## Half Yearly Compliance Report 2025 01 Jun(01 Oct - 31 Mar)

## Acknowledgement

Proposal Name	Expansion and Conversion of mercury based caustic soda plant into membrane technology at Raman Nagar, Mettur Dam of District salem, Tamilnadu by M/s Chemplast Sanmar Limited		
Name of Entity / Corporate Office	CHEMPLAST SANMAR LIMITED		
Village(s)	N/A		
District	SALEM		

Proposal No.	IA/TN/IND/21367/1910
Plot / Survey / Khasra No.	N/A
State	TAMIL NADU
MoEF File No.	J-11011/450/2008- IA.II(I)

Category	Industrial Projects - 2
Sub-District	N/A
Entity's PAN	****3000F
Entity name as per PAN	CHEMPLAST SANMAR LIMITED

# **Compliance Reporting Details**

**Reporting Year** 2025

Remarks (if any)

Expansion and Conversion of mercury based caustic soda plant into membrane technology Compliance

status report 2025 (01 OCT -31 MAR)

**Reporting Period** 01 Jun(01 Oct - 31 Mar)

# **Details of Production and Project Area**

Name of Entity / Corporate Office CHEMPLAST SANMAR LIMITED

	Project Area as per EC Granted	Actual Project Area in Possession
Private	42.1	42.1
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	42.1	42.1

# **Production Capacity**

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Caustic soda	Tons per Annum (TPA)	31/03/2027	77970	62671	77970
2	Chlorine	Tons per Annum (TPA)	31/03/2027	68080	59956.14	68080
3	Hydrochloric acid (30 percentage)	Tons per Annum (TPA)	31/03/2027	50886	32791.93	50886
4	Hydrogen	Tons per Annum (TPA)	31/03/2027	1920	1566.779	1920
5	Bleach Liquor	Tons per Annum (TPA)	31/03/2027	32300	4079.81	32300
6	Diluted Sulphuric Acid	Tons per Annum (TPA)	31/03/2027	7635	4788.523	7635

## **Conditions**

## **Specific Conditions**

Sr.No.	Condition Type	Condition Details
1	WATER QUALITY MONITORING AND PRESERVATION	The waste water discharge from the caustic plant shall be zero

#### PPs Submission: Complied

Industry has achieved Zero-Discharge by pumping the entire effluent to adjacent PVC plant (Plant II) through pipe line after partial treatment to the ZLD as per the TNPCB consent order of vide no. 2307149520779, since Sep-2009. Hence there is no discharge of effluent from the whole plant. During the plant shutdown period, the generated effluent from the plant is stored in a dedicated storage tank and treated once the Zero Liquid Discharge (ZLD) plant is resumed its operation. ZLD photograph is enclosed as Annexure-4

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AIR QUALITY
MONITORING AND
PRESERVATION

The emissions of Cl2, SO2, NOx and particulate matter from various units shall conform to the standards prescribed in Environment (Protection) Rules 1986 and by the concerned authorities from time to time. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved

#### PPs Submission: Complied

The point source emission levels at the stacks (Caustic fusion, Bleach Liquor, HCL Mist) are being monitored through third party NABL accredited laboratory on monthly basis for the parameter SPM, NOx, SO2, Chlorine and HCl mist. The monitoring report for the compliance period (Oct'24 To March'25) is attached as Annexure-1. And these reports were submitted by Industry to TNPCB on Monthly basis. Industry has installed 12 chlorine on-line monitors at strategic locations including hypo tower, storage, and usage of chlorine as well as at the periphery. Apart from this all the chlorine on-line monitors are also connected to CARE AIR center of TNPCB, Chennai and CPCB.

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All Chlorine monitors are calibrated by NABL accredited laboratory on regular basis. Additionally State Pollution Control Board also carrying out the stack monitoring survey on biannual basis. Industry assured that in case of failure of any pollution control system(s) adopted by them, the plant will be immediately put out of operation and will not be restarted until the desired efficiency has been achieved.

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## AIR QUALITY MONITORING AND PRESERVATION

The Company shall install Chlorine gas detectors to detect leakage of Chlorine at liquid Chlorine storage tanks, Sodium hypo plant, HCl synthesis unit and Electrolysis area. The company shall install on-line analyzer in HCl plant and hypo stack with recording facility

#### PPs Submission: Complied

Chlorine monitors (12 units) have been installed at critical locations, including the liquid chlorine storage area, Bleach liquor plant, HCl synthesis area, Brine electrolysis area, Chlorine filling area, and the periphery of the plant, to ensure continuous monitoring of chlorine levels. All 12 monitors, including those located at the HCl plant and hypo stack, operate on a continuous monitoring basis, with real-time data being recorded and transmitted online. The data from these monitors is integrated and directly connected to the CARE AIR Center of the TNPCB and CPCB to ensure regulatory compliance. Photos of Chlorine monitors and screenshot of real time data connectivity with TNPCB and CPCB is attached as Annexure -2

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## AIR QUALITY MONITORING AND PRESERVATION

The vent gases from Sodium hydrochloride plant and HCL acid plant shall be controlled at source by effective absorption system so that Chlorine concentration in the vent gases shall not exceed 5ppm. The vent gases shall be discharged from the stacks of adequate height for effective dispersion. Additional Chlorine sensors shall be installed to monitor Cl2.

## PPs Submission: Complied

Industry has adopted absorption technique at Sodium hydrochloride plant and HCL acid plant in which the vent gas from chlorine liquefaction system is absorbed with hydrated lime to convert into hypochlorite and sold as a by-product. Chorine monitor is installed in HCl acid plant as well as in hypo tower for monitoring chlorine in vent gas ensuring the concentration of chlorine with in the stipulated standards. Photos of vent gas absorption system and Chlorine monitors are attached as Annexure-3

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## AIR QUALITY MONITORING AND PRESERVATION

Dedicated scrubbers and stacks of appropriate height as per the Central Pollution Control Board guidelines shall be provided to control the process emissions/fumes from various units in the complex. The scrubbed water shall be sent to ETP for further treatment

### PPs Submission: Complied

Industry has provided effective and dedicated two stage scrubbers as per the Central Pollution Control Board for absorbing chlorine from the vent gas of the process emission with Hydrated lime scrubber to control emission (Height: 12.4 Met, Dia: 1000mm), Hydrochloric acid synthesis area (Height: 23.5 Met, Dia: 160mm). The product obtained from the chlorine absorption system is sold as by-product.

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## AIR QUALITY MONITORING AND PRESERVATION

Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored for all the relevant parameters. Emissions shall conform to the limits imposed by SPCB and reports shall be submitted to the Ministry Regional Office at Bangalore/CPCB/SPCB

#### **PPs Submission:** Complied

The industry is continuously monitoring the fugitive emission of Chlorine, HCl and VOC with strategically located monitors. The on-line data of these monitors are connected to CARE AIR center- of TNPCB. Emission levels are within the limits as stipulated by TNPCB. Monitored reports are submitted to MoEF / CPCB / TNPCB along with Half Yearly compliance Report. Latest

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Monitored report for the compliance period (Oct'24 to Mar'25) is attached as Annexure - 1 Regular monitoring of ground water by installing at least 4 WATER QUALITY piezometric wells around the plant area shall be periodically carried 7 MONITORING AND out and reports submitted to Ministry Regional Office at Bangalore, **PRESERVATION** CPCB and SPCB. PPs Submission: Complied Date: The industry has installed 12 Piezometric wells and 2 bore well around the plant nearer to the 16/05/2025 existing secured landfills. And the water quality of these well are tested by third party NABL approved laboratory. Latest report for the compliance period (Oct'24 To Mar'25) is attached herewith as Annexure-5 Solid waste generation shall not be more than 2078 TPA after expansion which contains CaCO3, Mg(OH)2 and Barium Sulphate. 8 The company should explore the possibilities of utilizing the solid **WASTE MANAGEMENT** waste by the cement plant. The company shall submit an action plan to the Ministry Regional Office at Bangalore **PPs Submission:** Complied Industry has obtained hazardous waste authorization for quantity of 2100 MT of Brine sludge generation against that last FY 2024-25 for the period Oct'24 To Mar'25-965.73 MT of Brine Sludge Date: generation. And India Cements and Ultratech Cements were declared that the brine sludge is not 16/05/2025 suitable for their co-processing purpose, after carrying out the testing as it contains around 6-7 percentage of NaCl . However, the industry is currently conducting a technical suitability study in collaboration with Reputed Engineering Colleges to explore the possibility under industrial institution collaboration of converting brine sludge into bricks. Hence, Currently the waste has been disposed at Common TSDF facility of M/s. Re-Sustainability, Pochampalli ,Tamilnadu The company shall make the impervious and covered on site storage facility for the various solid and hazardous wastes generated 9 **WASTE MANAGEMENT** from the plant. The storage facility shall be provided with garland drain with arrangement of collection pit for leachate/seepage/spillage PPs Submission: Complied Industry has established an impervious and covered area for storing of Waste/used oils. This facility Date: is having a secondary containment incase any spillage occurs. Brine sludge is finally processed 21/05/2025 through drum filter for maximizing dewatering and moisture content of brine sludge From March 2019 on wards (16.3) Brine sludge is being transported and currently disposed to the common TSDF of-M/s. Re-Sustainability, Pochampalli. Storage facilities is enclosed as an Annexure-6 The project authorities shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October 1994 and January 10 WASTE MANAGEMENT 2000 and Hazardous Waste (Management and Handling) Rules, 1989, as amended from time to time. Authorization from the SPCB shall be obtained for collection, treatment, storage, and disposal of hazardous wastes and a copy shall be submitted to the Ministry Regional Office PPs Submission: Complied Date: The industry has obtained Hazardous waste Authorization of Vide No. 20HFC30743102 dated on 21/05/2025 22.10.2020 valid up to 31.03.2025 from the TNPCB. Hazardous waste Authorization copy and current application under renewal is enclosed as Annexure-7

guidelines CPCB

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**GREENBELT** 

The company shall develop the green belt in 33 percent area to

mitigate the effect of fugitive emissions and noise as per the

#### **PPs Submission:** Complied

Industry currently having green belt in 42 Acres area (around 40 percentage of plant area) to mitigate the effect of fugitive emission and noise. Greenbelt layout and photograph is enclosed as Annexure-8

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Corporate Environmental Responsibility

The project authorities shall earmark adequate fund to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose

#### PPs Submission: Complied

Separate budget for the environmental protection measures (Capital and Recurring cost) is earmarked and are not diverted for any other purpose. All the expenses are recorded in advanced accounting system (SAP) of the company. Capital Cost utilized for Environment safe guard and protection measures during the period (Oct-24 to Mar-25) is detailed below; Environmental measures-Cost Rs in Lakhs 1.Brine sludge and Chemical sludge from waste water treatment is being disposed to common TSDF of M/s. Re Sustainability, Pochampalli -Rs.68.22 Lakhs 2.Operational cost of Caustic Soda Plant ETP-Rs.36.94 Lakhs (Oct-24 to Mar-25) and the operational cost of ZLD relevant to the effluent quantity of Caustic Soda plant-Rs.113.41 Lakhs. Total-Rs.150.35 Lakhs (ZLD and ETP Expenses)

Date: 21/05/2025

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**Human Health Environment** 

Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act

#### **PPs Submission:** Complied

In accordance with Section 62N of the Factory Act, the industry regularly conducts occupational health monitoring of its workforce by the qualified DISH approved medical officer of their Occupational Health Center (OHC) and records are maintained. Occupational Health surveillance report is enclosed Annexure-9

Date: 17/05/2025

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Statutory compliance

During transfer of materials spillage of chemicals shall be avoided and garland drains be constructed to avoid mixing of accidental spillages with domestic waste and storm drains

## **PPs Submission:** Complied

Since then, the sector has offered dyke wall. If there is an accident involving chemical handling, the industry's dyke wall arrangements will collect the spillages separately, preventing the chemicals from reaching the storm drains. Storm water drain Layout is enclosed as Annexure-10

Date: 21/05/2025

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Risk Mitigation and Disaster Management

The company shall make arrangement for protection from possible fire hazards during manufacturing process in material handling

## PPs Submission: Complied

According to the severity of the associated fire threats of the process/material handling, the industry has installed and maintained fire protection facilities such as hydrant ring main system, deluge system, and fire extinguishers. Fire hydrant layout and Photographs of these fire protection facilities is enclosed as Annexure-11

Date: 21/05/2025

## **General Conditions**

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	The project authorities shall strictly adhere to the stipulations of the SPCB/state government or any statutory body

**PPs Submission:** Agreed to Comply

The industry complies with all requirements set forth by the SPCB, the state government, or any

Date: 16/05/2025

other	statutory agency			
2	Statutory compliance	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. 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 to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any		
The in	s Submission: Agreed to Comply industry has assured that no further exput getting prior approval from MOE	spansion or modification in the plant will be carried out F.	Date: 16/05/2025	
3	Statutory compliance	At no time, the emissions shall exceed the prescribed limits. In event of failure of any pollution control system adopted by the ur the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved		
The in continu	nuously. In the event that any pollution	on from the emission regulations, which are compiled on control system fails in the future, industry assures that system reaches the required level of efficiency	Date: 16/05/2025	
4	AIR QUALITY MONITORING AND PRESERVATION	The gaseous emissions (SO2, NOX, HCl, CO, VOC particulate matter along with RSPM levels from various shall conform to the standards prescribed by the concerfrom time to time. At no time, the emission levels shall stipulated standards. In the event of failure of pollution system(s) adopted by the unit, the respective unit shall restarted until the control measures are rectified to achiefficiency	is process uni rned authoriti I go beyond to control not be	
Indust condu surve	acting AAQ survey by third party NA	as per TNPCB Consent order same has been ensured by ABL accredited laboratory and TNPCB is conducting AAQ NABL accredited laboratory report is enclosed as	Date: 17/05/2025	
5	AIR QUALITY MONITORING AND PRESERVATION	Levels of HC and VOC at various probable locations air will be monitored. Regular monitoring of HC and V carried out in the ambient air in and around the plant		
Indust ambie Tamil	ent air is monitored on "real time" ba	rbon in the ambient Air in regular basis. VOC level in the sis and the data is linked to CARE AIR centre of nai. Report of VOC level monitoring by TNPCB is	Date: 17/05/2025	
6	Statutory compliance	The locations of ambient air quality monitoring static reviewed in consultation with the State Pollution Control (SPCB) and additional stations shall be installed, if requownwind direction as well as where maximum ground concentrations are anticipated	rol Board juired, in the	

The project authorities shall inform the Regional Office as well as 7 Statutory compliance 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 Date: **PPs Submission:** Complied 15/05/2025 Financial Closure of the project is 14.12.2006 The date of start of the project is 20.08.2007 The company shall undertake following Waste Minimization measures: Metering and control of quantities of active ingredients to minimize waste 1.Reuse of by-products from the process as raw materials or as raw material substitutes in other processes 2.Use WASTE MANAGEMENT precise equipment for metering the pH 3.Use of automated filling to 8 minimize spillage 4.Use of Closed Feed system into batch reactors 5. Venting equipment through vapor recovery system 6. Use of high pressure hoses for equipment cleaning to reduce wastewater generation PPs Submission: Complied In order to reduce waste, the industry has implemented the following waste minimization strategies for metering and controlling active ingredient quantities: 1.To minimize the amount of raw salt spills, the industry uses tarpaulin sheets to cover and tie during shipping. Hydrogen serves as a raw Date: ingredient for the production of hydrogen peroxide and HCl. 1.1. Chlorine is used as raw material for 17/05/2025 production of Chloromethane solvents and Ethylene Dichloride. 2. The industry has provided pH controllers for use in storm water channels and as needed throughout the process. 3. To reduce spillage of chloromethane products, industry uses automatic filling. 4. No batch reactor is involved in the process. 5. Complied with several processes within the system, specifically the systems for absorbing chlorine and HCl (acid). 6. In order to utilize less water when cleaning heat exchangers, they apply pressure greater than 8 bar in high pressure cleaner jet. The project proponent shall also comply with all the environmental 9 Statutory compliance protection measures and safeguards proposed in the EIA/EMP report **PPs Submission:** Complied The industry has compiled with all the environmental protection measures, which includes automatic Date: Power back-up system, additional chlorine monitors installation, Caustic deluge tank for emergency 21/05/2025 mitigation purpose, and Diesel engine driven pump for Bleach Liquor plant as detailed in the EIA report. Environmental surveillance study is also carried out involving air, water and soil in the surrounding area to verify the exclusion of contamination of chemicals used in the process and operational integrity. Automatic Power back-up system details are enclosed as Annexure -12 A separate Environmental Management Cell equipped with full 10 Statutory compliance fledged laboratory facilities shall be set up to carry out the **Environmental Management and Monitoring functions** PPs Submission: Complied Date: The industry has already established Environmental cell with full-fledged lab facilities for 21/05/2025 monitoring all pollution control parameters. Industry is certified for ISO-14001- Environmental Management System and ISO 45001-Occupational Health and Safety Management System. EMC Organogram are enclosed as Annexure-13 Implementation of the project vis-a-vis environmental action plans shall be monitored by the concerned Regional Office of the 11 Statutory compliance Ministry/SPCB / CPCB. A six monthly compliance status report shall be submitted to monitoring agencies and shall be posted on the website of the Company.

Date:

17/05/2025

The industry is regularly submitting to Environmental clearance six monthly compliance reports are

in Parivesh portal (https://parivesh.nic.in/) as per OM IA3-22/1/2022-IA-III-E- 172624

PPs Submission: Complied

Noise Monitoring & Prevention

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 Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dbA (day time) and 70 dBA (night time).

## PPs Submission: Complied

Industries Safety engineers monitor the Ambient noise level at 82 location on monthly basis and TNPCB Noise monitoring report for periphery boundary is enclosed as Annexure The industries ambient noise level is within the stipulated standard of TNPCB and CPCB.

Date: 17/05/2025

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Statutory compliance

The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment. The eco-development plan should be submitted to the SPCB within three months of receipt of this letter for approval

#### PPs Submission: Complied

The company has carried out several CSR activities as listed below: 1.Drinking water to nearby villages 3,64,117 KL, with expenditure of Rs 41.69 Lakhs (Oct-24 To Mar-25) 2.Rural Health center expenditure (Oct-24 To Mar-25) is Rs 0.37 Lakhs 3.Tailoring Centre operational cost (Oct-24 To Mar-25) is 2.42 Lakhs 4.Mega medical camp and Medical equipment at the cost of 6.61 Lakhs 5.Salem Primary Health care camp at the cost of 9.45 Lakhs 6.Thangamapuripattinam Govt School at the cost of 7.92 Lakhs 7. Veterinary Camp at the cost of 0.71 Lakhs 8.Renovation / Infrastructural development of Sub health center-Thangamapuripattinam, panagadu at the cost of 5.08 Lakhs 9.Renovation / Infrastructural development of Anganwadis - Mottur at the cost of 4.98 Lakhs 10.Support of Mini mast light to Local Panchayats at the cost of 2.41 Lakhs 11.Renovation / Infrastructural development of Vaidheeswara Higher Secondary School at the cost of 35.49 Lakhs 12.Women empowerment and skill development at the cost of 0.99 Lakhs 13.Infrastructural development of Mettur GH at the cost of 9.45 Lakhs

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14 Statutory compliance

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 and may also be seen at Website of the Ministry at http://envfor.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.

## PPs Submission: Complied

The industry has made in Advertisement on environmental clearance in the daily newspapers. Copies of the same have already been submitted to Regional Office of the Ministry. Environmental Clearance public notice Advertisement copy is enclosed as Annexure- 14

Date: 21/05/2025

#### **Visit Remarks**

Last Site Visit Report Date: N/A

#### **Additional Remarks:**

**Note:** This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.