

## File No: 21-65/2022-IA.III Government of India

# Ministry of Environment, Forest and Climate Change IA Division

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Date 02/11/2023



To,

Ganesh Sivaramakrishnan

**RE SUSTAINABILITY IWM SOLUTIONS LIMITED** 

Level 11B, Aurobindo Galaxy, Hyderabad Knowledge City, Hitech City Road, Hyderabad, Telangana -

500081, Hyderabad, RANGA REDDY, TELANGANA, Opposite IKEA, 500081

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**Subject:** 

Environmental Clearance for Establishment of Integrated Common Hazardous Waste Treatment Storage 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 IWM Solution Ltd) - regarding.

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/PY/INFRA2/440640/2023 dated 25/08/2023 for grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and as amended thereof.

2. The particulars of the proposal are as below:

(i) EC Identification No. EC23A3201PY5213651N

(ii) File No. 21-65/2022-IA.III

(iii) Clearance Type Fresh EC

(iv) Category A

7(d) Common hazardous waste treatment, storage

and disposal facilities (TSDFs),Others

(v) Project/Activity Included Schedule No. (Specify), Others (Specify), 7(da) Bio-Medical

Waste Treatment Facilities, Others (Specify), Others (Specify), Others (Specify), Others (Specify), Others

(Specify), Others (Specify)

(vi) Sector INFRA-2

Establishment of Integrated Common Hazardous

(vii) Name of Project Waste Treatment Storage 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 IWM Solution Ltd)

RE SUSTAINABILITY IWM SOLUTIONS

**LIMITED** 

(ix) Location of Project (District, State) KARAIKAL, PUDUCHERRY

(x) Issuing Authority MoEF&CC

(xi) Applicability of General Conditions as per

(viii) Name of Company/Organization

**EIA Notification, 2006** 

No

This has reference to above mentioned proposal No. IA/PY/INFRA2/440640/2023 received on 25/08/2023 through PARIVESH Portal for seeking Environmental Clearance (EC) as per provisions under EIA Notification, 2006 as amended under Environment (Protection) Act, 1986.

- 2. The project/activity is covered under Category 'A' of item 7(d) 'Common hazardous waste treatment, storage and disposal facilities (TSDFs)' and of the Schedule to the EIA Notification, 2006 as amended. Further, General Condition is also applicable, as the state boundary of Tamil Nadu is at a distance of 350 m N from the proposed project site. Accordingly, the project comes under category 'A' and requires appraisal at Central level by Sectoral EAC.
- 3. The proponent has submitted this proposal for the grant of EC and the same has been considered as a fresh proposal and appraised by the EAC in its 109<sup>th</sup> meeting held on 31/08/2023.
- 4. The details of the project, as per the application form, documents submitted by the project proponent, and also as informed during the aforesaid meetings of EAC, are provided below for reference:
- 1. The proposed Integrated Common Hazardous Waste Treatment, Storage Disposal and Recycling Facility (ICHWTSDF)by M/s. Re Sustainability IWM Solutions Ltd is located at Survey No's B-44 pt., B-38, B-29, B-33, B-26, B-30, A-195, E-3, C-20, B-62, A-10, A-14, A-21, B-48, A-173, A-162, B-2, A-179, A-171 pt., B-63, B-47 pt., A-178, B-9 pt., B-21 pt., B-1 pt., A-190pt., B-14pt., B-17 pt. & B-16 pt., within Industrial Growth Centre (IGC) under Pondicherry Industrial Promotion Development and Investment Corporation (PIPDIC) at Polagam (Village), Karaikal (District), Puducherry. Land has been allotted to Re Sustainability IWM Solutions Limited (Formerly Known as TamilNadu Waste Management Limited) as per allotment no. F. 34-123/613/2020/Constn/3975 dated 25.04.2022.
- 2. It is new project.
- 3. As the project site is located within Industrial area notified in year 2002, which is prior to promulgation of EIA Notification, 2006, public hearing may be exempted wrt Ministry's OM dated 27.04.2018.
- 4. Total area for the project is 109265 sq. m and the proposed land-use pattern is as follows:

Particulars	Area in sq. m
Area of Facility	15606
Area for Landfill	32771
Road area	16779
Greenbelt area	36058
Misc. Area	8051
Total area of project	109265

5. Location details of project site is as follows:

ID	Latitude	Longitude
A	10°51'30.31"N	79°48'46.69"E
В	10°51'30.68"N	79°49'01.89"E
С	10°51'21.84"N	79°49'01.83"E
D	10°51'21.41"N	79°48'48.48"E

- 6. The site connected with Village & Industrial road and NH-32 is located 1.3 km E. The land use pattern of the site is industrial area\Scrub Land. Polagam Village is located 0.7 km North-East from the site. Major soil observed in the study area is alluvial Coastal soil. Bay of Bengal is located 3.3 km E from the site.
- 7. ToR obtained from Ministry vide no 21-65/2022-IA-III dated 04.08.2023.
- 8. Baseline data collected from January, 2023 to March, 2023.
- 9. Details of the proposed project capacities as follows:

Sl. No.	Name of the facility	Proposed capacity
1	Secured landfill (DLF)	200 TPD
2	Treatment/Stabilization (LAT)	300 TPD
3	Incineration (INC)- common for HW &BMW	55 TPD
4	Incineration (INC)- common for HW &BMW (Back up)	55 TPD
5	Biomedical waste	13 TPD
6	Alternative Fuel and Raw Material (AFRF)	55 TPD
7	E-waste	2 TPD
8	Plastic Recycling	10 TPD
9	Paper Recycling	10 TPD
10	Drum Recycling	200 numbers per/day
11	Aluminum Dross Reprocessing	165 TPD
12	Used Oil/Spent Oil Recycling	54 KLD
13	Solvent Recovery	27 KLD

Note: Out of the 13 facilities proposed, only Incineration, Secured Landfill facility and Bio-medical waste treatment requires prior EC under EIA Notification, 2006 as amended.

10. Land area break up for the proposed facilities as per CPCB norms are as follows:

Sl. no.	Infrastructure description	Area in Sq. m
1	Security & visitors' room cum toilet	18.0
2	Underground sump	9.0
3	Admin cum lab, electrical panel room, canteen	332.3
4	Weigh Bridge Control Room	21.8
4a	Weigh Bridge Platform (50 Tons capacity)	54.0
4b	Sample collection platform	7.5
5	Fire hydrant pump room & tank	134.0
6	E-waste, Paper, Plastic, Metal, Drum processing	2829.7

7	Tank Farm Solvent Recovery Facility	237.4
8	Waste stabilisation shed, temporary waste store & Mechanised waste stabilisation shed	940.0
9	Solvent recovery and used oil recycling facility	317.1
10	Incinerator Shed (500 KH/Hr)	1731.9
11	Tank Farm Incinerator Plant	137.0
12	PCC/PLC/MCC building	141.4
13	Leachate collection pond & Solar evaporation pond	2175.0
14	First Flush Retention Pond	1267.0
15	Vehicle tyre wash	159.8
16	Landfill (8.09 Acres)	32771.0
17	General stores & vehicle maintenance shed	246.1
18	AFRF Shed	323.7
19	Area for Leachate Treatment Plant	720.0
20	Special waste storage shed, waste storage shed	1118.4
21	Intractable waste store, Temporary waste store	1225.5
22	Aluminium Dross Processing Facility	300.0
23	Incinerable waste storage shed	300.0
24	ETP for BMW	50.0
25	BMW Processing Shed	450.0
26	Vehicle wash & parking	130.0
27	Workers washrooms & rest rooms	39.4
28	Waste storage shed	189.9
Area of Facili	ty including Landfill	48377.0
Road area		16779.0
Greenbelt are	ea	36058.0
Misc. Area		8051.0
Total area (Sq. m)		109265.0

- 11. Total 32771.00 Sq. m area will be used for Secured landfill. The facility is designed for 25 years and additional 25 years post monitoring. As per the CPCB guidelines; storage capacity has been estimated for maximum 90 days.
- 12. Rejection or Knock-Out Criteria for the proposed site is as follows:

<b>Identification</b>	Location	e
Sl. No	Criteria	Answer
	Grayments	Y/N
1.	Existing or planned drinking water protection	N
	and catchment areas	
2.	High flood prone areas	<b>N</b> , there is no river within 500 m of the
		site and major river Tirumalarajanar which
		is located, around 3 km far from the site
3.	Areas with unstable ground	N
4.	Closer than 200 meters to populated areas	N, Polagam Village is located towards
		north east at 700 m distance from the site.
5.	Closer than 200 meters to river boundaries	N, Puravadaiyanar river is located 700 m
		South- from the site.
6.	Close to National Parks, Monuments, Forests	N

	with large No. of flora and fauna, historical,	
	religious and other important cultural places	
	500 m	
7.	Existing use of site	Scrub bushes in the Industrial layout
	(Agricultural/Forest/Old dump site)	
REMARKS		
Site is suitable for detailed EIA study (Y/N)		Y

## 13. Site selection criteria as per the guidelines of CPCB as follows:

Sl. No.	Parameter	Criteria	Observation
1.	Lake or pond (Distance from SW body)	Should not be within 200 m	A lake located is located 700 m S from the site and one Canals is inside the site
2.	River	Should not be within 100 m	No river presented within 100 m from the site, Puravadaiyanar river 700 m S from the site. It is flowing towards east w.r.t site.
3.	Flood plain	Should not be within 100 year flood plain	No-same as Knock-out-criteria No.2
4.	High way – State or National	Should not be within 500 m	NH-32 located at 1.3 km km E from the site. SH-67 located at 0.7 km SW from the site
5.	Habitation— Notified habituated area	Should not be within 500 m	Polagam Village is located 700 m NE from the site.
6.	Public Parks	Should not be within 500 m	There are no public parks within 500 m
7.	Critical habitat area— area in which one or more endangered species live	Not suitable	No
8.	Reserved Forest area	Not suitable	No
9.	Wetlands	Not suitable	No
10.	Airport	Should not be within zone around the airport(s)	No Airport located within 50 Km from the site. Thanjavur Airport is located 77 km SW from the site.
11.	Water supply	No Water supply well within 500 m	Few Bore wells are present within the industrial area
12.	Coastal Regulation Area	Not suitable	No
13.	Ground Water Table level	GW table should be >2m from the base of the landfill	Ground water levels in study area ranges from 2 -5 m bgl

	Presence of monuments/	Not suitable	No
14.	religious structures		



- 14. Estimated total water requirement of the project is 100KLD. Of which, freshwater requirement will be 79KLD and treated water requirement will be 21 KLD. Water requirement will be sourced through Bore well/tankers/canals/lake.
- 15. Around 29.5 KLD of wastewater is expected from various TSDF operations (27 KLD) and sewage (2.5 KLD) viz. domestic purposes. The leachate generated from the Landfill (2 KLD) will be treated in LTP & reused for spraying on the landfill or disposed of through an incinerator (spray dryer). The wastewater generated from Incinerator, recycling facilities, etc., (25 KLD) shall be sent to ETP for treatment and the treated water will be re-used as required. Domestic sewage (2.5 KLD) will be sent to to soak pit/treated in STP.
- 16. The solid waste generated as Ash from incinerator (40 TPD) Sludge from ETP (1.5 KLD) shall be sent to the secured Landfill. The municipal solid waste of approx. 15 kg/ day shall be sent to the nearest municipal bin/ facility. Sludge from waste/used oil and waste oil from DG set shall be sent to used-oil recovery facility.
- 17. The site is covered by majorly scrub bushes. No major tree will be removed. The same will be retained and maintained under Greenbelt.
- 18. A manmade water supply canal is passing through the site and the buffer of 9 m from both sides of the canal will be left over for any green belt development.
- 19. Estimated power requirement is 375 kVA and same will sourced through Pondicherry electricity board. DG sets (2×250 kVA) will be used as an emergency power backup.
- 20. HSD fuel will be used for operation of DG set/Incinerator (106 liters/hr) and same will be sourced through local dealers.
- 21. NBWL Clearance is not required.
- 22. Forest Clearance is not required.
- 23. No court case is pending against the project.
- 24. There is no notified eco-sensitive area falling within 10 km radius of the study area but there are few environmentally sensitive features are falling within the 10 km radius, as given in the below table:

Name	Distance(km)	Direction
Inter-State boundary	0.35	N
Puravadaiyanar river	0.7	S
Polagam village	0.7	NE
Tirumalarajanar river	3	N
Sea/ Coastal area	3.7	Е
Vettar river	4.2	S
Arasalar river	men - 5.1	N

- 25. The project is not located in critically polluted area.
- 26. The project cost is around 35 crores. EMP capital cost is 3.5 Crores. Recurring cost is 0.35 Crores/annum.
- 27. Employment potential: Indirect employment at peak period during operation around 100 persons; during establishment period, around 200 persons.
- 28. Benefits of the project: Wastes generated from existing industries will be addressed in a better and environmentally safe way. It provides a one-stop solution for the management of various types of wastes such as hazardous waste & domestic hazardous waste etc. Minimizes pollution

load on the environment with an additional benefit of green and clean surroundings. Possibility for recovery of materials thereby conserving the natural resources. Management of wastes is relatively easier and economically viable at a common facility. Most viable option in the absence or availability of expertise. Reduced environmental liability due to captive storage of hazardous waste in the premises of industries. Prevention of natural resource contamination. Employment opportunity is envisioned for the nearby inhabitants thereby improving their lifestyle & economic conditions. New infrastructure and development of amenities in and around the project site is expected.

- 5. The EAC noted that ToR was issued by the Ministry vide No. 21-65/2022-IA.III dated 04.08.2023 and the project site is located within the Industrial Growth Centre (IGC) under Pondicherry Industrial Promotion Development and Investment Corporation (PIPDIC) at Polagam (Village), Karaikal (District), Puducherry. EAC has noted that baseline data was collected in surrounding areas from January 2023 to March 2023. Further, the Committee noted that the industrial area was notified before EIA Notification, 2006, therefore, public hearing has been exempted for this proposed project. The PP has submitted letter no 2605/PPCC/CBMWTF/NOC/MS/2023/801 dated 02.08.2023 issued by the Puducherry Pollution Control Committee (PPCC) mentioning that proposed site is suitable for establishing bio-medical treatment facility but that its establishment can only be considered after completion of the gap analysis study for the UT of Puducherry.
- 6. 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 for establishment of proposed TSDF with incinerator only and, the EAC recommended for grant of Environmental Clearance for the same without the biomedical waste treatment facility subject to following specific conditions & other Standard EC Conditions as specified by the Ministry vide OM dated 4<sup>th</sup> January, 2019.
- 7. Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance for Establishment of Integrated Common Hazardous Waste Treatment Storage Disposal and Recycling Facility (ICHWTSDRF) at Village Polagam, District Karaikal, Pondicherry, under the provisions of the EIA Notification, 2006 and amendments/circulars issued thereon, and subject to the following specific and standard conditions (Annexure 1).
- **8.** This issues with approval of the Competent Authority.

#### Copy To

- 1. The Secretary, Department of Science, Technology and Environment, Government of Puducherry, III Floor, PHB Building, Anna Nagar Near Indira Gandhi Statue, Puducherry-605005.
- 2. The DDG, Ministry of Environment, Forests and Climate Change, Ist and IInd Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai-34.
- 3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi 110 032.
- 4. The Member Secretary, Puducherry Pollution Control Committee,  $3^{rd}$  Floor, Housing Board Complex, Anna Nagar, Nellithope, Puducherry  $-605\ 005$ .
- 5. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
- 6. Guard File/ Record File/ Notice Board/MoEF&CC website.

#### 1. Environmental Conditons

S. No	EC Conditions
1.1	The proponent should ensure that the project fulfils all the provisions of Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the 'Protocol for Performance Evaluation and Monitoring' for the same as published by the CPCB including collection, transportation, design etc.
1.2	Guidelines for Secured Landfill issued by CPCB shall be followed.
1.3	Necessary provision shall be made for fire-fighting facilities within the complex.
1.4	Project proponent should prepare and implement an on-site Emergency Management Plan a copy of which should be submitted to the SPCB before the plant is made operational.
1.5	Employees shall be provided work specific PPE such as helmets, safety shoes, masks etc.
1.6	Project proponent should develop green belt all along the periphery of the TSDF with plant species suitable for air pollution abatement in consultation with the state forest department. Total green area of 36058 sq. m shall be maintained as proposed.
1.7	Fresh water requirement shall not exceed 100 KLD during operational phase. Abstraction of ground water shall be subject to the permission of Central Ground Water Authority (CGWA).
1.8	Gas generated in the Landfill should be properly collected, monitored and flared.
1.9	Sufficient number of Piezometer wells shall be installed in and around the project site to monitor the ground water quality in consultation with the State Pollution Control Board (SPCB)/CPCB. Trend analysis of ground water quality shall be carried out for each season and information shall be submitted to the SPCB and the Regional Office of MoEF&CC.
1.10	The depth of the landfill site shall be decided based on the ground water table at the site in order to ensure the contents of the landfill are never able to contaminate the ground water.
1.11	Project proponent shall ensure proper handling of all spillages by introducing spill control procedures for various chemicals.
1.12	As committed the estimated wastewater of 30 KLD will be treated and recycled within the premises as committed. Toxicity Characteristic Leaching Procedure (TCLP) test should be performed on leachates regularly.
1.13	Rain water runoff from the landfill area and other hazardous waste management area shall be collected and treated as per the norms.
1.14	The project proponent shall install continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 and be connected to SPCB and CPCB online

S. No	EC Conditions
	servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
1.15	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
1.16	No non-hazardous wastes, as defined under the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016, shall be handled in the premises. The solid wastes shall be segregated, managed and disposed as per the norms of the Solid Waste Management Rules, 2016. A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the MSW generated from project.
1.17	Project should ensure that the site is properly cordoned off from general movement and no unauthorized person or goods permitted to enter the premises. Necessary security provision should be made as a condition in the Authorization under the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 to prevent unwanted access.
1.18	Traffic congestion near the entry and exit points from the roads adjoining the project site shall be avoided. Parking should be fully internalized and no public space should be utilized.
1.19	A detailed traffic management & decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 2 km radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 2 km radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the PWD/Competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
1.20	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.

Standard EC Conditions for (Common hazardous waste treatment, storage and disposal facilities (TSDFs))

## 1 Statutory compliance

S. No	EC Conditions
1.1	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
1.2	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.3	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific

S. No	EC Conditions
	Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area)
1.4	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
1.5	The Project proponent should ensure that the TSDF fulfils all the provisions of Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016.
1.6	The project proponents shall adhere to all conditions as prescribed in the Protocol for 'Performance Evaluation and Monitoring of the Common Hazardous waste treatment, storage and disposal facilities' published by the CPCB in May, 2010.
1.7	Incinerator shall be designed as per CPCB guidelines. Energy shall be recovered from incinerator.
1.8	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
1.9	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
1.10	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities

# 2 Air quality monitoring and preservation

S. No	EC Conditions
2.1	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
2.2	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
2.3	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120°each), covering upwind and downwind directions.
2.4	Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.

S. No	EC Conditions
2.5	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2.6	Appropriate Air Pollution Control (As proposed, air pollution control device viz. gas quencher; treatment with mixture of hydrated lime and activated powder for adsorption of partial acidity and VOCs (if any); bag filter/ESP for removal of particulate matter; venturi scrubber followed by packed bed scrubber with caustic circulation to neutralize the acidic vapours in flue gas; and demister column for arresting water carry over will be provided to the incinerator) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
2.7	The periodical monitoring of Dioxins and Furans in the Stack emissions shall be carried out.  Analysis of Dioxins and Furans shall be done through CSIR-National Institute for Interdisciplinary  Science and Technology (NIIST), Thiruvananthapuram or equivalent NABL Accredited laboratory
2.8	Gas generated in the Land fill should be properly collected, monitored and flared
2.9	A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 02 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 02 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

# 3 Water quality monitoring and preservation:

S. No	EC Conditions
3.1	The project proponent shall install continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
3.2	Sufficient number of Piezometer wells shall be installed in and around the project site to monitor the ground water quality in consultation with the State Pollution Control Board / CPCB. Trend analysis of ground water quality shall be carried out each season and information shall be submitted to the SPCB and the Regional Office of MoEF&CC.
3.3	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
3.4	No discharge in nearby river(s)/pond(s).

S. No	EC Conditions
3.5	The depth of the land fill site shall be decided based on the ground water table at the site.
3.6	The Company shall ensure proper handling of all spillages by introducing spill control procedures for various chemicals.
3.7	All leachates arising from premises should be collected and treated in the ETP followed by RO. RO rejects shall be evaporated in MEE. Toxicity Characteristic Leaching Procedure (TCLP) test to be performed on leachates.
3.8	The Company shall review the unit operations provided for the treatment of effluents, specially the sequencing of MEE after tertiary treatment, the source of permeate when no R.O. is recommended and the treatment of MEE condensate. The scheme for treatment of effluents shall be as permitted by the Pollution Control Board/Committee under the provisions of consent to establish.
3.9	Scrubber water, leachate water or wheel wash effluent shall be treated in the effluent treatment plant followed by RO to achieve zero liquid discharge.
3.10	Total fresh water use shall not exceed the proposed requirement as provided in the project details.  Prior permission from competent authority shall be obtained for use of fresh water.
3.11	Sewage Treatment Plant shall be provided to treat the wastewater generated from the project.  Treated water shall be reused within the project.
3.12	A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
3.13	Rain water runoff from hazardous waste storage area shall be collected and treated in the effluent treatment plant.

## 4 Noise monitoring and prevention

S. No	EC Conditions
4.1	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
4.2	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
4.3	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

## **5 Energy Conservation measures**

S. No	EC Conditions
5.1	Energy conservation measures like installation of LED/CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project

S. No	EC Conditions
	commissioning.

## 6 Waste management

S. No	EC Conditions
6.1	The TSDF should only handle the waste generated from the member units.
6.2	Periodical soil monitoring to check the contamination in and around the site shall be carried out.
6.3	No non-hazardous wastes, as defined under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, shall be handled in the premises.
6.4	The Project proponent shall not store the Hazardous Wastes more than the quantity that has been permitted by the CPCB/SPCB.
6.5	The solid wastes shall be segregated, managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
6.6	A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
6.7	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

#### 7 Green Belt

S. No	EC Conditions
7.1	Green belt shall be developed in an area as provided in project details, with native tree species in accordance with Forest Department. The greenbelt shall inter alia cover the entire periphery of the project site.
7.2	Top soil shall be separately stored and used in the development of green belt.

## 8 Public hearing and Human health issues

S. No	EC Conditions
8.1	Traffic congestion near the entry and exit points from the roads adjoining the project site shall be avoided. Parking should be fully internalized and no public space should be utilized.
8.2	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
8.3	Provision shall be made for the housing of construction labour within the site with all necessary

S. No	EC Conditions
	infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
8.4	Occupational health surveillance of the workers shall be done on a regular basis.

#### 9 Miscellaneous

S. No	EC Conditions
9.1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular languagewithin seven days and in addition this shall also be displayed in the project proponent's website permanently.
9.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
9.3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
9.4	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
9.5	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms /conditions and/or shareholder's/stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
9.6	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
9.7	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
9.8	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

S. No	EC Conditions
9.9	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
9.10	The criteria pollutant levels namely; PM2.5, PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
9.11	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
9.12	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
9.13	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
9.14	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
9.15	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
9.16	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
9.17	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
9.18	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
9.19	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts/NGT and any other Court of Law relating to the subject matter.
9.20	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

#### **Additional EC Conditions**

1. This environmental clearance is being granted for the Integrated Common Hazardous Waste Treatment, Storage Facility with Secured Landfill (capacity 200 TPD), an incinerator (capacity 55 TPD) only without any Bio-medical waste treatment facility. The actual capacity of various facilities for other kinds of waste shall be determined at the time of

granting 'Consent to Establish (CTE)' by the SPSB, Maharashtra following the relevant norms and guidelines issued by the CPCB and the Ministry from time to time.

2. Out of total 109,265 sq. m of plot area, greenbelt shall be developed on 36,058 sq. m (33% of total project area) by the project proponent. No tree shall be removed and buffer of 9 m on both sides of the canal, which is passing through project site, shall be used for developing green belt development within the premises of the project site.

