured manner and incinerated in-house |
| 4      | 33.1           | Used bags (contaminated with | 5 Tons                | Shall be stored in a secured manner and                      |

|   |      |  |         |   |
|---|------|--|---------|---|
|   |      | chemicals and oil)                                 |         | incinerated in-house  |
| 5 | 33.2 | Chemical contaminated cotton waste                 | 1 TPA   | Shall be stored in a secured manner and incinerated in-house                      |
| 6 | 33.2 | Contaminated hand gloves, gum boots etc.           | 500 Nos | Shall be stored in a secured manner and incinerated in-house                      |
| 7 | 37.1 | Sludge from wet scrubbers                          | 0.1     | Collected and stored in a secured manner and disposed through landfilling (TSDF)  |
| 8 | 37.2 | Ash from incinerator and flue gas cleaning residue | 36 TPA  | Collected and stored in secured manner and used for in-house bricks manufacturing |

- viii. Power demand is 50 KVA which will be met by Bangalore Electricity Supply Company Limited (BESCOM). 50 KVA DG will be used as backup power.
- ix. The proposed project is located in Notified KIADB Industrial area.
- x. NBWL Clearance is not required.
- xi. Forest Clearance is not required.
- xii. No court case is pending against the project.
- xiii. Investment/Cost of the project is ₹4.5 Crores.
- xiv. Employment potential - During the construction of the proposed project, skilled and unskilled labour will be required. In the operating phase, 20 No.s of worker are required to handle melting, transportation, disposal, and administrative activities.
- xv. Benefits of the project: Facilitating better management of hazardous wastes by Incineration.

**2.** The EAC noted that 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.

**3.** *The EAC (Infra-2), based on the information, clarifications provided by the Project Proponent and detailed discussions held on all the issues, 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. Details of various waste management units with capacities for the proposed project. Details of utilities indicating size and capacity to be provided.
- iii. List of waste to be handled and their source along with mode of transportation. Characteristics of each type of waste to be handled.

- iv. List of proposed end receivers for the rejects/inerts should be provided. MoUs to be submitted in this regard.
- v. The EIA would address to the conformity of site to the stipulations as made in the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and will have a complete chapter indicating conformity to the said rules.
- vi. Project proponents would also submit a write up on how their project proposal conform to the stipulations made in the "Protocol for Performance evolution and monitoring of the Common Hazardous Waste Treatment Storage and Disposal facilities including common Hazardous Waste incinerators", published by the CPCB on May 24, 2010.
- vii. Other chemicals and materials required with quantities and storage capacities.
- viii. Details of temporary storage facility for storage of hazardous waste at project site.
- ix. Details of pre-treatment facility of hazardous waste at TSDF.
- x. Details of air emissions, effluents, hazardous/solid waste generation and their management.
- xi. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- xii. Process description along with major equipment and machineries, process flow sheet (quantitative) from waste material to disposal to be provided.
- xiii. Hazard identification and details of proposed safety systems.
- xiv. Details of drainage of the project up to 5 km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided.
- xv. Ground water quality monitoring in and around the project site.
- xvi. The Air Quality Index shall be calculated for base level air quality.
- xvii. Status of the land purchases in terms of land acquisition Act.
- xviii. Details of effluent treatment and recycling process.
- xix. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project.
- xx. A detailed Plan for green belt development.
- 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. The project proponents shall satisfactorily address all the complaints/suggestions that have been received against the project till the date of submission of proposals for Appraisal.
- xxiii. Cost of project and time of completion.
- xxiv. A tabular chart with index for point wise compliance of above TORs.



xxv. 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.

4. Since the project is located KIADB industrial area which is a notified industrial area, EAC exempted from the requirement of conducting Public consultation for the proposed project, as per para 7(i) III Stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP report for this project.

5. It was also recommended that 'ToR' prescribed by EAC should be considered with the exemption from the requirement of public consultation/hearing 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. 79.3.3**

**Proposed residential project with total built-up area of 58,556 sqm at Kuravankonam, Kowdiar Village, Thiruvananthapuram Taluk & District, Kerala to be developed by M/s Prime Property Developers – Environmental Clearance**

**(IA/KL/MIS/246018/2021; F. No. 21-123/2021-IA-III)**

1. The Project Proponent (M/s. Prime Property Developers) along with his consultant 'M/s. Environmental Engineers & Consultants Pvt. Ltd.', made a presentation on the key parameters and salient features of the project to the EAC (Infra-2). The EAC took note of following key parameters and salient features of the project, as presented during the meeting; provided in the brief and application for this project:

- i. The project is located at Kuravankonam in Block no. 31, Resurvey nos. 13, 14/part, 22, 23, 24, 74, 75, 80, 91 & 92 of Kowdiar Village, Thiruvananthapuram Taluk & District, Kerala with coordinates from 08°31'11.34"N to 08°31'16.98"N Latitude and 76°56'54.19"E to 76°56'59.18"E Longitude.
- ii. The project is new.
- iii. The total plot area is 10,214 sqm, FSI area is 40,754 sqm and total construction (Built-up) area is 58,556 sqm. The project will comprise of 2 no. of residential apartment blocks. Total 232 nos. of flats shall be developed. Maximum height of the building is 99 m. The details of building are as follows:

| <b>Name of Building</b> | <b>Max. no. of floors</b>    |           | <b>Max. Height</b> | <b>Built-up area</b> |
|-------------------------|------------------------------|-----------|--------------------|----------------------|
| 2 Nos Residential       | LG + UG + Ground + 29 floors |           | 99 m               | 58,556 sqm.          |
|                         | Lower Ground                 | Parking + |                    |                      |

|                 |  |                    |  |  |
|-----------------|--|--------------------|--|--|
| Building Blocks |  | Services           |  |  |
|                 | Upper Ground                                 | Parking + Services |  |  |
|                 | Ground floor                                 | Parking + Services |  |  |
|                 | 1 <sup>st</sup> floor to 29 floors (typical) | Apartments         |  |  |

- iv. During construction phase, total water requirement is expected to be 54 KLD which will be met by recycled water from portable STP/stored rain water (tank) for construction purposes and well water/Kerala Water Authority (KWA) supply for meeting the domestic water requirement expected to be 11 KLD. During the construction phase, portable STP will be provided for disposal of wastewater. Temporary sanitary toilets will be provided during peak labor force.
- v. During operational phase, total water demand of the project is expected to be 173 KLD and the same will be met by 108 KLD fresh water from stored rain watertanks/KWA/well water (2 Nos wells) and 65 KLD recycled water. Wastewater generated (135 KLD) will be treated in STP of total 165 KLD capacity. 122 KLD of treated wastewater will be generated of which 65 KLD will be recycled and re-used (60 KLD for flushing, 5 KLD for gardening etc.) within the site. About 57 KLD of excess treated water from STP will be used for farming & horticulture purposes within Thiruvananthapuram Municipal Corporation.
- vi. About 500 kg/day solid waste will be generated in the project. The biodegradable waste (250 kg/day) will be processed in bio-bin unit and the non-biodegradable waste generated (250 kg/day) will be handed over to authorized local vendor. An area equivalent of about 125 sqm. for about 15 days storage of non-biodegradable waste would be provided. The hazardous waste (used oil & discarded batteries attached to D.G. sets) will be stored in the designated services area and will be disposed to CPCB / SPCB authorized vendors.
- vii. There are old buildings (100 sqm. of total built-up area)/sheds within the site and which will be demolished for the development of the proposed site. The salvageable materials from the demolition debris would be recovered. The remaining demolition debris and the construction debris would be used for site preparatory works.
- viii. The total power requirement during operation phase is 4,000 kW (connected load) and will be met from Kerala State Electricity Board (KSEB) & DG Sets (200 kVA x 1 no. + 180 kVA x 1 no.) as a standby power back up arrangement. Total power requirement during construction phase is 100 kW and will be met from KSEB & DG Sets (standby).
- ix. Rooftop rainwater of buildings will be collected in RWH tanks of total 200 KL (100 KL x 2 nos) capacity for harvesting after filtration.
- x. Parking facility for 390 cars + 383 two wheelers is proposed to be provided against the requirement of 301 cars + 376 two wheelers

- respectively (according to local norms). Provision for charging for electrically operated vehicles (20%) is proposed in each parking floor.
- xi. Proposed energy saving measures would save about 20% of power.
  - xii. Solar PV installation of 400 kWp capacity shall be provided to meet 10% of the connected load.
  - xiii. The total excavated soil is about 6,000 cu.m. The excavated earth of 300 cu.m. will be preserved for landscaping purposes, 500 cu.m. will be using for backfilling purposes and 200 cu.m. will be using for internal road construction purposes. The remaining excess excavated earth of about 5,000 cu.m. will be stored in the land bank of the project proponent at Pullukad Attipra Village located at a distance of about 6 km (W) from the proposed site.
  - xiv. The project requires building height clearance from airport authority and fire & rescue department, which are in process.
  - xv. The project is not located in Critically Polluted area.
  - xvi. The project is not located within 10 km of Eco Sensitive Zone. NBWL Clearance is not required.
  - xvii. Forest Clearance is not required.
  - xviii. No court case is pending against the project.
  - xix. CRZ Clearance is not required.
  - xx. Total area for landscaping area proposed is 1,022 sqm. (412 sqm. at podium level & 610 sqm. at natural ground level) (total about 10% of total plot area). 30 trees will be cut and 460 trees are proposed to be planted within the site.
  - xxi. Expected timeline for completion of the project - About 48 months from the date of start of construction.
  - xxii. Investment/Cost of the project is ₹131 Crores.
  - xxiii. Employment potential - About 150 persons.
  - xxiv. Benefits of the project – Employment opportunities & revenue to the State. The proposed residential project would provide better residential facilities with supporting infrastructure facilities and amenities to the residents.

**2.** The EAC noted that 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 non-existence of SEIAA in Kerala, it required appraisal at Central level by sectoral EAC.

**3.** *The EAC (Infra-2), based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held on all the issues, recommended granting environmental clearance to the project subject to the following specific conditions and other Standard EC Conditions as specified by the Ministry vide OM dated 4th January, 2019 for the said project/ activity while considering for accord of environmental clearance:*

- i. Abstraction of ground water shall be subject to the permission of Central Ground Water Authority (CGWA). Fresh water requirement shall not exceed 108 KLD during operational phase.

- ii. As proposed, wastewater shall be treated in an onsite STP of total 165 KLD capacity. At least 65 KLD of treated water from the STP shall be recycled and re-used for flushing (60 KLD) and for gardening (5 KLD). Excess treated water from STP (57 KLD) shall be used for farming & horticulture purposes as proposed. PP shall submit MoU for the disposal of excess treated water (outside the site) to the Regional Office of MoEF&CC along with six-monthly compliance report.
- iii. 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.
- iv. Area for greenery shall be provided as per the details provided in the project document i.e., area under plantation/greenery will be 1,022 sqm. (412 sqm. at podium level & 610 sqm. at natural ground level). As proposed, at least 460 trees shall be maintained during the operation phase of the project. The landscape planning should include plantation of native species. A minimum of 01 tree for every 80 sqm. of land should be planted and maintained. The existing trees will be counted for this purpose. Plantations to be ensured species (cut) to species (planted). 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.
- v. No tree can be felled/transplanted 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).
- vi. 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.
- vii. 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, RWH tank of total 200 KL capacity shall be provided by PP for rain water harvesting after filtration.
- viii. The solid waste shall be duly segregated into biodegradable and non-biodegradable components and handled in separate area earmarked for segregation of solid waste, as per SWM Rules, 2016. As committed, biodegradable waste shall be utilized through the Bio-Gas generation plant/bio-bin unit to be installed within the site. Inert waste shall be disposed off as per norms at authorized site. The recyclable waste

shall be sold to authorized vendors/recyclers. Construction & Demolition (C&D) waste shall be segregated and managed as per C&D Waste Management Rules, 2016.

- ix. The PP shall provide electric charging points in parking areas for e-vehicles as committed.
- x. As committed, solar energy installation of 400 kWp capacity to meet atleast 10% of the connected load shall be implemented.
- xi. The Environmental Clearance to the project is primarily under provisions of EIA Notification, 2006. The Project Proponent is under obligation to obtain approvals/clearances under any other Acts/Regulations or Statutes as applicable to the project.

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**AGENDA ITEM NO. 79.3.4**

**Proposed Residential Building Project ‘Artech L’Attitude’ with built-up area of 59878.50 sqm. at Sreekariyam, Ulloor Village, Thiruvananthapuram Taluk & District, Kerala by M/s Artech Realtors Private Limited -Reconsideration for Environmental Clearance**

**(IA/KL/MIS/238013/2021; F. No. 21-107/2021-IA-III)**

1. The EAC noted that the proposal was deferred in its 77<sup>th</sup> meeting held on 30<sup>th</sup> November, 2021 due to technical issues faced by the consultant and also since the documents were not circulated to the committee within the stipulated time.

2. The Project Proponent (M/s Artech Realtors Private Limited) along with his consultant ‘M/s. ULTRA TECH’, made a presentation on the key parameters and salient features of the project to the EAC (Infra-2). The EAC took note of following key parameters and salient features of the project, as presented during the meeting; provided in the brief and application for this project:

- i. The project is located at Block – 21, Survey No. 461/8, 461/9, 460/1-2, 460/1, 460/2, 460/3, 461/6, 461/5, 461/5-1, 451/7-2, 451/7-1, 451/12-1, 461/2, 461/1, 461/10, Sreekariyam, Ulloor Village, Thiruvananthapuram Taluk & District, Kerala with coordinates 8°33'00.50" N Latitude and 76°55'5.79" E Longitude.
- ii. The project is new.
- iii. The total plot area is 10211.79 sqm. (252.33 Cents), FSI area is 39089.51 sqm. and total construction (Built-up) area of 59878.50 sqm. The project will comprise of two Buildings of 26 floors (3 levels of sub-basements + entrance level + 22 floors). Total 320 dwelling units will be developed. Maximum height of the building is 78.90 m. The details of building are given as follows:

| Item          | Description                                     |
|---------------|---|
| Plot Area     | 10211.79 sqm. (252.33 Cents)                    |
| No. of floors | 26 floors (3 levels of sub-basements + Entrance |

|                           |   |                           |
|---------------------------|---|---------------------------|
|                           | level + 22 floors)  |                           |
| Total FSI area            | 39089.51 sqm.   |                           |
| FSI                       | 3.83  |                           |
| Permissible FSI           | 4   |                           |
| Coverage                  | 57 %  |                           |
| Total green area          | 950 sqm. (Ground- 680 sqm. and Podium- 270 sqm.)  |                           |
| No. of units              | 320 dwelling units (3 BHK- 131 Units and 2 BHK – 189 Units)<br><ul style="list-style-type: none"> <li>• Platinum Tower: 3 BHK -65 and 2 BHK - 105</li> <li>• Gold Tower: 3 BHK- 66 and 2 BHK- 84</li> </ul> |                           |
| Total occupancy estimated | 1600  |                           |
| Height of the building    | 78.90 m   |                           |
| Details of the building   | Name of the Floor   | Area (sqm.)               |
|                           | Sub-basement floor (-3 level)   | 5764.91                   |
|                           | Sub-basement floor (-2 level)   | 5764.91                   |
|                           | Sub-basement floor (-1 level)   | 5812.41                   |
|                           | Entrance Level  | 2571.53                   |
|                           | 1 <sup>st</sup> Floor   | 1440.52                   |
|                           | Platinum Tower  |                           |
|                           | 2 <sup>nd</sup> Floor & 3 <sup>rd</sup> Floor (Typical)   | 1951.90<br>(975.95 x 2)   |
|                           | 4 <sup>th</sup> Floor to 22 <sup>nd</sup> Floor (Typical)   | 18230.88<br>(959.52 x 19) |
|                           | Terrace Floor   | 84.24                     |
|                           | Golden Tower  |                           |
|                           | 2 <sup>nd</sup> Floor to 22 <sup>nd</sup> Floor (Typical)   | 18175.08<br>(865.48 x 21) |
|                           | Terrace Floor   | 82.12                     |
|                           | Total built-up area   |                           |

- iv. During construction phase, total water requirement is expected to be 82.2 KLD (including water for drinking and flushing for construction workers and for construction activities) which will be met by drinking water cans and two existing bore wells and an open well at the site (for flushing and construction activities). During the construction phase, portable STP will be provided for disposal of wastewater. Temporary sanitary toilets will be provided during the construction period.
- v. During operational phase, total water requirement of the project is expected to be 257 KLD during non-monsoon season and 251 KLD during monsoon season and the same will be met by 145 KLD freshwater from KWA supply/two existing bore wells & an open well/harvested rainwater and 112 KLD (non-monsoon season) & 106 KLD (monsoon season) recycled water. Wastewater generated (188 KLD) will be treated in a STP (MBBR technology followed by tertiary treatment including ultra-filtration) of total 200 KLD capacity. 170 KLD of treated wastewater will

be generated which will be recycled and reused (72 KLD for flushing, 6 KLD for gardening and 34 KLD for car and floor washing) and about 58 KLD (non-monsoon) and 64KLD (Monsoon) will be discharged into the existing natural drain.

- vi. About 0.640 TPD solid wastes will be generated in the project. The biodegradable waste (0.256 TPD) will be managed through biogas plant of capacity 300 kg/day and the non-biodegradable waste generated (0.384 TPD) will be handed over to authorized local vendor. Sludge from STP will be digested in biogas plant and slurry from biogas plant will be fed into STP.
- vii. Two existing old buildings (abandoned) of 525 sqm. built-up area are proposed to be demolished for the proposed construction. Demolition works will be done as per Construction and Demolition waste management rules 2016. The estimated quantity of demolition waste is 1600 cu.m. All the recoverable building materials can be recovered and reused and the remaining will be used in the project site for filling and levelling the site.
- viii. The total power requirement during construction phase is 50 kW and will be met by temporary 3 phase connection from Kerala State Electricity Board (KSEB). Total power requirement during operation phase is 1500 kVA and will be met from KSEB, solar panels and gas from biogas plant. Two DG Sets of 200 kVA each are proposed as a source of backup power.
- ix. Rooftop rainwater of buildings will be collected in a RWH tank of total 200 KL capacity for harvesting after filtration. The runoff during the operation phase will be managed through a well-designed network of storm water drain with 17 detention tanks of capacity 10 cu.m. each and 51 rain gardens of capacity 0.5 cu.m. each for ground water recharge. Any excess runoff, will be discharged into the existing natural drain.
- x. An existing open drain abutting the project site will be rejuvenated and maintained.
- xi. Parking facility for 356 nos of four wheelers and 1499 sqm. area for two wheelers is proposed to be provided against the requirement of 345 nos and 1095 sqm. area respectively (according to local norms). Charging stations for electric vehicles (@ 20% of total nos) are proposed in all three sub-basement levels.
- xii. Proposed energy saving measures would save about 200 units/day (16.7%) of power by the usage of solar panels of capacity 40 KW and 7 KW of power from the gas generated from the biogas plant of capacity 300 kg/day. Solar energy will be utilized for water heating and lighting driveways and walkways. Gas from biogas plant will be utilized for lobby lighting.
- xiii. Total green area of 950 sqm. (Ground- 680 sqm. and Podium- 270 sqm.) is proposed. A total of 138 trees are present in the site, out of which, 103 trees will be cleared for the construction and remaining 35 trees will be retained within the site. A total of 401 trees, which includes 309 trees (compensatory plantation-3 times the no. of cutting) and 92 trees (retaining trees and additional trees proposed) will be maintained.
- xiv. The project requires building height clearance from airport authority and fire & rescue department, which are in process.

- xv. The project is not located in Critically Polluted area.
- xvi. The project is not located within 10 km of Eco Sensitive Zone. NBWL Clearance is not required.
- xvii. Forest Clearance is not required.
- xviii. No court case is pending against the project.
- xix. CRZ Clearance is not required.
- xx. The capital cost and recurring cost allocated for EMP is ₹3.22 Crore as Capital Cost and ₹0.219 Crore (21.98 Lakh) as Recurring Cost.
- xxi. Expected timeline for completion of the project– 54 months (4.5 years).
- xxii. Investment/Cost of the project is ₹128.0 Crore.
- xxiii. Employment potential: 400 workers during construction phase and 17 workers (service personnel) during operation phase.
- xxiv. Benefits of the project - Premium 2 BHK and 3 BHK apartments. Improves and advances the location value. Create employment opportunities in both construction as well as operation phase. Improves the standard of living.

3. The EAC noted that 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 non-existence of SEIAA in Kerala, it required appraisal at Central level by sectoral EAC.

4. *The EAC (Infra-2), based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held on all the issues, decided to defer the proposal and asked the project proponent to provide the following additional information:*

- i. Revised water calculations and water balance diagram by considering alternate use for the excess treated water generated in the project.
- ii. Revised tree cutting and compensatory plantation details.

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#### **AGENDA ITEM NO. 79.3.5**

**Construction of Group Housing Society on Residential Plot with built-up area from 22761.528 sqm. to 32,624.75 sqm. at Plot No. 8 B, Sector - 11, Dwarka, New Delhi by M/s Modest Ketki Corp. Group Housing Society Ltd. – Reconsideration for Environmental Clearance**

**(IA/DL/MIS/210804/2021; F. No. 21-46/2021-IA-III)**

1. The EAC noted that the proposal was deferred in its 72<sup>nd</sup> meeting held on 16<sup>th</sup> September, 2021 and the project proponent was asked to provide the following additional information:

- i. Submit approved building plan for the project.



- ii. Revised application by the way of submitted duly signed FORM-1, FORM-1A and Conceptual Plan so as to seek Environmental Clearance for Expansion.
- iii. Submit Certified Compliance Report from concerned IRO.

**2.** The Project Proponent (M/s Modest Ketki Corp. Group Housing Society Ltd.) along with his consultant 'M/s Atmos Sustainable Solutions Pvt. Ltd.', made a presentation and provided the following information:

- i. Revised application by the way of duly signed FORM-1, FORM -1A and Conceptual Plan seeking Environmental Clearance for expansion of the project has been submitted.
- ii. The Certified Compliance Report has been obtained from MoEF&CC Integrated Regional Office, Jaipur, vide File No. IV/ENV/DLI/1385/2020 dated 06.12.2021.
- iii. As per the Certified Compliance Report, based on site visit dated 11.11.2021, it was observed that no work with reference to EC dated 18.11.2020 has been started and no signs of active construction and alteration/modification in existing building have been seen as per visual inspection of the entire project premises. Overall, good plantation in the project area as well as along with the boundary was observed. The Residential Society is also maintaining open/Green areas properly.

**3.** The EAC noted that 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 non-existence of SEIAA in Delhi at the time of initial consideration of the proposal, it required appraisal at Central level by sectoral EAC.

**4.** *The EAC (Infra-2) noted that the PP has submitted reply against ADS raised on 09.08.2021 and not the queries raised during the 72<sup>nd</sup> meeting of EAC (Infra 2) held on 16<sup>th</sup> September, 2021. The EAC also noted that the project proponent/consultant did not submit the project documents to the committee members within the stipulated time. Accordingly, the EAC decided to defer the proposal and asked the project proponent to provide the following additional information in response to queries raised during the 72<sup>nd</sup> meeting of EAC (Infra 2) held on 16<sup>th</sup> September, 2021:*

- i. Submit approved building plan for the project.

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## **AGENDA ITEM NO. 79.3.6**

**Construction of Hospital project "Azeezia Medical College Hospital Alathur" with ancillary facilities to be developed with built-up area of 79,042 sqm at Kavassery-1 Village, Alathur Taluk, Palakkad District,**

**Kerala by M/s Podikunju Musaliar Memorial Charitable and Educational Trust - Reconsideration for Environmental Clearance**

**(IA/KL/MIS/235578/2021; F. No. 21-99/2021-IA-III)**

1. The EAC noted that the proposal was deferred in its 76<sup>th</sup> meeting held on 16<sup>th</sup> November, 2021 and the project proponent was asked to provide the following additional information:

- i. Clarify the water requirement details specifying the contribution from different sources.
- ii. Clarify the details of waste management specifying bio-degradable waste, recyclable waste, bio-medical waste, C&D waste and hazardous waste.
- iii. Resubmit Form -1 with correct information.

2. The Project Proponent (M/s Podikunju Musaliar Memorial Charitable and Educational Trust) along with his consultant 'M/s Environmental Engineers & Consultants Pvt. Ltd.', made a presentation and provided the following information:

- i. During operational phase, total water demand of the project is expected to be 353 KLD and the same will be met by 165 KLD fresh water from stored rain water tanks/pond/Kerala Water Authority/ground water and 188 KLD recycled water. Wastewater generated (209 KLD) will be treated in STP of total 250 KLD capacity. 188 KLD of treated wastewater will be generated which will be completely recycled and re-used (117 KLD for flushing, 30 KLD for gardening and about 41 KLD treated water from STP will be used for make-up water requirement for cooling towers attached with the HVAC system).
- ii. About 750 kg/day solid waste will be generated in the project. The biodegradable waste (about 400 kg/day) will be processed in bio-gas generation plant/bio-bin system and the non-biodegradable waste generated (about 350 kg/day) will be handed over to authorized local vendor. An area equivalent to about 200 sqm. for about 15 days storage of non-biodegradable waste would be provided. The hazardous waste i.e., the used oil from D.G. sets, discarded oil filters and discarded batteries shall be stored separately and will be disposed to CPCB/SPCB authorized vendors as per Hazardous Waste (Management & Handling Rules). E-waste will be disposed as per E Waste (Management & Handling) Rules.
- iii. About 250 kg/day of bio-medical waste will be generated from the hospital. The bio-medical waste would be segregated at source by providing appropriate colour coded bins/containers as per the colour coding provided in the Bio-Medical Waste (Management & Handling) Rules, 2016. The Bio-Medical wastes shall be stored in the earmarked waste storage area (about 25 sqm.) near the hospital block and will be outsourced through Kerala State Pollution Control Board authorized agency (M/s Indian Medical Association Goes Eco Friendly, IMAGE)

- that has a processing facility at Kanjikode, Palakkad at 30 km (NE) from the project site. An MoU will be made between PP & IMAGE.
- iv. There is a small building (80 sqm. of total built-up area) existing within the site and which will be demolished for the development of the proposed site. The salvageable materials from the demolition debris would be recovered. The remaining demolition debris and the construction debris would be used for site preparatory works.
  - v. There exists a building (LG + UG +3 floors) near to the highway in the south-east direction which will be retained and this building will be used as proposed Hospital Building-2 with extension of 1,000 sqm. additional built-up area.
  - vi. Revised Form -1 has been submitted.

**3.** The EAC noted that 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 non-existence of SEIAA in Kerala, it required appraisal at Central level by sectoral EAC.

**4.** *The EAC found that the response to the queries are satisfactory. The EAC (Infra-2), based on the information submitted, clarifications provided by the Project Proponent and detailed discussions held on all the issues, recommended granting environmental clearance to the project subject to the following specific conditions and other Standard EC Conditions as specified by the Ministry vide OM dated 4th January, 2019 for the said project/activity while considering for accord of environmental clearance:*

- i. Prior Clearance from standing committee of NBWL should be obtained before commencing the project.
- ii. Abstraction of ground water shall be subject to the permission of Central Ground Water Authority (CGWA). Fresh water requirement shall not exceed 165 KLD during operational phase.
- iii. As proposed, wastewater shall be treated in an onsite STP of 250 KLD capacity. At-least 188 KLD of treated water from the STP shall be recycled and re-used for flushing (117 KLD), gardening (30 KLD), boiler (20 KLD) and for make-up water requirement for cooling towers attached with the HVAC system (41 KLD). There shall be no discharge of treated water outside the project premises, as committed.
- iv. 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.
- v. Area for greenery shall be provided as per the details provided in the project document i.e., area under plantation/greenery will be at-least

94,462 sqm. As proposed, at least 4400 trees shall be maintained during the operation phase of the project. The landscape planning should include plantation of native species. A minimum of 01 tree for every 80 sqm. of land should be planted and maintained. The existing trees will be counted for this purpose. Plantations to be ensured species (cut) to species (planted). 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.

- vi. 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, RWH tank of total 1 ML capacity and RWH pond of total 2 ML capacity shall be provided by PP for rain water harvesting after filtration.
- vii. The solid waste shall be duly segregated into biodegradable and non-biodegradable components and handled in separate area earmarked for segregation of solid waste, as per SWM Rules, 2016. As committed, biodegradable waste shall be utilized through bio-gas generation unit /bio-bin system to be installed within the site. Inert waste shall be disposed off as per norms at authorized site. The recyclable waste shall be sold to authorized vendors/recyclers. Construction & Demolition (C&D) waste shall be segregated and managed as per C&D Waste Management Rules, 2016. Bio-medical wastes shall be disposed as per Bio-Medical Waste (Management & Handling) Rules, 2016.
- viii. 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. The PP shall provide electric charging points in parking areas for e-vehicles as committed.
- x. As committed, solar PV installation of 515 kW capacity shall be provided to meet atleast 11.44% of the connected load.
- xi. The Environmental Clearance to the project is primarily under provisions of EIA Notification, 2006. The Project Proponent is under obligation to obtain approvals/clearances under any other Acts/Regulations or Statutes as applicable to the project.

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**AGENDA ITEM NO. 79.3.7****Development of Joint Use Civil Enclave for AAI at Tehsil Bihta, District Patna, Bihar by M/s Airports Authority of India Bihta - Environmental Clearance****(IA/BR/MIS/225980/2019; F. No. 21-124/2021-IA-III)**

1. The Project Proponent (M/s Airports Authority of India Bihta) along with his consultant 'M/s. Greencindia Consulting Pvt. Ltd.', made a presentation on the key parameters and salient features of the project to the EAC (Infra-2). The EAC took note of following key parameters and salient features of the project, as presented during the meeting; provided in the brief and application for this project:

- i. The project is located at Village – Kutlupur and Bishambharpur, Tehsil- Bihta, District- Patna, Bihar with coordinates 25°35'59.45" N Latitude and 84°53'24.26" E Longitude.
- ii. The project is new.
- iii. The project was issued ToR vide F. No. 10-45/2019-IA.III dated 05.12.2019.
- iv. Traffic at Patna Airport is increasing at a very fast rate and there is no available space to expand further. Hence, the development of Civil Enclave at IAF base, Bihta (about 35 km from Patna Airport), which has all the infrastructure, has been proposed in order to absorb the expanding traffic load.
- v. The proposed project Bihta Airport is spread over an area of 108.4075 acres (43.84 ha). State Government has handed over the land to AAI for the development of the proposed airport. The project details are given as follows:

| <b>Facilities</b>                                | <b>Land Area<br/>(in acres)</b> | <b>Land<br/>Area<br/>(in ha)</b> | <b>Ground<br/>coverage<br/>(in sqm.)</b> | <b>Built up<br/>Area<br/>(in<br/>sqm.)</b> |
|--|---------------------------------|----------------------------------|--|--|
| Terminal Building                                | 5.78                            | 2.33                             | 23,390.5                                 | 66,000                                     |
| Utility Building                                 | 0.74                            | 0.29                             | 2,994.6                                  | 3,000                                      |
| Apron  | 8.0                             | 3.23                             | 32,374                                   | -  |
| Taxiway  | 26.0                            | 10.52                            | 1,05,216.8                               | -  |
| Landscape, Road, Ramp,<br>Pathways & Car Parking | 29.5                            | 11.93                            | 1,19,380.6                               | -  |
| Area for Future<br>development                   | 38.3                            | 15.01                            | 1,54,992.4                               | -  |
| <b>Total</b>                                     | <b>108.407</b>                  | <b>43.86</b>                     | <b>4,38,673.1</b>                        | <b>69,000</b>                              |

- vi. The water consumption during operation phase will be about 1275 KLD of which 610 KLD is fresh water requirement and 665 KLD is recycled water requirement. The fresh water shall be sourced from bore wells. The wastewater generated will be treated in an STP of 700 KLD capacity.

- vii. 4.03 tons/day solid waste is estimated to be generated in the proposed project. 330 kg/day of deplane waste will be generated. Biodegradable portion of MSW will be treated at site by Organic Waste Converters and manure generated will be used for plantation. Recyclable waste will be disposed off by selling. Inert waste will be sent to MSW Disposal sites for land fill. Hazardous waste shall be treated in accordance with Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016. The e-wastes and used oil will be stored properly and handed over to authorized recyclers.
- viii. Total load estimation for Bihta Airport (Phase-1) shall be 3658 KVA and shall be sourced from Bihar State Electricity Board. 3x1750 kVA DG sets are proposed.
- ix. Solar Photo Voltaic (PV) plant of 300 kW capacity shall be located inside the complex which shall cater to 11.52% of total electrical load of the Airport.
- x. The baseline data has been collected during pre-monsoon season (October to December) 2019.
- xi. The public hearing for the project was conducted on 26.02.2021 at Madhya Vidyalay, Shree Rampur-1 village, P.O & Anchal-Bihta, District-Patna, Bihar and implementation action plan has been submitted against the queries raised.
- xii. There are 126 trees present in the project site. These trees will be relocated along the boundary of the site for green belt development. The greenery will be developed only in non-operational areas of airport as per DGCA guidelines.
- xiii. The project is not located within 10 km of Eco Sensitive areas. NBWL Clearance is not required.
- xiv. Forest Clearance is not required.
- xv. No court case is pending against the project.
- xvi. The project is not located in Critically Polluted area.
- xvii. Investment/Cost of the project is ₹950.76 Crores.
- xviii. The proponent will spend around ₹950.76 lakhs for the CER activities which is 1.0 % of the total project cost.
- xix. Expected timeline for completion of the project - 24 months from the date of EC.
- xx. Employment potential – The direct employment during construction phase, 1000 labours and 100 supervisors will be employed in various construction, transportation and storage activities. The direct employment during operation phase in proposed project will be 761 people. However, indirect employment will be around 6000 to 8000 who will be employed in taxi operation and other allied services.
- xxi. Benefits of the project – Development of the Civil Enclave at Bihta shall considerably reduce the load on Patna Airport whose new terminal building is likely to reach its design capacity in the first year of operation itself. The project will also attract industrial and infrastructure development in the region thereby generating the revenue which will boost the economy of the State. The proposed project will enhance the quality of life, equity, and social wellbeing through community support and awareness. The basic infrastructures like

school, colleges, medical centre, etc. located in the project vicinity will further be strengthened under the project CER scheme.

**2.** The EAC noted that 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.

**3.** The EAC informed the PP that OM regarding CER dated 1<sup>st</sup> May, 2018 has been superseded by recent OM of 30<sup>th</sup> September, 2020 which states that social activities & budget to be included in EMP. Accordingly, the amount of ₹950.76 Lakhs earmarked for activities for CER shall be implemented as part of EMP.

**4.** *The EAC (Infra-2), based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held on all the issues, recommended granting environmental clearance to the project subject to the following specific conditions and other Standard EC Conditions as specified by the Ministry vide OM dated 4th January, 2019 for the said project/activity while considering for accord of environmental clearance:*

- i. Where construction activity is likely to cause noise nuisance to nearby residents, restrict operation hours between 7 am to 6 pm.
- ii. Hazard Identification and Risk Assessment for the project shall be carried out and adequate mitigation measures shall be adopted to ensure that all safety issues are addressed. The documentation shall be reviewed periodically and shall be submitted to the regional office along with six-monthly compliance report.
- 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. Solar power generation capacity of 300 kW shall be established as proposed.
- v. 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. A certificate from the competent authority/agency 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. Fresh water requirement from local authority shall not exceed 610 KLD during operational phase. Abstraction of ground water shall be subject to the permission of Central Ground Water Authority (CGWA).
  - viii. As proposed, wastewater shall be treated in onsite STP of 700 KLD capacity. Treated water from the STP shall be recycled and re-used for gardening, flushing etc. There shall be no discharge of treated water from the project as proposed.
  - ix. 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.
  - x. PP shall explore the use of non-ozone depleting substances in air conditioning systems.
  - xi. The PP shall also provide electric charging points in the parking areas for e-vehicles as committed.
  - xii. The Environmental Clearance to the project is primarily under provisions of EIA Notification, 2006. The Project Proponent is under obligation to obtain approvals/clearances under any other Acts/Regulations or Statutes as applicable to the project.

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**LIST OF PARTICIPANTS OF EAC (INFRASTRUCTURE-2) IN 79<sup>th</sup> MEETING OF EAC (INFRA-2) HELD ON 31<sup>st</sup> DECEMBER, 2021 THROUGH VIDEO CONFERENCING**

| S. No. | Name                        | Designation                     | Attendance | Sign       |
|--------|-----------------------------|---------------------------------|------------|------------|
|        |                             |                                 | 31.12.2021 | Through VC |
| 1.     | Dr. N. P. Shukla            | Chairman                        | P          | -          |
| 2.     | Dr. H. C. Sharatchandra     | Member                          | P          | -          |
| 3.     | Shri V. Suresh              | Member                          | P          | -          |
| 4.     | Dr. V. S. Naidu             | Member                          | P          | -          |
| 5.     | Shri B. C. Nigam            | Member                          | P          | -          |
| 6.     | Dr. Manoranjan Hota         | Member                          | P          | -          |
| 7.     | Dr. Dipankar Saha           | Member                          | P          | -          |
| 8.     | Dr. Jayesh Ruparelia        | Member                          | P          | -          |
| 9.     | Dr. (Mrs.) Mayuri H. Pandya | Member                          | P          | -          |
| 10.    | Dr. M. V. Ramana Murthy     | Member                          | A          | -          |
| 11.    | Prof. Dr. P.S.N. Rao        | Member                          | A          | -          |
| 12.    | Dr. Dharmendra Kumar Gupta  | Scientist "F"& Member Secretary | 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 equipment's.
- 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. 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 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 shareholder's / 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.
- vi. 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.
- vii. 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.
- viii. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- ix. 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.
- x. 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.
- xi. 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.

- xii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- xiii. 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.
- xiv. 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).
- xv. 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.
- xvi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xvii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xviii. 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.
- xix. 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.
- xx. 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); bag filter/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. 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 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 shareholder's/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.
- vi. 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.
- vii. 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.
- viii. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- ix. 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.
- x. 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.



- xi. 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.
- xii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- xiii. 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.
- xiv. 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).
- xv. 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.
- xvi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xvii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xviii. 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.
- xix. 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.
- xx. 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. 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 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 shareholder's/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.
- vi. 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.
- vii. 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.
- viii. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- ix. 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.
- x. 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.
- xi. 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.
- xii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- xiii. 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.
- xiv. 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).
- xv. 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.
- xvi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xvii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xviii. 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.
- xix. 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.
- xx. 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(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.

**VII. 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.

**VIII 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 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 shareholder's/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.
- vi. 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.
- vii. 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.
- viii. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- ix. 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.
- x. 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.
- xi. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- xii. 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.

- xiii. 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).
- xiv. 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.
- xv. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xvi. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xvii. 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.
- xviii. 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.
- xix. 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(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 systems 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 equipment's.
- 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. 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 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 shareholder's/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.
- vi. 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.
- vii. 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.
- viii. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- ix. 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.
- x. 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.
- xi. 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-6**

**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); bag filter/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.

**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 MoEFCC/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 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 shareholder's/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.
- vi. 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.
- vii. 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.
- viii. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- ix. 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.
- x. 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.
- xi. 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).
- xii. 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.
- xiii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- xiv. 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.
- xv. 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).
- xvi. 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.
- xvii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xviii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xix. 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.
- xx. 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.
- xxi. 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 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 firefighting equipment etc. as per National Building Code including protection measures from lightening 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. 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 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.
- vi. 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.
- vii. 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
- viii. 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.
- ix. 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.
- x. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- xi. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the Expert Appraisal Committee.
- xii. 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).
- xiii. 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.
- xiv. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xv. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xvi. 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.
- xvii. 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.
- xviii. 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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