

MINUTES OF 89th MEETING OF EXPERT APPRAISAL COMMITTEE (INFRASTRUCTURE-2) HELD ON 31st MAY, 2022.

VENUE: Indus Hall, Ground Floor, Jal Wing, Indira Paryavaran Bhawan, Jor Bagh, Delhi – 110 003

DATE: 31st May, 2022

PROCEEDINGS

89.1 Opening Remarks of the Chairman: The Chairman and Members extended warm welcome with each other and other participants of the meeting. Thereafter, the meeting was opened to start proceeding as per the agenda adopted for this meeting.

89.2 Confirmation of Minutes of 88th Meeting of Expert Appraisal Committee (Infrastructure-2) held on 19th May, 2022.

The Expert Appraisal Committee (Infrastructure-2), hereinafter called the EAC, was informed that no representation has been received regarding projects considered in 88th meeting. Minutes of 88th 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.

89.3 Consideration of Proposals: The EAC considered proposals as per the agenda adopted for the 89th meeting. The details of deliberations held and decisions taken in the meeting are as under:

AGENDA ITEM NO. 89.3.1

Proposed Institute of Medical Sciences and Multi-Specialty Hospital Project with ancillary facilities with total built-up area of 1,35,072 sq.m at Koovappady Village & Panchayath, Kunnathunadu Taluk, Ernakulam District, Kerala to be developed by M/s BMH Care Hospital Ltd. – Reconsideration for Environmental Clearance

IA/KL/MIS/257617/2022; F. No. 21-30/2022-IA-III

1. The proposal was earlier considered by EAC (Infra-2) in its 83rd meeting held on 28th February and 2nd March, 2022. The details of the project, as per the documents submitted by the project proponent, and also as informed during the 83rd meeting are provided below for reference:

- i. The project is located at Re-survey No. 225/2, 225/3-1, 225/2/2, 226/5/1/2, 226/5/1/3, 226/5/1/4, 226/5/1/1, 226/5/2, 189/1-2, 189/2, 224/4, 224/5, 397/1-2, 397/1-3, Koovappady Village & Panchayath, Kunnathunadu Taluk, Ernakulam District, Kerala.
- ii. The project is new.

- iii. The project was earlier accorded Environmental Clearance (EC) in the name of M/s Sree Narayana Gurukulam Charitable Trust by SEIAA, Kerala vide Order No. 54/SEIAA/KL/7582/2012 dated 23.05.2013, for a built-up area of 1,35,072 sq.m with 1,050 beds and other facilities for the same location and for the same plot area. Construction activity for hospital building was carried out at the site with built-up area about 25,000 sq.m and currently there is no on-going construction at site. The aforesaid EC expired on 23.05.2020. The instant proposal for Institute of Medical Sciences and Multi-Specialty Hospital project is on the same land use as earlier approved by SEIAA. Also the existing structure will be retained.
- iv. The total plot area is 80,393 sq.m and total construction (Built-up) area is 1,35,072 sq.m. Maximum height of the building is 35 m. The details of building are as follows:

S. No.	Building Name	No. of Floors	Built-up Area (sq.m)
1.	Hospital Building (Block A)	B1, B2 + G + 8 Floors	40,917
2.	Hospital Building (Block B)	B1 + G + 9 Floors	18,800
3.	Hospital Building (Block C)	G + 8 Floors	17,400
4.	Hostel Block (Girls) 1000 Students	G + 6 Floors	10,110
5.	Hostel Block (Boys) 500 Students	G + 6 Floors	5,050
6.	Residential Building (A) 80 units	G + 5 Floors	12,950
7.	Residential Building (B) 100 Studio Apartments	G + 6 Floors	9,045
8.	Academy Block	B1, B2 + G + 7 Floors	20,800
Total			1,35,072

- v. During construction phase, total water requirement is expected to be 71 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 14 KLD. During the construction phase, portable STP will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- vi. During operational phase, total water demand of the project is expected to be 788 KLD and the same will be met by 360 KLD fresh water from stored rain water tank/KWA/well water and 428 KLD recycled water (416 KLD from STP + 12 KLD from ETP). Wastewater generated (462 KLD) will be treated in STP of total 555 KLD capacity. 416 KLD of treated wastewater from STP will be completely recycled and re-used for

- flushing (232 KLD), for gardening (32 KLD), for boiler (20 KLD) and for make-up water requirement for cooling towers attached with the HVAC system (132 KLD). About 13 KLD of wastewater generated from lab and laundry requirement will be treated in an ETP of 20 KLD capacity. About 12 KLD of treated water will be generated from the ETP, which will be completely recycled and reused for make-up water requirement for cooling towers attached with the HVAC system.
- vii. About 1,100 kg/day solid waste will be generated in the project. The biodegradable waste (550 kg/day) will be processed in bio-bin system and the non-biodegradable waste generated (550 kg/day) will be handed over to authorized local vendor. An area equivalent of about 275 sq.m for about 15 days storage of non-biodegradable waste would be provided. About 650 kg/day of Biomedical waste will be disposed-off through a Kerala State Pollution Control Board authorized agency (M/s Indian Medical Association Goes Eco Friendly, IMAGE).The hazardous waste i.e., the used oil from D.G. sets, discarded oil filters and discarded batteries and stored separately and will be disposed to CPCB / SPCB authorized vendors.
 - viii. There are old temporary structures within the existing hospital campus which would be demolished.
 - ix. The total power requirement during operation phase is 6,978 kW (connected load) and will be met from Kerala State Electricity Board (KSEB) & DG Sets (1,250 kVA x 4 nos. + 750 kVA x 4 nos.) as standby arrangement.
 - x. Rooftop rainwater of buildings will be collected in RWH tanks of total 400 KL (50 KL x 8 no.) and pond having total 3 ML capacity.
 - xi. Parking facility for 1,400 Cars +1750 Two-wheelers + 4 ambulances is proposed to be provided against the requirement of 1,392 Cars + 1,747 two wheelers (according to local norms). Provision for charging for electrically operated vehicles (20%) is proposed in each parking floor.
 - xii. On grid solar power generation of 1,250 kWp is proposed to meet about 18% of the total connected load.
 - xiii. Proposed energy saving measures would save about 25% of power.
 - xiv. The total excavated soil will be about 17,000 cu.m. The excavated earth of 8,000 cu.m. will be preserved for landscaping purposes and 6,000 cu.m. will be used for backfilling purposes, 3,000 cu.m. will be used for internal road construction purposes.
 - xv. Total area for landscaping is about 30,000 sq.m. 117 trees will be cut and it is proposed to plant about 2,174 tree species within the site & the project vicinity in consultation with the local authority.
 - xvi. The project is not located in Critically Polluted area.
 - xvii. The project is not located within 10 km of Eco Sensitive Zone. NBWL Clearance is not required.
 - xviii. Koovappady village is not included in the list of Villages in ESA of the Western Ghats as per Appendix 3 of the report of the High Level Working Group (HLWG) on Western Ghats.
 - xix. Forest Clearance is not required.
 - xx. No court case is pending against the project.
 - xxi. CRZ Clearance is not required.

- xxii. Expected timeline for completion of the project - About 60 months.
- xxiii. Investment/Cost of the project is ₹545 Crores.
- xxiv. Employment potential - About 800 persons during operation phase.
- xxv. Benefits of the project – The project would provide better health infrastructure & medical education facilities to the people. Direct and indirect employment opportunities; The potential for employment and access to new services may draw people to the area around the project. There will be an increase in economic activity and employment for the local community, local skills development. Employment opportunities generation and revenue to the State.

2. The EAC noted that the proposal was deferred in its 83rd meeting held on 28th February and 2nd March, 2022 and the project proponent was asked to provide the following additional information:

- i. Submit a copy of the land ownership documents in evidence of transfer of the property from M/s Sree Narayana Gurukulam Charitable Trust to M/s BMH Care Hospital Ltd.
- ii. Submit certified compliance report from concerned IRO with reference to the previous issued EC dated 23.05.2013.
- iii. Form 1 states that there is no structure/building existing at site, hence no demolition is required. However, it was presented that there are old temporary structures within the existing hospital campus which would be demolished. Clarify the same and submit details of demolition proposed, if any.

3. Now, during this 89th meeting, the Project Proponent (M/s BMH Care Hospital Ltd.) along with his consultant 'M/s Environmental Engineers & Consultants Pvt. Ltd.', made a presentation before the EAC (Infra-2) and provided following information:

- i. The land for the project was purchased by M/s BMH Care Hospital Ltd. from M/s Sree Narayana Gurukulam Charitable Trust and the land ownership documents viz. Sale Deed Agreement is submitted.
- ii. The Certified Compliance Report (CCR) has been obtained from Integrated Regional Office, MoEF&CC, Bangalore regarding the status of compliance to the conditions of previous Environmental Clearance vide letter no. 12.1/SEIAA/2013-14/11/KER/239 dated 19.05.2022. As per the report based on inspection dated 30.04.2022, it was noted that the project was not in operation and no construction activities were going in the project site due to expiry of EC on 23.05.2020. Further, it was also noted that the project has obtained EC initially in the name of Sree Narayanan Gurukulam Charitable Trust and through Sale Deed dated 18.12.2021 have sold this project to M/s. BMH Care Hospital Limited. Further, it was also noted that project authority (i.e. former proponent) has partially completed the project (about 20% of the approved built-up area) and not occupied and have complied with most of the applicable EC conditions during that stage and construction of STP and solar energy measures etc. can be completed only after receipt

of fresh EC as the validity of the previous EC has expired on 23.05.2020.

- iii. During the presentation, it was wrongly mentioned that “there are old temporary structures within the existing hospital campus which would be demolished”. However, correct status has been mentioned in the Form-1 submitted along with the application. There is no existing structure/building requiring demolition at site.

4. 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 at the time of initial consideration, it required appraisal at Central level by sectoral EAC.

5. *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 360 KLD during operational phase.
- ii. As proposed, wastewater shall be treated in onsite STP of 555 KLD capacity and ETP of 20 KLD capacity. At least 416 KLD of treated water from the STP and 12 KLD of treated water from the ETP shall be recycled and re-used for flushing (232 KLD), for gardening (32 KLD), for boiler (20 KLD) and for make-up water requirement for cooling towers attached with the HVAC system (132 KLD+12 KLD). There shall be no discharge of treated water outside the project premises, as committed.
- 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 30,000 sq.m. As proposed, at least 2,174 trees shall be maintained within the site & the project vicinity in consultation with the local authority. The landscape planning should include plantation of native species. A minimum of 01 tree for every 80 sq.m 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/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).
- 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 Housing and Urban Affairs (erstwhile Ministry of Urban Development) Model Building Byelaws, 2016. As proposed, RWH tanks of total 400 KL (50 KL x 8 nos.) and pond having total 3 ML 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-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. Bio-medical wastes shall be disposed as per Bio-Medical Waste (Management & Handling) 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 1,250 kWp capacity to meet about 18% of the total demand 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.

AGENDA ITEM NO. 89.3.2

Affordable Housing Project with total built up area of 43,690.08 sqm. at Khasra No. 603/1, 603/2, 603/3,603/4, 605/1, 614, 411, 713/410, 714/410, 869/565, Solan Tehsil & District, Himachal Pradesh by Shri Hansraj Thakur – Reconsideration for Environmental Clearance

IA/HP/MIS/265137/2022; F. No. 21-45/2022-IA-III

1. The proposal was earlier considered by EAC (Infra-2) in its 86th meeting held on 19-20 April, 2022. The details of the project, as per the documents submitted by the project proponent, and also as informed during the 86th meeting are provided below for reference:

- i. The project is located at Khasra No. 603/1, 603/2, 603/3, 603/4, 605/1, 614, 411, 713/410, 714/410, 869/565, Solan Tehsil & District, Himachal Pradesh.
- ii. The project is new.
- iii. The total plot area is 25,874 sq.m and total construction (Built-up) area is 43,690.08 sq.m (Existing 19,982.54 sq.m + Proposed 23,707.54 sq.m). Project involves the development of residential flats, commercial blocks and villas comprising 278 Dwelling Units (Including villas & plots). Maximum height of the building is 25 m.
- iv. During construction phase, total water requirement is expected to be 21 KLD which will be met from treated water from nearby areas/STP. Drinking water will be purchased for domestic purpose. Sewage generated from labours shed will be disposed of by soak pit/septic tank.
- v. During operational phase, total water demand of the project is expected to be approx. 188 KLD and the same will be met by 119 KLD fresh water from groundwater and 69 KLD recycled water. Domestic wastewater generation will be 155 KLD. The domestic sewage will be treated through sewage treatment plant (STP) of 186 KLD capacity. 124 KLD treated water will be generated of which, 69 KLD will be reused for flushing (60 KLD), landscaping and DG cooling purposes (9 KLD) and excess treated water of 55 KLD and the remaining excess treated water will be discharged to sewer.
- vi. About 623 kg/day solid wastes will be generated in the project. The biodegradable waste (about 374 kg/day) will be processed in OWC and the non-biodegradable waste generated (about 249 kg/day) will be handed over to authorized local vendors.
- vii. Total connected load is around 2,200 KW. The source of power will be supplied by Himachal Pradesh State Electricity Board Ltd. In case of power failure, 3 DG sets of total capacity of 250 KVA (3*250 KVA) will be provided as power back-up.
- viii. Rooftop rainwater of buildings will be collected in 4 RWH pits for harvesting after filtration.
- ix. Parking facility for 465 ECS is proposed to be provided against the requirement of 269 ECS (according to local norms).

- x. Green area of 2,958.51 sq.m will be developed. No tree cutting is involved in the project.
- xi. The project is not located in Critically Polluted area.
- xii. The project is not located within 10 km of Eco Sensitive Zone. NBWL Clearance is not required.
- xiii. Forest Clearance is not required.
- xiv. No court case is pending against the project.
- xv. CRZ Clearance is not required.
- xvi. Investment/Cost of the project is ₹41.84 Crores.
- xvii. Employment potential – About 100 persons.
- xviii. Benefits of the project – Employment generation and affordable housing.

2. The EAC noted that the proposal was deferred in its 86th meeting held on 19-20 April, 2022 and the project proponent was asked to provide the following additional information:

- i. Revise the calculation for OWC by considering 30 day cycle.
- ii. Discrepancy is noted in the details of disposal of excess treated water as mentioned in Form 1 and water balance diagram. Explore alternate arrangements for reuse and recycling of excess treated water generated in the project and resubmit the water balance diagram accordingly.
- iii. Provide the details of solar energy installation along with details of energy saving measures proposed.
- iv. Provide details of provision for electrical vehicles charging.
- v. Provide details of landscape planning along with no. of trees proposed for plantation.
- vi. Submit revised EMP budget considering the proposed changes.

3. Now, during this 89th meeting, the Project Proponent (Shri Hansraj Thakur) along with his consultant 'M/s Rian Enviro Pvt. Ltd.', made a presentation before the EAC (Infra-2) and provided the following information:

- i. The total solid waste generation is 623 kg/day and biodegradable waste is 374 kg/day and non biodegradable waste is 249 kg/day. The biodegradable waste will be composted in OWC and converted into manure in 30 days cycle of In vessel Organic Waste compost Tumbler. Area of 15 x 10 sq.ft. is earmarked for solid waste storage and treatment facility the layout plan and submitted.
- ii. The water balance diagram as well as Form I has been revised and submitted. The excess treated water from STP of about 55 KLD will be sent to nearby other construction activities and a commitment letter in this regard has been submitted to the Commissioner, Municipal Corporation, Solan for the use of treated water in other construction activity.
- iii. 220 KW solar panel to meet 10% of total power requirement (i.e., 2,200 KW) is proposed to be installed.
- iv. Electrical Vehicle charging point will be provided in each Block. Since there will be total 7 nos. of residential blocks, hence total 7 nos. of Electrical Vehicle charging points will be provided.

- v. Total 323 trees will be planted (@ 1 tree per 80 sq.m of plot area). The landscape planning along with suggested species is submitted.
- vi. The EMP budget during operational phase has been revised with provision of ₹186 Lakhs capital cost and ₹26.5 Lakhs recurring cost.

4. 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 Himachal Pradesh, it required appraisal at Central level by sectoral EAC.

5. The EAC observed that the project proponent (P P)/consultant has mentioned 30 days composting cycle as well as 25-30 days and three weeks in the presentation. The committee reprimanded the consultant for lack of clarity and specified that provisions for onsite management of biodegradable waste should be made considering a minimum of 30 days cycle for composting. The committee also asked the PP and consultant to reconsider the provision of no. of electric vehicle charging points as only seven no. of charging points has been proposed against the total parking provision of 465 ECS. Accordingly, the PP committed to provide three no. of electric vehicle charging points in each residential block, thus increasing the number to 21 electric vehicle charging points in the project. The EAC accepted the same and asked the PP to revise the EMP budget accordingly and also submit an undertaking for the aforesaid commitments on composting cycle, electric charging provision and EMP budget.

6. *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 119 KLD during operational phase.
- ii. As proposed, wastewater shall be treated in onsite STP of 186 KLD capacity. Atleast 69 KLD of treated water from the STP shall be recycled and re-used for flushing (60 KLD) and for landscaping and DG cooling (9 KLD). Excess treated water (about 55 KLD) shall be given to nearby other construction activities as committed. PP shall submit MoU for the disposal of excess treated water (outside the site) to the concerned Integrated 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 2,958.51 sq.m. As proposed, at least 323 trees shall be maintained within the the project premises. The landscape planning should include plantation of native species. A minimum of 01 tree for every 80 sq.m 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. 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 Housing and Urban Affairs (erstwhile Ministry of Urban Development), Model Building Byelaws, 2016. As proposed, 4 RWH pits shall be provided by PP for rain water harvesting after filtration.
 - vi. 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 OWC 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.
 - vii. The PP shall provide at least three electric charging points in each block's parking areas for e- vehicles as committed.
 - viii. The PP shall provide at least 10% of the total area as parking space.
 - ix. As committed, solar energy installation of 220 KW capacity to meet atleast 10% of the total demand load shall be implemented.
 - x. 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.

AGENDA ITEM No. 89.3.3**Construction of Aerial Passenger Ropeway System between Purkul Gaon (Dehradun) and Library (Mussoorie), covering area of 63,500 sq.m and length of 5.402 km at district Dehradun, Uttarakhand by M/s Mussoorie Sky Car Company Private Limited – Reconsideration for Environmental Clearance****IA/UK/MIS/176857/2020; F. No. 21-39/2022-IA-III**

1. The proposal was earlier considered by EAC (Infra-2) in its 84th meeting held on 16-17 March, 2022. The details of the project, as per the documents submitted by the project proponent, and also as informed during the 84th meeting are provided below for reference:

- i. The project is located at Purkul gaon Dehradun to Mussoorie library at LTP: Purkul, village Purkul & UTP: Library Chowk Mussoorie, Mussoorie, Mussoorie Nagar Palika District- Dehradun, State- Uttarakhand with coordinates from 30°24'46.97" N, 78° 04'01.80" E (LTP) to 30°27'36.76" N, 78° 03'58.19" E (UTP).
- ii. The project is new.
- iii. The proposed project will be a continuous ropeway line from LTP at elevation 958.2 AMSL to UTP at elevation at 1996 AMSL based on Monocable Detachable Gondola System technology. It is a 5302m long ropeway, covering total area of 63500 sqm. The proposed ropeway will be developed from LTP at Purkul Village (Dehradun) to UTP at Mussoorie Library with Carrying capacity of 2000 PPH. The salient features of the project are given as follows:

Particulars	Unit	Details
Ropeway Details		
Total Capacity of Ropeway	Person Per Hour	2000
Average Working Hours	Hours	10
Average working days/year	No.	350
TECHNICAL DETAILS		
System	-	Monocable Detachable Gondola Ropeway System
Speed	metre/second	6
Horizontal Length	m	5302
Inclined Length	m	5402.61
Level Difference (Between Terminals)	m	1037.8
Hauling Rope	mm	110 m of diameter 60 mm
No. Of Cabin	No.	54
Trip Time	minutes	15-18
Cabin Capacity	No.	10 persons per cabin
Motor	-	Siemens 7 series
Number Of Towers	No.	25

- iv. Area measuring 42000 sqm. at LTP and 17000 sqm. at UTP will be utilised for the construction of ropeway terminals. The land use breakup is given as follows:

Particulars	Area (sqm.)	Percentage (%)
Lower Terminal Station (Purkulgaon, Dehradun)	42000	66
Upper Terminal Station (Library Mussoorie)	17000	27
Ropeway Corridor & tower area	4500	7
Total	63500	100

- v. The activities proposed at LTP and UTP are given as follows:

At LTP (Purkul Gaon, Dehradun)	At UTP (Mussoorie Library, Mussoorie)
<ul style="list-style-type: none"> • Boarding and deboarding facility. • Car/vehicle Parking for 1500 units. • Passenger holding/waiting area • Ticket Counter • Office block • Staff Accommodation & Service Area. • Toilets & STP, DG Sets • Open Spaces. • Food Court 	<ul style="list-style-type: none"> • Boarding and deboarding facility. • Limited Car/vehicle Parking provided. • Passenger holding / waiting area • Ticket Counter • Office block • Staff Accommodation & Service Area. • Connectivity to Mussoorie Mall road with planned public movement. • Toilets, STP, DG Sets • Open Spaces. • Food Court

- vi. Out of the total area of 63500 sqm. (6.35 ha), 9700 sqm. (0.97 ha) of land is forest land which will be used for the construction of station and line towers (non-forest uses) involved in ropeway installation. The area summary is given as follows:

Type of land	Area in sqm.
Total Area of Reserve Forest Land- X	800
Total Area of Notified Forest Land-Y	8900
Forest Land (X+Y)=A	9700
Non-Forest Land= B	53800
Total Land Area (A+B)	63500

vii. The service details of the project are given as follows:

Particulars	Unit	At Lower Terminal	At Upper Terminal	Total
SERVICE DETAILS				
Source of Water	-	Tank of Jal Sansthan		
Water requirement	KLD	37.4 (peak days) 25.0 (normal days)	17.2 (peak days) 9.9 (normal days)	54.6 (peak days) 34.9 (normal days)
Waste water generation	KLD	32.2 (peak days) 20.4 (normal days)	15.1 (peak days) 9.3 (normal days)	47.3 (peak days) 29.7 (normal days)
STP capacity	KLD	40	20	60
Solid waste	kg/day	267 (peak days) 161 (normal days)	114 (peak days) 70 (normal days)	381 (peak days) 231 (normal days)
Power Load	KW	1400	1000	2400
D.G. sets capacity	KVA	1x1500 kVA & 1x225 KVA, 1x250 kVA (Auxiliary)	1x350 KVA, 1x85 kVA & 1x700 kVA	1 x 1500 kVA, 1x 350 kVA, 1 x 225 kVA, 1 x 85 kVA, 1 x700 kVA (Auxiliary- 1x250)
Parking	ECS	1500	860	2360

viii. The water source will be tank of Jal Sansthan at LTP and UTP. At LTP, water requirement during normal days will be 25.0 KLD and peak days will be 37.4 KLD. At UTP, water requirement during normal days will be 9.9 KLD and peak days will be 15.1 KLD. At LTP, waste water generation during normal days will be 20.4 KLD and peak days will be 32.2 KLD which will be treated in STP of capacity 40 KLD based on MBBR technology. At UTP, wastewater generation during normal days will be 9.3 KLD and peak days will be 15.1 KLD which will be treated in STP of capacity 20 KLD based on MBBR technology. ZLD is proposed at LTP and UTP.

ix. Total Waste generation during normal days will be 231 kg/day and peak days will be 381 kg/day. At LTP, waste generation during normal days will be 162 kg/day out of which 113 kg/day will be biodegradable waste and 49 kg/day will be non-biodegradable waste and during peak days will be 267 kg/day out of which 187 kg/day will be biodegradable waste and 80 kg/day will be non-biodegradable waste. At UTP, waste generation during normal days will be 69 kg/day out of which 48 kg/day will be biodegradable waste and 21 kg/day will be non-biodegradable waste and during peak days will be 114 kg/day out of which 80 kg/day will be biodegradable waste and 34 kg/day will be

- non-biodegradable waste. Biodegradable waste generated will be treated in 2 no. Organic Waste Converter proposed at each Terminal LTP & UTP and non-biodegradable waste will be Collected and given to the approved recyclers. Approx. 29 lit./month of used oil generated from the DG sets will be given to authorized recycler. 2-3 kg /month of E- waste generated will be given to approved vendors.
- x. The total power requirement of the project will be 2400 KW out of which 1400 KW will be required at LTP and 1000 KW will be required at UTP which will be met by Utrakhnad Power Corporation Limited. As power backup, DG sets will be installed at LTP with capacity 1x1500 kVA & 1x225 KVA, 1x250 kVA (Auxiliary) and at UTP with capacity 1x350 KVA, 1x85 kVA & 1x700 kVA. About 2% of total power load will be shared by solar energy.
 - xi. Maximum collection of rainwater will be done and reused wherever possible. Garland drains are proposed around the pillars/towers to ensure the proper drainage of the storm water and to prevent disturbance to the drainage pattern of the area.
 - xii. The total parking provision will be 2360 ECS out of which 1500 ECS will be provided at LTP and 860 ECS will be provided at UTP.
 - xiii. The project was initially granted Standard Terms of Reference vide letter no. F. No. 10-60/2020-IA-III dated 05.10.2020 for the development of a ropeway. Thereafter, additional ToR was granted vide F. No. 10-60/2020-IA-III dated 18.01.2021.
 - xiv. Baseline study has been carried out in post-monsoon period from October to December, 2020.
 - xv. Tree cutting will be involved for which joint inspection by forest and revenue Officials has been done and the forest application has been filed. 71 no. of trees will be cut and 20 no. of trees will be pruned for the installation. As the forest land is less than 1 Hectare, the compensatory afforestation will be done for 100 Trees per Hectare. Accordingly, 100 trees are proposed to be planted in the Rikhauli village.
 - xvi. Public hearing was conducted by Uttarakhand Pollution Control Board on 16.08.2021 at project premises (Village-Purkul, Mussoorie). The major issues raised during public hearing includes employment opportunities for local population, water source, impacts on tourism and road traffic. The project proponent submitted that locals will be preferred and trained before employment. Training centres will be opened for long term employment checks. As far as possible locals will be preferred so that there will be social and economic development of the area. Water for the project will be sourced from the Jal Sansthan. The construction of the ropeway will increase tourism & will increase footfall and also will help in revenue generation and that after the operation phase, widening roads is proposed.
 - xvii. Mussoorie wildlife sanctuary exists at a distance of 977 m from the UTP station. Clearance from the National Board for Wildlife (NBWL) has been received vide letter no. 742/12-1 dated 01.09.2021.

- xviii. NOC for the project falling under Doon Valley Notification has been obtained from Uttarakhand Tourism Development Board vide letter no. 3594/2-6-966/2021 dated 02.02.2021.
- xix. Stage I Forest Clearance is yet to be received. Application was submitted vide file no. FP/UK/Others/49804/2020 dated 18.09.2020. Receiving has been obtained from Nodal Officer, Dehradun, Uttarakhand.
- xx. The project is not located in Critically Polluted area.
- xxi. No court case is pending against the project.
- xxii. CRZ Clearance is not required.
- xxiii. Expected timeline for completion of the project- 3 Years
- xxiv. Investment/Cost of the project: Total cost of the project is expected to be ₹285.2 crores.
- xxv. Employment potential- Approx. 200 labourers will be hired during the construction phase and during the operation phase about 175 employment opportunities will be generated.
- xxvi. Benefits of the project-The proposed ropeway project will facilitate faster and convenient travel of tourist at present travelling time from Dehradun to Mussoorie is around 1 hour and after introduction of the ropeway it will be reduced to 15-18 minutes. It will also enable tourist to see the aerial view of mountains & Dehradun/Mussoorie City and will be a scenic place to capture good moments. The proposed ropeway will result in diversion of passenger traffic from the existing road to the upcoming ropeway which will help in reducing traffic congestion (upto 20% reduction) along Dehradun-Mussoorie Road and thereby decrease the CO₂ emission (approx. 21%) of the vehicles. It will promote tourism and strengthen the socio-economic status of the areas. During the construction phase, employment provision to 200 local labourers & during the operation phase, 175 no. of staff shall be employed for the proposed ropeway. During monsoon season, when landslides are frequent & thereby results in traffic jam, proposed ropeway will provides a stable and consistent alternative to road& combination transport. Proposed ropeway will lead to reduction in pollution. The project has been planned to be “PLASTIC-FREE ZONE” for conservation of forest area. Noise and air pollution will be reduced due to reduction in traffic, sewage treatment facility will be provided. In absence of ropeway, littering of the waste is common in the current scenario.

2. The EAC noted that the proposal was deferred in its 84th meeting held on 16-17 March, 2022 and the project proponent was asked to provide the following additional information:

- i. Submit Stage – I Forest Clearance.
- ii. Revise and resubmit water balance at UTP (during peak days).

3. Now, during this 89th meeting, the Project Proponent (M/s. Mussoorie Sky Car Company Private Limited) along with his consultant ‘M/s. Perfact Enviro Solutions Pvt. Ltd.’, made a presentation and informed the EAC that Stage-I Forest Clearance has been obtained on 30.05.2022 and that the water balance has been revised as directed. However, since aerial ropeways have

been excluded from the purview of EIA Notification, 2006 as per the amendment notification dated 27.04.2022, the project proponent requested the EAC to exempt the project from the process of Environmental Clearance and also committed to follow the environmental safeguards during construction and operation of the passenger ropeway as per MoEF&CC OM vide F.No. 22-17/2021-IA.III(Pt.) dated 27.04.2022.

4. *The EAC noted that the project/activity is covered under item 7(g) 'Aerial Ropeways' of the Schedule to the EIA Notification, 2006 and has been considered in category 'A' as the UTP is at an elevation of 1996m above MSL. However, item 7(g) 'Aerial Ropeways' has subsequently been omitted from the EIA Notification, 2006 vide amendment notification S.O. 1953(E) dated 27.04.2022. Accordingly, the EAC recommended that the proposal may be exempted from the requirement of Environmental Clearance subject to the environmental safeguards prescribed vide the Ministry's OM [F.No. 22-17/2021-IA.III(Pt.)] dated 27.04.2022.*

AGENDA ITEM No. 89.3.4

Expansion of Civil Enclave at Gwalior Airport at Maharajpur, Gwalior, Madhya Pradesh by M/s Airports Authority of India (AAI) – Reconsideration for Environmental Clearance

IA/MP/MIS/260915/2022; F. No. 21-40/2022-IA-III

1. The proposal was earlier considered by EAC (Infra-2) in its 84th meeting held on 16-17 March, 2022 and 85th meeting held on 30-31 March, 2022. The details of the project, as per the documents submitted by the project proponent, and also as informed during the aforesaid meetings are provided below for reference:

- i. The project is located at Maharajpur, Gwalior, Madhya Pradesh with coordinates 26°16'55.35"N Latitude and 78°12'59.75"E Longitude.
- ii. The proposal is for 'Expansion under para 7(ii)'.
- iii. Gwalior Airport (Rajmata Vijayaraje Scindhia Terminal) is a Civil Enclave Airport at Maharajpur Air Force Station. The airport was established before 1994, therefore earlier Environmental Clearance was not applicable.
- iv. Now, under UDAN 4.1(Ude Desh ka Aam Nagarik) scheme under Regional Air Connectivity Scheme of National Civil Aviation Policy 2016, increasing tourist footfall and complaisance of PM Modi's Flagship Smart Cities Mission, Airports Authority of India (AAI) has proposed for expansion of civil enclave at Gwalior airport.
- v. Baseline monitoring was carried out from 1st December, 2021 to 28th February, 2022 (winter season).
- vi. The proposed project will involve the following infrastructural facilities:
 - a. The terminal building will be state of the art centrally air-conditioned, one and half level terminal building with mezzanine,

- with all modern facilities and amenities catering to 1400 PHP (Departure-700; Arrival-700).
- b. Tactile Pathway by using SS studs and strips will be provided.
 - c. The existing aprons (4 no.) are for Q-400/ATR aircrafts. The proposed expansion has been planned to capture Airbus A-321 aircrafts. 9 no. of bays in the new apron have been planned under proposed expansion.
 - d. Additional Taxiway (Dimension: 650m x 23m) will be developed from proposed terminal building to existing runway.
 - e. Security Hold Area with 4 no. of aerobridges and bus lounge area with adequate seating arrangements, isolated smoking area, child-care rooms, and washrooms etc., will be developed.
 - f. Retail Area Creation of Retail Islands/ Shops, area for vehicle display without affecting the passenger movement will be developed.
 - g. Parking Area will be developed for 700 no. of cars.
 - h. Water Treatment and Solid Waste treatment facilities will be developed in the utility section of terminal building.
 - i. Approach Road (1800m x 20m) will be widened with Airport Road for better connectivity and accessibility.
- vii. The existing terminal building will be non-operational after development of proposed terminal building. Major infrastructural facilities and utilities of Indian Air Force (IAF) such as Runway, ATC Tower, Navigation system, Fire Fighting Services, etc., will be utilised for operation of the airport.
- viii. The salient features of the project are given as follows:

S. No.	Particulars	Unit	Total after Proposed Terminal Building & Ancillary Activities
1	Handling Capacity		
	Person Handling Capacity	MPPA	1.11
2	Project Area Details		
	Plot Area	acres	172.60
	Area to be demolished	sqm.	1218.98
	Proposed Built-up Area	sqm.	25000
	Maximum Height of Building	m	30
3	Components Of Airport		
	ATC Tower	No.	With IAF
	Number of Buildings	No.	1
	Number of Aprons	No.	13 (Existing -4 no.; Proposed -9 no.)
	Aerobridges	No.	4
4	Service Details		
	Total Water Requirement	KLD	845
	Freshwater Requirement	KLD	357
	Wastewater Generation	KLD	514

S. No.	Particulars	Unit	Total after Proposed Terminal Building & Ancillary Activities
	STP Capacity	KLD	600
	Treated Water Reuse	KLD	488
	Biodegradable Waste	kg/day	1758 + 16 kg/day of STP Sludge
	Recyclable Waste	kg/day	1758
	Total Waste	kg/day	3532
	Power Requirement	kVA	2404
	Power Backup (DG Sets)	kVA	3 x 1500
	Parking	ECS	700

- ix. The total plot area of airport will be 172.60 acres (excluding IAF Base & Runway). The existing plot area of airport is 29.405 acres. Under proposed expansion, additional 143.20 acres of land has been transferred to Airports Authority of India (AAI).
- x. There will be demolition of AAI residential quarters & hostel in the site. New residential quarters and hostel will be developed outside the airport premises. New residential quarters are not a part of activities proposed under this proposal.
- xi. The total water requirement of airport will be 845 KLD. Out of which, freshwater requirement of 357 KLD will be met by Nagar Nigam supply. Total wastewater generation will be 514 KLD that will be treated in proposed Sewage Treatment Plant of capacity 600 KLD. Approx. 488 KLD treated water will be generated from STP treatment that will be reused in the airport for flushing, HVAC cooling, gardening and miscellaneous purposes. It will be a “Zero-liquid Discharge Project”.
- xii. Total solid waste generation from the airport will be 3,532 kg/day. Out of total, 1,758 kg/day of biodegradable waste will be treated in Organic Waste Convertor (OWC) for reuse as manure. 16 kg/day of STP Sludge will be used directly for manure in green area. 1,758 kg/day of recyclable waste will be given to authorized recyclers. Solid Waste Management Rules, 2016 will be followed.
- xiii. Total power requirement of the airport will be 2,404 kVA. For backup purposes, 3 no. of DG sets of capacity 1,500 kVA (each) will be installed. Electricity will be sourced by Madhya Kshetra Vidyut Vitaran Company (MPCZ) Portal. It is planned to achieve 4-star rating of GRIHA rating.
- xiv. It is proposed to make the airport energy positive by installing 2500 kWp online grid solar power plant corresponding to about 104% of the total power requirement.
- xv. Approx. 20,245 sqm. of green area will be developed under proposed airport development. There are approximately 616 no. of trees located within the proposed site that will be cleared, for which NOC has been obtained. Compensatory afforestation (CA) is proposed for trees to be cut in ratio of 1:10 and NPV will also be paid to forest department.
- xvi. The project is not located in Critically Polluted area.
- xvii. The project is not located within 10 km of Eco Sensitive Zone. NBWL Clearance is not required.
- xviii. Forest Clearance is not required.

- xix. No court case is pending against the project.
- xx. Investment/Cost of the project is ₹446.12 Crores.
- xxi. Employment Potential –About 250 persons.
- xxii. Benefits of the project – The proposed project will help in development and revenue generation. It expects boost of industrialization, multi-model-connectivity, and infrastructure development in the hinterland. The commercial development such as retail outlets, food-courts, multiplexes, and market zone shall lift the socio-economic status of the area. It will help in generation of employment opportunities that will grow steadily resulting in more demand of skilled, educated and unskilled people thereby increasing the standard of education and living in the city. The proposed project will broaden the scope of opportunities, tourism as well as economic development in Gwalior to give a boost in development of the city.

2. The EAC observed that in its 84th meeting held during 16-17 March, 2022, the Committee appraised the proposal under para 7(ii) of the EIA Notification for exemption from public hearing and EIA Report. The EAC initially agreed for exemption from public hearing on the understanding that the project was operating with earlier issued EC/CTO prior to EIA Notification, and asked the project proponent to present the project along with EIA Report. However, since the project proponent failed to produce any such document and the CTO granted to the project is only from December 2021, the EAC, in its 85th meeting held on 30-31 March, 2022, noted that the project is not eligible for exemption from public hearing under para 7(ii) of the EIA Notification. Accordingly, the EAC (Infra-2) decided to withdraw the exemption from public hearing and asked the project proponent to provide the following additional information:

- i. Public hearing should be conducted and the proceedings to be incorporated in the EIA Report.
- ii. The EAC noted that the superimposed map shows the project boundary crossing over an adjacent water body, which the consultant mentioned as an error. Accordingly, the same should be verified and explanation to be submitted confirming whether the boundary line passes over the water body or not?
- iii. Flora and Fauna details to be verified and revised accordingly.
- iv. Details of proposed green area and plantation to be provided.
- v. The EMP budget allocated for the solar power installation was found to be grossly inadequate. The same should be recalculated and revised suitably.

3. The proposal was placed for consideration in 88th meeting of EAC (Infra-2) held on 19th May, 2022 wherein the project proponent did not attend the meeting. Instead, the project proponent submitted a request letter vide email dated 18.05.2022 for delisting the proposal from the agenda for the 88th EAC meeting as they will submit Final EIA Report with Public Hearing Proceedings in accordance with granted Terms of Reference (F.No. 21-114/2021-IA-II

dated 04.01.2022) after completion of Public Hearing. Accordingly, the EAC deferred the proposal.

4. Subsequently, the project proponent submitted ADS reply against the aforesaid deferment along with final EIA report and public hearing proceedings in accordance with the Terms of Reference granted vide Ministry's letter dated 04.01.2022.

5. Now, during this 89th meeting, the Project Proponent [M/s. Airports Authority of India (AAI)] along with their consultant 'M/s. EQMS India Pvt. Ltd.', made a presentation before the EAC (Infra-2) and provided following information:

- i. The project proponent clarified that it was initially considered to submit fresh application for EC against the Terms of Reference granted vide Ministry's letter dated 04.01.2022 after completion of Public Hearing on 25.05.2022. However, it is now requested to consider the proposal in continuation to the instant proposal that has already been appraised by EAC (Infra-2) under para 7(ii) of EIA Notification, 2006 and its subsequent amendments.
- ii. Public Hearing for the proposed project has been conducted on 25.05.2022 by Madhya Pradesh Pollution Control Board in coordination with District Administration, Gwalior in the premises of Gwalior Airport, and details of Public Hearing have been incorporated in the Final EIA Report. The issues raised during public hearing were on: (i) impact on trees and peacocks in the area, (ii) employment opportunities for local youth, (iii) impacts on tourism and (iv) compensatory plantation in nearby areas. In response, it was assured that plantation of approx. 1,050 trees and 12,350 shrubs will be done for the proposed expansion and SOPs will be followed for reduction in bird strike. A budgetary allocation of ₹5 Lakhs has been made for Wildlife Conservation Plan. The project proponent further informed that approx. 200 local labourers will be employed during construction phase and about 250 skilled staff will be employed preferably from nearby areas during operation phase. The project will boost industrialization, multi-modal connectivity, and infrastructure development. As compensatory plantation for 616 trees to be uprooted, plants with ratio 1:10 will be planted in nearby areas after consultation with Forest Department.
- iii. The project boundary does not cross over the adjacent water body. The nearest water body i.e., Sukh River is located 50m W and is not a part of project. Revised project boundary has been provided.
- iv. Flora and fauna details have been provided. Out of the total trees present about 616 trees are required to be cut and rest shall be kept as a greenbelt. The dominant tree species is Neem and Ashok. No rare and endangered plant species were observed in the study area. There is no endangered or critical faunal species in the study area.
- v. Revised green area details have been provided. Approx. 32,010 sq.m of green area will be developed under proposed airport development. Landscaping has been planned to be developed along the airside, landside, roads and parking area as per Guidelines on Landscaping and

Tree Plantation (IRC: SP-21-2009). Approx. 1,050 trees and 12,350 shrubs have been planned for plantation for the proposed expansion. As per the survey carried out, it is required to cut 616 existing trees. Compensatory plantation shall also be carried out for each tree cut in ratio of 1:10 or as per the NOC issued by the Forest Department.

- vi. Revised EMP budget has been provided and provides for ₹1,981 lakhs capital cost and ₹35.6 lakhs recurring cost during operation phase and ₹174.5 lakhs capital cost and ₹11 lakhs recurring cost during construction phase.

6. The EAC considered the proposal as per request of the PP as mentioned in para 5(i) above. The EAC noted that the project/activity is covered under item 7(a) 'Airports' of the Schedule to the EIA Notification, 2006 and its subsequent amendments. As per amendment notification dated 20.04.2022, all airport expansion projects have been re-categorised from category 'A' to Category 'B' and require appraisal at state level. However, since the instant proposal has already been appraised by EAC (Infra-2) under para 7(ii) of EIA Notification, 2006, its appraisal is to be continued by sectoral EAC at Central level. Considering the above, the EAC (Infra-2) recommended that the Terms of Reference issued vide letter no. 21-114/2021-IA-II dated 04.01.2022 be considered withdrawn with effect from the date of grant of EC.

7. *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. Wildlife Conservation Plan shall be implemented in consultation with the Wildlife Warden, Divisional Forest Officer and expert consultants and adequate budgetary provisions shall be made for the same as required.
- ii. Since, the project site is located in close proximity to habitation, a study on birds in the area along with SOP for reduction in bird strike shall be submitted to the concerned Integrated Regional Office of MoEF&CC within six months of issue of the EC letter.
- iii. Wherever the construction activity is likely to cause noise nuisance to nearby residents, restrict operation hours between 7 am to 6 pm.
- iv. 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.
- v. 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.

- vi. Solar power generation capacity of 2500 kWp shall be established as committed.
- vii. 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.
- viii. 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.
- ix. Construction & Demolition (C&D) waste shall be segregated and managed as per C&D Waste Management Rules, 2016.
- x. Fresh water requirement shall not exceed 357 KLD during operational phase. Abstraction of ground water shall be subject to the permission of Central Ground Water Authority (CGWA).
- xi. As proposed, wastewater shall be treated in onsite STP of 600 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.
- xii. 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.
- xiii. PP shall explore the use of non-ozone depleting substances in air conditioning systems.
- xiv. The PP shall also provide electric charging points in the parking areas for e-vehicles as committed.
- xv. 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.

AGENDA ITEM NO. 89.4

The Chairman and the committee members appreciated the Ministry's effort to initiate EAC meeting in hybrid mode allowing physical as well as virtual participation. The committee opined that gradually, as the restrictions related to COVID-19 are being eased out, only physical meetings should be conducted as it provides an environment for better evaluation and assessment of the

proposals. In this regard, the committee also expressed that, in the forthcoming meetings, if hybrid format is to be continued, then it may be made mandatory at least for the project proponents to be physically present at the venue to present their proposals as it makes the presentation more impactful and facilitates better evaluation.

LIST OF PARTICIPANTS

S. No.	Name	Designation	Attendance	Remarks
1.	Dr. N. P. Shukla	Chairman	Present	Physical
2.	Dr. H. C. Sharatchandra	Member	Present	Virtual
3.	Shri V. Suresh	Member	Present	Physical
4.	Dr. V. S. Naidu	Member	Present	Physical
5.	Shri B. C. Nigam	Member	Present	Virtual
6.	Dr. Manoranjan Hota	Member	Present	Virtual
7.	Dr. Dipankar Saha	Member	Present	Virtual
8.	Dr. Jayesh Ruparelia	Member	Present	Virtual
9.	Dr. (Mrs.) Mayuri H. Pandya	Member	Present	Virtual
10.	Dr. M. V. Ramana Murthy	Member	Absent	-
11.	Prof. Dr. P.S.N. Rao	Member	Absent	-
12.	Dr. Ragavan P	Special Invitee	Present	Physical
13.	Ms. Varada Vijayaraghavan	Special Invitee	Present	Physical
14.	Dr. Ashish Kumar	Additional Director & Member Secretary	Present	Physical

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., PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x 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; PM₁₀, PM_{2.5}, SO₂, NO_x (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.

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., PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x 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 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 namely; PM_{2.5}, PM₁₀, SO₂, NO_x (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.

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/Nm³.
- 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 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 namely; PM_{2.5}, PM₁₀, SO₂, NO_x (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.

ANNEXURE-4

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.

ANNEXURE-5

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, SO₂, NO_x 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., PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x 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 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 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_{2.5}, PM₁₀, SO₂, NO_x (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.

ANNEXURE-6

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. PM₁₀ and PM_{2.5}) 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 27th August, 2003 and 25th 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.
