Minutes of 104rd Meeting of Expert Appraisal Committee (Infra-II) for projects related to airports 7(a); common hazardous waste treatment, storage and disposal facilities 7(d); common bio-medical waste treatment facilities 7(da); common effluent treatment plants 7(h); common municipal solid waste management facility 7(i); building and construction 8(a) and townships and area development projects 8(b) was held in Narmada Conference Hall, First Floor, Jal Wing, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, New Delhi – 110 on 11-12 May, 2023.

104.1: The Chairman, Expert Appraisal Committee (Infra-II) welcomed all the Members and stated briefly the agenda items of the meeting. He then requested the Member Secretary to initiate deliberations. List of participants is placed at Annexure-1.

104.2: Confirmation of Minutes of 103rd Meeting of Expert Appraisal Committee (Infra-II) held on 10.04.2023: The Expert Appraisal Committee (Infra-II), hereinafter referred to as EAC (Infra-II) or EAC or committee, confirmed the minutes of 102nd meeting of EAC held on 24.02.2023. Typo errors, if any, noticed during processing of these cases may be corrected appropriately in the light of relevant facts and figures.

104.3.1 Development of New Integrated Civil Enclave at Halwara Airport, Village Aitiana, Rajkot Tehsil, Ludhiana District, Punjab by M/s Airports Authority of India – Further consideration for Environmental Clearance

(IA/PB/INFRA2/416744/2023; F. No. 21-84/2020-IA.III)

The project proponent along with the consultant made a presentation of their proposal related to existing airport for Air Force at Halwara, which is being developed to also serve as a civilian airport with the addition of buildings and aprons etc. (Annexure-2). The EAC has 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 required appraisal as category A by sectoral EAC at central level.

The ToR to the project were issued on 28.12.2020. The baseline data was collected in the same year and public hearing was conducted on 27.08.2022. All the comments made by people have been adequately accommodated in the EMP. No forest, wildlife sanctuary or national park occur within 10 km of the project site. No wildlife is usually seen in the airport area and no instances of birds hitting aircarfts have been reported in this region. The project proponent stated that the SOx, NOx and CO emission have been observed during October to December 2022 along with the PM10 and PM2.5 and were found to be within the acceptable limits.

The members of the committee noted that the agriculture fields of Halwara are the site of large scale burning of paddy stalk suggesting that the ambient PM10 and PM2.5

readings in the region during the paddy harvest season should be a matter of concern. The project proponent insisted that their data is accurate and has been collected following a rigorous regime. The Chairman noted that this pollution has its origin in activities that have nothing to do with this proposed airport expansion for civilian use and, therefore, its mitigation cannot be brought within the purview of the EMP of the project under consideration. The primary concern should be safety during takeoff and landing on account of lowered visibility as also effect on the health of crew and passengers during peak pollution which would be automatically addressed by the safe flying protocols of the Ministry of Civil Aviation.

The committee examined the EMP and observed that while the needed mitigating actions have been proposed but the funds provided to implement these EMP activities is very low and based on a back-of-the-envelop assessment it was felt that the actual funds required for carrying out these activities satisfactorily would be several times higher than that proposed in the EIA/EMP report. The project proponent should, therefore, carry out a detailed analysis of the capital and recurring costs of all the proposed activities under EMP. They may also consult the SPCB and the State Forest Department for estimating the real cost of the proposed activities.

Accordingly, the EAC **recommended** the proposal for grant of Environmental Clearance subject to the submission of revised budget for EMP with adequate explanation through PARIVESH with following specific conditions in addition to standard general conditions stipulated for such projects:

- i. Revise the EMP budget as suggested above and submit to the concerned regional office within 15 days of issuance of the EC letter
- ii. Construction activities that are likely to cause noise nuisance to nearby residents should be carried out only between 6 am to 8 pm.
- iii. Strict air pollution control and mitigation measures during the construction phase must be delineated in the EMP and effectively implemented.
- iv. A detailed traffic management & decongestion plan shall be drawn up and got validated by the State Urban Development Department and thereafter implemented as per norms.
- v. Rain water harvesting structures shall conform to CGWA designs. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease.
- vi. A certificate from the competent authority/agency handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- vii. Fresh water requirement from local authority shall not exceed 150 KLD during operational phase. Extraction of ground water shall be subject to the permission of Central Ground Water Authority (CGWA).

- viii. The wastewater shall be treated using the most effective technology available and the treated water from the STP shall be recycled and re-used for gardening, flushing etc. There shall be no discharge of treated water from the project.
 - ix. The project proponents would commission a third-party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing, and the quality of water being supplied through spray faucets attached to toilet seats.
 - x. The proponent shall also provide electric charging points in the parking areas for e-vehicles.
 - xi. The Environmental Clearance to the project is primarily under provisions of EIA Notification, 2006. The Project Proponent is under obligation to obtain approvals/clearances under any other Acts/ Regulations or Statutes as applicable to the project.
- xii. The project proponent is required to furnish a certificate from the Chief Wildlife Warden of the State stating that the proposed project site is located at the distance more than 10 km from boundary of the nearest protected areas. This certificate should be submitted to the concerned Integrated Regional Office of the Ministry within a fortnight of issuance of the environmental clearance letter.

104.3.2 Development of Greenfield Sabarimala International Airport in Erumely in Kottayam District, Kerala by M/s Kerala State Industrial Development Corporation Limited – Terms of Reference

(IA/KL/INFRA2/424819/2023; F. No. 21/3/2023-IA.III)

The project proponent along with the consultant made a presentation of their proposal related to Greenfield Sabarimala International Airport (annexure-3). The EAC has 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 required appraisal as category A by sectoral EAC at central level.

The proponent has stated that three alternate sites were examined for locating this airport and a detailed analysis of the relative merits of the sites were presented before the committee. The proposed site appears to be the best alternative among the sites examined. The proponent has informed that the project site is outside the Eco-Sensitive Area (ESA) of the Western Ghat and submitted a certificate from the Additional Chief Secretary (Home & Environment), Government of Kerala, to this effect.

Accordingly, the EAC **recommended** the proposal for grant of Standard TOR for airports with following specific ToR in addition to Standard ToR issued through Parivesh Portal on 08.04.2022:

- A certificate from the Chief Wildlife Warden of the State Government stating that proposed project does not intrude any National Park or Wildlife Sanctuary and also does not interfere with any important wildlife corridor, whether officially notified or not.
- ii. A sensitivity analysis of the site shall be carried out as per the MoEF&CC criteria and form part of the EIA report.
- iii. Impact of proposed project on Bird Movement in particular and wildlife in general in the region.
- iv. Impact of proposed project on adjacent water bodies and possible mitigation measures.
- v. Feasibility study on the use of Natural gas in power generation sets in place of diesel for mitigation of air pollution.
- vi. Importance and benefits of the project.
- vii. Layout maps of proposed project indicating runway, terminal building, parking, greenbelt area, utilities etc.
- viii. The details of excavations, its impacts and the impact of transport of excavated material. A detailed management plan shall be suggested.
- ix. An assessment of the cumulative impact of all development and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA. The Plan to be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- x. The impacts of demolition and the activities related thereto shall be examined and a management plan shall be prepared to conform to the C&D Waste Management Rules.
- xi. An onsite disaster management plan shall be prepared to account for risks and accidents. This onsite plan shall be dovetailed with the disaster management plan for the district.
- xii. A note on appropriate process and materials to be used to encourage reduction in carbon footprint. Optimize use of energy systems in buildings that should maintain a specified indoor environment conducive to the functional requirements of the building by following mandatory compliance measures (for all applicable buildings) as recommended in the Energy Conservation Building Code (ECBC) 2017 of the Bureau of Energy Efficiency, Government of India. The energy system includes air conditioning systems, indoor lighting systems, water heaters, air heaters and air circulation devices.
- xiii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).

- xiv. Details of emissions, effluents, solid waste (including de-plane waste) and hazardous waste generation and their management. Air quality modelling and noise modelling shall be carried out for the emissions from the various types of aircrafts.
- xv. Details shall be provided regarding the solar generation proposed and the extent of substitution, along with compliance to the ECBC rules.
- xvi. Cost of project and time of completion.
- xvii. A tabular chart with index for point wise compliance of above TORs.
- xviii. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included.

104.3.3 Development of Integrated Common Hazardous Waste Treatment, Storage and Disposal Facility at Mohna Industrial Area, District Gwalior, Madhya Pradesh by M/s Madhya Pradesh Industrial Development Corporation limited – Environmental Clearance

(IA/MP/INFRA2/420657/2023; F. No. 21-44/2021-IA.III)

The project proponent along with the consultant made a presentation of their proposal related to Integrated Common Hazardous Waste Treatment, Storage and Disposal Facility (Annexure-4). The Committee observed that the baseline data is more than three years old. Provision for storage facility for hazardous waste is not in line with the CPCB guidelines.

In view of the above, the committee **returned** the proposal in its present form.

104.3.4 Development of Common Incinerator for Group of Companies of Tatva Chintan [In Proposed Specialty Chemical (3850.1 MT/Month) Manufacturing Plant] at Plot. No. D3/11, Dahej- III, Dahej Industrial Estate Tal: Vagra, District Bharuch, Gujarat by M/s Tatva Chintan Pharma Chem Limited -Terms of Reference

(IA/GJ/INFRA2/426947/2023; F. No. 21-61/2022-IA-III)

The project proponent vide email dated 09.05.2022 informed that they do not require further ToR as they have already received the same. They clarified that they had actually attempted to apply for EC for the project but somehow due to technical glitches it has been uploaded as a proposal for ToR in PARIVESH 2.0. The proponent requested permission to withdraw the proposal.

In view of above, the Committee **returned** the proposal in its present form.

104.3.5 Establishment of Solid Waste Treatment Plant at Mangan, North Sikkim, by M/s Urban Development Department, Government of Sikkim – Terms of Reference

(IA/SK/INFRA2/415237/2023; F. No. 21/5/2023-IA.III)

The proponent did not attend the meeting hence the committee **did not consider** the proposal.

104.3.6 Proposed Secured Landfill Facility (Capacity 10,43,500cu.m.) at Kacholiya Village, Dasada Taluk, Surendranagar, Gujarat, by M/s GSEC Enviro Solution Pvt. Ltd. – Further consideration for Terms of Reference

(IA/GJ/MIS/218185/2021; F. No. 21-80/2021-IA.III)

The project proponent along with the consultant made a presentation of their proposal related to above mentioned proposal for secured landfill facility (Annexure-5). The EAC has noted that the project/activity is covered under category 'A' of item 7(d) 'Common hazardous waste treatment, storage and disposal facilities (TSDFs)' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and required appraisal as category A by sectoral EAC at central level.

Further to examination of the proposal in 103rd EAC meeting, the project proponent submitted the evidence that proposed site is outside the ESZ of the Wild Ass Sanctuary. The project proponent submitted a NOC issued by the DCF (Wildlife), Surendranagar with specific conditions that are required to be followed by the project proponent. The same shall constitute the special ToR in addition to the general ToR for secured landfill facilities.

In view of above, the committee recommended the proposal for grant of standard ToR along with specific conditions mentioned below:

- i. The ToRs as specified in the NOC issued by the DCF (Wildlife), Surendranagar shall constitute the special ToR in addition to those ToR for secured landfill facilities given below.
- ii. Procedure/process of bio-mining for legacy waste and detailed Conceptual Reclamations Plan shall be explicitly mentioned in the EIA/EMP report.
- iii. A sensitivity analysis of the site shall be carried out as per the MoEF&CC criteria and form part of the EIA report.
- iv. The EIA would include a separate chapter on the conformity of the proposals to the Municipal Solid Waste Management Rules, 2016 and the Construction & Demolition Waste Management Rules, 2016 including the sitting criteria therein.

- v. Characteristics and source of waste to be handled and methodology for remediating the project site, which is presently being used for open dumping of garbage.
- vi. Details of storage and disposal of pre-processing and post-processing rejects/inerts.
- vii. List of proposed end receivers for the rejects/inerts should be provided. MoUs to be submitted in this regard.
- viii. Details of various waste management units with capacities for the proposed project. Details of utilities indicating size and capacity to be provided.
- ix. The EIA would also examine the impacts of the existing landfill site and include a chapter on the closure of the exiting site including disposal of accumulated wastes and capping.
- x. The project proponents should consult the Municipal solid waste Management manual of the Ministry of Urban Development, Government of India and draw up project plans accordingly.
- xi. Waste management facilities should maintain safe distance from the nearby water bodies.
- xii. Layout maps of proposed solid waste management facilities indicating storage area, plant area, greenbelt area, utilities etc.
- xiii. Details of air emission, effluents generation, solid waste generation and their management.
- xiv. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- xv. Process description along with major equipment's and machineries, process flow sheet (quantitative) from waste material to disposal to be provided.
- xvi. Hazard identification and details of proposed safety systems.
- xvii. Details of Drainage of the project upto 5 km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided.
- xviii. Details of effluent treatment and recycling process.
- xix. Action plan for measures to be taken for excessive leachate generation during monsoon period.
- xx. Detailed Environmental Monitoring Plan.
- xxi. Timeline for implementation of the project shall be included in the EIA Report.

- xxii. Report on health and hygiene to be maintained by the sanitation workers at the work place.
- xxiii. A tabular chart with index for point wise compliance of above ToRs.

104.3.7 Expansion of bio-medical waste treatment facility at Plot No. 310/1 & 2, Phase- 2 Vapi GIDC, Valsad, Gujarat by M/s. En-cler Bio-Medical Waste Pvt. Ltd. – Terms of Reference

(IA/GJ/INFRA2/407950/2022; F. No. 21-75/2022-IA.III)

The proponent did not attend meeting hence the committee **did not consider** the proposal.

104.3.8 Expansion of "WEST POINT" – Integrated Commercial cum MLCP Complex at Old West Point School Area, Near M.G. Marg, Gangtok, East Sikkim by M/s Mesaso Infrastructure Private Limited – Environmental Clearance

(IA/SK/INFRA2/417703/2023; F. No. 21/1/2023-IA.III)

The project proponent along with the consultant made a presentation of their proposal related to above mentioned integrated complex (Annexure-6). The EAC has 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 Sikkim, the proposal required appraisal as category B project by sectoral EAC at central level.

It was explained that entire waste water will be recycled and the facility will be maintained as a Zero discharge system. The CER fund in excess of 1.5% of project cost is assured by the project proponent. A green belt cover exceeding 50% of built up area of the project shall be established within the present boundary and also on the approved sites along the roads in the smart city.

A point of concern in this project was the presence of swimming pool on the top floor of the expansion now proposed. In view of the fact that this site is located in the high risk zone 4 of the earthquake vulnerability map of India, the committee directed that the desirability of constructing swimming pool on the top floor may be got examined by the Central Building Research Institute (CBRI), Roorkee.

Accordingly, the proposal was **deferred** till a report from the CBRI, Roorkee, is obtained by the project proponent and submitted.

104.3.9 Residential cum Commercial Project "BHAWANI AQUAVIEW" at Konnagar, District Hooghly, West Bengal by M/s Bhawani Urban Housing Development Pvt. Ltd. – Environmental Clearance

(IA/WB/INFRA2/427909/2023; F. No. 21/4/2023-IA.III)

The project proponent along with the consultant made a presentation of their proposal related above mentioned residential cum commercial project (Annexure-7). The EAC has 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 West Bengal, the proposal required appraisal by sectoral EAC at central level.

The EAC, 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) The PP shall obtain the Fire safety certification from Fire Department and also height clearance from the Airports Authority of India and submit the same to the concerned Integrated Regional Office of the Ministry within six months of the issue of EC letter.
- (ii) Abstraction of ground water shall be subject to the permission of Central Ground Water Authority (CGWA). Fresh water requirement shall not exceed 118 KLD during operational phase.
- (iii) As proposed, wastewater shall be treated onsite in STP of 175 KLD capacity.
- (iv) The project proponents would commission a third-party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing (specially the bacterial counts), comparative bacteriological studies from toilet seats using recycled treated waters and fresh waters for flushing, and quality of water being supplied through spray faucets attached to toilet seats.
- (v) Area for greenery shall be provided as per the details provided in the project document i.e., area under plantation/greenery will be 820.9 sq. m out of total plot area of 4062.987 sq. m, i.e. equivalent to 20.2%. The landscape planning should include plantation of native species as proposed i.e., Neem (*Azadirachta indica*), Sunari (*Cassia fistula*), Arjun (*Terminalia arjuna*) and Palash (*Butea monosperma*). A minimum of 01 tree for every 80 sq. m of total land area of the project should be maintained taking the existing trees into account. Species with heavy foliage, broad leaves and wide canopy cover may be preferred. 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 Housing and Urban Affairs (erstwhile Ministry of Urban Development), Model Building Byelaws, 2016. As proposed, 1 RWH tank with capacity of 750 m³ shall be provided by PP for rain water harvesting after filtration.

- (vii) The solid waste shall be duly segregated into biodegradable and non-biodegradable components and handled in separate area earmarked for segregation of solid waste, as per SWM Rules, 2016. As committed, biodegradable waste shall be utilized through the OWC to be installed within the site. Inert waste shall be disposed of as per norms at authorized site. The recyclable waste shall be sold to authorized vendors/recyclers. Construction & Demolition (C&D) waste shall be segregated and managed as per C&D Waste Management Rules, 2016.
- (viii) As committed, the parking facility for 125 ECS to be provided against the requirement of 120 ECS.
 - (ix) As committed, PP shall ensure installation of solar-based lighting and LEDs to meet 10 % of total power requirement.
 - (x) The Environmental Clearance to the project is primarily under provisions of EIA Notification, 2006. The Project Proponent is under obligation to obtain approvals/clearances under any other Acts/Regulations or Statutes as applicable to the project.

104.3.10 Residential Cum Commercial Complex Project "Bhawani Courtyard" at Mauza Sahara, J.L. No. 46, Touzi No. 146, Ganganagar, District North 24 Paraganas under Madhyamgram Municipality, Word NO. 26, West Bengal by M/s Himanga Mercantiles Pvt. Ltd. – Terms of Reference (Under Violation Category) (IA/WB/INFRA2/427920/2023; F. No. 21/2/2023-IA.III)

The project proponent along with the consultant made a presentation of the proposal related to proposed residential cum commercial complex, which has been submitted under violation category. The EAC has 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 West Bengal, the proposal required appraisal by sectoral EAC at central level.

The proponent has explained the reasons for applying in the violation category, but committee observed lack of clarity as to the chain of events that led to the violation. The project proponent has been advised to prepare chronological details of the project since its inception and explain the reasons for considering the proposal under violation category.

Accordingly, the proposal has been **deferred** for want of chronological details of the project since its inception.

104.3.11 Expansion of IT & Commercial Complex (Building Construction Project) located at Premises No: 16-3333, PLOT NO: DH-1, DH-2, DH-3 & DH-3/1 BLOCK-DH, Action Area-1D, New Town, Rajarhat, 24 Parganas North, Kolkata, West Bengal by M/s Candor Kolkata One Hi-Tech Structures Pvt. Ltd., Chak Pachuria, Rajarhat, North Twenty Four Pargan, West Bengal by M/S. Candor Kolkata One Hi-Tech Structures Pvt. Ltd. - Environmental Clearance

(IA/WB/INFRA2/428428/2023; File No. 21/8/2023-IA.III)

The project proponent along with the consultant attended the meeting. The EAC has 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 West Bengal, the proposal required appraisal by sectoral EAC at central level.

The project proponent has informed that the Certified Compliance Report (CCR) could not be obtained from the concerned Regional Office.

Accordingly, the proposal was hence **deferred** for want of CCR from the concerned Integrated Regional Office of the MoEF&CC.

104.3.12 Residential Group Housing Project at Jagardanga, Mouza Gopalpur, P.S. Airport, Bhidhannagar Municipal Corporation, Rajarhat Road, District 24 North Parganas, West Bengal by M/s SHR Construction LLP – Environmental Clearance

(IA/WB/INFRA2/428354/2023; F. No. 21/6/2023-IA.III)

The project proponent along with the consultant made a presentation of their proposal related above mentioned residential cum commercial project (Annexure-8). The EAC has 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 West Bengal, the proposal required appraisal by sectoral EAC at central level.

The EAC, based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held on all the issues, felt that the project meets the standard environmental requirements adequately and, therefore, **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:

(i) The PP shall obtain the Fire safety certification from the appropriate authority and height clearance from the Airports Authority of India and submit the same

- to the concerned Integrated Regional Office of the Ministry within six months of the issue of EC letter.
- (ii) Abstraction of ground water shall be subject to the permission of Central Ground Water Authority (CGWA). Fresh water requirement shall not exceed 130 KLD during operational phase.
- (iii) As proposed, wastewater shall be treated in onsite STP of 180 KLD capacity.
- (iv) The project proponents would commission a third-party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing (specially the bacterial counts), comparative bacteriological studies from toilet seats using recycled treated waters and fresh waters for flushing, and quality of water being supplied through spray faucets attached to toilet seats.
- (v) Area for greenery shall be provided as per the details provided in the project document i.e., area under plantation/greenery will be 2,747.66 sq. m out of total plot area of 10,774.53 sq. m, i.e. equivalent to 25.5%. The landscape planning should include plantation of native species as proposed i.e., Neem (*Azadirachta indica*), Sunari (*Cassia fistula*), Arjun (*Terminalia arjuna*) and Palash (*Butea monosperma*). A minimum of 01 tree for every 80 sq. m of total project land should be maintained taking into account the existing trees. Species with heavy foliage, broad leaves and wide canopy cover may be preferred. 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 Housing and Urban Affairs (erstwhile Ministry of Urban Development), Model Building Byelaws, 2016. As proposed, 2 RWH tank with capacity of 750 KL shall be provided by PP for rain water harvesting after filtration.
- (vii) The solid waste shall be duly segregated into biodegradable and non-biodegradable components and handled in separate area earmarked for segregation of solid waste, as per SWM Rules, 2016. As committed, biodegradable waste shall be utilized through the OWC to be installed within the site. Inert waste shall be disposed of as per norms at authorized site. The recyclable waste shall be sold to authorized vendors/recyclers. Construction & Demolition (C&D) waste shall be segregated and managed as per C&D Waste Management Rules, 2016.
- (viii) As committed, PP shall ensure installation of solar-based lighting and LEDs to meet 10 % of total power requirement.
- (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.

104.4.1 Requirement of Environmental Clearance for Heliports including elevated Heliports by M/s Ministry of Civil Aviation – Project proponent is requested to present the case before EAC

The IA (Policy) has desired inputs of the EAC on draft policy provisions for inclusion of heliports under the ambit of regulatory regime of the EIA Notification, 2006 as amended. The DGCA officials were also invited to present their perspective. Shri Shankhesh Mehta, Director, Shri Amit Srivastava, Deputy Director, and Shri Pawan Kumar, Consultant attended the meeting. The DGCA made a brief presentation on existing policies and practices in respect of clearance/permissions required for aerodromes including airports, heliports, helipads etc. It was brought to the notice of the committee that at present there is no regulation in respect of the environmental clearance for heliports.

After detailed deliberations, the EAC arrived at a broad consensus on the following points:

- Heliports for commercial purposes should require environmental clearance while heliports for military purposes and for medical or emergency evacuation purposes may only be required to follow environmental safeguards to be issued by the MoEF&CC in this regard.
- It was felt that heliports should not be located in high altitude grasslands and other places of very high ecological significance.

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Further, the EAC felt need for further discussions in the matter and requested the Member Secretary to place more information on the subject before the EAC in its next meeting to facilitate formulation of a more nuanced set of recommendations on this important subject.

104.4.2 Common Hazardous Waste Treatment Storage & Disposal Facility at Khasra No. 1004 to 1022, 1027 & 1028 of Kesda Village, Simga Tehsil, Baloda Bazar District, Chhattisgarh State by M/s Re Sustainability Limited – Further consideration for Environmental Clearance

(IA/CG/MIS/283620/2022; F. No. 10-54/2020-IA.III)

The proposal was recommended by the committee in its 100th meeting held on 11.01.2023. However, while processing the file for approval of the competent authority, it was noted that proponent had not correctly mentioned about the availability of space for storage of the proposed 200 TPD of Spent Pot Lining (SPL)-Carbon portion and SPL-Refractory portion, which comes under hazardous category. Accordingly, ADS (Additional Details Sought) was raised with the approval of the

competent authority to furnish details on availability of space for storage of such a huge quantity of this hazardous material as per CPCB guidelines and Hazardous Waste Management Rules of the Ministry.

The project proponent, vide ADS reply on 28.04.2023 through PARIVESH, has mentioned that the SPL quantity had been reduced to 20 TPD. Further, the proponent proposed that they would make three stack arrangement system for storage space with volume of 2820 cu. m (940 sq. m x 3 stack). It was also informed that the facility would be established and operated in accordance to the Consent for Establish/Operate issued from SPCB and as per Revised Standard Operating Procedure (SOP) no. 32 for Utilization of Spent Pot Lining (SPL) generated from Primary Aluminium Smelting Industries of CPCB issued on March, 2021.

In view of above, the committee recommended the proposal with specific conditions as mentioned in the 100th meeting held on 11.01.2023 along with the standard conditions for such projects.

104.3.3 Establishment of Integrated Common Hazardous Waste TreatmentStorage Disposal and Recycling Facility (ICHWTSDRF) at Village Polagam, District Karaikal, Pondicherry by M/s Karaikal Waste Management Project (a unit division of M/s Re Sustainability IWMSolution Ltd) – Reconsideration for Terms of Reference

(IA/PY/MIS/286683/2022; F. No. 21-65/2022-IA.III)

The proposal was recommended by the committee in its 100th meeting held on 11.01.2023. However, while processing the file for approval of the competent authority, it was noted that proponent had not correctly mentioned about the availability of space for storage of 200 TPD of Spent Pot Lining (SPL)-Carbon portion and SPL-Refractory portion, which comes under hazardous category. Accordingly, ADS (Additional Details Sought) was raised with the approval of the competent authority to furnish details on availability of space for storage of such a huge quantity of this hazardous material as per CPCB guidelines and Hazardous Waste Management Rules of the Ministry.

The project proponent, vide ADS reply on 28.04.2023 through PARIVESH, has informed that SPL (for both Carbon and Refractory portions) has been dropped from the proposed infrastructure Integrated Common Hazardous Waste Treatment Storage Disposal and Recycling Facility (ICHWTSDRF) at Village Polagam, District Karaikal, Pondicherry. Further, the proponent has produced the copy of notification Gazette Notification dated 28.9.1998 issued by the Revenue Department, Government of Pondicherry, for setting of Industrial Growth Centre at Village Polagam, District Karaikal, Pondicherry.

In view of above, the committee In view of the above the EAC recommended the proposal for grant of Terms of References and for preparation of EIA/EMP report with exemption from public consultation subject to compliance of all conditions as notified

in the standard ToR applicable for such projects along with specific conditions as mentioned in the minutes of 100th EAC meeting held 11.01.2023.

104.3.4 Establishment of Integrated Common Hazardous Waste Treatment, Storage, Disposal and Recycling Facility (ICHWTSDF) at Kansal & Hendavli villages, Sudhagad Taluk, Khopoli-Pali Road, Raigad District, Maharashtra by M/s Mumbai Waste Management Limited (MWML), a unit division of M/s RamkyEnviro Engineers Ltd. – Re-consideration for

Terms of Reference

(IA/MH/MIS/249282/2021; F. No. 21-1/2022-IA-III)

The proposal was recommended by the committee in its 100th meeting held on 11.01.2023. However, while processing the file for approval of the competent authority, it was noted that proponent had not correctly mentioned about the availability of space for storage of 200 TPD of Spent Pot Lining (SPL)-Carbon portion and SPL-Refractory portion, which comes under hazardous category. Accordingly, ADS (Additional Details Sought) was raised with the approval of the competent authority to furnish details on availability of space for storage of such a huge quantity of this hazardous material as per CPCB guidelines and Hazardous Waste Management Rules of the Ministry.

The project proponent, vide ADS reply on 28.04.2023 through PARIVESH, has informed that SPL (for both Carbon and Refractory portions) has been dropped from the proposed infrastructure at proposed ICHWTSDF at Kansal & Hendavli villages, Sudhagad Taluk, Khopoli-Pali Road, Raigad District, Maharashtra.

In view of the above the EAC recommended the proposal for the grant of Terms of References and for preparation of EIA/EMP report along with public consultation subject to compliance of all conditions as notified in the standard ToR applicable for such projects along with specific conditions as mentioned in the minutes of 100th EAC meeting held on 11.01.2023.

Annexure-1

LIST OF PARTICIPANTS

Daye 1 - 11.05.2023

S.No.	Name	Designation	Remarks
1	Dr. Promode Kant	Chairman	Physical
2	Shri Monish Mullick	Member	Physical
3	Dr. Satish C. Garkoti	Member	Physical
4	Prof. P. K Joshi	Member	Virtual
5	Dr. Hema Achyuthan	Member	Physical
6	Dr. Meenakshi Dhote	Member	Virtual
7	Dr. Ashish Kumar	Member Secretary	Physical

Daye 2 - 12.05.2023

S.No.	Name	Designation	Remarks
1	Dr. Promode Kant	Chairman	Physical
2	Shri Monish Mullick	Member	Physical
3	Dr. Satish C. Garkoti	Member	Physical
4	Prof. Inderjit Singh	Member	Virtual
5	Prof. P. K Joshi	Member	Physical
6	Dr. Hema Achyuthan	Member	Physical
7	Dr. Arun Jyoti Nath	Member	Physical
8	Dr. Ashish Kumar	Member Secretary	Physical

Annexure-2

104.3.1: Development of New Integrated Civil Enclave at Halwara Airport, Village Aitiana, Rajkot Tehsil, Ludhiana District, Punjab by M/s Airports Authority of India – Further consideration for Environmental Clearance

(IA/PB/INFRA2/416744/2023; F. No. 21-84/2020-IA.III)

Development of New Integrated Civil Enclave at Halwara Airport, Village Aitiana, Rajkot Tehsil, Ludhiana District, Punjab by M/s Airports Authority of India – **Further consideration for Environmental Clearance**

(IA/PB/INFRA2/416744/2023; F. No. 21-84/2020-IA.III)

- 1. Title of Proposal (as indicated in the Application form submitted on the Parivesh Portal). Development of New Integrated Civil Enclave at Halwara Airport at Village Aitiana, Raikot Tehsil, Ludhiana District, Punjab
- **2. Location of the proposed project site:** The site selected for proposed project is adjacent to the existing air force base of Halwara. The study area is part of the Survey of India topography sheet no. 44N/9 & 44N/10. The site is located in Aitiana village, Ludhiana District, Punjab. The site is approachable by Halwara-Aitiana Link Road which is 0.1 km from the site in SW direction. Mullanpur Railway Station is located at a distance of 10.2 km in NNE direction. The proposed site for the airport is located at latitude 30°44′59.71″N and longitude of 75°37′20.17″E.
- 3. Project/ activity covered under item of Schedule to the EIA Notification, 2006 and Category. As per the EIA notification of 14th September 2006 and its latest amendment, this airport project falls under Category A project(7a)
- 4. In case of Category B project/activity- Reason for appraisal at the Central level. Not applicable.
- 5. Project brief: nature of proposal (new/expansion,) total area- land use, project components, connectivity to the site etc:
 - **Nature of proposal**: The proposal is for construction of a Civil Enclave at IAF base, Halwara. As per traffic data, the proposed project shall handle 0.25 million passengers in passengers in the base year 2023-24. The Airport is expected to handle 1.38 million passengers by 2032-33.
 - The airport will be developed for operation of AB-321 aircrafts in all weather conditions.
 - Land-use: The 135.54 acres of land, where the project will be set up, has been identified by the Govt. for the airport. State government has handed over the land to AAI free of cost and free of encumbrances.

- **Project Components**: The present proposal is for construction of an one and half level of integrated terminal building and one interim building area along with apron, GSE area, parking and other allied facilities.
- Connectivity to the site: The site is approachable by Halwara-Aitiana Link Road which is 0.1 km from the site in SW direction
- **6. Land use pattern/ Total plot area/ built up area:** The land for the proposed development is an agricultural land and has been transferred to AAI free of encumbrances by Govt. of Punjab. The proposed project shall include construction of apron & taxiway, terminal building, interim building and ancillary facilities.
- 7. Total water requirement and its source, Ground water withdrawal, approval from CGWA, if any: The proposed Airport shall be using Ground water. Canal water and Municipal Supply water is also being considered. The total water requirement estimated during operation phase is 365 KLD of which 150 KLD is Fresh water requirement while 215 KLD is Treated water requirement. During the construction stage, water will be sourced primarily through tankers arranged by the contractors as per specifications. The Ad-interim permission letter has been obtained from PWRDA for groundwater extraction vide letter dated: 24.11.2022.
- 8. Waste water generation, treatment and disposal
 - Waste water generation 215 KLD
 - Wastewater treatment 250KLD STP with MBBR technology
 - Disposal Zero discharge technology will be used
- **9. Municipal solid waste generated disposal facility:** Solid waste during construction phase will be collected and disposed as per established laws and procedures. Approximately 0.00934 MT of construction waste will be generated from the project. It is estimated that approximately 0.63 tonnes/day of Municipal solid waste and 2.31 tonnes/day of deplane waste will be generated in the proposed project during operation phase. The waste will be collected in three separate bins namely biodegradable, non-biodegradable and domestic hazardous waste. Biodegradable portion of MSW will be treated at site by Organic Waste Converters and manure generated will be sold or used for plantation. Recyclable waste will be disposed-off by selling.
- **10. Power requirement and source:** Power required is 2500 KV which will be sourced from Punjab State Power Corporation Limited
- **11. Proposed energy saving measures with estimated energy saving:** Energy conservation measures like use of solar backup lighting system, LED lights, VMS, automatic lighting on-off system etc. will be used.
- **12. Details of Rain Water Harvesting Plan:** A tentative calculation for rainwater harvesting has been done for the proposed unit. As per the IMD climatological data published for the region, the area experienced a peak rainfall of 237.8 mm in an hour. Based on this information, it is estimated that about 2508.79 m3 of rainwater can be harvested from rooftop and green areas. To harvest this amount of rainwater, 32 harvesting pits shall be required.

- **13. Parking details as per norms**: Parking provisions of 300 cars.
- **14. Details of earlier EC, if any and compliance thereof:** The case is being here for the first time.
- **15. Whether the project is in Critically Polluted area? If so, give details:** The project is not located in a CRZ Area.

16. List of commitments as mentioned in the EIA/EMP w.r.t mitigation measures

SI No	Aspects	Mitigation measures During Construction Phase	Mitigation Measures During Operation Phase
1	Solid Waste: It is estimated that approximately 0.63 tonnes per day of solid waste and 990 kg/day deplane waste will be generated in the proposed project. 0.00934 MT of construction waste will be generated.	 Compaction and stabilization will be ensured. Dust bins will be placed at requisite locations at construction site. Used oil from maintenance of DG sets engines and construction equipment will be collected separately in drums and will be handed over to the authorized oil recyclers. The excavated soil will be used for leveling and landscaping purpose 	 Infrastructure like spillage collection chamber, concrete floor shall be provided at places of fuel storage. Biodegradable portion of SW will be treated at site by Organic Waste Converters and manure generated will be used for plantation. Recyclable waste will be disposed-off by selling. Inert waste will be sent to SW Disposal sites for land fill.
2	Water Quality & Drainage Chachrari Drain is passing through the project site in the Western direction. The overall class of surface water for individual samples does not comes under any category as per designated best use of water as per CPCB. The ground water samples indicated that the water quality meets the standard of IS 10050:2012	 Septic tank and soak pit will be provided. A sediment trap will be provided to prevent the discharge of excessive suspended solids. Suitable drainage network would be made to ensure proper draining of wastewater from the construction sites. 	 Proper oil & grease interceptors will be installed at outlet point of storm water drainage An STP of 250KLD capacity shall be installed. The entire treated waste water shall be reused for various activities within the site.
3	Air Quality The concentration of PM10	 Diesel powered vehicles will be properly maintained to minimize 	Maintenance of vehicles.Ground vehicles at airport

	and PM2.5 were found to be within prescribed limits of CPCB. Concentrations of gaseous pollutants (SO ₂ , NO ₂ , & CO) were also within prescribed limits.	the exhaust emission as well as noise generation. Only "PUC" certified vehicles of contractor shall be deployed at site. Water sprinkling shall be done regularly.	shall be battery operated. Use of low sulphur fuel for DG sets. Regular monitoring of ambient air quality. Proper landscaping.
4	Sound Pressure Level The present noise level was not found to be exceed the standard of CPCB norms except marginally at N6 during night due to it's proximity to highway.	 The heavy construction and transport activities shall be restricted to daytime operations. All around the construction activity area on the site periphery, about 2.5-meter-high barrier GI Sheet shall restrict the noise impact by about 10dB(A). Proper operation and maintenance of heavy equipment as well as transport vehicles shall be ensured. Provisions of ear plugs, ear muffs etc. to workers. Warning signs should be set up in active work areas. 	 Sound proofing to be adopted. The DG set shall be provided with proper exhaust muffler with insertion loss of minimum 25 dB(A). Adequate personnel protective equipment (PPE) will be provided to the personnel engaged in D.G. Set Room
5	Traffic The baseline traffic survey was carried out in 3 locations. The surveyed roads were found to have LOS of B.	■ The vehicles will be instructed to take the less busy route so that the existing traffic is not disturbed.	 All vehicles inside the airport will be parked in designated parking area only. Road crossings to be used will be well marked and signaled. Personnel will be deployed to guide the vehicles and stop vehicles

			to avoid traffic jam.
6	■ There are no notified forests within 10 km of the study area. ■ Also no Schedule I species of fauna have been reported	 Plantation and landscaping from construction phase to strengthen flora in the area. All earth work shall be protected to minimize dust generation. All crusher used in construction shall confirm to relative dust emission devises. 	 Plantation will be done wherever possible. Plants for greenbelt development have been selected from CPCB's guidelines.
7	Socio economy There are 90 villages in the study area having a total population of 2,48,231 out of which 1,30,331 are males and 1,17,900 are females as per Census of India 2011.	It will be ensured that the work force is locally employed based on their skills.	 Adequate provision of safety and security shall be made for the working staff.

- **17. Date of ToR:** The project was granted Terms of Reference on 28th December, 2020 vide letter no. F. No. 21-84/2020-IA-III.
- **18. Details of Public Hearing (PH):** The public hearing for the project was conducted on 22nd August, 2022 at 12.00 noon at the project site under the chairmanship of Smt. Daljeet Kaur, Additional Deputy Commissioner, Jagraon, District Ludhiana. The publicity for the hearing was made through public announcement and advertisement in leading newspapers The Tribune and Ajit on 21.07.2022 informing the general public with regard to the hearing to be held on 22nd August, 2022.

Major issues raised during PH and response of PP in the form of implementable action plan

SI.	Issues Raised	Commitment by Project	Action Plan with Time
No.		Proponent	Frame & Budget
1	Sh. Lakhvir Singh, Sarpanch of VIIIage Aitiana welcomed the Addl. Deputy Commissioner & other officers. a) He mentioned that the authorities need to make efforts to do plantation inside the premises of the proposed site.	informed that the plantation work will be done inside the airport premises. b) The PP assured that they will install proper pollution control devices for the control	For plantation at allowed places, an EMP budget of Rs. 2.5 Lakhs has been earmarked during construction phase while an amount of Rs. 1.0 lakhs have been kept for maintenance.

SI. No.	Issues Raised	Commitment by Project Proponent	Action Plan with Time Frame & Budget
	 b) He further mentioned that it must be ensured that the ground water pollution and noise pollution shall not happen due to the operation of Airport. c) He also stated that the existing drain passing from the proposed site shall remain operational so as to keep the discharge of the excess rain water in to it so as to avoid water logging in the nearby agriculture area. 	pollution. c) PP informed that the drain will remain in its natural position and there will be no hindrance in the discharge of excess rain water in to it.	purpose during operation phase, an amount of Rs. 10 lakhs have been earmarked and Rs. 3 lakhs for maintenance.
2	Sh. Harjit Singh, teacher, Govt. High School of VIllage Aitiana that due to the operation of existing Airport Station in Village Halwara, a lot of noise pollution generated from the flight of let Plane due to which the study of the students is affected. He requested that adequate arrangements shall be done to contain the noise level to be generated from the proposed Airport	The Representative of PP informed that the noise level of the passenger air planes is far less than the Jet Plane operated by Indian Air Force presently and noise level from these planes will be within the prescribed limits.	For maintaining noise levels within limit, acoustic enclosures shall be installed for DG sets for which a capital cost of Rs. 3.0 lakhs has been earmarked.
3	Sh. M.S. Dhallwal from Village Akalgarh stated that Airport authority shall provide adequate height of the boundary wall around the periphery to contain the noise level. He also requested to clarify that whether the said airport is passenger or cargo.	The Representative of the PP informed that the wall of height 08 feet has already been constructed around the periphery. He also informed that the said Airport will be passenger airport.	A budget of 2.5-3 Cr. has already been spent for the construction of wall.
4	Sh. Bikramjit Singh from Village Aitiana stated that the Airport authority shall provide some dispensary/healthcare facility in their village.	The Representative from the PP informed that they will provide various social benefits to the nearby villages under CSR activities.	The proponent has ear marked an amount of 3.19 Cr. For the CSR activities which is 0.75% of the total project cost (Project Cost – 425 Cr.)

- 19. If the project is in CRZ area: The project does not fall under any CRZ area.
- **20.** If the project involves diversion of forest land: The project doesn't involve diversion of any forest land.

21. If the project falls within 10 km of eco-sensitive area: The project does not fall within 10 km of eco-sensitive area.

22. Waste Management

- Water requirement, source, status of clearance: The daily consumption of
 water during operation phase will be about 365 KLD out of which 150 KLD will
 be fresh water and 215 KLD will be treated water. The proposed Airport shall be
 using Ground water. Canal water and Municipal supply will also be considered.
 Ad-interim permission letter has been obtained from PWRDA for groundwater
 extraction vide letter dated: 24.11.2022.
- Waste water quantity, treatment capacity, detail: The waste water generation has been estimated to be 215 KLD which will be treated in an STP of capacity 250 KLD based on MBBR technology.
- Recycling/reuse of treated water and disposal: The entire treated waste
 water will be reused in the STP itself and no discharge of waste water will
 happen in the project. The treated waste water will be reused for various
 activities like flushing in toilet, horticulture etc.
- **Solid Waste Management:** Solid waste during construction phase will be collected and disposed as per established laws and procedures. Approximately 0.00934 MT of construction waste will be generated from the project.
 - During operation phase, around 0.63 tonnes of waste will be generate per day.
 - The waste shall be collected in three separate bins namely biodegradable, non-biodegradable and domestic hazardous wastes. The respective wastes shall be handed over to authorized waste collectors who will dispose them as per the direction or notification by the local authorities from time to time.
 - Biodegradable portion of MSW will be treated at site by Organic Waste Converters and manure generated will be sold or used for plantation.
 Recyclable waste will be disposed-off by selling.
- **23.** Hazardous Waste Management: No hazardous waste will be generated in the project.

24. Details of water bodies, impact on drainage, if any

- There are neither rivers in the study area nor any natural water bodies.
- Chachrari Drain is passing through the project site in the Western direction which shall be suitably strengthened and retained by formation of culverts.
- The project will be based on zero discharge and hence no natural water bodies will be impacted.

25. Green belt development and Details of tree felling/transplantation

- Thick greenbelt is being avoided since it is an airport project and thick greenbelt will attract birds which may prove to be a hazard for flight movement.
- The greenery will be developed only in non-operational areas of airport. The airside of the airport cannot have any trees as per DGCA guidelines and only green grass is permitted.
- **26.** Undertaking to the effect that no activity has since been taken up: No activity has been done in the airport.
- **27. Expected timeline for completion of the project:** The expected completion schedule of the proposed project is 28 months from the date of EC.
- 28. Investment/Cost of the project: Rs.425 crore.

29. Employment potential

- The direct employment during construction phase in the proposed project will be 200 skilled, unskilled and professional workforce including temporary and permanent employees. These workforces shall be hired locally in order to generate the employment to the local people.
- During the project operation stage for the purposes of day-today professional and maintenance works, about 190 staff shall be required.

30. Benefits of the project

- The proposed development is under consideration because the nearest existing Ludhiana Airport at Sahnewal is a constrained Airport with no land for runway extension and other allied development activities.
- It is expected that the existing Ludhiana Airport will be closed once flight operation commences from Halwara Airport.
- The growth of the airport will generate significant demand for employment and enabling economic growth to benefit the whole region through the generation of both direct and indirect economic value.
- The proposed Airport development will enhance the safety, security and environmental standards and passenger comfort at Airport and also will help in catering to forecast future air traffic and passenger growth and national civil aviation vision.
- There will be increased connectivity to the surrounding areas and will aid the economic development of the region.
- This will also increase various economical activities including the local industries and businesses, and would provide significant employment opportunities to the surrounding areas.

- The propose project will enhance the quality of life, equity, and social wellbeing through community support and awareness.
- During the construction phase, employment opportunity to skilled, semiskilled and unskilled persons will be provided.
- The proposed project will involve some ancillary development of facilities such as restaurants, travel agencies, taxi services, etc. which will improve the scope of indirect employment in the region.
- The proponent has earmarked an amount of Rs. 3.19 Crores for the CSR activities which are 0.75 % of the total project cost (Rs. 425 Crores).

Annexure-3

104.3.2: 104.3.2 Development of Greenfield Sabarimala International Airport in Erumely in Kottayam District, Kerala by M/s Kerala State Industrial Development Corporation Limited – Terms of Reference

(IA/KL/INFRA2/424819/2023; F. No. 21/3/2023-IA.III)

1.	Title of the Proposal	Development of Greenf International Airport in E Kottayam District, Kera	Erumely in
2.	Location of the proposed Project or Activity.	Erumely in Kottayam state.	District, Kerala
3.	Location of Project Site on Google map and Toposheet.	Enclosed drawing- SOI	map
4.	Land use of the site (area earmarked for proposed project/activity).	Agriculture (Rubber Pineapple Plantation Settlements.	Plantation & n) and few
		Туре	На
		Pineapple Plantation	91.1718
		Rubber Plantation	777.8871
		Road (Estate & other)	12.5603
		Settlement	29.6795
		Vegetation	127.9905
		Water	0.5868
5.	Land use around the site up to 10 km radius.	-	
6.	If the project falls within 10 km of ecosensitive area.	ESZ of Periyar Tige outside the 10 km rad airport project.	
	Name of eco sensitive area and distance from the project site.		
7.	If the project involves diversion of forest land, extent of the forest land	No	

	to be involved.	
8.	Whether the project is in Critically Polluted area? If so, provide details.	No
9.	Grounds/ Environmental Parameters taken into account for selection of the proposed project site.	 ✓ Runway Length ✓ Biological environment ✓ Affected Built-up Area ✓ Water bodies affected ✓ Structure/settlements affected ✓ Carbon footprint ✓ Obstacle free landing and take-off
10.	Strategy to collect baseline data, including the period/seasons.	Baseline Monitoring within 10 km radius Study Area has been carried out during December 2022 to March 2023
11.	Project Details: a) Nature of proposal (new/expansion, category, status of general conditions).	Greenfield Airport - Category A
	b) Project components (Activities and Facilities to be developed).	Construction of Airfield Pavement, Airside and Land Side Roads, Car Parks, Green Areas, Pedestrian Walkways, Boundary Wall, Passenger Terminal Building, Cargo, ATC Tower cum Technical Building, Crash Fire Rescue Building, Electrical Sub Station, Plumbing, Firefighting, Sewage, Horticulture Works, and Signage Works. Commercial buildings. Enclosed drawing- Site layout & Master Plan
12.	a) Habitation in and around, their location with respect to take off and landing funnel.	Kanakapalam- 3.7 Kms (SE) Mukkada – 4.2 Km (SW) Mattanoorkara- 4.7 Kms Kms (SE) Chenappady – 7.5 Kms (N) Erumeli – 6.8 Km (E)

		Manimala River – NE- Boundary of the site. Karikkattur Reserved Forest – South-Boundary of site
	b) Expected Influx.	The development of new airport in the region, will be helpful for tourists coming for pilgrimage and the welfare and economy of local people which results in influx of people from nearby communities.
13.	TSDF 7(d), CBMWF 7(da), CMSWMF 7(i)	NA
14.	Aerial Ropeway 7(g)	NA
15.	CETP 7(h)	NA
16.	Other details	
1.	Connectivity to the site.	Nearest Railway station:
		Kottayam – 44.3 Kms
		Nearest Airport:
		Cochin International Airport – approx. 107 Kms
		Thiruvananthapuram International Airport- approx. 135 Kms
		Madurai International Airport - approx. 225 Kms
		Nearest Highway:
		Dindigul - Theni – Kottarakkara - National Highway 183
		State Highway- 59 Malayora Highway
II.	Terrain, level with respect or MSL, requirement of filling, if any.	Rolling terrain
III.	Water requirement; sources, status of clearance in case of groundwater	Manimala River – NE -Boundary of the

	withdrawal.	site	
		One natural stream is pa the proposed runway alig	•
		Surface water will be use availability after attaining concerned authorities.	-
IV.	Expected Waste Generation (Liquid and Solid) and proposed management strategy.	Solid waste generation is (Phase 1) and 1.4 T/day	•
		The total estimated waste generation is expected at (Phase 1) & 3.8 MLD (Phwill be treated through to of 2 MLD (Phase 1) & ad (Phase 2) Sequencing Ba (SBR)	round 1.7 MLD nase 2) which tal STP capacity ditional 2 MLD
V.	Tree cutting, types, numbers, girth size	Approx. 5000 other Trees	5
	etc.	Туре	Number
		Teak	1200
		Anjali	400
		Jack Trees	350
		Mahagani	10
		Coconut Trees	200
		Other Firewood Trees like Vatta/Mango Trees/ Karivenga/pongaliam etc	2500
		Rubber commercial Planarea	tation in project
		Tree Enumeration is in	progress.
VI.	Rehabilitation involved, if any.	Yes, Approx 197 structur	es including 7

		community structures.
		SIA is in progress
VII.	Water bodies, diversion, if any.	Manimala River – NE -Boundary of the site.
		One natural stream is passing through the proposed runway alignment. One culvert will be constructed with size of 4.5 m x 3 m.
VIII.	Status of Litigation, if pending any.	Yes
		Lawsuit pending on the land proposed for the airport (Case no O.S 72/2019) at Sub-court Pala. The Suit is now under stay and case now stands posted to 30.06.2023 for stay report.
IX.	Expected Power Requirement and proposed strategy for energy conservation.	The estimated power requirement for Sabarimala Airport after completion of the construction works is about 33.54 MVA which will be sourced from Discom. 7,832.5 kVA is the Generators Power Requirement, during operation phase, 4 No of 2000 kVA capacity and 2 No standby will be installed for emergency power generation during grid power failure.
		Solar farm is proposed to be developed, to utilise natural sunlight to possible extent for airport operations. Roof top will also be explored.
X.	Investment/Cost of the project is Rs (in crore).	3411 CR
XI.	Employment potential	Construction Phase: 8000
		Operation Phase: 600
		Persons will be deployed depending upon on the quantum of work at one

		point of time.
XII.	Benefits of the project	The proposed project will be helpful for tourists coming for pilgrimage and welfare of local people by providing better, rapid and safe transport facilities in the local region.
		The project will also create direct and indirect employment opportunities significantly during construction and operation phase.
		The proposed Airport will ensure reduced traffic congestion on roads and therefore improved safety conditions, and safe and fast connectivity with ample capacity to cater to future demand.
		Therefore, overall impact on living conditions of peoples will be positive.

104.3.3 Development of Integrated Common Hazardous Waste Treatment, Storage and Disposal Facility at Mohna Industrial Area, District Gwalior, Madhya Pradesh by M/s Madhya Pradesh Industrial Development Corporation limited – Environmental Clearance

(IA/MP/INFRA2/420657/2023; F. No. 21-44/2021-IA.III)

- 1. Title of Proposal (as indicated in the Application form submitted on the Parivesh Portal) Integrated Common Hazardous Waste Treatment, Storage and Disposal Facility at Mohna Industrial Area, Distt. Gwalior, Madhya Pradesh by Madhya Pradesh Industrial Development Corporation limited (MPIDC)
- 2. Location of the proposed project site Mohna Industrial Area, Distt. Gwalior, Madhya Pradesh.
- 3. Project/ activity covered under item of Schedule to the EIA Notification, 2006 and Category Item 7(d) Integrated Common hazardous waste treatment, storage and disposal facilities (ICHWTSDF); Category A
- 4. In case of Category B project/activity- Reason for appraisal at the Central level. NA
- 5. Project brief: nature of proposal (new/expansion,) total area- land use, project components, connectivity to the site etc: The proposed project is for setting up of Integrated Common Hazardous Waste Treatment, Storage and Disposal Facility at Mohna Industrial Area, Distt. Gwalior, Madhya Pradesh on a land measuring 36.30 Acres (14.7 Hectares). It is a new project.

Components of the project are:

Secured Land Fill (SLF) Capacity: 33712 MTA

Incinerator - About 1 TPD

Electronic Waste Management facility - 15000 MTA

The project is well connected with road network. The Nearest Highway, NH-3 (AH-47) is about 500 m about West direction form project site.

- 6. Land use pattern/ Total plot area/ built up area Government land/36.30 Acres (14.7 Hectares)/Land fill Area: 6.25 Ha., Building Area: 0.93 Ha., Road/Paved Surface area: 2.0 Ha., Open Area: 0.10 Ha., Green Area: 5.48 Ha. (41%)
- 7. Total water requirement and its source, Ground water withdrawal approval from CGWA, if any 91 KLD, Ground water (Bore Well) Application made to CGWA for permission.
- 8. Wastewater generation, treatment and disposal

S. No.	Utility	Water requirement in (KLD)		Wastewater generation (KLD)		Method of wastewater treatment
		Fresh Water	Treated Water	Domestic sewage	Effluent	
1	Domestic uses 68 @ 45 LPCD	3	-	2.5	-	septic tank and soak pit
2	Vehicle wash / tyre wash 10 nos. @ 0.5 KL per truck	5	-	-	4	Disposal through MEE (40 KLD) by forced evaporation and residual salts will be disposed of in secured Landfill at site
3	Incineration cooling (blow down)	2	-	-	2	
4	Scrubber water	5	-	-	4.5	
5	Laboratory	1	-	-	0.5	
6	Leachate from SLF	-	-	-	30	
7	Green belt	35	40	-	-	Gardening and Landscaping
	Total	51 KLD	40 KLD	2.5 KLD	41 KLD	

- 9. Municipal solid waste generated disposal facility 13.6 kg/day, as per SWM Rules, 2016
- 10. Power requirement and source The power requirement is 200 KW to be supplied by MPEB. In case of power failure, 1 D.G. Set of 200 KVA capacity will be kept standby.
- 11. Proposed energy saving measures with estimated energy saving Solar lights, LED lights, energy efficient equipment. It is proposed to save 5% of total energy used at the project site.
- 12. Details of Rain Water Harvesting Plan The rainwater shall be properly channelized for its use for maintaining green area.
- 13. Parking details as per norms Total Parking area = 1458 sq.m. (Staff Vehicle parking: 208 sq.m., Truck parking: 1250 sq.m.)
- 14. Details of earlier EC, if any and compliance thereof NA as it is a new project.
- 15. Whether the project is in Critically Polluted area? If so, give details No
- 16. List of commitments as mentioned in the EIA/EMP w.r.t mitigation measures

S.No	Control Measures	Description	Capital Cost (Rs Lakhs)	Recurring Cost (Rs Lakhs/ yr)
1.	Air Pollution Control	APCD attached with Incinerator,	125	14
2.	Water Pollution Control	Leachate collection system, wheel & vehicle wash.	310	28.7
3	Noise Pollution Control	Noise Control measures – Acoustic enclosures for DG set,	7	1.5
4.	Solid waste Management Waste Storage area Incinerable and landfil waste		45	9
5.	Green belt development	Plantation, landscaping	25	5
6.	Periodic reporting to CPCB/SPCB as	Monitoring of Noise, Air, water, soil quality	2	3.5

	per "Protocol for Performance	Third party monitoring,	ı	1.0
	evolution and monitoring of the CHWTSDF	Energy audit, environmental audit, training programs, etc	1	2.0
7.	Energy Conservation	Solar lights, LED lights, energy efficient equipment.	5.0	0.2
		Total	519	61.9

CER Activities:

S.No.	PROPOSED CER ACTIVITIES	Budget Rs in Lakh
1.	Storm Water Management in nearby Villages	25.0
2.	Funding for Drinking Water facility in the nearby villages	20.0
3	Plantation outside the premises and distribution of 1000 trees to local villagers	19.0
4.	Construction of community hall for local villagers	45.0
5.	Funding under "Aganwadi Poshan Aahar Yojana" in nearby Village	15.0
6.	Development of park for children	30.0
	Total CER Budget (Capital + Recurring expenses for 3 years)	154 Lakhs
	Grand Total	673 Lakhs

- 17. Comparative analysis of existing/envisioned pollution load (in case of expansion/modernization) It is a new project
- 18. If the project is for EC under EIA Notification, 2006
- a) For the first time appraisal by EAC
- i. Date of ToR- 17th June' 2021

- ii. Point-wise ToR compliance Incorporated in EIA report.
- iii. Impact of proposed project/activity on Air, Water, Noise, Ecology and proposed mitigation measures

Environmental Parameters	Impact	Mitigation Measures
Air	Area source emission includes background contamination of ambient air around the site due to transportation activity. Vehicular movements within the project area (TSDF Site) will add marginally to NOx and CO concentration. Some additional emission of gaseous and particulate matter due to Secured Land Filling operation of industrial hazardous waste is expected. Point Source Emission is from Incinerator, Boiler attached to MEE and DG set.	The particulate matter is likely to increase to the very limited extent as the transportation shall be carried out in closed vehicle. Emission from Secured Land Filling operation will be controlled by compaction covering of waste with inert material. Incinerator shall be attached with APCD and online monitoring system. Boiler and DG set shall be attached with stack as per CPCB norms. Operation of all the installations shall meet the prescribed standards of point source emission.
Water	The 91 KLD of water required for TSDF operations will be sourced from groundwater procured through bore well.	To minimize water consumption, water saving options will be planned. Improve energy efficiency of operations Installation of flow restrictors on water supply line Dry sweeping of all areas before mopping/washing Eliminate leaks of the pipelines Storm water harvesting and rainwater holding tanks Recycling of water etc., Wastewater will be treated in

	40 KLD wastewater will be generated during operational phase: • Leachate from Secured Landfill • Wastewater from - Vehicle /Tyre wash • Laboratory	 MEE Plant. The condensate from MEE shall be used for maintaining green area. Residual salts from MEE will be disposed off in the Secured Landfill. Domestic Wastewater will be treated in septic tank and soak pit.
Noise	The major sources of noise during operation phase will be from: • Loading and unloading of Hazardous wastes at respective facilities, • operation of incinerator and DG sets; • vehicular movement for loading/unloading of industrial waste	Plant and equipment will be designed to ensure that noise generated is limited to CPCB norms. Equipment will be provided with noise control measures such as acoustic enclosure Personnel Protective Equipment (PPE) like ear plugs/muffs is to be given to all the workers at site. Regular maintenance of the transport vehicles and other machineries to maintain the low noise levels. Development of greenbelt all along the boundary and along the roads within the project site.
Ecology	The site of propose Integrated Common Hazardous Waste Treatment, Storage and Disposal Facility (ICHWTSDF) is located on barren land, there will not be any cutting of the trees at the site. There is no notified/protected ecologically sensitive area including national park, sanctuary, Elephant/Tiger reserves existing in the study area. There are no known rare, endangered or	The adverse impact over any of the ecological components of the environment is negligible. 41% of green area is proposed within the project site. Further, Plantation outside the premises and distribution of 1000 trees to local villagers is also proposed.

- iv. Details of Public Hearing (PH) Public hearing of the project was conducted on 20.01.2023 at project site "Industrial Area, Village Mohna, Tehsil Ghatigaon, Distt. Gwalior, Madhya Pradesh" under the chairmanship of Sh. Pradeep Kumar, Joint Collector, District Gwalior, M.P
- v. Major issues raised during PH and response of PP in the form of implementable action plan

Major Issues	Action Plan
Employment to needy persons	Employment to the local persons as per State Policy
There is no stormwater drains constructed and the village road gets waterlogged. It causes problem to the villagers.	Rs. 25 Lacs has been reserved in CER for storm water management in the nearby villages.
Sahariya tribal people of the village does not have any land and lives in slum. They are poor and should not be relocated and also there is a problem of drinking water supply.	Rs. 20 Lakhs has been reserved under CER for drinking water facility for local villagers.
Problem of drinking water and there is no Aanganwadi in their village. Sahariya tribe and there is no place for their marriage.	Rs. 20 Lakhs has been reserved for drinking water facility for local villagers. Rs 45.0 Lacs has been reserved for construction of community center for local villagers. Further, additional 15.0 Lacs has been reserved under "Aganwadi Poshan Aahar Yojana" in nearby Village under CER.
Plantation shall be carried out in their village and attention shall be given on the education of the children so that they can study properly, and plantation will make the environment clean.	1000 no. of tress will be planted outside the premises in consultation with local panchayat. Further, 1000 saplings will be distributed among local villagers. Rs. 19.0 Lacs has

been kept for plantation purpose in CER.

- vi. Environmental and Socio-Economic Impacts
 - a. Period/ Season of baseline study and Number of Locations -

Period: October -December, 2021.

Parameters	No. Locations
Ambient Air	8
Ground Water	6
Surface Water	5
Noise	6
Soil	6

b. Key Indications: The indicates that the maximum and minimum values of PM10 are in the range of 53.4 $\mu g/m^3$ to 79.82 $\mu g/m^3$ whereas the PM2.5 are in the range of 19.21 $\mu g/m^3$ to 45.97 $\mu g/m^3$. The SO2 concentrations within the study area are in the range of 5.84 $\mu g/m^3$ to 18.56 $\mu g/m^3$ and the NOx are in the range of 9.45 $\mu g/m^3$ to 20.31 $\mu g/m^3$ Ozone concentrations were also monitored in the study area and are found to be in the range of 35.7 to 49.2 $\mu g/m^3$, CO are in the range of 0.35 to 1.75 $\mu g/m^3$, Ammonia observed are in the range of 18.44 to 39.85 $\mu g/m^3$. The observed pollutant levels were compared with CPCB National Ambient Air Quality Standards and found to be Satisfactory.

b) Second/subsequent appraisal

- i. Date of first /earlier appraisal(s) NA
- ii. Details of the information sought by the EAC with the responses of PP NA

19. If the project is in CRZ area, No

- i. Components in CRZ area NA
- ii. recommendation of Coastal Zone Management Authority. NA
- iii. layout on CRZ map of 1:4000 scale prepared by an authorized agency.- NA

20. If the project involves diversion of forest land No

- i, extent of the forest land NA
- ii. status of forest clearance NA

20. If the project falls within 10 km of eco- sensitive area No

- i. Name of eco- sensitive area and distance from the project site. NA
- ii. status of clearance from National Board for wildlife. NA

21. Waste Management

i. Water requirement, source, status of clearance - 91 KLD.

Ground water (Bore Well); Application made to CGWA for permission.

ii. Wastewater quantity, treatment capacity, detail

S. No.	Utility	require	nter ment in LD)	Wastewater generation (KLD)		Method of wastewater treatment
		Fresh Water	Treated Water	Domestic sewage	Effluent	
1	Domestic uses 68 @ 45 LPCD	3	-	2.5	-	septic tank and soak pit
2	Vehicle wash / tyre wash 10 nos. @ 0.5 KL per truck	5	-	-	4	Disposal through MEE (40 KLD) by forced evaporation and residual salts disposed of in to Secured Landfill
3	Incineration cooling (blow down)	2	-	-	2	
4	Scrubber water	5	-	-	4.5	
5	Laboratory	1	-	-	0.5	
6	Leachate from SLF	-	-	-	30	

7	Green belt	35	40	-	-	Gardening and Landscaping
	Total	51 KLD	40 KLD	2.5 KLD	41 KLD	

- iii. Recycling/reuse of treated water and disposal 40 KLD treated water will be used for Gardening and Landscaping
- iv. Solid Waste Management 13.6 kg/day of municipal solid waste will be generated which will be disposed as per SWM, 2016 Rules.
- v. Hazardous Waste Management Incineration Ash, residue from MEE shall be disposed in secured landfill at site.

22. Other details

- i. Noise Modelling with noise control measures for airports NA
- ii. Details of water bodies, impact on drainage, if any There shall not be any disposal of wastewater outside the project as it is a ZLD project.
- iii. Green belt development and Details of tree felling/transplantation -

The project site TSDF will develop green belt all around surrounding i.e., 41 % (i.e 60671 m²) of the total land i.e. 147600 m². No tree cutting is involved.

- iv. Undertaking to the effect that no activity has since been taken up Submitted
- v. Expected timeline for completion of the project The proposed operational period of the project is for 25 years and it will commence its operation after six months of grant of EC.
- vi. Investment/Cost of the project is **Rs. 76.93 (in crore)**
- vii. Employment potential During Construction/Operation 68 personnel.
- viii. Benefits of the project
 - Common Hazardous Waste Treatment, Storage and Disposal facility would minimize the risk involved in hazardous waste management by way of transportation of waste in dedicated vehicle with manifest system, tracking the movement by GPS and treatment of Hazardous waste to meet desired standard before disposal and regular monitoring of such facility would be better and feasible option as compared to captive facilities by individual industries.

- For the proposed expansion of TSDF, there will be employment opportunities for about 68 persons (Construction & Operational phase)
- The project will have positive environmental impacts by collection and disposal the hazardous waste in the scientific manner that will reduce health hazard.

104.3.6 Proposed Secured Landfill Facility (Capacity 10,43,500cu.m.) at Kacholiya Village, Dasada Taluk, Surendranagar, Gujarat by M/s GSEC Enviro Solution Pvt. Ltd. – Further consideration for Terms of Reference

(IA/GJ/MIS/218185/2021; F. No. 21-80/2021-IA.III)

- 1. Proposed secured landfill facility (capacity 10,43,500 m³)
- 2. The project is located at Survey No. 274 to 277, 282, 283 and 297, Village: Kacholiya, Taluka: Dasada, District: Surendranagar, Gujarat.
- 3. 15.25 Ha (i.e. 1,52,454 m²) of land is required for development of Secured landfill site. Proponent has acquired partial land. Landuse of the proposed land is partial barren and partial agricultural land. Proposed land use breakup is as follows:

S. No.	Particular	Area (m²)
1	Built up Area	1,02,952.5
2	Greenbelt Area	38,312.0
3	Road/Paved Area	5,642.0
4 Open Area		5,547.5
	Total Area	1,52,454.00

- 4. Major landuse of study area is crop land (around 69.8% of total land area).
- 5. The project is located within 10 km of Eco Sensitive area i.e. Wild Ass Sanctuary which is 0.48 km away in N direction.
- 6. There is no involvement of Forest land for development of landfill site.
- 7. There is no critically polluted area falls within 10 km radius area.
- 8. Parameters mentioned in Site Selection for Common Hazardous Waste Management Facility, October 2003 by CPCB and Siting Criteria based on Criteria for Hazardous Waste Landfills, February 2001 by CPCB are taken in to account for site selection.
- Baseline data is collected considering period of March 2021 to May 2021 (Summer Season). Monitoring/ Sampling location were selected and finalized based on CPCB guidelines.
- 10. Project details:
 - (a) Nature of Project

- **New/Expansion:** New Project (Greenfield)
- Category: 7(d), "A"
- Status of General Condition: Boundary of Wild Ass Sanctuary located within 10 km radius circle of project site.

(b) Project component

Particular	Details		
Project Area	1,52,454 m ²		
Area of Landfill cell	97,282 m ²		
Nos. of Cells	1 No.		
Volume of Landfill	10,43,500 m ³		
Capacity of Landfill	Approximately 20,03,520 MT		
Operating days of facility	245 days per Annum		
Estimated waste	1,500 MT/d (Maximum daily)		
Estimated lifespan	5-6 (Considering maximum daily waste)		

- 11. **Type of waste: -** Landfillable waste meeting waste acceptance criteria shall be accepted like ETP Sludge, Iron Sludge, Inorganic Salts, MEE Salts, Spray dryer Salts, Gypsum, etc.
- 12. Source of Waste:- Waste will be received from the member industries generating hazardous waste as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, located in Rajkot, Morbi, Surendranagar, Ahmedabad, Gandhinagar, Sanand, and also industries located in South Gujarat.
- 13. Waste generation projections:- In 2007-08, 9 TSDF facilities were under operation and as per the report of October, 2020 total 3 facilities having capacity of around 6 Lac MT were closed. Against closed site two new facilities has been introduced and one facility has increased its capacity. Looking to continual industrial development, increase in waste generation in last decade & subsequently closing of the 3 facilities there is need of expansion of current facilities/ set up of new facilities. Hence proponent is proposing this facility

14. **Strategy for Collection, Treatment & Disposal:-** The waste will be collected in dedicated vehicles/closed containers equipped with GPS system and authorized by the State Pollution Control Board.

Analysis of parameters of composite samples will be carried out. After waste meeting acceptance criteria by CPCB, waste shall be allowed to TSDF site. If the waste does not meet the acceptance criteria, stabilization process will be required to comply with the concentration limit/ criteria stipulated by the CPCB.

15. **Habitation in and around the project site**: - There is no habitation within project site.

Within study area of 10 km radius total 22 villages are present

- Kacholiya Village 2.01 km in south direction
- Nana Goraiya 2.29 km in North direction
- Nani Majethi 3.85 km in ESE direction
- Surendranagar District Office 45 km in SSW direction
- 16. Approach road of around 0.5 km will be constructed from project site to National Highway 947.
- 17. The minimum elevation 7 meters above MSL. Land is almost flat.
- 18. Maximum water consumption will be 115 KLD out of which fresh water requirement will be 107 KLD. The source of water will be groundwater. Permission for ground water abstraction shall be obtained from CGWA.
- 19. Expected Waste Generation (Liquid and Solid) and proposed management strategy.
 - (a) Liquid waste

S. No.	Particulars	Wastewater Generation (KL/d)	Mode of Disposal
A.	Domestic	3.0	Gardening after treatment in STP
B.	Industrial		
a.	Process (Leachate)	6.0	Zero Liquid Discharge:
b.	Vehicle Washing	5.0	Treated in ETP followed by stripper & spray dryer
c.	Floor washing	1.0	
d.	Boiler	0.8	

e.	Cooling tower	0.2	
f.	Other- Laboratory	2	
g.	Other - Dust Suppression	0.0	
h.	Other- Raw water RO for Boiler & Cooling Tower	5.0	Dust suppression
i. Other - Spray dryer scrubber		2.0	Zero Liquid Discharge: Treated through Spray dryer
Total Industrial		22.0	
Grand Total		25.0	

- (b) Solid Waste:- In the proposed project the major source of solid waste generation shall from spray dryer for treatment of effluent. Sludge from effluent treatment plant and salts from spray dryer shall be disposed in Secured landfill within the site. Used oil from plant and machinery shall be selling to authorized recyclers. Stripper residue from stripper shall be sent to CHWIF. All the hazardous waste generated from the facility shall be stored and disposed as per MSW Rules.
- 20. No tree cutting is envisaged as project site is partly barren and partly agricultural land.
- 21. Landuse of current land is partial barren land and partial agricultural land. Hence, Rehabilitation is not involved.
- 22. There is no water body (lake/pond/river) within 200 m of project site
 - Nearest Water Body is Manmade Lake near project site which is 250 m away from project site.
 - Natural Drain is 280 m away from project site.
- 23. There is No Court Case against the project.
- 24. The power requirement is 200 kVA and shall be sourced from Paschim Gujarat Vij Company limited. Use of LED bulbs & Solar street lights.
- 25. Investment/Cost of the project is Rs. 40.58 crore.
- 26. Total manpower requirement for the proposed project will be around 50 personnel.

27. Benefits of the project: Project will provide scientifically design land fill facility for the disposal of hazardous waste to reduce environmental impact of hazardous waste. Moreover employment opportunities will be created. Rs. 81.20 lacs will be spent towards Corporate Environment Responsibility (CER). Economic benefits to the local people & businesses/contractors. As per current scenario, many industries located in South & Central Gujarat are transporting and disposing hazardous waste in TSDF located at Kutch, Gujarat. Proposing landfill site at Surendranagar will reduce financial cost like transportation, etc.

104.3.8 Expansion of "WEST POINT" – Integrated Commercial cum MLCP Complex at Old West Point School Area, Near M.G. Marg, Gangtok, East Sikkim by M/s Mesaso Infrastructure Private Limited –Environmental Clearance

(IA/SK/INFRA2/417703/2023; F. No. 21/1/2023-IA.III)

- 1. The project is located at 27°19'47.24"N Latitude and 88°36'40.93"E Longitude.
- 2. The project is an expansion project.
- 3. Earlier Clearance details, Constructions status, if any

Project Proponent, MESASO Infrastructure Pvt. Ltd., had applied for obtaining Environmental Clearance (EC) from SEIAA, Sikkim, for the construction of "WEST POINT" – integrated Commercial cum MLCP Complex at Old West Point School Area, Near M.G. Marg, Gangtok, East Sikkim, of configuration 4G+10 storey.

At that time, sanction plan was available for 4G+7 storey.

Hence, EC was also granted by SEIAA, Sikkim vide EC Identification no. EC22B038SK115854 dated 25.02.2022, for 4G+7 storey after appraisal on 22nd February, 2022.

Construction of 25,675 sqm out of 33801.25 sqm has been done as on date as per EC obtained.

- 4. If the project is for EC under EIA Notification, 2006
 - A) For the first time appraisal by EAC
 - i. Date of ToR [in case of item 8(b)] Not applicable
 - ii. Point-wise ToR compliance Not applicable
 - B) Second/subsequent appraisal The expansion project is being appraised for the first time by EAC.
 - i. Date of first /earlier appraisal(s) by EAC/SEAC
 - ii. Details of the information sought by the EAC/SEAC with the responses of PP
- 5. The total plot area is 5665.55 sqm, Total construction (Built-up) area of 33801.25 sqm. Maximum height of the building is 62 m. The details of building are as follows:

The mixed use development building of configuration 4G+10, shall comprise of :

- Parking for 448 car park in the lower 4 floors.
- Mall with a multiplex (44 retail outlets + 3 anchor stores) & food court
- Boutique hotel having 60 keys (52 deluxe rooms + 8 suites) with a roof top swimming pool.

- 6. During construction phase, total water requirement is expected to be 50 KLD which is met by Municipal supply. During the construction phase, soak pits and septic tanks are provided for disposal of waste water. Temporary sanitary toilets are provided during peak labor force.
- 7. During operational phase, total water requirement of the project is expected to be 160 KLD and the same will be met by 108 KLD fresh water from Municipal supply and 52 KLD recycled water. Wastewater generated (120 KLD) will be treated in STP of total 120 KLD capacity. 102 KLD of treated wastewater will be recycled and re-used (52 KLD for flushing and rest 50 KLD for gardening, car washing, etc.). 0 KLD will be disposed in to municipal drain.
- 8. About 670 kg/day solid wastes will be generated in the project. The biodegradable waste (335 kg/day) will be processed in OWC and the non-biodegradable waste generated (335 kg/day) will be handed over to authorized local vendor.
- The total power requirement during construction phase is 100 KVA and will be met from Power & Energy Department, Sikkim and total power requirement during operation phase is 2198 KW and will be met from Power & Energy Department, Sikkim.
- 10. Provision for capturing rain water, tank of capacity of 240 KLD with retention time of 30 minutes shall be provided.
- 11. Parking facility for 448 four wheelers has been provided in the lower 4 floors of the MLCP cum Commercial complex.
- 12. Proposed energy saving measures would save about 12.18% of power. The following energy saving measures shall be undertaken:
 - Materials preferred for construction shall be environment friendly & have a low embodied energy. This will help in keeping the environment cleaner & greener.
 - The building made of prefabricated steel members with nominal use of concrete which is only used in wet cores and as deck slabs, reduces the consumption of water during construction. This method of construction also doesn't create air pollution during construction stages.
 - Proposed MEP System shall use state of the art technology. The target is to ptimiz minimum possible resources and ptimiza the system.
 - LED & other appliances having higher BEE rating shall be used to reduce power consumption. Likewise, Low flow water sanitary fixtures shall be used to reduce water consumption. The aim is achieve GRIHA Gold rating.
 - A building management system has been proposed for resource ptimization and efficiency in energy consumption.
 - Building services such as the HVAC system, pumping system would be centrally controlled. It is envisaged to provide a state-of-the-art Building Management System for the services of the Mall / Cinema / Hotel areas of Mixed Use Project at Gangtok.

13. Comparative analysis of existing / envision pollution load (in case of expansion / modernization)

The current proposal is for vertical expansion of 3 floors above the 4G+7 Integrated Commercial cum MLCP complex. Environmental Clearance vide File No.: 214/E & SC and EC Identification no. EC22B038SK115854 dated 25.02.2022 and Consent to Establish vide Ref. No. 1142/SPCB dated 24.02.2022, has already been obtained for construction of the 4G+7 Integrated Commercial cum MLCP complex.

14. Impact of proposed project/activity on Air, Water, Noise, Ecology and proposed mitigation measures

Impact and proposed mitigation measures during Construction

Α	Work force	Local labourers shall be employed.
В	Facilities at site	Provision of drinking water, waste water disposal and solid waste management has been provided for site office & labour restrooms. Water usage during construction & curing is optimized. Proper sanitation for site office & construction workers have been provided. Health and safety, of the workers has been ensured during construction.
С	Steps to avoid disturbance	DG sets have acoustic enclosures and confirm to E (P) Rules.
		Ambient noise levels conform to local standards during day and night. Only limited necessary construction is done during night time. Excessive energy consumption and fuel usage is avoided.
D	Selection of material	Materials preferred for construction are environment friendly & have a low embodied energy. This helps in keeping the environment cleaner & greener.
		The building is made of prefabricated steel members with nominal use of concrete which is only used in wet cores and as deck slabs, to reduce the consumption of water during construction. This method of construction also doesn't create air pollution during construction stages.
		Proposed MEP System shall use state of the art technology. The target is to ptimiz minimum possible resources and ptimiza the system.
		LED & other appliances having higher BEE rating shall be used to reduce power consumption. Likewise, Low flow water sanitary fixtures shall be used to reduce water consumption. The aim is achieve GRIHA Gold rating.
		A building management system has been proposed for resource ptimization and efficiency in energy

		consumption.
		Building services such as the HVAC system, pumping system would be centrally controlled. It is envisaged to provide a state-of-the-art Building Management System for the services of the Mall/Cinema/Hotel areas of Mixed Use Project at Gangtok.
		Adequate open space, greenery will be provided as per rules.
E	Concreting work	Adequate screen wall has been provided to a height to control fugitive emission generated during construction. Using of Ready Mixed Concrete (RMC) further reduces fugitive emission.
F	Dust	Water sprinkling is done regularly in the material dumping area, to avoid spreading of dust.
		Screening wall is placed all around the project site to arrest fugitive dust from spreading out of the site.
G	Debris	Construction debris including bricks, gravel, rubbish, waste of plaster, concrete debris, metal tiles, etc. is used within the project site for land filling activities, road work, etc. The construction and demolition wastes are utilized as per the Construction and Demolition (C & D) Waste Management Rules, 2016. Other wastes like, pieces of steel, cement bags, waste paper and cardboard packing material are sold off to recyclers.
I	Dumping of material	The construction materials are not dumped in public roads around the property.
J	Construction equipment	Vehicles / equipment deployed during construction are in good condition, properly maintained and confirm to applicable air / noise emission standards & (PUC) norms. Underneath of the vehicles are regularly washed & cleaned before leaving the site, to avoid spillage outside the site. The contractor will remove all construction equipment and
		scrap materials from the site on completion of construction activity.
K	Water Accumulation	No water accumulation is allowed in the construction site. Proper disposal system is made to prevent stagnation of water.
L	Others	Construction conforms to the sanction plan by the concerned authority and requirement of local seismic regulations. All statutory / necessary permission will be obtained prior to & post construction. Fire-fighting systems

will be designed in compliance with the local authority.
Construction site is disinfected periodically.
Walking platforms at height are of sound construction and provided with safety rails or belts.

Impact and proposed mitigation measures during Operation

supplied by Tankers / Municipal Authorities. Groundwater will not be abstracted. B Storm water Management Adequate in-house drainage network has been designed for the project without disturbing the surrounding areas. Heat island effect has been minimized by use of shading and reducing hard surfaces viz. roads, paving etc. C Rain Water Harvesting plan has been formulated. Adequate fire fighting storage tank has been provided as per norms. D Plantation / Landscaping Green belt development programme shall be taken up once the construction work is completed. E Waste water Management The treated wastewater from STP shall be reused for flushing, landscaping & car washing purposes. A Centralized STP plant of 120 KL capacity has been proposed. Balance treated wastewater shall be disposed off into the Municipal sewer network. F Solid waste Management Solid waste during operational phase in general will be of domestic nature. Garbage will be segregated at source for biodegradable, in-organic recyclables and in-organic inert material during operational phase (670 kg/day). Total MSW will be stored at a place within the site. Organic component will be managed in house by installing mechanical composter, inorganic recyclables will be sold to vendors and inorganic inert material will be stored at a place within the site. From there it be collected, transported, treated and disposed off by local authority as per Rules. H Hazardous Spent Oil from DG sets will be carefully stored in HDPE			
the project without disturbing the surrounding areas. Heat island effect has been minimized by use of shading and reducing hard surfaces viz. roads, paving etc. Rain Water Harvesting Plan has been formulated. Adequate fire fighting storage tank has been provided as per norms. Plantation / Landscaping Green belt development programme shall be taken up once the construction work is completed. The treated wastewater from STP shall be reused for flushing, landscaping & car washing purposes. A Centralized STP plant of 120 KL capacity has been proposed. Balance treated wastewater shall be disposed off into the Municipal sewer network. Solid waste Management Solid waste during operational phase in general will be of domestic nature. Garbage will be segregated at source for biodegradable, in-organic recyclables and in-organic inert material during operational phase (670 kg/day). Total MSW will be stored at a place within the site. Organic component will be managed in house by installing mechanical composter, inorganic recyclables will be sold to vendors and inorganic inert material will be stored at a place within the site. From there it be collected, transported, treated and disposed off by local authority as per Rules. H Hazardous Spent Oil from DG sets will be carefully stored in HDPE	Α	Water Supply	Total 108 KLD of fresh water will be required which will be supplied by Tankers / Municipal Authorities. Groundwater will not be abstracted.
and reducing hard surfaces viz. roads, paving etc. Rain Water Harvesting Rain water Harvesting plan has been formulated. Adequate fire fighting storage tank has been provided as per norms. Plantation / Landscaping E Waste water Management The treated wastewater from STP shall be reused for flushing, landscaping & car washing purposes. A Centralized STP plant of 120 KL capacity has been proposed. Balance treated wastewater shall be disposed off into the Municipal sewer network. F Solid waste Management Solid waste during operational phase in general will be of domestic nature. Garbage will be segregated at source for biodegradable, in-organic recyclables and in-organic inert material during operational phase (670 kg/day). Total MSW will be stored at a place within the site. Organic component will be managed in house by installing mechanical composter, inorganic recyclables will be sold to vendors and inorganic inert material will be stored at a place within the site. From there it be collected, transported, treated and disposed off by local authority as per Rules. H Hazardous Spent Oil from DG sets will be carefully stored in HDPE	В		Adequate in-house drainage network has been designed for the project without disturbing the surrounding areas.
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flushing, landscaping & car washing purposes. A Centralized STP plant of 120 KL capacity has been proposed. Balance treated wastewater shall be disposed off into the Municipal sewer network. Solid waste Management Solid waste during operational phase in general will be of domestic nature. Garbage will be segregated at source for biodegradable, in-organic recyclables and in-organic inert material during operational phase (670 kg/day). Total MSW will be stored at a place within the site. Organic component will be managed in house by installing mechanical composter, inorganic recyclables will be sold to vendors and inorganic inert material will be stored at a place within the site. From there it be collected, transported, treated and disposed off by local authority as per Rules. H Hazardous Spent Oil from DG sets will be carefully stored in HDPE	D		Green belt development programme shall be taken up once the construction work is completed.
Management domestic nature. Garbage will be segregated at source for biodegradable, in-organic recyclables and in-organic inert material during operational phase (670 kg/day). Total MSW will be stored at a place within the site. Organic component will be managed in house by installing mechanical composter, inorganic recyclables will be sold to vendors and inorganic inert material will be stored at a place within the site. From there it be collected, transported, treated and disposed off by local authority as per Rules. H Hazardous Spent Oil from DG sets will be carefully stored in HDPE	E		Centralized STP plant of 120 KL capacity has been proposed. Balance treated wastewater shall be disposed off
	F		composter, inorganic recyclables will be sold to vendors and inorganic inert material will be stored at a place within the site. From there it be collected, transported, treated and
Management guidance of competent authority. Suitable care will be taken	Н	Waste	drums in isolated covered facility and disposed as per the guidance of competent authority. Suitable care will be taken so that spills/ leaks of spent oil from storage could be
I Emission DG sets will be provided with acoustic enclosures as per	I	Emission	DG sets will be provided with acoustic enclosures as per

	from Diesel Generator	CPCB norms. The stack height and emissions from D.G. sets will conform to CPCB norms.
Н	Energy Efficiency	The lighting design, heating, ventilation and air conditioning systems will conform to the ECBC recommendations. Use of energy efficient electrical systems will be promoted. High efficiency lamps, etc. will be used. Energy efficient Motors and properly rated Transformers will be installed.

- 15. Whether the project is in Critically Polluted area
 - No the project is not located in Critically Polluted area.
- It is located within 10 km of Eco Sensitive Zone (Yes/No). If Yes, provide details.
 - Gangtok Ropeway 1.0 km, S from the project site
 - Sikkim Himalayan Zoological Park 1.6 km, NE from the project site
 - Jawaharlal Nehru Botanical Garden 3.9 km, SW from the project site
 - Bakthang Waterfall 3.3 km, NNE from the project site
 - Ban Jhakri Falls Park 2.4 km, NNW from the project site
 - Shanti View Point 5.1 km, SW from the project site
 - Fambonglho Wildlife Sanctuary 9.7 km, NW from the project site
 - Puttali jharna, Butterfly Waterfall 10 km, NW from the project site
 - Creg View Point 7.0 km, NNE from the project site
- 17. NBWL Clearance is required: Yes/No. If Yes, status of NBWL clearance.
 No
- 18. Forest Clearance is required: Yes/No. If Yes, status of Stage-1 clearance.

No

- Court case pending against the project (Yes/No). If Yes, provide details.
 No
- Details of commitment as mentioned in the Form 1A / Conceptual Plan / EIA

Greenbelt development shall be carried out.

Environment management plan and mitigation measures shall be carried out.

21. Green belt development and Details of tree felling / transplantation

As per EC alredy obtained from SEIAA, Sikkim vide EC Identification no. EC22B038SK115854 dated 25.02.2022, Green cover plan shall cover 30% of total areas of the proposed MLCP for beautification of the blank areas, creation of hanging garden in all the flyover falling within the Gangtok Municipal Areas (GMC).

The condition as laid down in the EC shall be followed.

The proposed complex has landscape garden and plantation along the boundary, road side, etc.

Additionally, terraces shall be created with extensive planting to minimize the heat loads. A total of 15,000 sqft of landscaped area including green terraces have been proposed.

22. Undertaking to the effect that no activity has since been taken up

Construction work is going on at site for 4G+7 floors and it is being done without any deviation from the conditions granted as per previous EC obtained from SEIAA, Sikkim, vide EC Identification no. EC22B038SK115854 dated 25.02.2022.

Construction of 25,675 sqm out of 33801.25 sqm has been done as on date as per previous EC obtained obtained from SEIAA, Sikkim.

Undertaking in this regard has been enclosed.

23. Expected timeline for completion of the project

It is expected that around 4 years would be required for completion of the project.

- 24. Investment / Cost of the project is Rs. 298.2 Crores.
- 25. Employment potential

250 construction workers have been employed during the construction phase.

About 2500 people will get employment during operation phase of the project.

26. Benefits of the project

There will be employment of local people as service population, staff at the mall, auditoriums, restaurants, etc. This area will become one of the most prosperous commercial hub in the vicinity with world-class facilities. This will uplift the entire socio-economic profile of the area. Thus it is envisaged that this project will help the local population immensely.

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104.3.9 Residential cum Commercial Project "BHAWANI AQUAVIEW" at Konnagar, District Hooghly, West Bengal by M/s Bhawani Urban Housing Development Pvt. Ltd. – Environmental Clearance

(IA/WB/INFRA2/427909/2023; F. No. 21/4/2023-IA.III)

- The project is located at Dag No. 13816 under the Khatian No. 17699 being Premises No.63/ A, G. T. Road (East), Police Station Uttarpara, Post Office Konnagar, Mouza : Konnagar, under Konnagar Municipality, Ward No.-15, Hooghly, West Bengal 712235. The geographical co-ordinates of project site are 22° 41' 50.20" N and 88° 21' 32.79" E.
- 2. The project is new/ redevelopment: New
- 3. Earlier Clearance details, Constructions status, if any: NA
- 4. If the project is for EC under EIA Notification, 2006:
 - a. For the first time appraisal by EAC:
 - i. Date of ToR [in case of item 8(b)]: NA
 - ii. Point-wise ToR compliance: NA
 - b. Second/subsequent appraisal
 - i. Date of first /earlier appraisal(s) by EAC/SEAC : NA
 - ii. Details of the information sought by the EAC/SEAC with the responses of PP : NA
- 5. The total plot area is 4062.987 sqm, FAR area is 26,102.48 sqm and total construction (Built-up) area of 29,505.28 sqm. Total 316 Nos. of Dwelling units with Retails Shops shall be developed. Maximum height of the building is 59.985 m. The details of building are as follows: (Table may be extended/expanded as per requirement)

S. No.	Particulars	Area (m2)
1.	Total Plot Area	4062.987
2.	Permissible Ground Coverage	6082.35 (@40%)

3.	Proposed Ground Coverage	1,740.99 (11.44 %)
4.	Permissible FAR	34,213.21 (@. 225 %)
5.	Proposed FAR (a + b)	26,102.48 (@171.7)
	Commercial FAR	1410.97
	Residential FAR	24691.51
6.	Non-FAR Area	3402.8
7.	Built-up Area (5 + 6)	29,505.28
8.	Landscape Area	820.9 (@20.20 %)
9.	Maximum Height of the Building (m)	59.985

- 6. During construction phase, total water requirement is expected to be 50KL which will be met by private water tanker. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- 7. During operational phase, total water requirement of the project is expected to be 173 KLD and the same will be met by 118 KLD from groundwater and 55 KLD Recycled Water. Wastewater generated (145 KLD) will be treated in STPs of total 175 KLD capacity. 55 KLD of treated wastewater will be recycled and re-used (51KLD for flushing, 4KLD for gardening and remaining for external road plantation and supply to nearby users etc.). About 76 KLD will be used for external roadside plantation & supplied to nearby users.
- 8. About 1.084 TPD solid wastes will be generated in the project. The biodegradable waste (0. 0.650 TPD) will be processed in OWC and the non-biodegradable waste generated (0.434 TPD) will be handed over to authorized local vendor.
- 9. The total power requirement during construction phase is 150 KVA and will be met from West Bengal State Electricity Distribution Company Limited and total power requirement during operation phase is 1259.23

KVA and will be met from West Bengal State Electricity Distribution Company Limited.

- 10. Rooftop rainwater of buildings will be collected in 1 RWH tank of total 750 m3 capacity for harvesting after filtration.
- 11. Parking facility for 125 ECS is proposed to be provided against the requirement of 120 ECS respectively (according to local norms).
- 12. Proposed energy saving measures would save about 10 % of power.
- 13. Comparative analysis of existing/envision pollution load (in case of expansion/modernization): NA
- 14. Impact of proposed project/activity on Air, Water, Noise, Ecology and proposed mitigation measures: No major impact on Air, Water, Noise, Ecology from proposed project/activity and Water sprinkling will be carried out for dust suppression, waste water will be treated in-house STP, Rainwater Harvesting system proposed, Site will be enclosed with 10 m high barricade around the project boundary which will act as a wind breaker.
- 15. Whether the project is in Critically Polluted area: NO
- 16. It is located within 10 km of Eco Sensitive Zone (Yes/No). If Yes, provide details.: NO
- 17. NBWL Clearance is required: Yes/No. If Yes, status of NBWL clearance.: No
- 18. Forest Clearance is required: Yes/No. If Yes, status of stage-1 clearance.: NO
- 19. Court case pending against the project (Yes/No). If Yes, provide details.: NO
- 20. Details of commitment as mentioned in the Form 1A/Conceptual Plan/EIA:
 - ➤ Total Green Area = 820.9 m2
 - RWH = 1 Tanks
 - ➤ STP Capacity =175 KLD
 - ➤ OWC = 5 batches
 - ➤ DG Set for Power Backup = 2 D.G sets of total capacity 600 kVA (2 x 300kVA) for power back up in the Project.
- 21. Green belt development and Details of tree felling/transplantation: 820.9 m2

- 22. Undertaking to the effect that no activity has since been taken up: No construction activities have been done yet. Undertaking will be provided.
- 23. Expected timeline for completion of the project: 30-36 months from the date of grant of EC.
- 24. Investment/Cost of the project is Rs 68 Crores.
- 25. Employment potential: Staff

Benefits of the project: Employment Generation will be there.

104.3.12 Residential Group Housing Project at Jagardanga, Mouza Gopalpur, P.S. Airport, Bhidhannagar Municipal Corporation, Rajarhat Road, District 24 North Parganas, West Bengal by M/s SHR Construction LLP – Environmental Clearance (IA/WB/INFRA2/428354/2023; F. No. 21/6/2023-IA.III)

- 1. The project is located at Dag No. 4317, 4318, 4319, 4320, 4322, 4332, P.S. Airport. Bhidhannagar Municipal Corporation, Rajarhat Road, Jagardanga, Mouza- Gopalpur, District: North 24 Parganas, West Bengal, 22° 37' 56.08" N and 88° 27' 49.52" E.
- 2. The project is new/ redevelopment: New
- 3. Earlier Clearance details, Constructions status, if any: NA
- 4. If the project is for EC under EIA Notification, 2006:
 - a. For the first time appraisal by EAC:
 - i. Date of ToR [in case of item 8(b)]: NA
 - ii. Point-wise ToR compliance: NA
 - c. Second/subsequent appraisal
 - i. Date of first /earlier appraisal(s) by EAC/SEAC : NA
 - ii. Details of the information sought by the EAC/SEAC with the responses of PP: NA
- 5. The total plot area is 10,774.53 sqm, FAR area is 37,150.58 sqm and total construction (Built-up) area of 40,494.13 sqm. Total 324 flats shall be developed. Maximum height of the building is 60 m. The details of building are as follows: (Table may be extended/expanded as per requirement)

S. No.	Particulars	Area (m²)
1.	Total Plot Area (Phase-I)	10,785.68
2.	Plot Area (as per Deed)	10,774.53
3.	Permissible Ground Coverage (@ 50% of total Plot Area)	5,387.26
4.	Proposed Ground Coverage (@29.06% of total Plot Area)	3131.23
5.	Total Permissible FAR (@3.45 of total Plot Area)	37,172.13
	Permissible Residential FAR (@3.0 of total Plot Area)	32,323.59

	Additional FAR for Metro Corridor (15% of the Permissible FAR) (@0.45 of total Plot Area)	4,848.54
6.	Total Proposed FAR (@3.448 of total Plot Area)	37,150.58
7.	Non-FAR Area	3,343.55
8.	Total Built-up Area (7 + 8)	40,494.13
8. 9.	Total Built-up Area (7 + 8) Landscape Area (@25.5%)	40,494.13 2,747.66

- 6. During construction phase, total water requirement is expected to be 82 KLD which will be met through private water tanker. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- 7. During operational phase, total water requirement of the project is expected to be 189 KLD and the same will be met by 130 KLD fresh water from Ground water. Wastewater generated (149 KLD) will be treated in STPs of total 180 KLD capacity. 149 KLD of treated wastewater will be recycled and re-used (45 KLD for flushing, 14 KLD for gardening and remaining for external road plantation and supply to nearby users etc.). About 85 KLD will be disposed in to watering of external roadside plantation & supplied to nearby users.
- 8. About **1.034 TPD** solid wastes will be generated in the project. The biodegradable waste (**0.62 TPD**) will be processed in OWC and the non-biodegradable waste generated (**0.41 TPD**) will be handed over to authorized local vendor.
- 9. The total power requirement during construction phase is 150 kVA and will be met from West Bengal State Electricity Distribution Company Limited and total power requirement during operation phase is 1877.5 kVA and will be met from West Bengal State Electricity Distribution Company Limited.
- 10. Rooftop rainwater of buildings will be collected in 2 RWH tanks of total 750 KL capacity for harvesting after filtration.
- 11. Parking facility for **356 ECS** is proposed to be provided against the requirement of **356 ECS** respectively (according to local norms).
- 12. Proposed energy saving measures would save about **10** % of power.
- 13. Comparative analysis of existing/envision pollution load (in case of expansion/modernization): **NA**
- 14. Impact of proposed project/activity on Air, Water, Noise, Ecology and proposed mitigation measures: No major impact on Air, Water, Noise, Ecology from Page 60 of 61

proposed project/activity and Water sprinkling will be carried out for dust suppression, waste water will be treated in-house STP, Rainwater Harvesting system proposed, Site will be enclosed with 10 m high barricade around the project boundary which will act as a wind breaker.

- 15. Whether the project is in Critically Polluted area: NO
- 16.It is located within 10 km of Eco Sensitive Zone (Yes/No). If Yes, provide details.: **NO**
- 17. NBWL Clearance is required: Yes/No. If Yes, status of NBWL clearance.: NO
- 18. Forest Clearance is required: Yes/No. If Yes, status of stage-1 clearance.: NO
- 19. Court case pending against the project (Yes/No). If Yes, provide details. : NO
- 20. Details of commitment as mentioned in the Form 1A/Conceptual Plan/EIA:
 - > Total Green Area = 2,747.66 m²
 - > RWH = 2 Tanks
 - > STP Capacity =180 KLD
 - > OWC = 5 batches
 - DG Set for Power Backup = 1 D.G sets of total capacity 500 kVA for power back up in the Project.
- 21. Green belt development and Details of tree felling/transplantation: 2,747.66 m²
- 22. Undertaking to the effect that no activity has since been taken up: No construction activities have been done yet. Undertaking will be provided.
- 23. Expected timeline for completion of the project: **30-36 months from the date** of grant of EC.
- 24. Investment/Cost of the project is **Rs.90 Crore**.
- 25. Employment potential: Staff

Benefits of the project: Employment Generation will be there.