Half Yearly Compliance Report
2024
01 Jun(01 Oct - 31 Mar)

Acknowledgment

Proposal Name	EXPANSION PROJECTS OF CHLOROMETHANES AND PVC PLANTS OF M/S CHEMPLAST SANMAR LIMITED AT METTUR SALEM DISTRICT, TAMILNADU
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	NA
Entity name as per PAN	NA

Compliance Reporting Details

Reporting Year	2024
Remarks (if any)	Bi-annual compliance report-Plant-III
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	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	BLEACH LIQUOR	Kilo liters per Day (KLD)	31/03/2027	32300	3678.75	32300
2	CHLORINE	Tons per Annum (TPA)	31/03/2027	68080	52325.37	68080
3	CAUSTIC SODA	Tons per Annum (TPA)	31/03/2027	77970	55383	77970
4	HYDROCHLORIC ACID (30%)	Tons per Annum (TPA)	31/03/2027	50886	24345.38	50886
5	HYDROGEN	Tons per Annum (TPA)	31/03/2027	1920	1384.58	1920
6	DILUTE SULPHURIC ACID	Tons per Annum (TPA)	31/03/2027	7635	4507.45	7635
7	Methyl chloride (CH3Cl),Methylene Chloride (CH2Cl2),Chloroform(CHCl3),Carbon Tetra Chloride(CCl 4	Tons per Annum (TPA)	31/03/2027	33580	29966.29	33580

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	WASTE MANAGEMENT	The company shall make the impervious and covered on site storage facility for the various solid and hazardous wastes generated from the plant. The storage facility shall be provided with garland drain with arrangement of collection pit for leachate/seepage/spillage etc.

PPs Submission: Complied Company established an impervious and covered area for storing of Waste/used oils. This facility is having a collection of spilled material. Brine sludge is finally processed through drum filter for maximizing the removal of moisture content 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. For the FY 2023-24 total generated quantity of Brine sludge 2097.02 MT, Chemical sludge from waste water treatment 29.18 MT were disposed to common TSDF of M/s. Re Sustainability, Pochampalli For the FY 2023-24 total generated quantity (Oct-2023 to Mar-2024) of (16.3) Brine sludge is 1028.40 MT which was disposed to common TSDF of M/s. Re-Sustainability, Pochampalli	Date: 30/05/2024

Sr.No.	Condition Type	Condition Details
2	WASTE MANAGEMENT	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 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's Regional Office
PPs Submission: Complied Authorization obtained for collection, storage, transportation and disposal of Hazardous wastes from SPCB vide authorization No. 20HFC30743102 dated 22.10.2020 which is valid up to 31.03.2025.		Date: 28/05/2024
3	GREENBELT	The company shall develop the green belt in 33% area to mitigate the effect of fugitive emissions and noise as per the guidelines CPCB
PPs Submission: Complied Company is currently having green belt in 39 Acres area (around 35% of plant area) to mitigate the effect of fugitive emission and noise.		Date: 28/05/2024
4	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 Fire protection facilities like hydrant ring main system, deluge system, fire extinguishers were installed as per the severity of associated fire hazards of the process/material handling.		Date: 28/05/2024
5	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: Being Complied The vent gas from chlorine liquefaction system is absorbed with hydrated lime to convert into hypochlorite and sold as a "by-product". Additional sensor of Chlorine is already installed in HCl acid plant to monitor chlorine in both the systems. In the vent gas tower as well as in HCl plant, the concentration of chlorine level is monitored, which is always less than 1ppm		Date: 28/05/2024
6	WASTE MANAGEMENT	Solid waste generation shall not be more than 2078 TPA after expansion which containsCaCO3, Mg(OH)2 and Barium Sulphate. The company should explore the possibilities of utilizing the solid waste by the cement plant. The company shall submit an action plan to the Ministry's Regional Office at Bangalore
PPs Submission: Being Complied We have obtained hazardous waste authorization for the quantity of 2100 MT of Brine sludge generation against that last FY 2023-24 Brine Sludge generation was 2097.02 MT and the past Six months (Oct-2023 to Mar-2024) generation was 1028.40 MT India Cements and Ultratech Cements were declared that the brine sludge is not suitable for their co-processing purpose, after carrying out the testing as it contains around 6-7% of NaCl. However, we are pursuing with other cement units for its suitability in Co-processing. Hence, the waste has been disposed at TSDF facility of M/s. Re-Sustainability, Pochampalli Tamilnadu.		Date: 30/05/2024
7	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: Being Complied The point source emission levels at the stacks are being monitored externally by-M/s SMS Labs Chennai accredited by NABL, Department of Science and Technology, Government of India, MoEF recognized lab on monthly basis for SPM, NOx, SO2, Chlorine and HCl mist. These results are submitted every month to TNPCB. From the results reported, it has been found that all the emission levels are within the stipulated standards. Consolidated statement of Last 6 months results are: Parameter(Threshold limit,mg/nm3)- PM (150)-Min. value (mg/nm3)-14.8, Max.value (mg/nm3)-16.6, SO2 -Min. value (mg/nm3)-BDL(0.02), Max.value (mg/nm3)-24, NOx-Min. value (mg/nm3)-BDL, Max.value (mg/nm3)-131, CO-Min. value (mg/nm3)-BDL, Max.value (mg/nm3)-81, HCl mist-Min. value (mg/nm3)-BDL, Max.value (mg/nm3)-BDL, Chlorine-Min. value (mg/nm3)-BDL, Max.value (mg/nm3)-BDL, One chlorine monitor is installed at the outlet of the hypo tower and the values are connected to Care Air Centre (CAC) TNPCB, Chennai. Additionally State Pollution Control Board also carrying out the stack monitoring survey on biannual basis. The results are in compliance with the stipulated norm. There are 12 chlorine on-line monitors installed at strategic locations including storage, usage of chlorine as well as at the periphery .Apart from this, the on-line data of chlorine monitors are connected to “CARE AIR” center of TNPCB, Chennai and CPCB. Please Refer Annexure-I. We will assure that in the event of failure of any pollution control system(s) adopted by us, the plant will be immediately put out of operation and will not be restarted until the desired efficiency has been achieved.			Date: 30/05/2024
8	WATER QUALITY MONITORING AND PRESERVATION	The waste water discharge from the caustic plant shall be zero	
PPs Submission: Being Complied Our Plant has achieved “Zero-Discharge” status since Sep-2009. Hence there is no discharge of effluent from the whole plant. Even during the 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, thus to maintain ZLD status all 365 days in a year.			Date: 28/05/2024
9	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: Being Complied Occupational Health surveillance of the workers is being done on regular basis as per Sec. 62N of factory Act and the records are maintained at our Occupational Health Centre (OHC).			Date: 28/05/2024
10	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: Being Complied The spillage of chemicals will not reach to the storm drains in case of accident spillages, during the chemical handling as the dyke wall provisions available to collect the spillages separately.			Date: 28/05/2024
11	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: Being Complied For the implementation of various environmental mitigation measures, the required financial resources are included in the project cost itself. Additional funds requirement towards environmental mitigation measures is being allocated from time to time. Latest ones are listed out here: 1.Brine sludge & Chemical sludge from waste water treatment is being disposed to common TSDF of M/s. Re Sustainability, Pochampalli 2.Operational cost of Caustic Soda Plant ETP –Rs 46.31 Lakhs (Oct 2023 to Mar 2024) and the operational cost of ZLD relevant to the effluent quantity of Caustic Soda plant –Rs 105.65 Lakhs 3.Renovation and rehabilitation of damaged storm water trench to store the			Date: 30/05/2024

storm water effectively at the cost of Rs.20.0 Lakhs. 4.Sulphate recovery system commissioned to reduce the brine sludge reduction and disposal cost to TSDF 5.Separate coagulation unit commissioned in Effluent treatment plant at a cost of Rs.9,93,800/- to separate the Total suspended solids effectively and to enhance the quality of pre-treated effluent for Ease ZLD functioning 6.VFD installed in effluent transfer pumps at a cost of Rs.1,31,174/- as an energy saving initiatives and saved 5.3 KWH/ day			
12	WATER QUALITY MONITORING AND PRESERVATION	Regular monitoring of ground water by installing at least 4 peizometric wells around the plant area shall be periodically carried out and reports submitted to Ministry's Regional Office at Bangalore, CPCB and SPCB.	
PPs Submission: Being Complied We have installed 12 Piezometric wells & 2 bore wells around the plant nearer to the existing secured landfills and the analysis of these test are being monitored by external laboratory approved by NABL, Department of Science and Technology, Government of India. Latest report attached herewith Annexure-II.			Date: 31/05/2024
13	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 analyser in HCl plant and hypo stack with recording facility	
PPs Submission: Complied Chlorine monitors (12 Nos) are installed at liquid chlorine storage area, Calcium hypochlorite plant, HCl synthesis area, Brine electrolysis area, Chlorine filling area and periphery of the plant. All 12 monitors are being recorded (which includes the monitors at HCl plant and at hypo stack) on continuous basis and the on-line data of chlorine monitors are connected to "CARE AIR" center of TNPCB and CPCB.			Date: 28/05/2024
14	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 Following dedicated scrubbers are installed in the plant for effective scrubbing the process emissions/fumes: Hydrated lime scrubber to control chlorine emission (Height: 12.4 Met, Dia: 1000mm), two-stage scrubber at Hydrochloric acid synthesis area (Height: 23.5 Met, Dia: 160mm). However, the product obtained from the chlorine absorption system is sold as "by-product". The content of the acid scrubbers at HCl synthesis area is re-circulated for acid absorption and sold as by-product.			Date: 28/05/2024
15	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's Regional Office at Bangalore/CPCB/SPCB.	
PPs Submission: Complied Fugitive emission of Chlorine, HCl and VOC are measured with strategically located monitors and monitored on continuous basis and 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. Records are available with us for verification.			Date: 28/05/2024

General Conditions

Sr.No.	Condition Type	Condition Details

1	WASTE MANAGEMENT	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 precise equipment's for metering the pH 3.Use of automated filling to 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: Being Complied 1.Raw salt spillage is minimized by covering with tarpaulin sheet & tied during the transportation, Hydrogen is used for HCl synthesis and Hydrogen Peroxide manufacturing as a raw material. 2.pH controllers are available in the process wherever needed and in storm water channel. 3.Automatic filling to minimize the spillage is being followed for chloromethane products filling in the Plant. 4.Not applicable as there is no “batch reactor” is involved in the process. However, our production process is a closed feed system only. 5.Adhered at various process in the system namely HCl (acid) absorption, chlorine absorption systems. 6.For heat exchangers cleaning we use more than 8 bar pressure for reduction of water usage.	Date: 30/05/2024

2	Statutory compliance	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions

PPs Submission: Complied Environmental cell already established with full-fledged lab facilities for monitoring all pollution control parameters. Company is certified for ISO-14001- Environmental Management System and ISO 45001-Occupational Health and Safety Management System	Date: 28/05/2024

3	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 Advertisement on environmental clearance is already made in the daily newspapers. Copies of the same have already been submitted to Regional Office of the Ministry.	Date: 28/05/2024

4	Statutory compliance	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

PPs Submission: Complied The date of start of the project is 20.08.2007. Financial Closure of the project is 14th December 2006	Date: 28/05/2024

5	AIR QUALITY MONITORING AND PRESERVATION	The gaseous emissions (SO2, NOX,HCl, CO, VOC and HC) and particulate matter along with RSPM levels from various process units shall conform to the standards prescribed 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 respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency

PPs Submission: Being Complied Stacks emission levels are monitored by the third party (MoEF approved) on monthly basis. Ambient Air Quality is also monitored on monthly basis. Results are in compliance with the stipulated standard. Consolidated statement of Last 6 months results are: Parameter(Threshold limit, µg/nm3), PM10 (100)-Min. value (µg/nm3)- 56.6, Max. Value (µg/nm3)-65.9,PM2.5 (60)-Min. value (µg/nm3) -23.8, Max. Value (µg/nm3)-27.8, SO2 (80)-Min. value (µg/nm3)-8.80, Max. Value (µg/nm3)-12.6, NOx (80)-Min. value (µg/nm3)-18.8, Max. Value (µg/nm3)-24.3, CO (2000)-Min. value (µg/nm3)-BDL, Max. Value (µg/nm3)-BDL, Cl2 (3000)-Min. value (µg/nm3)-BDL, Max. Value (µg/nm3)-BDL, HC-Min. value (µg/nm3)-BDL, Max. Value (µg/nm3)-BDL, BDL –Below Detectable Level. Results are being communicated to TNPCB on monthly basis. Please Refer Annexure-I		Date: 30/05/2024
6	Statutory compliance	The project authorities shall strictly adhere to the stipulations of the SPCB/state government or any statutory body
PPs Submission: Being Complied Complied with stipulations of TNPCB imposed from time to time.		Date: 28/05/2024
7	Statutory compliance	Implementation of the project vis-àvis environmental action plans shall be monitored by the concerned Regional Office of the 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.
PPs Submission: Being Complied It is posted in the website		Date: 28/05/2024
8	Statutory compliance	The locations of ambient air quality monitoring stations shall be reviewed in consultation with the State Pollution Control Board (SPCB) and additional stations shall be installed, if required, in the downwind direction as well as where maximum ground level concentrations are anticipated
PPs Submission: Being Complied Locations of AAQ monitoring stations were established in consultation with TNPCB, which based on the Gaussian Air modelling. Results of the AAQ monitoring through third party are submitted on monthly basis to TNPCB. In case of any additional monitoring stations, if required, will be established in the down wind direction & maximum ground level concentration is anticipated.		Date: 28/05/2024
9	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
PPs Submission: Complied Noted. We will assure that no further expansion or modification in the plant will not be carried out without getting prior approval from MOEF.		Date: 28/05/2024
10	Statutory compliance	At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system 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 Emission norms are complied in all time and no deviation is observed. In case of failure of any		Date: 28/05/2024

pollution control system in future, the operation will be put off until the desired efficiency of the same is achieved.		
11	Statutory compliance	The project proponent shall also comply with all the environmental protection measures and safeguards proposed in the EIA/EMP report
PPs Submission: Complied Complied with all the environmental protection measures, which includes automatic Power back-up system, additional chlorine monitors installation, Caustic deluge tank for emergency 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.	Date: 28/05/2024	
12	AIR QUALITY MONITORING AND PRESERVATION	Levels of HC and VOC at various probable locations in the ambient air will be monitored. Regular monitoring of HC and VOC may be carried out in the ambient air in and around the plant
PPs Submission: Being Complied Ambient Air quality is monitored on once in a month. VOC level in the ambient air is monitored on "real time" basis and the data is linked to CARE AIR centre of Tamilnadu Pollution Control Board, Chennai.	Date: 28/05/2024	
13	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: Being Complied Ambient noise level in the plant is always less than the stipulated standard. Safety engineer monitors the noise level at 82 locations on monthly basis. Engineering control measures on noise level in the plant equipment's is adopted wherever possible. Noise level around the plant area is well within the stipulated standard.	Date: 28/05/2024	
14	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: Being Complied Several community Development programs covering children education, women empowerment, developing infrastructure, fulfilling/ facilitating basic needs, health monitoring /care, recognizing the talents and other social goals are being carried out under Corporate Social Responsibility. Important ones executed at Mettur are: 1.Drinking water to nearby villages 3,58,574 KL, with expenditure of Rs 45.76 Lakhs (Oct-23 To Mar-24) 2.Rural Health Centre is established at 4 locations Doctors are making visit at four days in every week to each center expenditure (Oct-23 To Mar-24) is Rs 13.94 Lakhs 3.Tailoring Centre operational cost (Oct-23 To Mar-24) is 1.31 Lakhs 4.Special medical camp carried out in collaboration with Gokulam Hospital, Salem for Mettur region at the cost of 3.62 Lakhs 5.Polio camp conducted in nearby villages with co ordination of 6.Tamilnadu Primary Health Center at the cost of 0.27 Lakhs 7.Support to Veterinary hospital - infrastructure & equipment at the cost of 4.99 Lakhs 8.Eye camps at Government school (1 camp) at the cost of 0.09 Lakhs 9.Renovation / Infrastructural development of anganwadis - Thipampatti,Kavipuram,Gonur at the cost of 10.07 Lakhs 10.Renovation / Infrastructural development of Sub health centre at nearby village-Panangadu (1no) at the cost of 17.40 Lakhs 11.Support of Mini mast light to Local Panchayats at the cost of 11.18 Lakhs 12.Renovation of bus stops (02 location) at the cost of 11.00 Lakhs 13.RO system at Sampalli government school at the cost of 5.49 Lakhs 14.Support to Health Department (1 GH and 3 PHCs) at the cost of 10.00 Lakhs 15.Contribution towards construction of	Date: 30/05/2024	

Sub Health Center at Thangamapuripattinam at the cost of 18.50 Lakhs Company has received following awards for Pollution prevention measures and Health and Safety Systems. Company has attained BSC 5 star rating in the recent British Safety Council audit. Responsible Care code practices award for Pollution Prevention Code by ICC, Mumbai. Sustainability award for Excellence in Safety by FICCI in Chemicals and Petrochemicals Award 2019. Efficiency in Water Usage in Chemical sector by FICCI in Chemicals and Petrochemicals Award 2019 and FICCI Corporate Social Responsibility Award 2019. Platinum First Prize “8th FICCI Safety Systems Excellence Awards for Industry 2019” in (Hazardous) Large in Manufacturing Sector. Company has been won State Government Safety Awards has received “State Safety Award” -First place for 2014 & Third place for 2015 both under “Lowest weighted injury accident frequency rate” & “Longest injury free working days” on 20.09.2019	

Visit Remarks

Last Site Visit Report Date:	N/A
Additional Remarks:	