

# **File No:** IA-J-11011/225/2024-IA-II(I) **Government of India** Ministry of Environment, Forest and **Climate Change IA Division**

\*\*\*



Date 31/05/2025



To,

Mr Ramkumar Shankar

**CHEMPLAST SANMAR LIMITED** 

No.9 CATHEDRAL ROAD CHENNAI 600086, CHENNAI, TAMIL NADU, 600086

nnk1@sanmargroup.com

**Subject:** 

Proposed Expansion of Refrigerant Gases Manufacturing Unit located at Ward-D, Block-2, TS-2A, 2B, Block-3, TS-1, Block-5, TS-1 of Village and Taluk Mettur, Salem District, Tamil Nadu -636001 by M/s. Chemplast Sanmar Limited - Grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 -regarding.

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/TN/IND3/533121/2025 dated 25/04/2025 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. EC25A0202TN5671565N (ii) File No. IA-J-11011/225/2024-IA-II(I)

(iii) Clearance Type Fresh EC

(iv) Category A

(v) Project/Activity Included Schedule No. 5(f) Synthetic organic chemicals industry

(vi) Sector Industrial Projects - 3

Expansion of Refrigerant Gases Manufacturing (vii) Name of Project

(viii) Name of Company/Organization CHEMPLAST SANMAR LIMITED

(ix) Location of Project (District, State) SALEM, TAMIL NADU

(x) Issuing Authority MoEF&CC

(xi) Applicability of General Conditions as per

**EIA Notification, 2006** 

No

<sup>3.</sup> The Ministry of Environment Forest and Climate change has examined the proposal seeking Environmental Clearance for proposed expansion of Refrigerant Gases Manufacturing Unit located at Ward-D, Block-2, TS-2A, 2B, Block-3, TS-1,

- 4. The project is covered under the Category A of item 5(f) of the Schedule of Environment Impact Assessment (EIA) Notification, 2006 (amended from time to time), since the project site is located outside notified industrial area and due to applicability of the general condition i.e., the project site is located in Critically Polluted Area (CPA) and hence the proposal is appraised at the Central Level by the Expert Appraisal Committee (EAC).
- 5. Standard ToR by Ministry vide letter No. IA-J-11011/225/2024-IA-II(I); dated 31.05.2024. The project proposal was considered by the Expert Appraisal Committee (Industry-3) in its 100<sup>th</sup> meeting held on 13.07.2025 wherein the Project Proponent (M/s Chemplast Sanmar Limited) and the Accredited Consultant namely M/s. Perfect Enviro Solutions Pvt. Ltd. (Certificate Letter No. NABET/EIA/2225/RA 0284(Rev 01): valid till 26.11.2025) made a detailed presentation on the salient features of the project and informed that:
- 6. The existing land area is 44800 m2 and additional 165200 m2 land will be used for proposed expansion.

S.	Plot no./	Plot Area	Date of land	Date of land	Date of	Validity of	Name on the lease/	
No.	Survey	(sq. m.)	allotment (if	possession (if	lease/ sale	lease/sale deed	sale deed	
	no./G <mark>ut no.</mark>		Applicable)	applicable)	deed / Land	or possession	Or	
			- 1	transfe		certificate	allotment/possession	
	8		2 6			<u> </u>	certificate	
1.	War <mark>d-D,</mark>	<del>3002</del> 76.7	Vide Government	17.05.1937	- 1.57 .	M/s.Mettur	Lands were alienated	
	Block-2, TS-		Order (MS)			Chemicals and	for Industrial	
	2A, 2B, Block-		No.990 dated		9 11	Industrial	purposes by the	
	3, TS-1, Block-		17.05.1937 by the		100	Corporation	Government of Tamil	
	5, TS-1		Public Works			Limited	Nadu. The Town	
			(Irrigation)			amalgamat <mark>ed</mark>	Survey Land Register	
			Department,		1/1 25	with M/s.	reflects that these	
			Government of		100	Chemplast	lands are Sarkar	
	1 4		Madras Province,		PI	Sanmar Limited	lands, wherein the	
	\ (		alienated 72.4		1-	by t <mark>he</mark> Hon'ble	possession is also	
			acres of land to		~	High Court of	mentioned in the	
			M/s. Mettur		EL	<mark>Mad</mark> ras vide its	name of the	
			Chemicals and			order dated	Company such as	
			Industrial			27.11.1989 in C.P	Mettur Chemicals,	
			Corporation			No.13/1989 and	Chemicals Colony	
			Limited			the above said	etc. The possession	
			6-1		· c	lands stood	and enjoyment of the	
						vested in the	land is vested	
						name of	absolutely with	
						Chemplast	Chemplast Sanmar	
						Sanmar Limited	Limited for operating	
							Industry there.	

Initially the land was sanctioned to M/s Mettur Chemicals and Industrial Corporation Limited by then State Government / PWD vide G.O. (Ms) No. 990 dated 17.05.1937. Subsequently, The Hon'ble High Court of Madras vide its order dated 27.11.1989 in C.P No.13/1989 amalgamated M/s. Mettur Chemicals and Industrial Corporation Limited with Chemicals and Plastics India Limited along with "all the undertakings, properties, rights and powers, investments, inventories and all assets. Later M/s Chemicals and Plastics India Limited was merged with M/s Chemplast Sanmar Limited and now it is in the possession of CSL.

7. The details of products and capacity as under:

S.	Products Details	CAS Number	Existing	Proposed	Total Quantity	Uses					
No.			Quantity	Quantity							
				TPA							
EC Products											
1.	Monochloridifluoromethane	75-45-6	1,663	0	1,663	Refrigerant gas					
	(R22)										
2.	Difluoromethane (R32)	75-10-5	0	42,000	42,000	Refrigerant gas					
	Non - EC Products										
3.	Anhydrous Hydrofluoric	7664-39-3	0	40,000	40,000	Raw material for					
	Acid (AHF)					R32 production					
4.	Hydrochloric Acid (HCl-	7647-01-0	4,500	1,89,000	1,93,500	_					
	30%)										
			By-Prod	ucts							
5.	Dilute Sulfuric Acid (70-	7664-93-9	106	4,200	4,306	_					
	80%)										
6.	Dilute Hydrofluoric Acid	7664-39-3	400	420	820	_					
	(10 <mark>-15%)</mark>										
7.	Gypsum Anhydrite	7778-18-9	0	1,50,000	1,50,000	_					

- 8. Certified Compliance Report (CCR) for CTO obtained from TNPCB vide letter No.: T5/TNPCB/F.004466/SLM/RL/2025, dated 24.03.2025.
- 9. EC for the existing unit is not applicable as the plant has been in operation prior to EIA Notification 1994, with its first consent order received vide Consent Order No. APC/A2/929/87, Dated 25.07.1987, renewed from time to time by TNPCB till date. The Details of CTE/ CTO in chronological order is as follows:
- Consent to Operate obtained vide 2205241811558 (Air) & 2205141811558 (Water), dated 31.05.2022, valid upto 31.03.2027 from TNPCB.

S. No.	Environment Related	Granted by	Document No. & Date
	Clearance/Permit Type		
1	Consent to Operate (CTO)	TNPCB	APC/A2/929/87, dated t. 25.07.1987
2	Consent to Operate (CTO)	TNPCB	i. T1/A4/7696/84/F9/S1m/dt.23.9.88,
		Pavi	ii. T9/S1m/F-9/A/92-1/dt 29.5.92,
			iii. C&PI/PC/NR-SK/10-3/dt 2.1.93,
			iv. R9/F9/S1m/TNPCBd/A/R/94
3	Consent to Operate (CTO)	TNPCB	R9/F9/S1m/TNPCBd/A/R/94
4	CTO Amendment	TNPCB	T11/Chemical/TNPCBd/F.No.463332/RL/Amend/A/2009
			dated 06.03.2009
5	CTO Amendment	TNPCB	T11/TNPCB/Chem/F46332/Amend/SLM/RL/W/10 dated
			28.09.2010
6	CTO (Air)	TNPCB	Consent Order No. 2205241811558 (Air dated 31.05.2022
7	CTO (Water)	TNPCB	Consent Order No 2205141811558 (Water) dated 31.05.2022

10. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Stanley Reservoir is located at a distance of 0.40 km in SW direction. 14 No. of Schedule I species are found in the buffer area i.e. 1. *Macaca radiata* (Bonnet macaque), 2. *Cervus unicolor* (Sambar),

- 3. Canis aureus (Jackal), 4. Urva edwardsii (Indian grey mongoose), 5. Varanus bengalensis (Bengal monitor lizard), 6. Python molurus (Indian rock python), 7. Chamaeleo zeylanicus (Indian Chameleon), 8. Naja naja (Indian Cobra), 9. Gallus sonneratii (Grey junglefowl), 10. Pavo cristatus (Peafowl), 11. Viverricula indica (Small Indian Civet), 12. Melanochelys trijuga (Indian black turtle), 13. Cypsiurus balasiensis (Asian palm swift), 14. Glaucidium radiatum (Jungle Owlet). Conservation plan is prepared and submitted to DFO, Salem Division for approval on 21.03.2025. The plan proposes an expenditure of INR 66 lakhs to be utilized over a five-year period for conservation efforts.
- 11. Ambient air quality monitoring was carried out at 11 locations during  $1^{st}$  February 2023 to  $30^{th}$  April, 2023 and the baseline data indicates the ranges of concentrations as: PM10 (39.59 g/m³ to 74.46 g/m³), PM2.5 (16.19 g/m³ 38.54 g/m³), SO2 (3.09 g/m³ 14.15 g/m³) and NO<sub>2</sub> (17.64 g/m³ 44.79 g/m³) are within the limits of National Ambient Air Quality Standards (NAAQS) for both core & buffer zone. AAQ modeling study for all point source emissions indicates that the maximum incremental GLCs after the proposed expansion would be PM10- 1.68 g/m³, PM2.5-1.39 g/m³, NOx-3.48 g/m³, SO<sub>2</sub>- 3.03 g/m³, CO- 0.008 mg/m³. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).
- 12. The total existing water requirement for the operational industry is 126.2 KLD. Fresh water is used 5 KLD for domestic purposes, 26.2 KLD is used in greenbelt, 30 KLD used in process, 65 KLD is used in the Boiler & Cooling tower. 15 KLD effluent and 4 KLD sewage is generated.

The total water requirement after expansion during the non-monsoon season will be 1169 KLD. Fresh water will be used 55 KLD for domestic purposes, 430 KLD will be used in process, & 515 KLD will be used in Boiler & Cooling Tower, 169 KLD will be used in greenbelt. The total water requirement after expansion during monsoon season will be reduced to 1000 KLD. Fresh water will be used - 55 KLD for domestic purposes, 230.5 KLD will be used in the process. 302.5 KLD treated effluent, 80 KLD treated sewage and 132.5 KLD rainwater will be used in the Boiler & Cooling Tower. Greenbelt requirement during the rainy season will reduce to 0 KLD. 199.5 KLD rainwater will be used in the process. Fresh water will be sourced from Mettur Stanley Water Reservoir with the approval for Extraction of water obtained from Water Resources Department, Tamil Nadu vide proceeding Ref: R.C. 7193/ 2020/ A8 dated 21.12.2021.

- 13. Effluent of 315 KLD will be treated through ETP of 350 KLD capacity followed by RO of 350 KLD capacity & MEE of 40 KLD capacity. The treated effluent of 302.5 KLD will be reused in the Boiler and Cooling Tower. The plant will maintain the Zero Liquid discharge (ZLD) system for treating 315 KLD of Effluent generated.

  44.0 KLD sewage generated from the plant during the operation phase after expansion will be treated along with 45 KLD
- sewage from the external housing colony in STP of 100 KLD capacity. The treated sewage 80.0 KLD will be reused within the plant premises for greenbelt development.
- 14. Rainwater storage tank capacity: Four Nos. of rainwater collection tanks with dimensions 12m x 12m x 7.3m each, having a total capacity of about 4200 m<sup>3</sup> are proposed for collection of rooftop rainwater and storage of 2 days. First and second rain from rooftops of admin, engineering, and stores buildings will be collected in a proposed collection tank and sent to ETP for treatment.
- 15. Power requirement after expansion will be 8000 kW including existing 250 kW and will be met from Tamil Nadu Electrical Board (TNEB) Grid Supply. The existing unit has 1 No. DG set of 125 kVA capacity, additionally 02 No. of DG sets of 1500 kVA is proposed as standby during power failure. Stack height of 30m for will be provided as per CPCB norms to the proposed DG sets.
- 16. The existing unit has 1 No. of 1 TPH boiler. Additionally, 1 No. of 25 TPH boiler will be installed with a stack of height of 40 m for controlling the emissions statutory limit of PM 100 mg/Nm³,  $SO_2$  600 mg/Nm³,  $NO_x$  300 mg/Nm³ for the proposed boiler.
- 17. Details of fuel:

S. No.	Name of Fuel	Purpose of Use	Unit	Existing	Proposed	After Expansion	
				Quantity Quantity		Quantity	
1	HSD	DG Sets & Vehicles	TPD	0.3			
2	Furnace Oil*	Boiler (Existing)	TPD	0.9	11.25	11.25	
3	LSHS***	Boiler (Proposed)	TPD	-	-		
		Dryer Vent		-	2.5	2.5	
		HF Reactor Vent	KL/Day	-	13.0	13.0	
4	Hydrogen	M23 Gas Incinerator	TPD	0.2	0.2	0.4	

<sup>\*1</sup> TPH Boiler running on Furnace Oil will be discontinued after proposed expansion.

#### 18. Details of Process emissions including details of process stacks and incinerator (800 kg/day) and its management:

S.	Stack	No. of	Revised	APCM	Online	Parameter	Emission	Frequency of
No.	attached to	Stack	Stack		Analyser		limit/Concentration	Monitoring
			Height				of each Parameter	
			(m)			77		
					sting Stacl			
	M23	1	25	Incineration	-2-5		● HF - 1 mg/Nm <sup>3</sup>	CEMS and Manual
	Incine <mark>rator</mark>	-		followed by	Sealed	HCl, HF	● SO <sub>2</sub> - 200 mg/Nm	monthly manual
	Vent			venturi scrubber		100	3	sampling
	(1x 800			followed by 2			• NO <sub>x</sub> - 45 mg/Nm	through NABL
	kg <mark>/day)</mark>			stage water			3	Accredited
				scrubber followed			● HCl- 50 mg/Nm <sup>3</sup>	Laboratory
				by Adequate Stack	1 ×			
				Height	V			
				Prop	osed Stac	ks		
1	Stack	1	40	Bag Filter	-	PM	● PM-50 mg/Nm <sup>3</sup>	Monthly manual
	Attached to	0		followed by		25	● HF - 1 mg/Nm <sup>3</sup>	sampling
	Gypsum	$\sim$		Adequate Stack	c cla	15	• HCl- 35 mg/Nm <sup>3</sup>	through NABL
	Storage	0		Height	s It Div		o mer 33 mg/mi	Accredited
2	Stack	1	40	2 - Stage Water	Online	HF	.50	Laboratory
	Attached to	- <		Scrubber, 1 - Stage	analyser	E	9	
	AHF Plant			Caustic Scrubber	for HF		.07	
				followed by			210	
				Adequate Stack			0.Y'	
				Height				
3	Stack	1	40	Scrubber followed	men	HCl, HF		
	Attached to			by Adequate Stack				
	R32 Plant			Height				

#### Details of Utility emissions and its management:

Deta	cuits of emity emissions and its management.									
S.	Stack attached	No. of	Fuel Name &	Revised	APCM	<b>Emission Norms</b>	Frequency of Monitoring			
No.	to	Stack	its Quantity	Stack Height						
				( <b>m</b> )						
Existing Stacks										
1	Boiler	1	HSD, 0.9 TPD	30	Adequate	PM - 500 mg/Nm	CEMS shall be installed on			

<sup>\*\*</sup>The proposed 25 TPH Boiler will be designed to work on both LSHS and Natural Gas fuel. PP commits transitioning of fuel from LSHS with Natural Gas subject to availability after the expansion.

<sup>\*\*\*</sup>LSHS is Low Sulphur Heavy Stock.

	Г				1	1 3	1			
	1x 1 TPH*				Stack Height		Boiler stack			
						SO <sub>2</sub> - 600 mg/Nm <sup>3</sup>				
							Monthly manual sampling,			
2	DG Set 1x 125	1	HSD: 0.3 TPD	15	Adequate	PM - 30 mg/Nm <sup>3</sup>	through NABL Accredited			
	kVA				Stack Height	SO <sub>2</sub> - 100 ppm	Laboratory			
						$NO_x$ - 50 ppm				
	Proposed Stacks									
1	Boiler	1	LSHS:	45	Adequate	PM - 100 mg/Nm <sup>3</sup>	CEMS shall be installed on			
	1x 25 TPH		11.25 TPD		Stack Height	SO <sub>2</sub> - 600 mg/Nm <sup>3</sup>	Boiler, Dryer and HF			
						NOx - 300mg/Nm <sup>3</sup>	reactor vent			
2	DG Set 2x 1500	2	HSD: 0.3 TPD	30 m each	Adequate	PM - 30 mg/Nm <sup>3</sup>	and			
	kVA				Stack Height	SO <sub>2</sub> - 100 ppm	Monthly manual sampling,			
						$NO_x$ - 50 ppm	through NABL Accredited			
3	Fluorspar Dryer	1	LSHS:	40	Adequate	PM - 50 mg/Nm <sup>3</sup>	Laboratory			
	(20 Lacs Kcal/		2.5 TPD		Stack Height	SO <sub>2</sub> -100 mg/Nm <sup>3</sup>				
	Day) - 1 No.		e-,			$NO_x$ -300 mg/Nm <sup>3</sup>				
					//~					
4	HF Reactor	1	LSHS:	40	Adequate					
	Heating		13 KL/day		Stack Height					
	Chamber Vent				ata	~ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				
	(50 Lacs Kcal/		7 2 1							
	Day)-1 No.				1	7 7				
				$K \cap K$			S			

<sup>\*1</sup> TPH Boiler running on Furnace Oil will be discontinued after proposed expansion.

#### 19. Details of Solid waste/ Hazardous waste generation and its management are given in following tables:

### **Details of Solid Waste**

Category	Type of Waste		Quantity (TI	PA)	Treatment/Disposal
	9/5	Existing	Proposed	After	
	~ ~			Expansion	010
Biodegradable	Domestic/Organic Waste	3.03	9.75 Payme	12.78	Treatment in inhouse organic waste convertor (OWC) and use manure for horticulture development purposes in the premises
Non- Biodegradable	Recyclable Waste (Plastic, paper, wood, glass, etc.	4.54	14.62	19.16	Given to authorized recycler
7	Γotal	7.57	24.37	31.94	-

# **Details of Hazardous Waste Management**

S.	Type of Waste	Category*	Source of	Existing	Proposed	Total	Method of	Treatment /
No.			Generation			After	Collection/Storage	Disposal
						Expansion		
					TPA			

<sup>\*\*</sup>The proposed 25 TPH Boiler will be designed to work on both LSHS and Natural Gas fuel. PP commits transitioning of fuel from LSHS with Natural Gas subject to availability after the expansion.

1	Used or spent oil	5.1	Equipment	10	52	62	MS Drums	Recover and
			and	-				Reuse /
			Machineries					CPCB
								Authorized
								recyclers
								(Recyclers)
2	Wastes or residues	5.2	Process	1	50.5	51.5	MS Drums	Recover and
	containing oil							Reuse /
								CPCB
								Authorized
								recyclers/
								Coprocessing
3	Empty	33.1	Raw	25	105	130	Stored under roof	Recover and
	barrels/containers/liners		Material					Reuse /
	contaminated with		Storage					CPCB
	hazardous chemicals/		KAC					Authorized
	wastes		5.,			~	F	recyclers
4	Chemical sludge from	35.3	ETP &	25	1000	1025	Plastic Drums	Common
	wastewater treatment		MEE					Landfill /
	and MEE <mark>Plant</mark>			T				TSDF
5	Process or distillation	36.1	Process	50	105	155	MS Tanks	Incineration
	residue		D.			' J'		– Captive &
			1	7: Z	ald b	9 /	A. 1	CHWTSDF

<sup>\*</sup> As per HWM Rules, 2016

## **Details of Biomedical waste:**

Name of the Waste	Source	Qty (TPA)	Mode of Disposal	Mode of Transport
Soiled Waste	Occupational Health	0.05	Common Biomedical	By road
	Center		Waste Treatment Facilities	
Expired or discarded	Occupational Health	0.05	(CBWTFs)	By road
medicine	Center	Box	150	
Microbiology &	From Microbiology Lab	0.05	Sher	By road
Biotechnology	3		-0//	
&other clinical	70 s.		DEEL	
waste	~ ~ ~ · · · · · · · · · · · · · · · · ·	- 0		T
Waste Sharps	From Microbiology Lab	0.05	~0	By road
Contaminated Waste	OHC Medical Check up	0.05	19.0	By road
(Recyclable)			8	
Glassware	OHC Medical Check up	0.05	ents .	By road

# **Details of Other Waste:**

Name of the waste	Source	Qty (TPA)	Mode of disposal	Mode of transport
E-Waste	Office electronics items	0.01	Through authorized	By road
			vendor	
Battery waste	Battery waste Used battery		Through authorized	By road
			vendor	
Plastic Waste	Plastic Waste Site office and Admin		Will be handled through	By road
	Office		authorized recycler	

20. Public Hearing for the proposed project has been conducted by the Tamil Nadu Pollution Control Board on 23.12.2024. Public hearing notice was published on 16.11.2024 in 02 No. of prominent newspapers namely Daily Newspaper Dinathanthi (Tamil) and The New Indian Express (English). The Public Hearing was attended by 600 No. of persons. Public hearing was conducted at JKB Mahal, Thoppur - Bhavani Road, Near Karumalaikoodal police station, P.N. Patti, Mettur, Taluk, Salem district - 6364202 on 23.12.2024 presided by the District Collector, Salem District. Action plan to address the issues raised during public hearing is as given below:

Issue raised	Response/ Commitment from Project	Action Plan with time frame and budget
	Proponent	
Major concerns raised	In response the project proponent commits to	Table given Below
by the public were	einclude the following activities with timelines	
related to requesting	and budget: INR 45 Lakhs Establishment	
preference to loca	lvocational training centers in nearby villages	
people in employment	including Kavipuram & Karumalai Koodal,	
provision of clear	village, INR 50 Lakhs for Provision of Safe	
drinking water	Drinking Water Facilities to Neighbourhood	
groundwater	villages including Gonur villages, INR 90	
contamination, 8	Lakhs for upgradation of primary Health Care	
cleaning the road fr <mark>on</mark>	Centres, INR 50 Lakhs for upgradation of	
the spillage of m <mark>ateria</mark>	lprimary schools in nearby villages including	
during transpor <mark>tation t</mark> o	Tippampatti & Kaptoruti village, INR 50	
ensure road sa <mark>fety.</mark>	Lakhs for Infrastructure development at nearby	
	villages in School including P N Patti and	
	Kavipuram village, INR 60 lakhs for	
	Improvement of Sanitation Facilities in Nearby	
	Villages including karumalai koodal &	
	kavipuram village, INR 75 Lakhs for	
	Plantation (1,00,000 No.) in the nearby	
	villages & open areas (fast growing local and	
	medicinal species), INR 50 Lakhs Conducting	
	annual medical camps for the general public,	
	INR 25 Lakhs for Water Sprinkler to be	
	provided on roads to reduce fugitive emissions,	
	INR 15 Lakhs for Mechanized cleaning of road	
	& INR 30 Lakhs for Provision of Solar	
	light/street lights in nearby Villages. Total	
	Budget Allocated for Social Welfare is INR	
	540 lakhs in next 5 years.	
	All environmental related issues and social	
	improvement activities are to be resolved	
	involving the local public by constituting a	
	joint consulting mechanism. PP confirms that	
	they have good rapport with local panchayats	
	and public and all their social improvement	
	works are discussed with concerned panchayat	
	officials before being done.	

## **Details of Social Welfare Budget**

S. No.	Activity	Action Plan	Capital	Recurring
			Expenditure to be	Expenditure /year
			done in 5 years	
1	Skill development	Establishment vocational training centers in nearby	45	5

		villages including Kavipuram & Karumalai Koodal		
		village.		
2	Infrastructure	Provision of Safe Drinking Water Facilities to	50	5
	Development	Neighbourhood villages including Gonur village.		
3		Upgradation of primary healthcare centers	90	15
4		Upgradation of primary schools in nearby villages including Tippampatti & Kaptoruti village	50	10
5		Infrastructure development at nearby villages in School including P N Patti and Kavipuram village.	50	15
6		Improvement of Sanitation Facilities in in nearby villages including karumalai Koodal & Kavipuram village	60	12
7	Environment	Plantation (1,00,000 No.) in the nearby villages & open Areas (fast growing local and medicinal species)	75	20
8		Conducting annual medical camps for the general public	50	10
9		Water Sprinkler will be provided on roads to reduce fugitive emissions	25	5
10		Mechanized cleaning of road	15	7
11		Provision of Solar light/street lights in nearby Villages	30	5
		Total	540	109

- 21. Details/ Status of approved Wildlife Conservation Plan: Wildlife Conservation Plan for the 14 scheduled species has been prepared and submitted to DFO Salem on 21.03.2025.
- 22. There is no litigation pending against the project. No Violation of the EIA Notification 2006, its subsequent amendments.
- 23. Industry will develop greenbelt in an area of 40.14 % i.e. 84300 m<sup>2</sup> out of total area of the project i.e. 210000 m<sup>2</sup>. Considering @2,500 trees per hectare of green belt, Total Trees to 21,075 Nos. of trees to be planted. The No. of existing Tree Species is 1,437. So, total No. of Trees planted will be 19,638 Nos.
- 24. Total Employment will be 870 Nos. including construction & operation phases. 20 Nos. (permanent) and 500 Nos. (Temporary) will be employed during the construction phase, 107 Nos. (permanent) and 160 Nos. (Temporary) will be employed during the expansion phase of the unit, making 150 Nos. (permanent) and 200 Nos. (Temporary) after proposed expansion. Industry proposes to allocate Rs 540 Lakhs @ of 0.54% towards CER.
- 25. The estimated project cost is Rs 1206.46 Crore including existing investment of Rs 206.46 Crore. Proposed capital cost earmarked towards environmental pollution control measures is Rs 767.0 Lakhs and the proposed Recurring cost (operation and maintenance) will be about Rs 120.65 Lakhs per annum. The breakup of capital and recurring cost is as follows:

S.	Particulars	Proposed	Proposed	Basis for Cost Estimates
No.		Capital cost	Recurring cost	
			per annum	
		INI	R Lakhs	
1.	Air pollution control	150.0	15.0	APCS systems

			ı	Im
				(Process stack) =@ 10 lakh/ stack = 10 Lakhs x 3 = INR 30 Lakhs
				(Boiler, TFH, Flourspar Dryer, HF Reactor) = @ 10 Lakhs/ stack = 10 lakhs x 4 = INR 40 Lakhs
				DG Set = $@ 3.5 \text{ Lakhs} / \text{DG set} = 5 \text{ lakhs } x 2 = \text{INR } 10 \text{ Lakhs}$
				APCS Systems: Two Scrubber System @ 35 Lakh each= Rs.
				70 Lakhs
				Total: INR 150 Lakhs
				Recurring Cost: 10 % of Opex cost = 15 Lakhs
2.	Water pollution	500.0	130	ETP (350 KLD) = INR 200 Lakhs
	control			RO (350 KLD) = INR 150 Lakhs
				MEE( 40 KLD ) = INR 100 Lakhs
				STP (100 KLD) =INR 50 Lakhs
				Total: INR 500 Lakhs  Requiring Cost, Re. 125/ VI. v.215v. 220 (No. of Day) = Re.
			JVC	Recurring Cost: Rs 125/ KL x315x 330 (No. of Day) = Rs. 129.93 Lakhs = 130 lakhs
3.	Solid and Hazardous	7.0	70.0	Hazardous waste shed and disposal = INR 7 lakhs
٥.	Waste Management	7.0	70.0	Recurring Cost:
				Landfill: Rs. 4 per Kg = $2739$ Kg/day x 4 x $330$ = Rs.
			T	36,15,480 = Approx 36 Lakhs
			Q I	Incineration: Rs. 35 per Kg = 288 Kg/day x 35 x 330 =
			D 1	33,26,400
			I SER	=Approx Rs. 33.5 Lakhs
	25		28,	Co-processing: Rs. 1 per $Kg = 138 Kg/day \times 1 \times 330 = Rs. 45$ ,
	$\sim$		7/	540 = Approx 0.5 Lakhs
	T .			Total Rs. 70 Lakhs/Annum
4.	Environment	-	6.0	S S S S S S S S S S S S S S S S S S S
	Monitoring and Management			
5.	Green belt	72.0	10.0	Rs. 350 per sampling, no. of trees sampling 19,638 = INR 68
3.	Development	72.0	10.0	Lakhs.
	Bevelopment		3	Additional charges for replacement, safety guards etc.= INR 4
	6		°B.	lakhs
	\		tects	Total = 72 Lakhs
			10-	Rs. 50 per sampling for maintenance = $19638 \times 50 = 9,81,900$
	<b>へ</b>		PC	= Approx 10 Lakhs
6.	Occupational Health	8.0	16.5	Personal Protective Equipment (PPEs) = (Rs. 5 Lakhs), Safety
	(OHC)			training centre = INR 3 Lakhs
		-0		Total = 8 Lakhs
7.	Rain Water	30.0	2.0	04 No. of Rain Water Collection Tanks @ 5 Lakh each = 5 x 4
	Harvesting Tank & Storm Water Pond		e-Pay	= 20 Lakhs 01 No. of Storm Water Tank of 2100 cum = 5 Lakhs
	Storm water Pond			01 No. of Storm Water Tank of 2100 cum.= 5 Lakhs 01 No. of Storm Water Pond of 2100 cum. =Rs 5 Lakhs
				Total= 30 Lakhs
				Maintenance Cost of Rain water collection tank = Rs. 1.5
				Lakhs
				Maintenance Cost of Storm Water Pond = 0.5 Lakhs
				Total = 2.0 Lakhs
	Total	870	263.5	-
7.	Social Activity	540.0	109	INR 45 Lakhs Establishment vocational training centers in
	(CER)			nearby villages including Kavipuram & Karumalai Koodal
				village, INR 50 Lakhs for Provision of Safe Drinking Water
				Facilities to Neighbourhood villages including Gonur villages,
				INR 90 Lakhs for upgradation of primary Health Care Centres,

				INR 50 Lakhs for upgradation of primary schools in nearby
				villages including Tippampatti & Kaptoruti village, INR 50
				Lakhs for Infrastructure development at nearby villages in
				School including P N Patti and Kavipuram village, INR 60
				lakhs for Improvement of Sanitation Facilities in Nearby
				Villages including karumalai koodal & kavipuram village,
				INR 75 Lakhs for Plantation (1,00,000 No.) in the nearby
				villages & open areas (fast growing local and medicinal
				species), INR 50 Lakhs Conducting annual medical camps for
				the general public, INR 25 Lakhs for Water Sprinkler to be
				provided on roads to reduce fugitive emissions, INR 15 Lakhs
				for Mechanized cleaning of road & INR 30 Lakhs for
				Provision of Solar light/street lights in nearby Villages.
8.	Cost of conservation	66.0	-	The Proponent has proposed a sum of INR 66 Lakh for
	plan of Schedule-I			conservation of species.
	species		KYC	

S.	Parti <mark>cular</mark>	Activity	Amount Allocated
No.		DIY F	(INR Lakhs)
1.	Total Cost	R22 to R32 conversion project, R32 Project, AHF Project	120646
		व्याचीत कर	(Existing INR 20646 Lakhs
			+ Proposed INR 100000
		7 7	Lakhs)
2.	EMP Cost	Air pollution control, Water pollution control, Solid and	(Existing INR 32.12 Lakhs +
		Hazardous Waste Management, Green belt Development,	Proposed INR 870 Lakhs)
		Occupational Health (OHC), Rain Water Harvesting Tank &	
		Storm Water Pond	
3.	Recurring Cost	7 (5)	(Existing INR 34.0 Lakhs +
		2	Proposed INR 263.5 Lakhs)
4.	CER Cost	- 18°	540.0
5.	Land	210000 sq.m (21 ha)	
6.		The project proponent commits to include the following activit	_
	action plan in brief	INR 45 Lakhs Establishment vocational training centers i	
		Kavipuram & Karumalai Koodal village, INR 50 Lakhs for	
		Water Facilities to Neighbourhood villages including Gonur	_
		upgradation of primary Health Care Centres, INR 50 Lakhs	
		schools in nearby villages including Tippampatti & Kaptoru	
		Infrastructure development at nearby villages in School include	
		village, INR 60 lakhs for Improvement of Sanitation Facilities	, ,
		kar <mark>umalai koodal &amp; kavipuram</mark> village, INR 75 Lakhs for Pla	
		nearby villages & open areas (fast growing local and medic	-
		Conducting annual medical camps for the general public, INR	- 1
		to be provided on roads to reduce fugitive emissions, INI	
		cleaning of road & INR 30 Lakhs for Provision of Solar	_
		Villages. Total Budget Allocated for Social Welfare is INR 540	
7.	Green Belt	Greenbelt area of total 8.43 ha. (i.e. 40.14% of total plot area)	
		will be maintained. Considering @2,500 trees per hectare of	
		green belt, Total 21,075 Nos. of trees to be planted. The No. of	
		existing Tree Species is 1,437. So, total No. of Trees planted	
		will be 19,638 Nos.	
8.	Conservation Plan	14 No. of Schedule I species are found in the buffer area i.e. 1.	66.0
		Macaca radiata (Bonnet macaque), 2. Cervus unicolor (	

		Sambar), 3. Canis aureus (Jackal), 4. Urva edwardsii (Indian
		grey mongoose), 5. Varanus bengalensis (Bengal monitor
		lizard), 6. Python molurus (Indian rock python), 7.
		Chamaeleo zeylanicus (Indian Chameleon), 8. Naja naja (
		Indian Cobra), 9. Gallus sonneratii ( Grey junglefowl), 10.
		Pavo cristatus (Peafowl), 11. Viverricula indica (Small Indian
		Civet), 12. Melanochelys trijuga (Indian black turtle), 13.
		Cypsiurus balasiensis (Asian palm swift), 14. Glaucidium
		radiatum (Jungle Owlet). Conservation plan is prepared and
		submitted to DFO, Salem Division for approval on
		21.03.2025. The plan proposes an expenditure of INR 66 lakhs
		to be utilized over a five-year period for conservation efforts.
9.	Water Approval	Fresh water will be sourced from Mettur Stanley Water Reservoir with the approval for
		Extraction of water obtained vide Bilateral Water Drawal Agreement dated 09.10.2024 with
		validity upto 06.04.2028 from Water Resources Department, Tamil Nadu.
10.	Critical issues related	None
	to the project, (if any)	6

## **Breakup of CER cost**

S. No.	Activity	Action Plan	Capital Expenditure to be done in 5 years	Recurring Expenditure /year
1	Skill development	Establishment vocational training centers in nearby villages including Kavipuram & Karumalai Koodal village.	45	5
2	Infrastructure Development	Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village.	50	5
3		Upgradation of primary healthcare centers	90	15
4	6	Upgradation of primary schools in nearby villages including Tippampatti & Kaptoruti village	50	10
5	1 9	Infrastructure development at nearby villages in School including P N Patti and Kavipuram village.	50	15
6	10	Improvement of Sanitation Facilities in in nearby villages including karumalai Koodal & Kavipuram village	60	12
7	Environment	Plantation (1,00,000 No.) in the nearby villages & open Areas.  (fast growing local and medicinal species)	75	20
8		Conducting annual medical camps for the general public	50	10
9		Water Sprinkler will be provided on roads to reduce fugitive emissions	25	5
10		Mechanized cleaning of road	15	7
11		Provision of Solar light/street lights in nearby Villages	30	5
		Total	540	109

<sup>25.</sup> Action Plan to comply with the following mitigation measures as Per Ministry's Office Memorandum 31st October, 2019 regarding Projects located in Critically Polluted Area (CPA):

S.	Mitigation				Com	pliance			
	Measures as per				Com	phance			
	MoEF&CC OM								
	dated								
	31.10.2019								
Air	Act								
1.	Stipulation of	Deta	ails of Utility St	acks:					
	conditions such	S.	Stack	No. of	Fuel Name & its	Stack	APCM	Emission	Frequency of
	as:	No.	attached to	Stack	Quantity	Height		Norms	Monitoring
	i. Stack emission					( <b>m</b> )			
	levels should be					g Stacks			
	stringent than the	1	Boiler	1	Furnace Oil, 0.9 TPD	30	Adequate	PM - 500	CEMS shall be
	existing standards in		1x 1 TPH	N			Stack		installed on Boiler
	terms of the		(Shall be	100			Height	SO <sub>2</sub> - 600	stack
	identified critical		dismantled)					mg/Nm <sup>3</sup>	and
	pollutants.							NOx - 300	=
	ponutums.		D.C. C. 1. 105		TAGE OF TABLE	1.5		mg/Nm <sup>3</sup>	sampling, through NABL
		2	DG Set 1x 125 kVA	1	HSD: 0.3 TPD	15	Adequate	PM - 30	Accredited
			KVA		1	1.0	Stack Height	mg/Nm <sup>3</sup> SO <sub>2</sub> - 100	Laboratory
				1	वा रिवानि क		Height	_	Laboratory
	- 3			1 2		<b>?</b> '		$\begin{array}{c} \text{ppm} \\ \text{NO}_{\text{x}} - 50 \end{array}$	
				- 9)		6.57	*	ppm	
					Propose	ed Stack	 S	FF	
		1	Boiler*	1	LSHS:	45	Adequate	PM - 100	CEMS shall be
			1x 25 TPH		11.25 TPD (Shall be	30.	Stack	mg/Nm <sup>3</sup>	installed on
					replaced with		Height	SO <sub>2</sub> - 600	Boiler, Dryer and
				Z-\\	Natural Gas as fuel		?	mg/Nm <sup>3</sup>	HF reactor vent
				5/	based on	.5		NOx - 300	and
	l di			6	availability)	240		mg/Nm <sup>3</sup>	Monthly manual
		2	DC Cat 2rr	2	HSD: 0.3 TPD	20	Adaguata	DM 20	sampling,
		2	DG Set 2x 1500 kVA	2		30 m each	Stack	PM - 30 mg/Nm <sup>3</sup>	through NABL
			1300 K V A	. (	PC GREE	Cacii	Height	SO <sub>2</sub> - 100	Accredited Laboratory
					CCKE		Height	ppm	Laboratory
			100	7				$NO_x - 50$	
							- 640	ppm	
		3	Fluorspar	1	HSD:	40	Adequate	PM - 50	
			Dryer	- 6	2.5 TPD		Stack	mg/Nm <sup>3</sup>	
			(20 Lacs		- ymen		Height	SO <sub>2</sub> -100	
			Kcal/day) - 1					mg/Nm <sup>3</sup>	
			No.					$NO_{x}$ -300	
		4	HF Reactor	1	HSD:	40	Adequate	mg/Nm <sup>3</sup>	
			Heating		13 KL/day		Stack		
			Chamber Vent				Height		
			(50 Lacs						
			Kcal/day) -1 No.						
			INO.						
		<u>Deta</u>	ails of Process S	Stacks:					
			<del></del>						

	S.	Stack	No. of	Stack	APCM	Online	Parameter	Emission	Frequency
		attached to				<b>Analyser</b>		limit/Concentration	of
	,,,,		200011	(m)				of each Parameter	1
				(111)	E	xisting St	ack	01 04041 1 41 44440001	
	1	M23	1	25	Incineration		SOx, NOx,	· HF - 1 mg/Nm <sup>3</sup>	CEMS and
		Incinerator			followed by		HCl, HF	$\cdot$ SO <sub>2</sub> - 200 mg/Nm <sup>3</sup>	Manual
		Vent			venturi			$\cdot$ NO <sub>x</sub> - 45 mg/Nm <sup>3</sup>	monthly
		(1x 800			scrubber			· HCl- 50 mg/Nm <sup>3</sup>	manual
		kg/day)			followed by				sampling
					2-stage				through
					water				NABL
					scrubber				Accredited
					followed by				Laboratory
					Adequate				
				. ~	Stack				
			V.	Y L	Height				
			6		Pr	oposed St	acks		l
	2	Stack	1	40	Bag Filter	-	PM	· PM - 50 mg/Nm <sup>3</sup>	Monthly
		Attached to			followed by			$\cdot$ HF - 1 mg/Nm <sup>3</sup>	manual
		Gypsum		0	Adequate	T		$\cdot$ HCl- 35 mg/Nm <sup>3</sup>	sampling
		Storage		R	Stack	C			through
			D	· -	Height		) \		NABL
————————————————————————————————————	3	Stack	1 >	40	2-Stage	Online	HF		Accredited
		Attached to	4	600	Water	analyser			Laboratory
$\sim$		AHF Plant		<b>7/</b> /*	Scrubber, 1	for HF			
				/ ,	- Stage		\		
			- /		Caustic	100	1		
					Scrubber				
				$V_{k}$	followed by		/_		
			5	1 (6)	Adequate		13		
			- 33		Stack		£ .		
6	1	Ctools	1	40	Height	Online	HCL HE		
	4	Stack Attached to	1	40	Scrubber followed by	Online	HCl, HF		7
	9,	R32 Plant			Adequate	for HF			
		K32 Flain		CD	Stack	101 HI			
		<b>1</b> /2			Height	EL			
		2/2			Tieight	_1		~~~	
ii. CEMS may be	Exi	sting:					Q		
installed in all	· Tł	ne boiler stac	k has t	een fit	ted with CE	MS to en	sure monito	ring of emissions and	d the same
large/ medium	con	nected to the	SPCB a	& CPC	B server.				
red category	Afte	er Expansion							
industries (air	· Tł	ne proposed	boiler s	tack w	ill be fitted v	with CEM	IS to ensure	e monitoring of emis	sions and t
polluting) and	sam	e will be con	nected	to the S	PCB & CPC	B server.			
connected to	l								
SPCB and CPCB									
servers.									
					•	for propo	sed expansi	on are as under:	
fugitive emission					sures				
control measures	<u> </u>		Deta						
		ectors			th mechanica				
imposed in the	Cor	ndensers	Chill	ed wate	er condenser	to minimi	ze evaporat	ion losses.	
process of	D-	aaaa <b>C</b> aastaa	la o 1 T	7		~			
transportation,	Pro	cess Contro	s and I	Lmissio	n Monitorin	g			

packing etc	Aspects	Details					
	Scrubbers	Wet scrubbers to remove harmful gases and odors from industri					
		emissions					
	Instrumentation	Leakage detection and alarm system for critical equipment.					
	Charging	Liquid & solid raw materials will be done under vacuum wherev					
		necessary, pumps with mechanical seals to avoid leakages.					
	Closed Loop Systems	Used to arrest fugitive emissions.					
	Pipes	Installation of right leak proof valves. Valves and flanges preventi					
		maintenance program will be followed regularly. Regular monitor system for leaks					
	Dust and Fugitive Emission Control						
	Aspects	Details					
	Fugitive Emission	- Monitoring in the work zone environment.					
	Monitoring	- Strong ventilation and local exhaust systems.					
	Equipments	Regular inspection and maintenance.					
	The same will be followed	_					
iv.	_	s is being done via PUC compliant vehicles adhering to the safety norms					
-	of The same will be followed	after expansion as well.					
materials b <mark>y rai</mark>	1/						
conveyor bel	t,						
whereve <mark>r</mark>							
feasibl <mark>e</mark> .							
LSHS may b avoid <mark>ed</mark> ).	<mark>be avail</mark> able after the expansion	on.					
	st- The unit is already in co	ompliance with the latest norms in the manufacturing industry. The R&					
Available		reduce use of toxic chemicals and for low pollution load processes.					
	y- The same will be followe						
be used. For		rects if She					
example, usag	ge						
of EAF/SAF/I	F						
in place o	of						
Cupola furnace	e:						
Usage	of						
Supercritical							
0,	in						
place of sub	)-						
critical							
technology.							
		f 1.48 ha (33.01%) has been developed within the site which is 33.01%					
-	er the existing plant area. with						
-		on, the green belt will increase from 1.48 ha to 8.43 ha (40.14%), with					
	eatotal of 21,075 No. of trees	s of 17 different species.					
beyond th	ie						
permissible							
•	of						
33%, whereve	arl						
feasible.							

Stipulation-PP commits for Plantation of about 1,00,000 no. of trees in the nearby villages & common areas as viii. of greenbeltpart of CER activity for which a budget of INR 75 Lakhs is proposed to be spent in 5 years. outside the project premises such as avenue plantation, plantation in vacant areas. social forestry, etc. ix. Assessment- The existing roads inside the industrial area are of sufficient carrying capacity for the proposed of carrying project and also the carrying capacity of approach road will not be exceeded due to the proposed of expansion and therefore widening of roads is not proposed. capacity The vehicle movement area is on paved surface to avoid dusting. transportation load on roads- A budget of INR 15 lakhs is proposed for mechanized cleaning of roads. inside the- A budget of INR 25 lakhs is proposed for Water Sprinklers to be provided on roads to reduce industrial fugitive emissions. premises. If the roads required to be widened, shall be prescribed as a condition. 2 Water **Stipulation** of-Existing effluent of 15 KLD is generated from Boiler & Cooling Tower, is being treated in ETP conditions such (30 KLD Capacity) & 13.5 KLD treated effluent is reused in Boiler & Cooling Tower makeup. After proposed expansion, as: Reuse/recycle During Non Monsoon season: Effluent of 315 KLD will be generated (200 KLD from process & of treated 115 KLD from Boiler & Cooling Tower), will be treated in proposed ETP (350 KLD capacity), followed by RO (350 KLD Capacity) followed by MEE (40 KLD capacity) for treatment. wastewater, wherever - Treated effluent 302.5 KLD will be reused in Boiler & Cooling Tower makeup. feasible. **During Monsoon season:** - Treated effluent 302.5 KLD will be reused in Boiler & Cooling Tower makeup. - 332 KLD rainwater will be reused - 199.5 KLD in Process and remaining 132.5 KLD in Boiler & Cooling Tower makeup. Continuous- Our unit operates under a Zero Liquid Discharge (ZLD) system, wherein the entire quantity of of treated effluent is recycled and reused within the plant premises and there is no final discharge to the monitoring effluent quality/environment. quantity in large- We continue to maintain records of our treatment performance, flow data, and water quality, which and medium Redare readily available for review by regulatory authorities. Our unit remains fully aligned with the objectives of the CEPI Action Plan and is committed to Category Industries (water maintaining environmental compliance. Further we assure to install necessary systems for continuous monitoring of effluent quality polluting). quantity and shall be connected to the TNPCB server. iii. A detailed After the proposed expansion, for rooftop rainwater collection, 04 Nos. of rainwater collection water harvesting tanks with dimensions 12m x 12m x 7.3m each, having a total capacity of about 4200 cum are be proposed for collection of rooftop rainwater and storage of 2 days. submitted by the Stormwater will be collected in a proposed rainwater collection pond with a total capacity of about 2100 cum and storage of 2 days of stormwater.. Afterward 2<sup>nd</sup> rainfall excess runoff will be project channelised to the storm water drainage of the area. proponent - 332 KLD rainwater harvested will be reused during monsoon season. iv. Zero liquid- The unit is maintaining Zero liquid discharge and in the existing unit 15 KLD of effluent is sent to discharge ETP & treated effluent of 13.5 KLD is reused in Boiler & Cooling Tower makeup. wherever techno- After the proposed expansion, 315 KLD of effluent will be sent to ETP of 350 KLD followed by economically RO (350 KLD) and MEE (40 KLD) and treated effluent of 302.5 KLD will be reused in Boiler &

	T								
			ling Tower makeup, thus						
	v. In case,	- In	the existing unit, domes	tic waste wat	er generat	ion projec	eted is 4 K	LD and is	treated in the
	domestic waste	exis	ting STP of capacity 100 I	KLD and 3.2 I	KLD treate	ed sewage	is reused in	greenbelt d	levelopment.
	water generation	- A	fter Expansion, sewage o	of 44 KLD w	ill be gen	erated fro	m plant &	45 KLD (	from housing
	is more than 10	colo	ony) will be treated in exi	sting STP of	100 KLD	& 80 KI	D treated	sewage will	be reused in
			enbelt development.	_				_	
	industry may		•						
	install STP.								
	Land								
		Δn	existing green area of 1.4	8 ha (33 01%)	has been	develope	d within the	s cite which	is 33.01% of
٥.	-		existing plant area.with 14			developed	a within the	Site willen	18 33.01 /0 01
			the proposed expansion,			nasa from	1 10 ho to	Q 12 ho (10	1.40%) with a
	as:			_		ease mom	1.46 Ha to	6.43 Ha (40	.14%), wiiii a
		tota	1 of 21,075 No. of trees of	17 different sp	pecies.				
	green belt cover								
	by 40% of the								
	total land area								
	beyond the								
	permissible								
	requirement of								
	33%, wherever								
	feasible fo <mark>r new</mark>								
	projects.								
	ii. Stipu <mark>lation of</mark>	- PF	commits for Plantation or	f about 1,00,0	00 no. of t	rees in the	nearby vil	lages & con	nmon areas as
	greenbelt outside	part	of CER activity for which	a budget of I	NR 75 La	khs is prop	osed to be	spent in 5 y	ears.
	the project								
	premises such as								
	premises such as avenue								
	avenue								
	avenu <mark>e</mark> plantation,								
	avenue plantation, plantation in								
	avenue plantation, plantation in vacant areas,								
	avenue plantation, plantation in vacant areas, social forestry,								
	avenue plantation, plantation in vacant areas, social forestry, etc.	Tvn	e of waste, source of gene	ration categor	w schedu	le and moo	de of dispos	ral as under	
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of		e of waste, source of gene	ration, categor	y, schedu	le and moo	de of dispos	al as under:	
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash,	(a)	Hazardous Waste:	rects if S	MC 12			Α	7
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud,	(a) S.		HW	MC 12	le and mod	Total	Method of	Treatment /
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be	(a) S. No.	Hazardous Waste:	rects if S	MC 12	Proposed	Total After	Method of Collection/	7
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at	(a) S. No.	Hazardous Waste:	HW	MC 12	Proposed	Total	Method of Collection/	Treatment /
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated	(a) S. No.	Hazardous Waste:  Type of Waste	HW Category*	Existing	Proposed TPA	Total After Expansion	Method of Collection/ Storage	Treatment / Disposal
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations	(a) S. No.	Hazardous Waste:	HW	MC 12	Proposed	Total After Expansion	Method of Collection/ Storage	Treatment /
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by	(a) S. No.	Hazardous Waste:  Type of Waste	HW Category*	Existing	Proposed TPA	Total After Expansion	Method of Collection/ Storage	Treatment / Disposal
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations	(a) S. No.	Hazardous Waste:  Type of Waste	HW Category*	Existing	Proposed TPA	Total After Expansion	Method of Collection/ Storage	Treatment / Disposal Recover and
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by	(a) S. No.	Hazardous Waste:  Type of Waste	HW Category*	Existing	Proposed TPA	Total After Expansion	Method of Collection/ Storage	Treatment / Disposal  Recover and Reuse /
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by	(a) S. No.	Hazardous Waste:  Type of Waste	HW Category*	Existing	Proposed TPA	Total After Expansion	Method of Collection/ Storage	Treatment / Disposal  Recover and Reuse / CPCB
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by	(a) S. No.	Hazardous Waste:  Type of Waste	HW Category*	Existing	Proposed TPA	Total After Expansion	Method of Collection/ Storage MS Drums	Treatment / Disposal  Recover and Reuse / CPCB Authorized recyclers
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by	(a) S. No.	Hazardous Waste: Type of Waste  Used or spent oil  Wastes or residues	HW Category*	Existing 10	Proposed  TPA  52	Total After Expansion	Method of Collection/ Storage MS Drums	Treatment / Disposal  Recover and Reuse / CPCB Authorized recyclers Recover and
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by	(a) S. No.	Hazardous Waste:  Type of Waste  Used or spent oil	HW Category*	Existing 10	Proposed  TPA  52	Total After Expansion	Method of Collection/ Storage MS Drums	Treatment / Disposal  Recover and Reuse / CPCB Authorized recyclers Recover and Reuse /
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by	(a) S. No.	Hazardous Waste: Type of Waste  Used or spent oil  Wastes or residues	HW Category*	Existing 10	Proposed  TPA  52	Total After Expansion	Method of Collection/ Storage MS Drums	Recover and Reuse / CPCB Authorized recyclers Recover and Reuse / CPCB
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by	(a) S. No.	Hazardous Waste: Type of Waste  Used or spent oil  Wastes or residues	HW Category*	Existing 10	Proposed  TPA  52	Total After Expansion	Method of Collection/ Storage MS Drums	Recover and Reuse / CPCB Authorized recyclers Recover and Reuse / CPCB Authorized
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by	(a) S. No.	Hazardous Waste: Type of Waste  Used or spent oil  Wastes or residues	HW Category*	Existing 10	Proposed  TPA  52	Total After Expansion	Method of Collection/ Storage  MS Drums  MS Drums	Treatment / Disposal  Recover and Reuse / CPCB Authorized recyclers  Recover and Reuse / CPCB Authorized recyclers/
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by	(a) S. No.	Type of Waste  Used or spent oil  Wastes or residues containing oil	HW Category*  5.1	Existing  10	TPA 52 50.5	Total After Expansion 62 51.5	Method of Collection/ Storage MS Drums	Recover and Reuse / CPCB Authorized recyclers Recover and Reuse / CPCB Authorized recyclers/ CPCB Authorized
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by	(a) S. No.	Type of Waste  Used or spent oil  Wastes or residues containing oil  Empty barrels/containers/	HW Category*	Existing 10	Proposed  TPA  52	Total After Expansion	Method of Collection/ Storage  MS Drums  MS Drums	Recover and Reuse / CPCB Authorized recyclers Recover and Reuse / CPCB Authorized recyclers/ Copclers/ Coprocessing Recover and
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by	(a) S. No.	Used or spent oil  Wastes or residues containing oil  Empty barrels/containers/ liners contaminated with	HW Category*  5.1	Existing  10	TPA 52 50.5	Total After Expansion 62 51.5	Method of Collection/ Storage MS Drums	Treatment / Disposal  Recover and Reuse / CPCB Authorized recyclers Recover and Reuse / CPCB Authorized recyclers/ Coprocessing Recover and Reuse / CPCB
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by	(a) S. No.	Type of Waste  Used or spent oil  Wastes or residues containing oil  Empty barrels/containers/	HW Category*  5.1	Existing  10	TPA 52 50.5	Total After Expansion 62 51.5	Method of Collection/ Storage  MS Drums  MS Drums	Recover and Reuse / CPCB Authorized recyclers Recover and Reuse / CPCB Authorized recyclers/ Coprocessing Recover and Reuse / Coprocessing
	avenue plantation, plantation in vacant areas, social forestry, etc. iii. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by	(a) S. No.	Used or spent oil  Wastes or residues containing oil  Empty barrels/containers/ liners contaminated with	HW Category*  5.1	Existing  10	TPA 52 50.5	Total After Expansion 62 51.5	Method of Collection/ Storage  MS Drums  MS Drums	Treatment / Disposal  Recover and Reuse / CPCB Authorized recyclers Recover and Reuse / CPCB Authorized recyclers/ Coprocessing Recover and Reuse / CPCB

							recyclers
4	Chemical sludge from	35.3	25	1000	1025	Plastic	Common
	wastewater treatment					Drums	Landfill /
							TSDF
5	Any process or	36.1	50	105	155	MS Tanks	Incineration
	distillation residue						<ul><li>Captive &amp;</li></ul>
							CHWTSDF

\*As per HWM Rule 2016

## (b) Solid Waste:

Category	Type of Waste	Existing	Proposed	After	Treatment Method
				Expansion	
		Q	uantity (	ГРА)	
Domestic	Solid Waste	3.03	9.75	12.78	Treatment in inhouse organic
Waste	(Biodegradable)				waste convertor (OWC) and
	KYC			Ca.	use manure for horticulture
	6			745	development purposes in the
					premises
Office and	Recyclable Waste	4.54	14.62	19.16	Given to authorized recycler
related	(Plastic, paper, wood,		77		
Operations	glass, etc.)		E ,		

# (c) Biomedical Waste:

Name of the Waste	Source	Qty	Mode of Disposal	Mode of
7/2		(TPA)		Transport
Soiled Waste	Occupational	0.05	Common Biomedical	By road
	Health Center	$\langle II \rangle$	Waste Treatment	
Expired or discarded	Occupational	0.05	Faci <mark>lit</mark> ies	By road
medicine	Health Center	07/11	(CBWTFs)	
Microbiology &	From	0.05		By road
Biotechnology &other clinical	Microbiology Lab	11 25		
waste		000		
Waste Sharps	From	0.05		By road
	Microbiology Lab		/ A	
Contaminated Waste	OHC Medical	0.05		By road
(Recyclable)	Check up		9	
Glassware	OHC Medical	0.05	(C)	By road
7C0	Check up		200	

## (c) Other Waste:

Source	Qty	Mode of disposal	Mode of
	(TPA)		transport
Office electronics	0.01	Through authorized vendor	By road
items			
Used battery	0.6	Through authorized vendor	By road
Site office and Admin	1.0	Will be handled through	By road
Office		authorized recycler	
	Office electronics items Used battery Site office and Admin	Office electronics 0.01 items Used battery 0.6 Site office and Admin 1.0	Office electronics 0.01 Through authorized vendor items  Used battery 0.6 Through authorized vendor Site office and Admin 1.0 Will be handled through

iv. More Wastes or residues containing oil (51.5 TPA) shall be disposed off with co-processing and reduce stringent norms the load on landfill and incineration at TSDF.

for management

of hazardous

waste. The waste

	generated should					
	be preferably					
	utilized in co-					
	processing.					
4.	Other Condition	(Ad	ditional):			
				third party to monitor the compliance	of the condition and	d will submit EC
			pliance every ye			
	EC conditions	l	r			
	may be					
	submitted with a					
	third party audit					
	every year.					
		Δ to	tal amount of IN	NR. 5.40 Crores would be utilized for	Corporate Environme	ent Responsibility
		l		of proposed project cost i.e., INR 1000	-	che Responsibility
	least 1.5 times	_	Activity	Action Plan	Capital	Recurring
	the slabs given in		Activity	Action I lan	Expenditure to be	Expenditure
	the OM dated			> · · · · · · · · · · · · · · · · · · ·	done in 5 years	/year
	01.05.2018 for		Skill	Establishment vocational training	45	5
	SPA and 2 times	_	development	9	43	3
	for CPA in case		development	centers in nearby villages including		
	of			Kavipuram & Karumalai Koodal		
	Environmental		Y 0	village.	<b>7</b> 0	_
		2	Infrastructure	Provision of Safe Drinking Water	50	5
	Clearanc <mark>e</mark> .	-	Development	Facilities to Neighbourhood villages	A 1	
				including Gonur village.		
	$\sim$	3		Upgradation of primary healthcare	90	15
				centers		
		4		Upgradation of primary schools in	50	10
				nearby villages including Tippampatti		
				& Kaptoruti village		
		5		Infrastructure development at nearby	50	15
				villages in School including P N Patti		
	0			and Kavipuram village.		
		6		Improvement of Sanitation Facilities in	60	12
		0		in nearby villages including karumalai	60	
		3		Koodal & Kavipuram village	- S'	
		7	Environment	Plantation (1,00,000 No ) in the nearby	75	20
				villages & open Areas.	, C'	
				(fast growing local and medicinal	~(0)	
				species)	X,	
		8		Conducting annual medical camps for	50	10
				the general public		
		9		Water Sprinkler will be provided on	25	5
				roads to reduce fugitive emissions		
		10		Mechanized cleaning of road	15	7
		11		Provision of Solar light/street lights in	30	5
		* *		nearby Villages		J
				Total	540	109
				Total	J <b>-1</b> U	107

# 26. **Deliberations by the EAC:**

The following points were discussed in the meeting:

- 1. PP submitted an undertaking stating that the production capacity has never exceeded the consented capacity since the plant's commissioning in 1987 and has been always in line with the Consent to Operate obtained prior to the EIA Notification, 2006.
- 2. PP clarified that the Public Works (Irrigation) Department, Government of Madras Province vide Government Order (MS) No. 990 dated 17.05.1937 alienated 72.4 acres of land to Mettur Chemicals and Industrial Corporation Limited for setting up the industrial facility. Mettur Chemicals and Industrial Corporation Limited amalgamated with M/s. Chemplast Sanmar Limited (formerly known as Chemicals and Plastics India Limited). This scheme of amalgamation was approved by the Hon'ble High Court of Madras vide its order dated 27.11.1989 in C.P No.13/1989 and the above said lands stood vested in the name of Chemplast Sanmar Limited along with "all the undertakings, properties, rights and powers, investments, inventories and all assets". Copies of G.O. by the Public Works Irrigation Department dated 17.05.1937 and the Hon'ble High Court Order dated 27.11.1989.
- 3. PP informed that Stanley Reservoir is located within 400 m from the project site, hence proposed a five-layer protection system as environmental safeguards for nearby schools & water bodies, which is as follows:

#### 1st Layer Protection: Active Safeguard

#### **Design control:**

- · Storage tanks for chemicals like R32, AHF etc. will be installed with redundancy. In case of any leak, one empty tank will always be ready to receive material from tanks that are in service.
- · Adequate Dyke systems for containment of liquid.
- · 2-levels of water curtain for AHF storage.

**Emission Control:** As the primary line of defense, the system is fully automated. It includes adequately designed scrubbers to effectively control and minimize the impact of potential hazardous emissions.

#### **Automated Systems and Sensors:**

- · Activation of water curtains in AHF storage through automated valves in case of any detection by sensors.
- The plant is equipped with a Distributed Control System (DCS), interlocking systems, and sensors to detect the presence of AHF, CHCl<sub>3</sub>, CHClF<sub>2</sub>, and CH<sub>2</sub>F<sub>2</sub>. A Leak Detection and Repair (LDAR) Standard Operating Procedure (SOP) will be strictly enforced.

#### 2<sup>nd</sup> Layer Protection: Secondary Detection

**Automated Systems and Sensors:** A secondary array of sensors and alarms, designed to detect the same chemicals (AHF, CHCl<sub>3</sub>, CHClF<sub>2</sub>, and CH<sub>2</sub>F<sub>2</sub>), will be installed along the project's boundary wall.

**Early Warning System:** These secondary systems provide redundant detection and serve as an early warning system for the surrounding environment.

#### 3<sup>rd</sup> Layer Protection: Passive Safeguard

Green Belt/Vegetation Barrier: A dense green belt, acting as a passive protection barrier, will be established at the site's periphery. The green belt will range in width from 38 m to 94 m (comprising 10 to 25 tree rows) on the northeast side, adjacent to Kavipuram village; approximately 50 m to 110 m (12 - 28 tree rows) on the west-southwest side, adjacent to the school; and approximately 50 m to 100 m (12 to 25 tree rows) on the north side, adjacent to worship places. This green belt will help mitigate the spread of hazardous emissions through natural absorption and filtration. It will also create a natural boundary, providing an additional layer of protection for surrounding areas, including Kavipuram village, P.N. Patti village, the school, and other sensitive locations.

**Strategic Location of Bulk Storage:** Bulk chemical storage is strategically located at a safe distance from sensitive areas, including P.N. Patti village, Kavipuram Village, schools, and hospitals.

#### 4th Layer Protection: Emergency Response and Evacuation

**Emergency Response Team:** Comprehensive on-site and off-site emergency response plans will be implemented, and a dedicated emergency response team will be maintained to effectively manage incidents. Regular training and audits will be conducted to ensure preparedness.

**Evacuation Plans:** Established protocols will ensure the timely evacuation of personnel to designated assembly points in the event of an emergency.

**Mock Drills and Trainings:** To enhance community preparedness, regular mock drills and training exercises, conducted at least annually, will involve nearby schools, hospitals, and the surrounding community, including P.N. Patti village.

#### **5th Layer Protection: Power Backup and Contingency**

Power Failure Contingencies: In the event of a power failure during an emergency, automated diesel generator (DG) sets

will ensure the safe shutdown of plant operations. Uninterruptible power supply (UPS) systems will provide backup power for critical systems.

- 4. PP informed that as per MSIHC rules, 1989, Hydrogen fluoride (HF) falls under Schedule III, Part 1, Group 2-Toxic Substances (Sl. No. 115) and the proposed storage quantity is 48 Tons, which falls under threshold quantity (for application of Rules 5, 7-9 and 13-15) i.e., 5 Ton and Quantity for application under Rule of 10-12, i.e., 50 Tons. Hence, Rules 5, 7-9 and 13-15 is applicable.
- 5. PP also clarified that the Hon'ble NGT OA No. 673/2018 emphasizes on abatement of Pollution of River stretches across India. The said order is not applicable to this project as this unit has adopted Zero Liquid Discharge and no Waste water from the site is being discharged into the drain or any water body. The treated wastewater is being reused within plant premises.
- 6. PP reported that the gypsum from the process will be stored in a closed carbon steel silos to protect it from environmental factors such as moisture and direct sunlight, ensuring its long-term integrity. Further, gypsum storage area will be provided with covered shed with concrete floor and leachate collection and treatment system.
- PP submitted a NOC obtained vide letter 14.05.2025 dated from the Water Resource Department regarding Expansion of the Unit.
- 7. PP submitted revised CER and EMP budget.
- 8. PP submitted the Action Plan to comply with the following mitigation measures as Per Ministry's Office Memorandum 31st October, 2019 regarding Projects located in Critically Polluted Area (CPA).
- 9. PP submitted the revised process & utility stack details with updated worst case GLC.
- 10. PP proposed for discontinuation of the existing 1 TPH Boiler running on Furnace Oil.
- 11. The proposed 25 TPH Boiler will be designed in such a way that it can work on both LSHS and Natural Gas as a fuel. PP committed to transitioning to a natural gas fuel whenever it becomes available.

The committee was satisfied with the response provided by PP on above information.

The EAC deliberated the Onsite and Offsite Emergency plans and also the various mitigation measures proposed during the implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, as amended from time to time.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for the grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate-legislations, etc., as may be applicable to the project. The PP shall obtain n ecessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

26. Based on the proposal submitted by the PP and recommendations of the EAC, in its 100<sup>th</sup> EAC held on 13-14 May,

2025 (Industry-3 Sector), the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance for "Proposed Expansion of Refrigerant Gases Manufacturing Unit located at Ward-D, Block-2, TS-2A, 2B, Block-3, TS-1, Block-5, TS-1 of Village and Taluk Mettur, Salem District, Tamil Nadu - 636001 by M/s. Chemplast Sanmar Limited" under the provisions of the EIA Notification 2006 and its subsequent amendments therein, subject to compliance of the Specific and General terms and conditions as mentioned at Annexure-1. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

- 27. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.
- 28. 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.
- 29. The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing 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.
- 30. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.
- 31. 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.
- 32. 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.

# e-Payments

- 33. 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.
- 34. The above conditions will 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, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

This issues with the approval of the Competent Authority.

Specific EC Conditions for (Synthetic Organic Chemicals Industry)

# 1. Specific Conditions

S. No	EC Conditions
1.1	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
1.2	Bag Filter followed by 35 m Stack Height shall be provided to Gypsum storage. 2 - Stage Water Scrubber, 1 - Stage Caustic Scrubber followed by 35 m Stack Height shall be provided to AHF Plant. Online analyser shall be installed for monitoring HF emissions. Scrubber followed by 35m Stack Height to R 32 plant. venturi scrubber followed by 2 stage water scrubber followed by 25m Stack Height shall be provided to R23 Gas Incinerator. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.
1.3	Stack height of 45 m shall be provided to the proposed HSD fired Boiler (1x25 TPH) as per CPCB /SPCB norms. Stack height of 40 m shall be provided to the proposed HSD fired Fluorspar Dryer (1x20 Lacs Kcal/ Day) as per CPCB /SPCB norms. Stack height of 40 m shall be provided to the proposed HSD fired HF Reactor Heating Chamber Vent (50 Lacs Kcal/ Day) as per CPCB /SPCB norms. Stack height of 30 m each shall be provided to DG set (2x1500 KVA) as per CPCB/SPCB norms. PP shall replace LSHS with cleaner fuel such as natural gas/ HSD in time bound manner in the existing unit. No furnace oil shall be used as fuel.
1.4	As proposed, a five-layer protection system as environmental safeguards for nearby schools & water bodies, etc shall be provided by the project proponent.
1.5	Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB.
1.6	Total fresh water requirement from Mettur Stanley Water Reservoir shall not exceed 786 KLD.
1.7	NOC from the concerned Authority shall be obtained before start of the expansion of plant for surface water supply for the project activities. State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
1.8	Industrial effluent generation shall not exceed 315 KLD. Industrial Effluent shall be treated in the ETP comprising primary, secondary and tertiary treatment facility followed by RO. RO rejects shall be evaporated in the MEE. The treated effluent of 302.5 KLD shall be reused in the Boiler and Cooling Tower. The plant will maintain the Zero Liquid discharge (ZLD) system. Sewage shall be treated in the STP. The treated sewage of 80.0 KLD will be reused within the plant premises for

S. No	EC Conditions
	greenbelt development. Industrial unit shall maintain ZLD.
1.9	The unit shall make necessary arrangement along the periphery of the plant area to channelize the storm water to collection pit. Storm water after treatment shall be recycled /reused for cooling make up/in process. pH meter, ToC analyzer, Ammonical Nitrogen analyzer & Flow meter shall be installed to check the quality of storm water and records shall be maintained
1.10	The green belt of adequate width shall be developed in an area of 84300 sq m (40.14%) within plant premises. The industry will plant 21075 nos. of trees/saplings/plants within premises. The green belt will range in width from 38 m to 94 m (comprising 10 to 25 tree rows) on the northeast side, adjacent to Kavipuram village; approximately 50 m to 110 m (12 - 28 tree rows) on the west-southwest side, adjacent to the school; and approximately 50 m to 100 m (12 to 25 tree rows) on the north side, adjacent to worship places. Tree saplings selected for the plantation should be of sufficient height, preferably 6-ft shall be planted in greenbelt area. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
1.11	Plantation of saplings shall be carried out as a part of tree plantation campaign "EK PED MAA ke NAAM" and details of the same to be uploaded in the Meri LiFE portal (https://merilife.nic.in) in respect to this Ministry's OM No. IA3-22/3/2024-IA.III(E-241594) dated 24th July 2024.
1.12	Roof top rain water shall be collected in 4 x 12mx 12mx 7.3m underground RCC storage tank. The rain water collected shall be reused within the plant after filtration as per requirement. Storm water from the open area shall be collected separately and stored in an underground RCC storage tank, which shall be recycled/reused within the plant premises.
1.13	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP Rs. 870 Lakh (Capital cost) and Rs. 263.5 Lakh per annum (Recurring cost)] shall be kept in a separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.
1.14	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
1.15	No banned chemicals shall be manufactured by the project proponent. No banned raw materials

S. No	EC Conditions
	shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
1.16	The project proponent shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21.7.2010 under the provisions of the Environment (Protection) Rules, 1986.
1.17	PP shall not produce or consume Ozone Depleting Substances without registration under Ozone Depleting Substances (Regulation and Control) Rules 2000 as amended from time to time.
1.18	Captive hazardous waste incinerator shall be designed according to the guidelines provided by the Central Pollution Control Board (CPCB). The incinerator shall meet specific performance standards and pollution control norms. Incinerated ash shall be sent to treatment storage disposal facility (TSDF).
1.19	All the hazardous waste shall be managed and disposed as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration site or send for coprocessing. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet garbage shall be converted into compost and used as manure for greenbelt development.
1.20	A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions by engaging Environment Officials. In addition to this, one safety & health officer as per the qualification given in Factories Act, 1948 shall be engaged within a month of grant of EC. The PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.
1.21	The PP shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
1.22	All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred.
1.23	The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

S. No	EC Conditions
1.24	The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
1.25	The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
1.26	Training shall be imparted to all employees on safety and health aspects for handling chemicals.  Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.
1.27	The unit shall make the arrangement for the protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
1.28	The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
1.29	The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.
1.30	There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places.
1.31	Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Chemicals shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
1.32	PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.
1.33	The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in

S. No	EC Conditions
	letter and spirit.
1.34	As proposed, PP shall comply with the following mitigation measures as Per Ministry's Office Memorandum 31st October, 2019 regarding Projects located in Critically Polluted Area. (As per annexure-3).

#### Standard EC Conditions for (Synthetic organic chemicals industry)

#### 1.

S. No	EC Conditions
1.1	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
1.2	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
1.3	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
1.4	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
1.5	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
1.6	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
1.7	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

S. No	EC Conditions
1.8	The project proponent shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
1.9	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.
1.10	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
1.11	The project authorities 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 and the date of start of the project.
1.12	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

## **Additional EC Conditions**

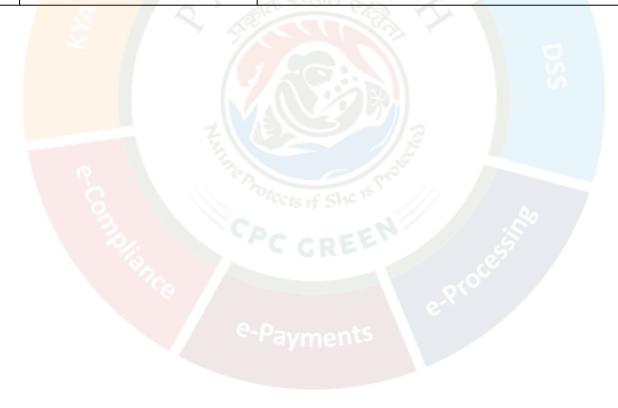
N/A

Annexure 2

### **Details of the Project**

S. No.	Particulars	Details Details					
a.	Details of the Project	Expansion of Refrigerant Gases Manufacturing Unit					
b.	Latitude and Longitude of the project site	11.80360002265718,77.81716431234149 11.80870458658413,77.8228667475318					
	Land Requirement (in Ha) of the	Nature of Land involved	Area in Ha				
c.	project or activity	Non-Forest Land (A)	4.48				

S. No.	Particulars	Details					
		Nature of Land involved	Area in Ha				
		Forest Land (B)	0				
		Total Land (A+B)	4.48				
d.	Date of Public Consultation	Public consultation for the project was held o	n				
e.	Rehabilitation and Resettlement (R&R) involvement	NO					
f.	Project Cost (in lacs)	120646					
g.	EMP Cost (in lacs)	307.12					
h.	Employment Details	2 5618					



As proposed, PP shall comply with the following mitigation measures as Per Ministry's Office Memorandum 31st October, 2019 regarding Projects located in Critically Polluted Area.

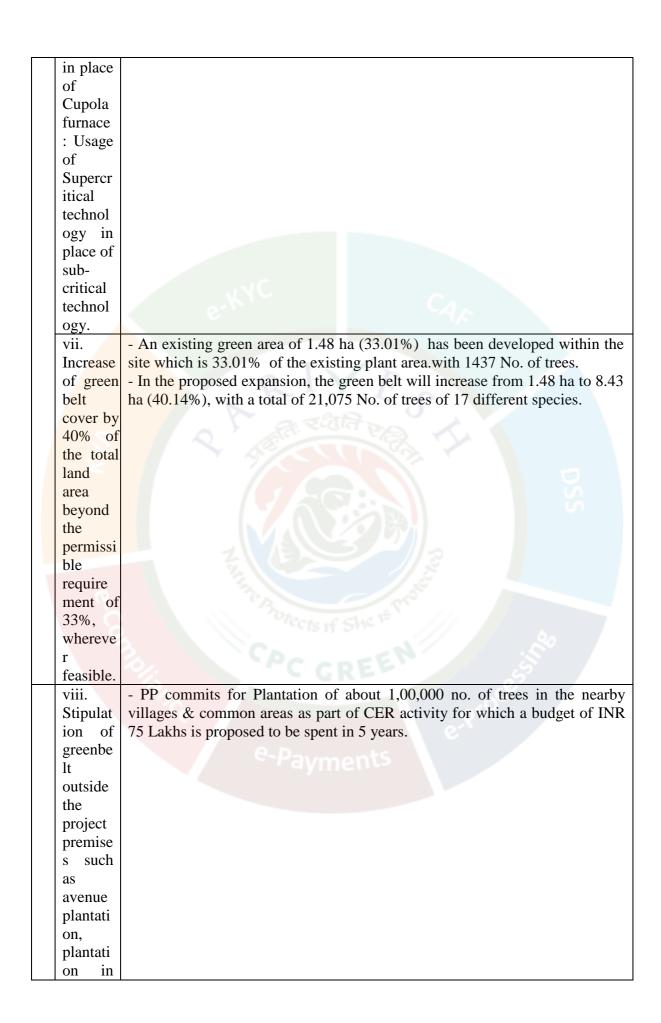
S. No	Mitigat ion				Con	nplianc	e			
NO	ion Measu									
•	res as									
	per									
	MoEF									
	&CC									
	OM									
	dated									
	31.10.2									
	019				2. <del>2</del> /41/2	-				
Ai	r Act			18	4.	7.43				
1.	Stipula	Deta	ils of Utility	Stack	<u>s:</u>					
	tion of	- C	Q			G	1.00.5			
	conditi	S.	Stack	No.	Fuel	Stack	APCM	Emissi	Frequen	
	ons such	No	attached	of S40	Name &	Heig	1	on Names	cy of	
		•	to	Sta ck	Oventity	ht (m)	// _	Norms	Monitori	
	as: i. Stack		7	CK	Quantity	(m)	ks ng			
	emissio				LAISUI	sting Stacks				
	n levels	1	Boiler	1	Furnace	30	Adequa	PM -	CEMS	
	should		1x 1 TPH	70	Oil, 0.9	15 to .	te	500	shall be	
	be	4	(Shall be		TPD	- 1	Stack	mg/N	installed	
	stringe	8	<b>dismantl</b>	CO	Cont	EL	Height	$m^3$	on Boiler	
	nt than		ed)		CGR			$SO_2$ -	stack	
	the		2n /					600	and	
	existing		6					mg/N	Monthly	
	standar						/ e.	$\frac{\mathrm{m}^3}{\mathrm{NO}}$	manual	
	ds in			e-1	avmer	nts		NOx - 300	sampling, through	
	terms				S. J. H. H. C.			mg/N	NABL	
	of the identifi							$m^3$	Accredite	
	ed	2	DG Set	1	HSD: 0.3	15	Adequa	PM -	d	
	critical		1x 125	•	TPD	15	te	30	Laborator	
	polluta		kVA				Stack	mg/N	y	
	nts.						Height	$m^3$	-	
								$SO_2$ -		
								100		
								ppm		

									210	
									NO <sub>x</sub> -	
									50	
									ppm	
						Propose	ed Stacl	ks		
		1	Boiler	**	1	LSHS:	45	Adequa	PM -	CEMS
			1x 25	5		11.25		te	100	shall be
			TPH			TPD		Stack	mg/Nm	installed
			1111			(Shall be		Height	3	on
						replaced		Ticigiii	SO <sub>2</sub> -	Boiler,
						with			600	Dryer Dryer
						Natural				and HF
									mg/Nm	
						Gas as			-	reactor
				M.	( -	fuel			NOx -	vent
						based on		410	300	and
						availabili			mg/Nm	Monthly
						ty)			3	manual
			DG Se	et	2	HSD: 0.3	30 m	Adequa	PM -	sampling,
		2	2x 150	00	Q	TPD	each	te	30	through
			kVA	700	1			Stack	mg/N	NABL
						. चंदाति		Height	$m^3$	Accredite
	T.		7 0	- 1	100	1.			$SO_2$ -	d
	2			Y /	97/			7	100	Laborator
	~								ppm	y
				/	/ /			\	NO <sub>x</sub> -	i i
								11	50	S
									ppm	
		3	Fluorsp	or	1	HSD:	40	Adequa	PM -	
		3	Drye		1,0	2.5 TPD	40	te	50	
			(20 La			2.5 11 D		Stack	mg/N	
	(6)		Kcal/d		60			Height	$\frac{\text{mg/1}}{\text{m}^3}$	
					100	Page - C C1		neight		
	\ `€	1	) - 1 N	0.	1	HCD	40	A 1	SO <sub>2</sub> -	60 /-
		4	HF		1	HSD:	40	Adequa		
		9/3	Reacto		- 5-	13		te	mg/N	
			Heatin	_		KL/day		Stack	$m^3$	
			Chamb					Height	NO <sub>x</sub> -	
			Vent					$\lambda = a \lambda$	300	
			(50 La					1 6	mg/N	
			Kcal/d		e-b	avmer			$m^3$	
			) -1 N	0.						
		<u>Deta</u>	ils of Pr	ocess	<b>Stack</b>	<u>s:</u>				
		S.	Stac	N	Stac	k APCM	Onli	Para	Emissio	n Frequ
		N N	k	0.	Heig		ne	meter	limit/Co	-
		0.	attac	of	t (m		Anal		entratio	•
				St		′	yser		of each	
				20			,,,,,,		Paramet	
ш			j		<u> </u>			<u> </u>	_ 41 411100	VIIIIS

		hed	ac						
		to	k						
					Existi	ng Stacl	k		
	1	M23	1	25	Inciner	-	SOx,	• HF -	CEMS
		Incin erato			ation follow		NOx, HCl,	1 mg/N	and Manua
		r			ed by		HF	$m^3$	1
		Vent (1x			venturi scrubb			• SO <sub>2</sub> - 200	month ly
		800			er			mg/N	manua
		kg/d			follow			$m^3$	1
		ay)	W	C	ed by			• NO <sub>x</sub> -	sampli
			2-17		2-stage water		$\mathcal{A}_{\mathcal{A}}$	45 mg/N	ng throug
					scrubb			$m^3$	h
					er			• HCl-	NABL
				Q	follow	F		50	Accre
			D		ed by Adequ	7	S' '	mg/N m <sup>3</sup>	dited Labor
.57			- }-	Tet:	ate	CS.F	1		atory
			Y /	300	Stack		1		
					Height Propose	od Stac	oko		
	2	Stac	1	40	Bag	- Stat	PM	• PM -	Month
		k	l (i	1	Filter	2 BR		50	ly
		Atta	21		follow		12	mg/N m <sup>3</sup>	manua 1
		ched to	2/2		ed by Adequ		250	• HF -	sampli
6		Gyps	-	CO.	ate	75		1	ng
\		um		Potec	Stack	C 10,		$\frac{\text{mg/N}}{3}$	throug
	3	Stora ge		CA	Height	-14		• HCl-	h NABL
	0_			- ~ C	GRE	E		35	Accre _
	3	Stack Attach	1	40	2- Stage	Onli ne	HF	mg/N	dited
		ed to			Water	analy	کہ ا	$m^3$	Labor atory
		AHF			Scrubb	ser	1 6		atory
		Plant		c-Pa	er, 1 -	for			
					Stage Caustic	HF			
					Scrubb				
					er				
					follow ed				
					by Ad				
					equate				
					Stack				
					Height				

	4 5	Stac k	1	40	Scrubb er	Onli ne	HCl, HF		
		Atta			follow	analy	111		
	c	hed			ed by	ser			
		to			Adequ	for			
		R32			ate	HF			
	F	Plan			Stack				
		t			Height				
ii.	Existing	<u> </u>				<u> </u>			
CEMS	•	_	er stac	ck has b	oeen fitte	d with	CEMS	to ensure m	onitoring of
may be								B & CPCB s	-
installe	After E	-							
d in all									e monitoring
large/	of	emissi	ons an	d the sa	me will be	connec	cted to th	ne SPCB & C	PCB server.
mediu									
m red categor									
y									
industri									
es (air									
pollutin									
g) and									
connect									
ed to									
SPCB									
and CPCB									
servers.									
Servers.									
iii.	Measur	es are	taken	in the ex	xisting as	well as	for prop	osed expans	ion are as
Effecti	under:				15 H 3n				
ve	Equipn	nent a	nd Sto	orage M	<b>Ieasures</b>	92		<u>/ :\$</u>	
fugitive	Aspec		Det		GRI	. "			
emissio	Reacto				ith mecha				
n control	Conde	ensers	Chi	lled wat	er conden	ser to m	ninimize	evaporation	losses.
measur	Process	s Cont	role o	nd Emi	ssion Mo	nitarin	σ		
es	Aspec		i vis a	Detai		mior III			
should	Scrubl					to ren	ove ha	rmful gases	and odors
be					industrial			8	
impose	Instrui	nentat	ion	Leaka	age detec	ction a	nd aları	m system f	for critical
d in the				equip	ment.			•	
process	Charg	ing						ls will be d	
of transpo								pumps with	mechanical
rtation,	CI	1	T	_	to avoid l				
	Closed		Loop	Used	to arrest f	ugitive	emissio	ns.	
etc		us		Ingtol	lation of	right 1	aak nro	of valvas V	Valves and
	ripes					_	_		
packing etc	System Pipes		<b></b>	Instal	lation of	right l	eak pro	of valves. V	

		ollowed regularly. Regular monitor of system for
	10	eaks
	<b>Dust and Fugitive Em</b>	ission Control
	Aspects	Details
	Fugitive Emission	- Monitoring in the work zone environment.
	Monitoring	- Strong ventilation and local exhaust systems.
	Equipments	Regular inspection and maintenance.
	The same will be follow	ved after expansion as well.
iv.		ials is being done via PUC compliant vehicles adhering
Transp	to the safety norms.	lais is being done via 1 oc compilant venicles adhering
ortation		ved after expansion as well.
of	The same will be follow	ved after expansion as wen.
materia		
ls by rail/		
convey		
or belt, wherev		
er		
feasible		
v.	Cymant fyel being yea	ed in boiler is Furnace oil, in compliance with the
v. Encour		
		be discontinuation of the existing 1 TPH Boiler
age use	running on Furnace Oil	
of		Boiler will be designed in such a way that it can work
cleaner		tural Gas as a fuel. We commit to transitioning to a
fuels	natural gas fuel whenev	ver it becomes available after the expansion.
(pet		
coke/		
furnace		
oil/		
LSHS		
may be		
avoided		
).		
vi. Best	-	compliance with the latest norms in the manufacturing
Availab		m of the unit works to reduce use of toxic chemicals
le	and for low pollution lo	•
Techno	- The same will be follo	owed after expansion as well.
logy		
may be		
used.		
For		
exampl		
e, usage		
of		
EAF/S		
AF/IF		



	vacant	
	areas,	
	social	
	forestry	
	, etc.	
		The existing used incide the industrial case one of sufficient comming conscitu
	ix.	- The existing roads inside the industrial area are of sufficient carrying capacity
	Assess	for the proposed project and also the carrying capacity of approach road will
	ment of	not be exceeded due to the proposed expansion and therefore widening of
	carryin	roads is not proposed.
	g	The vehicle movement area is on paved surface to avoid dusting.
	capacit	- A budget of INR 15 lakhs is proposed for mechanized cleaning of roads.
	y of	- A budget of INR 25 lakhs is proposed for Water Sprinklers to be provided
	transpo	on roads to reduce fugitive emissions.
	rtation	on rough to reduce rughtive emissions.
	load on	S. A. S.
	roads	
	inside	
	the	Q I V /-
	industri	
	al	व रहित्ती है
	premise	
	s. If the	
	roads	
	require	
	d to be	
	widene	
	d, shall	
	be	Z \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	prescri	
	bed as a	Bar Carlotte
	conditi	ects if She
	on.	
2	Water	O C GREEN
		GREE
	Stipula	- Existing effluent of 15 KLD is generated from Boiler & Cooling Tower, is
	tion of	being treated in ETP (30 KLD Capacity) & 13.5 KLD treated effluent is
	conditi	reused in Boiler & Cooling Tower makeup.
	ons	Town indicate.
	such	- After proposed expansion,
	as:	During Non Monsoon season: Effluent of 315 KLD will be generated (200 KLD from process % 115 KLD from Poilon & Cooling Towns) will be treated
	1. D /	KLD from process & 115 KLD from Boiler & Cooling Tower), will be treated
	Reuse/r	in proposed ETP (350 KLD capacity), followed by RO (350 KLD Capacity)
	ecycle	followed by MEE (40 KLD capacity) for treatment.
	of	- Treated effluent 302.5 KLD will be reused in Boiler & Cooling Tower
	treated	makeup.
	wastew	
	ater,	During Monsoon season:
	wherev	- Treated effluent 302.5 KLD will be reused in Boiler & Cooling Tower
	er	makeup.
ш		·· · · · · · · · · · · · ·

feasi	
	132.5 KLD in Boiler & Cooling Tower makeup.
ii. Cont uous moning efflu quali quan y large and medi m I Cate y Indues (water pollu	premises and there is no final discharge to the environment.  - We continue to maintain records of our treatment performance, flow data, and water quality, which are readily available for review by regulatory authorities.  - Our unit remains fully aligned with the objectives of the CEPI Action Plan and is committed to maintaining environmental compliance.  - Further we assure to install necessary systems for continuous monitoring of effluent quality / quantity and shall be connected to the TNPCB server.
g). iii. detai wate harve ng p may subm ed the proje	- After the proposed expansion, for rooftop rainwater collection, 04 Nos. of rainwater collection tanks with dimensions 12m x 12m x 7.3m each, having a total capacity of about 4200 cum are proposed for collection of rooftop rainwater and storage of 2 days.  - Stormwater will be collected in a proposed rainwater collection pond with a total capacity of about 2100 cum and storage of 2 days of stormwater Afterward 2 <sup>nd</sup> rainfall excess runoff will be channelised to the storm water drainage of the area.  - 332 KLD rainwater harvested will be reused during monsoon season.
ent iv. Z liquidisch ge where er techreecon ically feasi	of effluent is sent to ETP & treated effluent of 13.5 KLD is reused in Boiler & Cooling Tower makeup.  - After the proposed expansion, 315 KLD of effluent will be sent to ETP of 350 KLD followed by RO (350 KLD) and MEE (40 KLD) and treated effluent of 302.5 KLD will be reused in Boiler & Cooling Tower makeup, thus maintaining ZLD.
v. case, dome	esti is reused in greenbelt development.

- After Expansion, sewage of 44 KLD will be generated from plant & 45 KLD water (from housing colony) will be treated in existing STP of 100 KLD & 80 KLD generat treated sewage will be reused in greenbelt development. ion more than 10 KLD, the industr y may install STP. Land 3. Stipula An existing green area of 1.48 ha (33.01%) has been developed within the site which is 33.01% of the existing plant area. with 1437 No. of trees. tion of conditi - In the proposed expansion, the green belt will increase from 1.48 ha to 8.43 ha (40.14%), with a total of 21,075 No. of trees of 17 different species. ons such as: Increas of green belt cover by 40% of the total land area beyond the permiss ible require ment of 33%. wherev feasible for new projects ii. - PP commits for Plantation of about 1,00,000 no. of trees in the nearby villages & common areas as part of CER activity for which a budget of INR Stipulat ion of 75 Lakhs is proposed to be spent in 5 years. greenbe 1t outside the

	project								
	premise								
	s such								
	as								
	avenue								
	plantati								
	on,								
	plantati								
	on in								
	vacant								
	areas,								
	social								
	forestry								
	, etc.		e- \ \				<u> </u>		
	iii.		e of waste, sour	ce of gen	eration,	category	, schedule	e and mode	of disposal
	Dumpi	as ur	nder:						
	ng of	(a) F	<mark>Iazardous Wa</mark>	ste:					
	waste	S.	Type of	HW	Exist	Prop	Total	Meth	Treatm
	(fly	N	Waste	Categ	ing	osed	After	od of	ent /
	ash,	0.	,,, 0	ory*	8	0.000	Expan	Collec	Dispos
		0.		ory	CHRICA	129	sion	tion/	al
	slag, red			(8)		TDA	SIUII		aı
			, ,			TPA		Stora	
	mud,	4	** 1		10	- 50		ge	-
	etc.)	1	Used or	5.1	10	52	62	MS	Recove
	may be		spent oil		100	200		Drums	r and
	permitt								Reuse /
	ed only		-7 \		5		1-		CPCB
	at		5.				,5		Authori
	designa		12				5		zed
	ted			2					recycler
	locatio		112	70/0-	0.01	0 15	100		•
			XX/4	<i>5</i> 2	5 11 5 Y	50.5	<i>E</i> 1 <i>E</i>	MC	S
	ns	2	Wastes or	5.2	1	50.5	51.5	MS	Recove
	approv	6	residues	PC	CDI	EL		Drums	r and
	ed by		containing		OK			0,5	Reuse /
	SPCBs/		oil			_		~~	CPCB
	PCCs.		(e) //				01		Authori
							e-,		zed
				0.D.		A-C			recycler
				- Pal	mer	162			s/
									Coproc
		2	E	22.1	25	105	120	C40	essing
		3	Empty	33.1	25	105	130	Stored	Recove
			barrels/con					under	r and
			tainers/					roof	Reuse /
			liners		1				CPCB
			contaminat						Authori
			ed with						zed
			hazardous						recycler
			chemicals/						S
									3
			wastes						

4	Chemical	35.3	25	1000	1025	Plastic	Commo
	sludge					Drums	n
	from						Landfill
	wastewater						/ TSDF
	treatment						
5	Any	36.1	50	105	155	MS	Incinerat
	process or					Tanks	ion –
	distillation						Captive
	residue						&
							CHWTS
							DF

<sup>\*</sup>As per HWM Rule 2016

# (b) Solid Waste:

Categor y	Type of Waste	Existi ng	Propos ed	After Expansi	Treatmen t Method		
	T		494 (TEX	on			
	0		Quantity (TPA)				
Domesti	Solid Waste	3.03	9.75	12.78	Treatment		
c Waste	(Biodegrada	CATA-			in inhouse		
	ble)			A .	organic		
	Y 450				waste		
	1//	7			convertor		
		<b>7.7</b>			(OWC)		
		1			and use		
		1/6/			manure for		
					horticultur		
					e		
	3				developme		
	CA				nt		
	Ofecte	of She t			purposes		
	111	11 0			in the		
2	, CD	=	7		premises		
Office	Recyclable	4.54	14.62	19.16	Given to		
and	Waste			~~	authorized		
related	(Plastic,			010	recycler		
Operati	paper, wood,						
ons	glass, etc.)						

# (c) Biomedical Waste:

Name of the	Source	Qty	Mode of	Mode of
Waste		(TPA)	Disposal	Transport
Soiled Waste	Occupational	0.05	Common	By road
	Health Center		Biomedical	
Expired or	Occupational	0.05	Waste	By road
discarded	Health Center		Treatment	-
medicine			Facilities	

		M: a 1- 1- 1	0	<b>F</b> 7		0	05	(CDW/TE-)	D-1, 1
		Microbiology & Biotechnology &other clinical waste Waste Sharps  Contaminated Waste (Recyclable) Glassware		From Microbiology Lab		U	.05	(CBWTFs)	By road
				From		Λ	.05	-	By road
				Microbio		U	.03		Dy Toau
				Lab					
				OHC Medical		0	.05		By road
				Check					
				3.22.31	T				
				OHC Medical		0	.05		By road
				Check	up				
		(c) Other W	aste:	C				Ca	
		Name of		ource	Qty	V	Mo	de of disposal	Mode of
		the waste			(TPA				transport
		E-Waste	C	Office	0.0			Through	By road
				etronics	$\vee$	Z	autl	horized vendor	
				tems		4,	_ (		
		Battery	Used	d battery	ry 0.6		Through		By road
	4	waste		(S)(C)		SE		horized vendor	
		Plastic		office and	1.0			ill be handled	By road
		Waste	Adm	in Office			through authorized		Q
	•	XX 4 -			11 (54 5 5		DAN	recycler	- CC:41
	iv. More							shall be disposed	
	stringe	processing ar	ւս ւշսն	ce me mad	on rafi	uIII	and	incineration at T	SDI'.
	nt								
	norms								
	for								
	manage								
	ment of								
	hazardo								
	us								
	waste.								
	The								
	waste								
	generat								
	ed should								
	snouia be								
	prefera								
	bly								
	utilized								
	in co-								
	process								
	ing.								
4.		ondition (Add	litional	l):					

i.	The 11	nit will hire a th	ird party to monitor the	e compliance of	the condition and		
Monito	The unit will hire a third party to monitor the compliance of the condition and will submit EC Compliance every year.						
ring of	will submit be compitance every year.						
_							
compli							
ance of							
EC							
conditi							
ons							
may be							
submitt							
ed with							
a third							
party							
audit							
every							
year.			D.	11 1 11	1.0.0		
ii. The			INR. 5.40 Crores w		-		
% of	Envir	<mark>onment Respons</mark>	sibility (CER), which	is 0.5% of prop	osed project cost		
the	i.e., II	NR 1000 Crores					
CER							
may be	S.	Activity	Action Plan	Capital	Recurring		
at least	No	11001/103		Expenditur	Expenditur _		
1.5	110	7/		e to be done	e /year		
times	•				e /year		
the	1	Skill	Establish mant	in 5 years	5		
uie	1	SKIII	Establishment	45	3		
alaka		1 1					
slabs		development	vocational training				
given in		development	centers in nearby	12			
given in the OM		development	centers in nearby villages including	) se j			
given in the OM dated		development	centers in nearby				
given in the OM		development	centers in nearby villages including	200			
given in the OM dated		development	centers in nearby villages including Kavipuram & Karumalai Koodal	Sarries			
given in the OM dated 01.05.2 018 for		Namme	centers in nearby villages including Kavipuram & Karumalai Koodal village.	50	5		
given in the OM dated 01.05.2 018 for SPA	2	Infrastructur	centers in nearby villages including Kavipuram & Karumalai Koodal village. Provision of Safe	50	5		
given in the OM dated 01.05.2 018 for SPA and 2		Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village. Provision of Safe Drinking Water	50	5		
given in the OM dated 01.05.2 018 for SPA and 2 times		Infrastructur	centers in nearby villages including Kavipuram & Karumalai Koodal village. Provision of Safe Drinking Water Facilities to	50	5		
given in the OM dated 01.05.2 018 for SPA and 2 times for		Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village. Provision of Safe Drinking Water Facilities to Neighbourhood	50	5		
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in		Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village.  Provision of Safe Drinking Water Facilities to Neighbourhood villages including	50	5		
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in case of	2	Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village. Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village.	e-Proce			
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in case of Enviro		Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village. Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village. Upgradation of	50	5		
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in case of	2	Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village. Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village.	e-Proce			
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in case of Enviro	2	Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village. Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village. Upgradation of	e-Proce			
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in case of Enviro	2	Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village.  Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village.  Upgradation of primary healthcare centers	90	15		
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in case of Environmenta 1	3	Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village. Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village. Upgradation of primary healthcare centers Upgradation of	e-Proce			
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in case of Environmenta I Clearan	3	Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village.  Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village.  Upgradation of primary healthcare centers  Upgradation of primary schools in	90	15		
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in case of Environmenta I Clearan	3	Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village. Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village. Upgradation of primary healthcare centers Upgradation of primary schools in nearby villages	90	15		
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in case of Environmenta I Clearan	3	Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village.  Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village.  Upgradation of primary healthcare centers  Upgradation of primary schools in nearby villages including	90	15		
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in case of Environmenta I Clearan	3	Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village.  Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village.  Upgradation of primary healthcare centers  Upgradation of primary schools in nearby villages including Tippampatti &	90	15		
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in case of Environmenta I Clearan	3 4	Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village.  Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village.  Upgradation of primary healthcare centers  Upgradation of primary schools in nearby villages including Tippampatti & Kaptoruti village	90 50	15		
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in case of Environmenta I Clearan	3	Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village.  Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village.  Upgradation of primary healthcare centers  Upgradation of primary schools in nearby villages including Tippampatti & Kaptoruti village Infrastructure	90	15		
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in case of Environmenta I Clearan	3 4	Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village.  Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village.  Upgradation of primary healthcare centers  Upgradation of primary schools in nearby villages including Tippampatti & Kaptoruti village	90 50	15		
given in the OM dated 01.05.2 018 for SPA and 2 times for CPA in case of Environmenta I Clearan	3 4	Infrastructur e	centers in nearby villages including Kavipuram & Karumalai Koodal village.  Provision of Safe Drinking Water Facilities to Neighbourhood villages including Gonur village.  Upgradation of primary healthcare centers  Upgradation of primary schools in nearby villages including Tippampatti & Kaptoruti village Infrastructure	90 50	15		

		7	light/street lights in nearby Villages	540	109
	10	/	Mechanized cleaning of road Provision of Solar	30	7 5
ZZ 2	9	RA	Water Sprinkler will be provided on roads to reduce fugitive emissions	25	5
	8		Conducting annual medical camps for the general public	50	10
		e.KY	villages & open Areas. (fast growing local and medicinal species)	$c_{A_F}$	
	7	Environment	N Patti and Kavipuram village.  Improvement of Sanitation Facilities in in nearby villages including karumalai Koodal & Kavipuram village Plantation (1,00,00 0 No ) in the nearby	75	20