

MINUTES OF 62nd MEETING OF EXPERT APPRAISAL COMMITTEE (INFRASTRUCTURE-2) HELD ON 1st March, 2021.

VENUE: Through Video Conferencing

DATE: 1st March, 2021

PROCEEDINGS

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

62.2 Confirmation of Minutes of 61st Meeting of Expert Appraisal Committee (Infrastructure-2) held on 8th February, 2021.

The Expert Appraisal Committee (Infrastructure-2), hereinafter called the EAC, was informed that Secretariat in the Ministry did not receive any representation from the project proponents of projects considered in 61st meeting. Minutes of 61st Meeting of EAC held on 8th February, 2021 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.

62.3 Consideration of Proposals: The EAC considered proposals as per the agenda adopted for the 62nd meeting. The details of deliberations held and decisions taken in the meeting are as under:

AGENDA ITEM NO. 62.3.1

Construction of Group Housing with built up area of 137879.64 Sqm at 1,3 Cavalry Lane & 4 Chhatra Marg Near Vishwavidyalaya Metro Station New Delhi by M/s Young Builders Pvt. Ltd. - Environment Clearance

(IA/DL/MIS/197084/2021; F. No. IA3-21/15/2021-IA.III)

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

- i. The project is located at 28°41'39.79" N Latitude and 77°12'52.00" E Longitude.
- ii. The project is a New project.
- iii. The total plot area is 20000 sqm, FSI area is 49976.12 sqm and total construction (Built-up) area of 137879.64 sqm. The project will comprise of 05 Nos. Buildings/ blocks. Total 446 flats shall be

developed. Maximum height of the building is 145.3 m. The details of building are as follows:

S. No.	Buildings Blocks	Max. No. of Floors
1	Block-A	2 Podium + Stilt + 2 Fire Check Floors + 38
2	Block-B	2 Podium + Stilt + 2 Fire Check Floors + 38
3	Block-C	2 Podium + Stilt + 2 Fire Check Floors + 38
4	EWS	Ground +1 Fire Check Floors + 28
5	Community Block	Lv. 1 & 2
6	No. of Basement	02

- iv. During construction phase, total water requirement is expected to be approx. 280 million litre which will be met by treated water from tanker supply. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labour force.
- v. During operational phase, total water demand of the project is expected to be 222 KLD and the same will be met by 158 KLD fresh water from Delhi Jal Board (DJB) and 64 KLD Recycled Water. Wastewater generated (175 KLD) will be treated in 01 STP of total 210 KLD capacity. 64 KLD of treated wastewater will be recycled and reused (52 KLD for flushing, 12 KLD for gardening etc.). About 96 KLD will be disposed in to municipal drain.
- vi. About 1.40 TPD solid waste will be generated in the project. The biodegradable waste (0.85 TPD) will be processed in OWC and the non-biodegradable waste generated (0.55 TPD) will be handed over to authorized local vendor.
- vii. The total power requirement during construction phase is 500 KW and will be met from Tata Power Delhi Distribution Limited (TPDDL) and total power requirement during operation phase is 2791 KW and will be met from TPDDL.
- viii. 06 Nos. of RWH pits are proposed for ground water recharge.
- ix. The ground water depth in the project site varies from 8.45 m to 10.20 m below ground level (as per soil test report by Ground Engineering Limited – March 2018). Construction of basement will lead to excavation up to a depth of 12.45 m below ground level. Dewatering will be required up to a depth of additional 1.0 m i.e., total depth 13.45 m BGL.
- x. Parking facility for 860 is proposed to be provided against the requirement of 858 ECS (according to local norms).
- xi. Proposed energy saving measures would save about approx. 4.46% of power.
- xii. The project is not located in Critically Polluted area.
- xiii. The project is not located within 10 km of Eco Sensitive areas. NBWL Clearance is not required.
- xiv. Forest Clearance is not required.
- xv. Court case pending against the project: At present no case is pending against the project. Earlier case details are given as below:

Writ PetitionNo.	Name of Court	Status of court case
3135/2010	Hon'ble Delhi High Court	Writ Petition No. 3135/2010 was disposed-off on 18.05.2011 allowing 200 FAR and no height restriction to the project.
2743/2012	Hon'ble Delhi High Court	Writ Petition No. 2743/2012 was dismissed in Hon'ble Delhi High Court on 27.04.2015. Follow through LPA No. 89/2018 was again dismissed by the Delhi High Court on 29.10.2018. SLP No. 5581/2019 finally dismissed by Hon'ble Supreme Court on 17.12.2019
8675/2011	Hon'ble Delhi High Court	Association of Metro Commuters challenged land auction by DMRC on ground of parking requirements at Vishwavidyalaya Metro Station - Writ Petition No. 8675/2011 was dismissed in Delhi High Court on 14.12.2011
6624-6625/2012	Hon'ble Delhi High Court	Lessee's challenged land auction by DMRC on ground of wrongful acquisition/public purpose - Writ Petition No. 6624-6625/2012 was dismissed in Delhi High Court on 10.09.2013. Follow through SLP No. 5014/2014 was also dismissed by the Hon'ble Supreme Court on 14.02.2014.
112 of 2018	Hon'ble NGT, New Delhi	Appeal No. 112 of 2018 was dismissed on 20.01.2021. YBPL requested to seek fresh EC approval due to change in overall project layout because of certain change in Unified Building Bye Law (UBBL) 2016. Hon'ble NGT dismissed the appeal as infructuous and directed YBPL to make a fresh application as per law.

- xvi. Tree cutting is not involved in this project. 6113 sqm area is earmarked for green belt development.
- xvii. Undertaking to the effect that no activity has since been taken up-Affidavit in this regard is submitted to EAC (Infra-II).
- xviii. Expected timeline for completion of the project- 31.12.2024
- xix. Investment/Cost of the project is Rs. 494.2 Crore (land + Construction cost)

- xx. Employment potential: The project is leading to development of the area by providing employment of the local people during construction and operation phase. 300 Laborers will be employed during the construction phase of the project.
- xxi. Benefits of the project: The project is leading to development of the area by providing employment of the local people during construction phase. Providing Housing facility for all sections of the society including Economically weaker section.

2. The EAC (Infra-2) noted that the project/activity is covered under category 'B' of item 8(a) 'Building and Construction projects' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level. However, due to non-existence of SEIAA in Delhi, the proposal is appraised at Central level by sectoral EAC.

3. The EAC observed that the PP has earlier obtained EC twice for the same project vide letter no. DPCC/SEAC/50/SEIAA/1/2012 dated 13/08/2012 and vide letter no. SEIAA-D/C-353/EC-350/2018 dated 23/03/2018 due to increase in FAR area of the project and revision in the project planning. Now, the PP has re-applied for EC in connection with order passed by Hon'ble NGT, Principle Bench, Delhi on 20.01.2021 on Appeal no. 112/2018 in the matter of University of Delhi vs MoEF&CC.

4. The EAC noted certain discrepancies in the Conceptual plan submitted by the PP regarding the disposal of treated water. In the Conceptual plan, as per the section on Environmental Management Plan, the PP has proposed that entire treated sewage will be reused for toilet flushing and horticulture, while as per the water balance diagram and table on water requirement, it has been stated that about 96 KLD will be disposed in to municipal drain. Also, the PP has not provided any information on the dewatering required for basement construction in the Conceptual Plan.

5. The EAC also noted that a Committee was appointed in terms of order of NGT dated 27.2.2020 and the Hon'ble Supreme Court vide its order dated 10.06.2020, and has given its report dated 10.12.2020. One of the suggestions of the Committee was that, 'considering that the project area is part of groundwater discharge zone, it is advised to restrict construction to only one underground basement and one stilt parking, instead of the proposed two. The parking plan may accordingly be revised and necessary approvals obtained.' However, the PP has still proposed 2 basements in the current proposal.

6. During processing, Ministry is in receipt representation dated 02.03.2021 from the Pro-Vice-Chancellor, University of Delhi expressing concerns on the construction of building in DU area. Representation, however, could not be discussed in the meeting of EAC. The EAC was of the opinion to take point-wise replies from PP to the representation so that the same could be discussed in forthcoming meeting.

7. *The EAC (Infra-2), based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held that the submissions made by the PP require certain revisions as mentioned above. In view of the foregoing, the EAC recommended to defer the decision on the project and asked the PP to provide the following information:*

- i. Clarification for the proposal of 2 basements with reference to recommendation of the committee constituted by NGT and Supreme Court Order.
- ii. Analyse the discrepancies and resubmit the conceptual plan after making the necessary revisions. Water balance flowchart needs to be revised.
- iii. Air pollution management in the context of Graded Action Plan for Delhi & NCR.
- iv. Point-wise replies to representation made by Delhi University

AGENDA ITEM NO. 62.3.2

Expansion of Rajasthan Co-operative Group Housing Society at plot no. 36, sector 4, Dwarka, New Delhi by M/s. Rajasthan CGHS Ltd. - Environment Clearance

(IA/DL/MIS/197825/2021; F.No. IA3-21/16/2021-IA.III)

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

- i. The project is located at plot no. 36, sector 4, Dwarka, New Delhi with co-ordinates 28°36'08.40" N Latitude and 77°03'06.77" E longitude.
- ii. The proposal is a case of 'Expansion'.
- iii. The Project site was leased out to Rajasthan Co-operative Group Housing Society (CGHS) by Delhi Development Authority (DDA) on 20/03/1996 for plot area 14000 sqm. The construction of the project was completed by 01.04.2004. The Occupancy Certificate of the project was obtained dated 15.05.2006 for built up area of 24613.375 sqm. As the construction of the project was completed before EIA Notification, 2006 and the amendment of 2004 to EIA Notification, 1994; the project was outside the purview of Environmental Clearance. As such, there is no previous / existing EC for the project. Accordingly, the application is submitted for Fresh EC.
- iv. The current proposal is for the addition of one room, one bathroom and one balcony in each flat and adding area in community block. This increase is due to increase in FAR. Due to this expansion there would be no increase in population, water demand and waste generation.

- v. The total plot area is 14000 sqm, after proposed expansion, FSI area will be 28005.39 sqm and total construction (Built-up) area will be 33435.155 sqm. The project comprises of 7 no. of Building blocks + 1 Community block. The total number of existing Dwelling Units (DUs) is 216 and population is 800. Maximum height of the building is 30 m. The details of building are as follows:

S. No.	Buildings Blocks	Max. No. of Floors
1	Block-A	S+9
2	Block-B	S+9
3	Block-C	S+8
4	Block-D	S+7
5	Block-E	S+7
6	Block-F	S+7
7	Block-G	S+7

PROJECT SUMMARY			
Sl. No.	Description	Total Quantity	Unit
GENERAL			
1	Gross Plot Area	14000	SQMT
2	Total no of DU's	216	No.
3	No of Residential Blocks	7	No.
4	Max No of Floors	S+9	No.
5	Expected Population	800	No.
AREAS			
6	Permissible Ground Coverage	4666.2	sqm
7	Existing Ground Coverage	3498.56	sqm
8	Addition in ground coverage due to expansion	469	sqm
9	Total Ground Coverage after expansion	3967.56	sqm
10	Permissible FAR	28000	sqm
11	Existing FAR	24387.39	sqm
12	Addition in FAR due to expansion	3618	sqm
13	FAR after expansion	28005.39	sqm
14	Existing Non FAR	226	sqm
15	Addition in Non FAR due to expansion	5203.78	sqm
16	Non FAR after Expansion	5429.78	sqm
17	Existing Built-up Area	24613.375	sqm
18	Addition in Built-up Area due to expansion	8821.78	Sqm

19	Built-up Area after expansion	33435.155	Sqm
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- vi. During construction phase, total water requirement is expected to be approx. 15KLD which will be met from tanker supply. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labour force.
- vii. During operational phase, total water demand of the project is expected to be 70-80 KLD and shall be sourced from Delhi Jal Board (DJB). The sewage generated from the project during the operation phase is 56-64 KLD which is being discharged in the public sewer with prior permission.
- viii. About 0.52 TPD solid waste will be generated in the project. The biodegradable waste (0.31 TPD) will be processed in OWC and the non-biodegradable waste generated (0.21 TPD) will be handed over to authorized local vendor.
- ix. The total power requirement during construction phase is 100 kVA and will be met from DG set and total power requirement during operation phase is 800 kW and will be met from BSES Rajdhani Power Ltd.
- x. 05 RWH structure with 3 no.s of recharge well exist at site.
- xi. Parking facility for 486 ECS is proposed to be provided against the requirement of 402 ECS (according to local norms).
- xii. There would not be any additional generation of solid waste, Waste water due to expansion of the project.
- xiii. The project is not located in Critically Polluted area.
- xiv. The project is not located within 10 km of Eco Sensitive areas. NBWL Clearance is not required.
- xv. Forest Clearance is not required.
- xvi. No court case is pending against the project.
- xvii. Tree cutting is not involved in this project. 2100 sqm (15% of total plot area) is earmarked for green belt development.
- xviii. Expected timeline for completion of the project - 31.12.2024
- xix. Investment/Cost of the expansion project is Rs. 15 Crores.
- xx. Employment potential: The project is leading to development of the area by providing employment of the local people during construction and operation phase
- xxi. Benefits of the project: The project will enable the present residents to have one additional room and balcony for better living.

2. The EAC (Infra-2) noted that the project/activity is covered under category 'B' of item 8(a) 'Building and Construction projects' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level. However, due to non-existence of SEIAA in Delhi, the proposal is appraised at central level by sectoral EAC.

3. The EAC also noted that even though the proposed expansion is for the addition of a room and a bathroom per dwelling unit, the PP has maintained that there shall be no increase in population, water consumption or wastewater generation after the proposed expansion.

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

- i. Fresh water requirement shall not exceed 80 KLD during operational phase. Groundwater use shall not be permitted.
- ii. As proposed, about 64 KLD of wastewater generated shall be discharged in the public sewer with prior permission.
- iii. Flow meter with online monitoring system shall be installed for the measurement of the wastewater discharge into the sewer line, and the data shall be submitted to the concerned IRO in the six-monthly compliance report.
- iv. No Objection shall be obtained from the residents/owner of the dwelling unit before the proposed construction.
- v. Area for greenery shall be provided as per the details provided in the project document i.e., area under plantation/greenery will be 2100 sqm. As proposed, at least 175 trees shall be maintained during the operation phase of the project. The landscape planning should include plantation of native species. A minimum of 01 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Plantations to be ensured species (cut) to species (planted). The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
- vi. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. As proposed, 5 RWH pits shall be maintained for rain water harvesting after filtration.
- vii. The solid waste shall be duly segregated into biodegradable and non-biodegradable components and handled in separate area earmarked for segregation of solid waste as per the Solid Waste Management Rules, 2016. As committed, biodegradable waste shall be composted by use of composter. Inert waste shall be dumped to authorized site. The recyclable waste shall be sold to resellers.
- viii. The PP shall provide sufficient number of electric charging points in the parking areas for e-vehicles.
- ix. 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. 62.3.3**Proposed “Integrated Development of East Delhi Hub” with built up area of 1,93,712 sqm at Karkardooma, East Delhi by M/s National Buildings Construction Corporation NBCC (India) Limited- Reconsideration for Environment Clearance****(IA/DL/MIS/146654/2020; F. No. 21-20/2020-IA-III)**

1.The PP (National Buildings Construction Corporation NBCC (India) Limited) along with his consultant ‘M/s. Atmos Sustainable Solutions Pvt. Ltd.’ made a presentation before EAC (Infra-2) on the key parameters and salient features of the project. The Committee took note of the following key parameters and salient features of the project presented during the meeting and as provided in the brief and application for this project:

- i. The project is located at Karkardooma, East Delhi. Site co-ordinates of the project site are 28°38'56.25"N 77°18'30.51"E.
- ii. The project is new/ redevelopment- This is New Project
- iii. Earlier Clearance details- NA; Constructions status- NA
- iv. The total plot area is 2,58,913.69 Sqm; Total FSI area is 1, 17,725Sqm; and total construction (Built-up) area of 1,93,712. Maximum height of the building is 160.00 metre. Details are as follow.

S. No.	Description	Built Up Area (BUA) (m²)	FSI/FAR Area (m²)	Component
1.	Proposed	1,93,712	1,17,725	I. Residential Block II. Residential Tower III. Civic Amenities IV. Total DU for Phase-I - 1,630 (Type A; Type B; EWS Units)

- v. During construction phase, total water requirement is expected to be 5,346ML. Which will be met by treated water from DJB during the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labour force.
- vi. During operational phase, total water demand of the project is expected to be approx. 1003KLD and the same will be met by Delhi Jal Board. Daily fresh water will be 526KLD however Recycled water will be 517KLD. Domestic wastewater generation will be 646 KLD will be treated in STP of 750KL. 517 KLD of treated wastewater will be recycled (225KLD for flushing, 235KLDfor gardening, 17KLD for DG cooling and 40KLD for Future construction/Thermal Power Station etc.).
- vii. About 6.18TPD solid wastes will be generated in the project. The biodegradable waste (3.713 TPD) will be processed in OWC and the non-

- biodegradable waste generated (1.856TPD) will be handed over to authorized local vendor.
- viii. Maximum Electrical load requirement after overall diversity factor works out to 6,119.92 kVA. The 33 KV power supply will be received from BSES in dual feeder to the complex and step-down to 11KV through 2 nos. power transformers. DG Sets will be of 4*750 kVA, 1*250 kVA, 1*500 kVA each. DG sets shall be placed in open/basement. Roof top rainwater of buildings will be collected in 27 Rainwater harvesting pits Proposed after filtration.
 - ix. Parking facility for 1,620ECS is proposed to be provided against the requirement of 1,103ECS respectively (according to local norms).
 - x. Proposed energy saving measures would save about 18-20 % of power.
 - xi. Okhla Bird Sanctuary is located at 9.14 Km in SSW direction. However, the project is situated outside the notified Eco Sensitive Zone of the Okhla Bird Sanctuary.
 - xii. NBWL Clearance is not required.
 - xiii. Forest Clearance is not required.
 - xiv. No court case is pending against the project.
 - xv. Investment/Cost of the project is Rs. 1,000 (Crores).
 - xvi. Employment potential - during construction phase approx. 200-250 persons shall get employment.
 - xvii. Benefits of the project - Wastewater treatment, Landscape enhancement, Energy conservation, Parking management, Rainwater harvesting.

2. The EAC (Infra-2) noted that the project/activity is covered under category 'B' of item 8(b) 'Townships and Area Development projects' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level. However, due to non-existence of SEIAA in Delhi, the proposal is appraised at Central level by sectoral EAC.

3. The committee after presentation found that details of project configuration have not been figured out clearly w.r.t. layout and number of towers with traffic management strategy and water and wastewater management. The committee expressed dissatisfaction on the quality of presentation and inadequate information being reflected in EIA report and requested MoEF&CC to take action and issue SCN.

4. *The EAC (Infra-2), based on the information submitted and clarifications provided by the Project Proponent and detailed discussions, held that the PP has not provided adequate information on the project configuration, environment management, pollution mitigation and green area plan in the EIA report or in their presentation. In view of the foregoing, the EAC recommended to defer decision on the project and asked the PP to provide following information:*

- i. Details of the proposed building configuration and detailed project layout.

- ii. Details of various components/towers vis a vis built up area/FAR/ground coverage needs to be tabulated.
- iii. Component wise detail of environment management plan within the proposed site.
- iv. Detailed green area plan.
- v. Air pollution mitigation plan with respect to Graded Action Plan for Delhi & NCR.
- vi. Resubmit the EIA report after making necessary changes to include the aforesaid details.

AGENDA ITEM NO. 62.3.4

Construction of district court with built up area of 29,411.3 sqm at Plot No. 08, District Centre Shastri Park, North-East Delhi by M/s. Law & Justice Department, Govt. of NCT Delhi –Reconsideration for Environment Clearance

(IA/DL/MIS/192851/2021; F. No. IA3-21/8/2021-IA.III)

The project proponent requested vide letter dated 01.03.2021 for the deferment of the presentation. Accordingly, the proposal was deferred. The EAC also noted that the proposal was earlier considered in the 61st meeting held on 8th February, 2021, wherein also the PP had requested for deferment vide letter dated 06.02.2021. As such, the EAC was of the opinion that the project shall be further considered for appraisal only after the PP's response regarding willingness to attend the meeting is received.

AGENDA ITEM 62.3.5

Expansion of Integrated Terminal Building of Varanasi Airport at Village Babatpur, Tehsil Pindra, District Varanasi, Uttar Pradesh by M/s Airport Authority of India - Terms of Reference

(IA/UP/MIS/196278/2021; IA3-21/14/2021-IA.III)

1.The PP (M/s. Airport Authority of India (AAI)) along with his consultant 'M/s. EQMS India Pvt. Ltd.' made a presentation before EAC (Infra-2) on the key parameters and salient features of the project. The Committee took note of the following key parameters and salient features of the project presented during the meeting and as provided in the brief and application for this project:

- i. The project is located at Village Babatpur, Tehsil Pindra, District Varanasi, Uttar Pradesh with coordinates 25°27'08" N Latitude and 82°51'34"E Longitude
- ii. The proposal is for 'Expansion'.

- iii. The airport was established before year 1994. Earlier, Environmental clearance was granted by SEIAA UP vide letter no. 614/SEAC/207/08/06 dated 01.05.2009 for construction of New Integrated Terminal Building having built-up area of 24,950 sqm, which is now operational. Thereafter, EC was again granted by SEIAA vide letter no. 1178/Parya/1280/SEAC/2012/DDY dated 02.09.2013 for the construction of new ATC Tower and Technical Block having built-up area of 4515.0 sqm.
- iv. The existing airport consists of 2745m x 45m runway for Code 'C' aircraft, one terminal building and apron to connect runway with terminal building. All basic facilities have been provided at the airport as per AAI, DGCA, ICAO and MoCA. The existing Passenger and cargo handling capacity of the airport is 2.5 MPPA (Million passengers per annum) and 3,000 MTA respectively. The total handling capacity of existing terminal building is 1050 passengers/hour (750 Domestic & 300 International).
- v. In 2018-2019, the passenger traffic at Varanasi Airport reached up to 2.7 Million passengers per annum. The passenger traffic at Varanasi airport is expected to continue growing in the subsequent years. In view of the above, AAI has proposed for expansion of the existing airport to cater future expected growth in Air Traffic, Cargo demands etc.
- vi. The aircraft movement per day at airport is expected to increase from 65 to 200 by 2035. The existing runway is sufficient for catering increased number of aircraft. Thus, no extension or alternation of runway has been proposed.
- vii. The proposed project involves construction of a new terminal building and other facilities to cater additional 9.1 MPPA. The total handling capacity of proposed terminal building will be 3300 passengers/hour (2800 Domestic & 500 International). Built up area shall increase from 29,645 sqm to 96,435 sqm.
- viii. The facilities planned in expansion includes new passenger terminal buildings, two new apron bays, two air bridge airport support facilities, utilities and infrastructure including roads, staff accommodation, residential quarters, new fire station & emergency medical centre, new car parking, power supply system, storm water drainage system, landscaping, sewage treatment plant, etc., and aircraft support facilities like refueling, repairs and overhaul, ground support, and catering etc.
- ix. There shall be no change in the existing Airport boundary due to proposed facilities. The land area of 774 acres shall remain same. Existing Airport is spread over an area of about 774 acre out of which 632.77 acres is in possession of AAI. Rest 141.23-acre land is in consideration with state administration for demarcation of boundary and possession. The land area details are given in table as follows

S. No.	Description	After Expansion (Sq m)	Area (Acre)
1.	Runway	495000	122.32

2.	Terminal Building	41212.76	10.18
3.	Area of Operation	1512734.71	373.80
4.	Car parking & nearby landscaping	37262.24	9.21
5.	Solar Plant Area	182109	45.00
6.	AAI Residential Area	80937.1	20.00
7.	Area of MSSR Building, open land area, etc	397560.12	98.24
8.	Area of green, open area, garden area, Utility area & Misc area	191351.25	47.28
9.	Land for City Side Development	109265	27.00
I	Total (1 to 9) (Land under control of AAI)	2560719.42	632.77
II	Land away from Airport	3561.234	0.88
III	Land yet to be demarcated	567976.299	140.35
TOTAL (I + II + III)		3132256.953 Sqm (313.2257 Ha.)	774

x. The details of the proposed expansion are as follows:

S. No.	Particulars	Existing	Proposed	After Expansion	Impact
1	Handling Capacity of Airport	2.5 MPPA	9.1 MPPA	11.6 MPPA	Increased
2	Plot Area	774 Acre	0	774 Acre	No Change
3	Built-up Area	29,465 Sq m	66,970	96,435 Sq m	Increased
4	Number of Building	1	1	2	Increased
5	Handling Capacity	1050 PAX (Dom: 750 & Int: 300)	3300 PAX (Dom: 2800 & Int: 500)	4350 PAX (Dom: 3550 & Int: 800)	Increased
6	No of Aprons	11	2	13	Increased
7	Facilities	Passenger Arrival & Departure facility	Passenger Arrival & Departure facility	Passenger Arrival & Departure facility	-
8	Height of Building	-	34	34 m	Increased
9	Staff Quarters & Hostel	139 no.	-(51) no.	88 no.	Decreased
10	Manpower	1000	2400	3400	Increased

11	Parking Area	8799 Sqm 325 ECS	8799 Sqm 325 ECS	17598 Sqm 650 ECS	Increased
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Particular	Details (After Expansion)	Source/Disposal
Manpower	4767	Contractual & Permanent Staff
Power Requirement	7204 kW	Uttar Pradesh Power Corporation Ltd.
Solar Power	1800 kWp	Solar PV panels 600 kWp (already installed) & 1200 kWp (proposed)
Power Backup	2x 750 kVA, 2x160 kVA and 5 x 1750 kVA	DG Sets (Existing and Proposed)
Total Water Requirement	2217 KLD	Fresh & Recycled Water (existing-545 KLD & Proposed- 1672 KLD)
Fresh Water Requirement	970 KLD	Ground Water
Wastewater	1389 KLD	Treated in STP of existing 150 KLD & proposed 1480 KLD
Solid Waste	12060 Kg/day	Existing 2741 kg/day (existing) & 9319 Kg/day OWC & Recycler
Rainwater Harvesting	3 recharge pits capacity: 3220 cum/hr (Exiting) 32 recharge pits capacity: 693 cum/hr & Tank : 21600 cum and 28000 cum (Proposed)	Recharge Pits & Storage Tank

- xi. The proposed project is expansion of existing airport which falls under activity 7(a), 'Category A' as per EIA notification 2006 and its amendments.
- xii. Application for Terms of Reference (ToR) was submitted to the MoEF&CC dated 03.02.2021. Subsequently, Standard ToR was issued by MoEF&CC vide their File No IA3-21/14/2021-IA.III. dated 19.02.2021.
- xiii. Baseline period is considered as Winter Season – December-2019 to February 2020.
- xiv. Total water requirement after expansion will be 2217 KLD which shall be sourced from 970 KLD Ground Water and 1247 KLD Recycled Water. After expansion, the wastewater of the airport complex will increase to 1372 KLD which will be treated in STP of total capacity 1630 KLD. 1247 KLD of treated water will be reused for flushing, cooling and landscaping purposes. There will be no direct discharge of

wastewater outside the premises i.e., it will be a Zero-Liquid Discharge Complex.

- xv. The expected Solid waste generation after expansion will be 12060 Kg/day. 6023 Kg/day of biodegradable waste shall be used for biogas generation using bio gas green box arrangement and 5935 Kg/day of recyclable waste shall be given to approved recycler. Rest 102 Kg/day of STP sludge shall be used for landscaping purpose.
- xvi. The existing power requirement of the airport is 2500 KVA which will increase to 7204 KVA after expansion. The source of power is through Uttar Pradesh Power Corporation Ltd. For Power backup, DG sets having capacity of 2x 750 KVA, 2x160 KVA are provided already provided at site. To meet power grid failures, additional emergency power backup DG sets of capacity 5 x 1750 KVA will be provided. In order to promote energy conservation, In the existing area, solar panels of 600 KWp are installed for reducing the power consumption. After expansion, additional solar panel of 1200 KWp shall be installed by AAI to minimize the dependency on electricity supplied by the grid. Terminal Building will be designed to achieve 4-star GRIHA rating.
- xvii. Project site is surrounded by settlement. Habitation is present around the take-off and landing funnel area.
- xviii. It is required to cut/ prune approx. 280 no. of existing trees falling under proposed activity.
- xix. Demolition of existing residential quarters, fuel storage area and few utility blocks having built-up area of 8000 Sqm shall be required for development of new terminal building. Also, minimal demolition/renovation work may be required in the existing terminal building in order to integrate it to the proposed Terminal Building.
- xx. No court case is pending against the project.
- xxi. The project is not located in Critically Polluted Area.
- xxii. The project is not located within 10 km of Eco Sensitive Zone. NBWL clearance is not required.
- xxiii. Forest clearance is not required.
- xxiv. Total cost for proposed project is Rs 654.56 Crores.
- xxv. Employment potential - Approx. 150 persons during construction phase and approx. 4767 persons during operational phase.
- xxvi. Benefits of the project - The Lal Bahadur Shastri International Airport connects Varanasi holy city to other parts of the country. Thus, the proposed expansion will cater to the increased number of Tourist which will directly generate the revenue to the State and Country. It will help in decongestion in existing Terminal Building. The development of the proposed airport will induce economic and social benefits to the people in the project influence zone. Economic development will be not only in the direct influence area, but also for the surroundings and would generate employment opportunities. Terminal Building will be designed to achieve 4-star GRIHA rating.

2. The EAC noted that the project/activity is covered under category 'A' of item 7(a) 'Airports' of the Schedule to the EIA Notification, 2006 and its

subsequent amendments, and requires appraisal at central level by sectoral EAC.

3. The EAC also noted that the project had incorrectly obtained earlier ECs for Expansion of buildings within the Airport complex under Category B of item 8 of the Schedule to the EIA Notification, 2006 and its subsequent amendments, from SEIAA Uttar Pradesh.

4. The PP requested the EAC for exemption from Public Hearing on the basis that there is no additional land acquisition involved for the proposed expansion. The EAC observed that since the airport was constructed prior to the EIA notification, 1994, and also the Environmental Clearances for Expansion had been obtained under Category B of item 8 of the Schedule to the EIA Notification, 2006 and its subsequent amendments, the project has never undergone the process of Public Hearing as a part of its environmental appraisal. Also, the proposed project is being expanded about three times to the existing facility. In view of the foregoing, the EAC was of the opinion that exemption from Public Hearing is not applicable in this case.

5. *The EAC deliberated upon the information provided by the project proponent. After detailed deliberation, EAC recommended granting following additional Terms of Reference over and above the Standard ToR issued automatically over the Parivesh Portal on 19th February, 2021, for preparation of EIA-EMP report for this project/activity:*

- i. Certified Compliance Report from concerned Integrated Regional Office of MoEFCC with regard to the previous/existing EC to be submitted.
- ii. Construction & Demolition (C&D) Plan to be submitted for the proposed demolition work.
- iii. Prior permission to be obtained from concerned local authorities for the proposed tree cutting/pruning/transplantation.
- iv. Details of the current STP and the proposed STP to be elaborated in the EIA report.

AGENDA ITEM NO. 62.3.6

“Development of Passenger Ropeway” at MundeshwariHills to length of 98.5 m long covering an area of 5298.50 sqm by M/s. Bihar State Tourism Development Corporation (BSTDC) Ltd. - Terms of Reference

(IA/BR/MIS/175006/2020; 10-59/2020-IA-III)

The project proponent did not attend the meeting and as such, the proposal was deferred.

AGENDA ITEM NO. 62.3.7

Installation of Incinerator to manage the Common Hazardous Solid Waste under Common Hazardous Waste Treatment, Storage and Disposal Facilities (TSDFs) by M/s. Steam Oil & General Industries- Reconsideration for Terms of Reference

(IA/UP/MIS/178721/2020; F. No. 10-71/2020-IA-III)

1. The PP (M/s. Steam Oil & General Industries) along with his consultant 'Epsilon Projects Pvt. Ltd.' made a presentation on the key parameters and salient features of the project to the EAC (Infra-2). The EAC took note of following key parameters and salient features of the project, as presented during the meeting; provided in the brief and application for this project:

- i. The project is located at C-187, UPSIDC, Bulandshahr Road, Industrial Area, Ghaziabad, Uttar Pradesh.
- ii. The present proposal is to install an incinerator to manage the common hazardous solid waste and serve nearby industrial area through Treatment, Storage and Disposal Facility (TSDF). The installed capacity of common hazardous incinerator will be 6Ton/Day. The plant capacity shall be 7200KL/Annum. The TSDF shall have a zone of coverage of approx. 300 Km radius from the facility.
- iii. The types of waste which shall be handled are as follows:
 - a. Residue/re-refining used oil/waste oil Plant.
 - b. Pharmaceutical and drug manufacturing process waste oil.
 - c. Refuel by product.
 - d. Industrial Waste such as solvents, paints, sludge etc.
 - e. Trash, rubber, rubber like paper, rags, cotton waste etc.
- iv. The plot area is 0.406023 Ha.
- v. Primary chamber of incinerator is basically a fuel fired rotary combustion chamber. Waste is charged into the kiln. The advantage of rotary chamber is the automatic agitation of the waste inside chamber and constantly exposed to heat results in faster combustion / destruction. Required energy is maintained through fully automatic burner, which is controlled through two set point temperatures controlled for better fuel efficiency. Dioxin Emission can be controlled below the present emission limits set up by MoeF&CC (Govt. of India). The generated emission will be discharged through 30 mtrs high chimney. The residue left would be less than 5% of the HW treated and would primary be ash content. Research and development shall be done to convert these ashes to bricks. Contaminated water obtained from the incinerator shall be treated in a water treatment unit. Clean water obtained from the water treatment plant would be re-circulated in the plant for cooling purpose. Any solid waste generated by this process will be incinerated.
- vi. Total freshwater requirement will be 8 KLD which shall be sourced from groundwater. Waste water generated from Domestic use and will be

- disposed through soak pit via septic tank. And waste water generated from Industrial process will be treated in ETP.
- vii. The domestic waste of around 1.5 kg/day will be generated at the time of construction. Around 2.0kg/day will be generated during operational phase consisting mainly of domestic waste from staff and workers. The domestic waste will be disposed through municipal dustbins.
- i. 100 HP power is required. Supply source – Paschimanchal Vidyut Vitran Nigam Ltd (PVVNL). In case of power failure, D.G. Set shall be used (1 no 62.5 KVA and 1 no 125.0 KVA capacity).
 - ii. Green belt details: In the periphery / surrounding area of TSDF, green belt will be developed.
 - iii. Employment Potential - During Construction phase: 30 workmen
Operation phase: 20 workmen.
 - iv. The estimated cost of the Project is about Rs. 4.50 crores.
 - v. Benefits of the project: The PP has vast experience in the field of waste management. The Paschimanchal region of Uttar Pradesh is having maximum Industry in comparison to rest of Uttar Pradesh. Due to lack of TSDF, currently all waste is transported to Kanpur. For example, the distance of present TSDF from Ghaziabad is 450 KM which means a vehicle has to travel approx 900 Km (Both ways) to dispose the waste. This is three way losses as the 1st is the loss of fuel, 2nd is economical loss to Industry to pay excess transportation charges to TSDF. The third major loss is for Environment as there is about 12 hour full exposure of waste during transportation during which there is a chance for any accident/leakage of the hazardous waste causing damage to the environment. The proposed TSDF shall have a zone of coverage of 300 KM radius from the facility.

2. The EAC noted that the project/activity in current proposal is covered under category 'A' of item 7(d) 'Common hazardous waste treatment, storage and disposal facilities (TSDFs)' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level by sectoral EAC.

3. The EAC observed that the facility is already operational as per CTO issued vide letter no. 36147/UPPCB/Ghaziabad(UPPCBRO)/CTO/air/ GHAZIABAD /2018 dated 18.11.2018 under section 21/22 of the Air (Prevention and control of Pollution) Act, 1981 (as amended) and CTO issued vide letter no. 36155/UPPCB/Ghaziabad (UPPCBRO)/CTO/water/GHAZIABAD/ 2018 under Section 25/26 of The Water (Prevention and control of Pollution) Act, 1974 (as amended) dated 18.11.2018 which clearly specify the operational status of incinerator, heating furnace and ETP. This indicates that facility of TSDF has been installed without obtaining prior EC under the provision of EIA, Notification, 2006.

4. *The EAC (Infra-2), based on the information submitted and clarifications provided by the Project Proponent and detailed discussions found that the project is violation of the provision with respect to the EIA Notification, 2006 and its subsequent amendments by not taking EC. In view of the foregoing, the EAC*

recommended that Ministry may take action under violation category.

AGENDA ITEM NO. 62.3.8

RDF based Waste to Energy Plant in Municipal Solid Waste Processing & Disposal Facility at Shishambada, Vikasnagar, Dehradun by M/s. Dehradun Waste Management Private Limited (DWMPL) – Terms of Reference

(IA/UK/MIS/194487/2021; F.No. IA3-21/6/2021-IA.III)

1. The PP (M/s. Dehradun Waste Management Private Limited (DWMPL)) along with his consultant 'M/s. Ramky Enviro Services Pvt. Ltd.' made a presentation on the key parameters and salient features of the project to the EAC (Infra-2). The Committee took note of the following key parameters and salient features of the project presented during the meeting and as provided in the brief and application for this project:

- i. The project is located at Survey/khasra No: 6,13 and 18kha,19,20, 22, 23, 24, 25 and 26Ka, Shishambada Village, Vikasnagar Tehsil, Dehradun District, Uttarakand State with coordinates 30°20'38.7" N Latitude and 77°52'16.4" E Longitude.
- ii. The existing land use pattern of the site is Integrated Municipal Solid Waste Treatment Facility (IMSWMF). Total land area of project site is 8.323 Ha and the area of 1.734 Ha is identified for the proposed Waste to Energy Plant within the existing IMSWMF with capacity of 6 MW.

S.no	Description	Area
1.	Compost Plant and Refused Derived Fuel (RDF) Plant	8.323 hectare
2.	Inert Processing Plant	
3	Engineered Land Fill & Composting Plant	

- iii. The project is located at an aerial distance of 4.46 km from the western most boundaries of Doon Valley Eco Sensitive area.
- iv. The proposed RDF based power plant scheme for the DWMPL, consists of one (1) number of steam generator (Boiler) with capacity of 26 to 30 TPH and capable to burn 300 TPD of Segregated MSW or RDF in boiler, with steam outlet parameters of 45 kg/cm² (a), 400°C and one 6 MW extraction cum condensing turbo generator with followed by Air Cooled Condenser (ACC).
- v. The turbo generator capacity is arrived based on the actual steam quantity available to generate power, with required margins to take care of the valve wide open (VWO) conditions of the turbo generator and to meet various operating and upset conditions of the power plant. The steam generator is equipped with complete required system like air and dry type flue gas cleaning system, fuel and ash system, feed water and

steam system, dust collection system, and RCC Stack with minimum 50 Mtrs height, soot blower system, steam and water analysis system, boiler draft system, Instrument air system, electrical system, instrumentation and control system, etc.

- vi. Each turbine will be bleed cum condensing machine. The steam required for the de-aerator is taken from the bleed of the turbine. Air cooled condenser (ACC) is identified as the condensing equipment. Steam required for the ejector and gland sealing is about 350 kg/h at 10.0 kg/cm², is taken from live steam line through pressure reducing & de-super heating station (PRDS).
- vii. The power plant cycle will be provided with a de-aerator serving the dual purpose of de-aerating the feed water as well as heating the feed water with the bleed steam drawn through the turbine. The de-aerator considered is a floating pressure type. The feed water management program shall ensure the supply of good quality make up water to the system. In the proposed power cycle, from the steam supplied to the turbine, about 98% will come back as the condensate from the ACC to the steam generator, through the feed water heating system (de-aerator). The complete make up required for the plant operation will be ground water/Dehradun Municipal Corporation.
- viii. Makeup of required quality is considered from the water treatment plant. The makeup for the cycle will be added in the condensate hot well and the quantity of makeup will be controlled by the hot well level control system. Well engineered Fuel feeding and ash handling system is considered for this project.
- ix. The power generation will be at 11 kV level. After meeting the power plant internal consumption, the remaining power will be stepped up by a step-up transformer and exported to the Discoms. The complete plant instrumentation and control system for power plant shall be based on distributed controlled system (DCS) philosophy, covering the total functioning requirements of measuring, monitoring, alarming and controlling, logging, sequence interlocks and equipment protection etc.
- x. The raw material for the proposed project is municipal solid waste, which is having the certain calorific value suitable for power generation. The total MSW of the proposed project concessionary areas is getting scientifically segregated, treated and disposed at the site.
- xi. The total (Existing and proposed) maximum Ash generated from the RDF power plant will be about 77.5 TPD. The reuse potential of RDF incinerated ash in the light of toxicity and compressive strength is prone to huge variation due to the heterogeneous composition and higher moisture content of the solid waste. Higher concentration of heavy metals and some hazardous chemicals are observed in the fly ash of existing RDF fired WTE facilities. The bottom ash collected from the furnace bottom is observed with relatively less concentration of

hazardous material. The RDF ash contains non-combustibles such as metals, glass, concrete, brick, etc. The ash is not preferred for any other use and is disposed in landfills.

- xii. There is no Habitation present in 200m, the nearest habitation is Selakui in 0.4 km, NW and Shishambada – 0.7 km, SE
- xiii. The proposed project is connecting with NH 72 which is 0.3 km from the project location. Nearest railway station is Dehradun Railway station - 16 km in East direction and nearest airport is Dehradun Airport - 34 km South East direction from the proposed project site.
- xiv. Site Elevation – 517m AMSL, no filling required for the site.
- xv. The total drinking water required water is supplied by Nagar Nigum Dehradun/Borewell.
- xvi. The wastewater as liquid waste of 50 KLD will be generated which includes cooling tower blow down, boiler blow down and DM regeneration and Leachate. The generated leachate will be treated in the LTP, blow-down water from ancillary cooling tower and boiler, and wastewater from domestic usages will be collected in CMB and neutralised in NPit. This water will be reused in dry type flue gas cleaning system to control the temperature. The wastewater treatment process proposed for the project is based on biological, chemical & physical process. The generated waste water will be used for bottom ash quenching
- xvii. No tree cutting is required
- xviii. No rehabilitation involved
- xix. No streams are crossing within the project site. Hence, no diversion of water bodies is required.
- xx. No litigations against the project/ land.
- xxi. The total power generation from installed WTE is 52.56 MU per year and the in house Consumption is 7.884 MU per year. Remaining will be exported to Discoms.
- xxii. The estimated cost of the project is Rs. 123.96 Crores
- xxiii. Employment potential-Around 105 people will get direct employment by the proposed project and around 100 people will get indirect employment
- xxiv. Benefits of the project - Overall the proposed project will have a positive impact on the people and surroundings. Due to the project employment options to the locals will be increased which improved their livelihood. Thermal combustion of MSW allows huge savings at the landfill as the volume of MSW is reduced almost to 20% in the form of ashes and slag as compared to the original waste volume. There is no tribal population around the proposed project.
- xxv. Baseline monitoring will be conduct in summer season (March to May 2021)
- xxvi. No forest land is involved in the project site. As the proposed project is within the existing Integrated MSW management facility (IMSWMF) area.

2. The EAC noted that the project/activity under consideration i.e., RDF based Waste to Energy Plant of 6MW capacity, is exempted from the EC process as per the condition (i) specified in item 1(d) 'Thermal Power Plants'

of the Schedule to the EIA Notification, 2006 and its subsequent amendments. However, the project/activity under consideration is proposed to be situated within the premises of an existing facility which is covered under category 'B' of item 7(i) 'Common Municipal Solid Waste Management Facility (CMSWMF)' of the Schedule to the EIA Notification, 2006 and its subsequent amendments. Also, due to the project being located at a distance of less than 5 km from the boundaries of Doon Valley Eco Sensitive Area, General Condition is applicable. Therefore, the project comes under Category 'A' and requires appraisal at the central level by sectoral EAC.

3. *The EAC also noted that the PP has applied for Fresh EC for the project. However, the committee was of the opinion that the project/activity may be a kind of upgradation/modernization/expansion of the existing CMSWMF with EC granted vide letter no. 10-62/2011-IA.III dated 08.12.2014, which has not been clarified by PP. Further, the PP needs to provide detailed information regarding auxiliary fuel to boiler and distribution of MSW to proposed facility w.r.t existing compost plant and sanitary landfill. Finally, EAC recommended to defer the proposal and asked PP to furnish the following information:*

- I. Status of existing facility in terms of operating capacity of compost plant and sanitary landfill on which EC was granted.
- II. Distribution of MSW in existing compost plant with proposed RDF based waste to energy plant.

LIST OF PARTICIPANTS OF EAC (INFRASTRUCTURE-2) IN 62nd MEETING OF EAC (INFRA-2) HELD ON 1st March, 2021 THROUGH VIDEO CONFERENCING

S. No.	Name	Designation	Attendance	Sign
			01.03.2021	Through VC
1.	Prof. T. Haque	Chairman	P	-
2.	Dr. N. P. Shukla	Member	P	-
3.	Dr. H. C. Sharatchandra	Member	P	-
4.	Shri V. Suresh	Member	P	-
5.	Dr. V. S. Naidu	Member	P	-
6.	Shri B. C. Nigam	Member	P	-
7.	Dr. ManoranjanHota	Member	P	-
8.	Dr. Dipankar Saha	Member	P	-
9.	Dr. Jayesh Ruparelia	Member	P	-
10.	Dr. (Mrs.) Mayuri H. Pandya	Member	P	-
11.	Dr. M. V. Ramana Murthy	Member	P	-
12.	Prof. Dr. P.S.N. Rao	Member	A	-
13.	Shri Lalit Bokolia	Scientist F & Member Secretary	P	-
14.	Shri Shard	Scientist E	P	-

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 equipments.
- (iii) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
- (iv) During airport operation period, noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
- (v) Where construction activity is likely to cause noise nuisance to nearby residents, restrict operation hours between 7 am to 6 pm.

V. Energy Conservation measures:

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

VI. Waste management:

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

VII. Green Belt:

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

VIII. Public hearing and Human health issues:

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

IX. Corporate Environment Responsibility:

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

X. Miscellaneous:

- (i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- (iv) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- (v) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- (vi) The criteria pollutant levels namely; 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.
- (vii) The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

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

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. Corporate Environment Responsibility:

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

X. Miscellaneous:

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vi. The criteria pollutant levels namely; PM_{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.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

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

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. Corporate Environment Responsibility:

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

The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

X. Miscellaneous:

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

ANNEXURE-4

Standard EC Conditions for Project/Activity 7(g): Aerial ropeways

I. Statutory compliance:

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area)
- iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- v. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- vi. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

II. Air quality monitoring and preservation:

- i. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM₁₀ and PM_{2.5} in reference to PM emission) covering upwind and downwind directions.
- ii. Appropriate Air Pollution Control (APC) system (both during the construction and operation) shall be provided for all the dust generating points *inter alia* including loading, unloading, transfer points, fugitive dust from all vulnerable sources, so as to comply prescribed standards.
- iii. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
- iv. Adequate parking shall be constructed at upper terminal and lower terminal. PP shall ensure smooth traffic management.

III. Water quality monitoring and preservation:

- i. Storm water from the project area shall be passed through settling chamber.
- ii. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
- iii. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
- iv. Prior permission from competent authority shall be obtained for use of fresh water.
- v. No wastewater shall be discharged in open. Appropriate Water Pollution Control system shall be provided for treatment of waste water.
- vi. A certificate from the competent authority, in case of discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.

IV. Noise monitoring and prevention:

- i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures:

- i. Energy conservation measures like installation of LED/CFLs/TFLs for lighting should be integral part of the project design and should be in place before project commissioning.
- ii. Solar energy shall be used in the project i.e., at upper terminal and lower terminal to reduce the carbon footprint.

VII. Waste management

- i. The solid wastes shall be segregated, managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
- ii. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016.

- iii. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.

VIII. Public hearing and Human health/safety issues:

- i. Comply with the safety procedures, norms and guidelines (as applicable) as outlined in IS 5228, IS 5229 and IS 5230, code of practice for construction of aerial ropeways, Bureau of Indian Standards.
- ii. Maintaining hoists and lifts, lifting machines, chains, ropes, and other lifting tackles in good condition.
- iii. Ensuring that walking surfaces or boards at height are of sound construction and are provided with safety rails or belts.
- iv. The project should conform to the norms prescribed by the Director General Mine safety. Necessary clearances in this regard shall be obtained.
- v. Adequate infrastructure, including power, shall be provided for emergency situations and disaster management.
- vi. Adequate first aid facility shall be provided during construction and operation phase of the project.
- vii. Regular safety inspection shall be carried out of the ropeway project and a copy of safety inspection report should be submitted to the Regional Office.
- viii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

IX Corporate Environment Responsibility:

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

X. Miscellaneous:

- i. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vi. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

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

ANNEXURE-5**Standard EC Conditions for Project/Activity 7(h): Common Effluent Treatment plants (CETPs)****I. Statutory compliance:**

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

II. Air quality monitoring and preservation:

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

III. Water quality monitoring and preservation:

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
- iii. There shall be flow meters at inlet and outlet of CETP to monitor the flow. Suitable meters shall be provided to measure the quantity of effluent received, quantity of effluent recycled/reused and discharged.
- iv. The units and the CETP will maintain daily log book of the quantity and quality of discharge from the units, quantity of inflow into the CETP, details of the treatment at each stage of the CETP including the raw materials used, quantity of the treated water proposed to be recycled, reused within the Industrial park/units, quantity of the treated effluent discharged. All the above information shall be provided on-line of the web site exclusively prepared for the purpose by the CETP owner. The website shall be accessible by the public. The financial and energy details of the CETP will also be provided along with details of the workers of the CETP.
- v. The CETP operator will maintain an annual register of member units which will contain the details of products with installed capacities and quality and quantity of effluents accepted for discharge. This will form a part of the initial and renewal applications for consent to operate to be made before the State Pollution Control Board.
- vi. No changes in installed capacity, quality or quantity of effluents as agreed upon in the initial MOU between the operator and the member units, addition of any new member units shall be carried without prior approval of the ministry
- vii. The Unit shall inform the State Pollution Control Board at least a week prior to undertaking maintenance activities in the recycle system and store/dispose treated effluents under their advice in the matter.
- viii. The unit shall also immediately inform the Pollution Control Board of any breakdown in the recycling system, store the effluents in the interim period and dispose effluents only as advised by the Pollution Control Board.
- ix. The MoU between CETP and member units shall indicate the maximum quantity of effluent to be sent to the CETP along with the quality.
- x. The unit shall maintain a robust system of conveyance for primary treated effluents from the member units and constantly monitor the influent quality to the CETP. The Management of the CETP and the individual member shall be jointly and severally responsible for conveyance and

pre-treatment of effluents. Only those units will be authorized to send their effluents to the CETP which have a valid consent of the Pollution Control Board and which meet the primary treated standards as prescribed. The CETP operator shall with the consent of the State Pollution Control Board retain the powers to delink the defaulter unit from entering the conveyance system.

- xi. The effluent from member units shall be transported through pipeline. In case the effluent is transported thorough road, it shall be transported through CETP tankers only duly maintaining proper manifest system. The vehicles shall be fitted with proper GPS system.
- xii. Before accepting any effluent from member units, the same shall be as permitted by the SPCB in the consent order. No effluent from any unit shall be accepted without consent from SPCB under the Water Act, 1974 as amended.
- xiii. Treated water shall be disposed on land for irrigation. An irrigation management plan shall be drawn up in consultation with and to the satisfaction of the State Pollution Control Board.
- xiv. The Project proponents will build operate and maintain the collection and conveyance system to transport effluents from the industrial units in consultation with and to the satisfaction of the State Pollution Control Board and ensure that the industrial units meet the primary effluent standards prescribed by the State Pollution Control Board.
- xv. The State Pollution Control Board will also evaluate the treatment efficiency of the Effluent Treatment Plant (ETP) and its capability of meeting the prescribed standards. The final scheme of treatment would be such as is approved by the Pollution Control Board in the Consent to Establish.
- xvi. The project proponents will create an institutional arrangement for the involvement of individual members in the management of the CETP.

IV. Noise monitoring and prevention:

- i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.
- iii. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Waste management:

- i. ETP sludge generated from CETP facility shall be handled and disposed to nearby authorized TSDF site as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
- ii. Non-Hazardous solid wastes and sludge arising out of the operation of the CETP shall be adequately disposed as per the Consent to be availed from the State Pollution Control Board. Non-Hazardous solid wastes and sludge shall not be mixed with Hazardous wastes.
- iii. The CETP shall have adequate power back up facility, to meet the energy requirement in case of power failure from the grid.
- iv. The site for aerobic composting shall be selected and developed in consultation with and to the satisfaction of the State Pollution Control Board. Odour and insect nuisance shall be adequately controlled.
- v. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
- vi. The solid wastes shall be segregated, managed and disposed as per the norms of the Solid Waste Management Rules, 2016.

VI. Energy Conservation measures:

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

VII. Green Belt:

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

VIII. Public hearing and Human health issues:

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

IX. Corporate Environment Responsibility:

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

X. Miscellaneous:

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

- their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

ANNEXURE-6

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

I. Statutory compliance:

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

II. Air quality monitoring and preservation:

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. (for projects involving incineration).
- ii. As proposed, air pollution control device viz. gas quencher; treatment with mixture of hydrated lime and activated powder for adsorption of partial acidity and VOCs (if any); bag filter/ESP for removal of particulate matter; venturi scrubber followed by packed bed scrubber with caustic circulation to neutralize the acidic vapours in flue gas; and demister column for arresting water carry over will be provided to the incinerator. Online pollutant monitoring shall be provided as per CPCB guidelines for monitoring particulate matter, 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.

VIII. Corporate Environment Responsibility:

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

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

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

ANNEXURE-7

Standard EC Conditions for Project/Activity 8(a/b): Building and Construction projects / Townships and Area Development projects

I. Statutory compliance:

- i. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- ii. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting 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, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
- vi. Sand, murram, 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. Corporate Environment Responsibility:

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

XI. Miscellaneous:

- i. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.

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