SANMAR

Chemplast Sanmar Limited

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CSL/KKL/EN/MOEF&CC/2025/NOV/513
17 NOV 2025
PVC Division

Deputy Director General of Forests
Ministry of Environment, Forest and Climate Change (MoEF&CC)
Integrated Regional Office, 1st Floor, Additional Office Block for GPOA
Shastri Bhawan, Haddows Road, Nungambakkam, Chennai - 600006, Tamilnadu

Respected Sir/Madam,

Subject: Submission of Half-Yearly Compliance Status Report on Environmental Clearance (EC) given by Ministry of Environment, Forest and Climate Change (MoEF&CC) -reg.
Reference: MoEF&CC EC/File No.: J-11011/24/96-IA.II (I) dated 03 JUL 1996 & Transfer of EC dated 26 DEC 2022

With references to the above-mentioned subject, please find the compliance status report to the conditions contained in the MoEF&CC's EC "60 TPD Chlor-Alkali Plant at Melavanjore - Karaikal, Puducherry" enclosed for the period from APRIL 2025 TO SEPTEMBER 2025.

Thanking you and assuring our best cooperation always,

Yours faithfully,
For Chemplast Sanmar Limited,

S.Mathivanan
Senior Vice President – Operations

Enclosures: As mentioned above

Copy to:
The Member Secretary
Puducherry Pollution Control Committee
3rd Floor, PHB Building, Anna Nagar
Puducherry - 605005

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Responsible Care®

COMPLIANCE STATUS

Subject/Proposal name:
60 TPD Chlor-Alkali Plant at Melavanjore - Karaikal, Puducherry
Reference:
Environmental Clearance/File No.: J-11011/24/96-IA.II(I) dated 03 JUL 1996 & Transfer of EC dated 26 DEC 2022

PRESENT STATUS OF THE PROJECT

The said project namely "60 TPD Chlor-Alkali Plant at Melavanjore - Karaikal, Puducherry" is completed and in operation

Conditions and Environmental Safeguards:

#	Conditions description	Compliance status
2 i	The project authorities must strictly adhere to stipulations made by the State Pollution Control Board and the State Government	Complying fully with all the conditions stipulated in Air & Water Consent Orders issued by Puducherry Pollution Control Committee (PPCC). *-The latest Consent conditions (CTO) relevant to Air & Water Act are detailed under Annexure 1*
ii	No further expansion or modification in the plant should be carried out without prior approval of this Ministry	Being complied. Expansion or Modification in the plant will be carried out with prior approval from MoEF&CC as per the requirements of EIA Notification, 2006
iii	Gaseous (Cl_2, SO_2, Nox and HC) and particulate emissions from the various process vents and storage tanks should conform to the standards prescribed by the competent authorities, from time to time. At no time, the emissions level should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the units, the respective unit should be put out of operation immediately and should not be restarted until the pollution control measures are rectified to achieve the desired efficiency	Complied. *-Gaseous emissions namely Cl_2, SO_2, Nox etc. and particulate emission data during the compliance period (APR 25 to SEP 25) is attached as Annexure 2*
iv	At least three ambient air quality monitoring stations should be established in the down wind direction as well as where maximum ground level concentration of SPM, SO2, Nox and Cl2 are anticipated. The selection of the AAQ monitoring stations should be based on modeling exercise to represent short term ground level concentrations, sensitive targets etc. in consultation with State Pollution Control Board	Complied. At least three AAQ monitoring is done in regular intervals by NABL/MoEF&CC approved third party laboratory. Selection of locations is based upon the recommendations made by the PPCC. These reports are being submitted to PPCC on regular basis.
	Stack emissions should also be regularly monitored by installing stack monitoring devices in consultation with the State Pollution Control Board	Stack monitoring devices are fixed in our Boiler & Process stack and are connected to PPCC/CPCB servers via CARE Air Center. Regular monitoring is also done through

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		approved third-party laboratory, and the reports are submitted to PPCC as well.
	Data on AAQ and stack emissions should be submitted regularly to this ministry once in six months and the State Pollution Control Board once in three months along with the statistical analysis and interpretation	Ambient Chlorine Monitoring & Stack emissions sensors are connected to the PPCC/CPCB servers via CARE Air Center and data are transmitted regularly. PPCC also carries out monitoring regularly. *-Environment monitoring data during the compliance period (APR 25 to SEP 25) is attached as Annexure 3*
v	Fugitive emissions should be controlled, regularly monitored and data recorded	Complied. Fugitive emission of Chlorine is monitored through online sensors and data is recorded.
	Chlorine sensors should be installed in the chlorine storage area at lower level between the tanks	Chlorine sensors are installed at strategic locations in the storage/handling areas, and the real-time data are being transmitted to PPCC. *-Online monitoring data (Chlorine sensors) during the compliance period (APR 25 to SEP 25) is attached as Annexure 4*
vi	Liquid effluent coming out of the plant should conform to the standard as prescribed by the State Pollution Control Board/the Ministry of Environment and Forests under Environment (Protection) Act, 1986	Complied. Raw effluent is getting collected at ETP and treated.
	Recycling and reuse of the treated waste water should be maximized to the extent possible	The treated trade effluent is fully recycled and reused in our Chlor-Alkali process itself. Company has achieved Zero Liquid Discharge status. *-Analysis report of reject water during the compliance period (APR 25 to SEP 25) is attached as Annexure 5*
vii	Adequate measures for control of noise should be taken so as to keep noise levels below 85 dB in the work environment	Complied. Adequate measures (Acoustic control) are taken to control the noise, and the levels are within the prescribed standards stipulated by the Boards from time to time. Regular monitoring of noise has been done and reported to PPCC.
	Persons working near the noisy machines like blowers, compressors etc. should be provided with well designed ear muffs/plugs. Besides, measures should be taken to reduce the noise by engineering methods	Based upon the noise monitoring survey, well designed ear muffs/plugs are given to persons working near the noisy areas. Required engineering control is implemented for all our machines to

		reduce noise in the design phase itself. *-Noise survey report during the compliance period (APR 25 to SEP 25) is attached as Annexure 6*
viii	Occupational health surveillance programme should be undertaken as a regular exercise especially with respect to exposure to chlorine, thermal stresses and noise pollution	Complied. Occupational health surveillance is being done on periodic basis for all our employees/contractors working in the hazardous area. The reports are available in our Occupational Health Centre managed by a Doctor supported by nurse. *-Sample reports on the heath surveillance are attached as Annexure 7*
ix	A green belt of adequate width and density (2000-2500 trees/ha) should be developed covering 12 acres of land using native plant species suitable for saline soil in consultation with local Agriculture Department. Final treated liquid effluent should be used for developing the greenery	Adequate green belt is maintained using native trees. We have around 11,000+ numbers of trees in the area covering 12.5 Acres. Final treated sewage water is used for developing the green belt. *-Photographs of green belt are attached as Annexure 8*
x	Suitable alarm system and standard procedure for transmitting the information on accidental release of chlorine to nearby areas and common focal point should be established. Steps should also be taken to ensure access to information on weather conditions prevailing at that time and weather forecast. Wind socks at appropriate locations should be provided Necessary approval may be taken from the Explosives Department/Chief Inspector of Factories regarding the safety of the pressure vessels, storage tanks etc.	Complied. Accidental release of Chlorine to nearby areas are being monitored by the online sensors which are connected to the PPCC/CPCB servers via our CARE AIR Center. Internet facilities made available to access the information on weather conditions prevailing at that time and weather forecast. Wind socks are provided in the appropriate locations to identify the direction during emergencies. On-site & Off-site mock drills are being carried out periodically. Required approvals are taken from Petroleum & Explosives Safety Organization (PESO) and Inspector of Factories (IF) and renewed from time to time for pressure vessels and storage tanks. *-Latest PESO approvals for storage tanks are attached as Annexure 9*
xi	Efforts should be made involving other industries operating in the area for development of facilities to combat emergency situation that may arise in case of an accident	MOU is available with nearby industries to combat emergencies that may arise in case of an accident. Regular on/off-site mock drills also conducted in co-ordination with Government officials including the District Administration. *-Sample mock drill report is attached as Annexure 10*

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xii	Hazardous wastes should be handled as per the Hazardous Waste (Management and Handling) Rules, 1989 of the EPA, 1986 and necessary approval of State Pollution Control Board for safe collection, treatment, storing and disposal of hazardous waste should be obtained	Complied. Hazardous Waste handling, collection, treatment, storing and disposal has been done as per the Authorization issued by PPCC (by the requirements of Hazardous Waste [Management and Transboundary Movement] Rules, 2016. *-Valid Hazardous Waste Authorization is attached as Annexure 11*
xiii	Handling, manufacture, storage and transportation of hazardous chemicals should be carried out in accordance with the Manufacturer, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994	Complied. Handling, manufacture, storage and transportation of hazardous chemicals are carried out in accordance with 'The Manufacturer, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994'. Point wise compliance status and action taken report submitted to PPCC regularly. *-Copy of compliance report is attached as Annexure 12*
xiv	The project authorities must set up laboratory facilities for collection and analysis of samples under supervision of competent technical personnel, who will directly report to the Chief Executive	Complied. Laboratory facility available for collection/analysis of water samples. It is supervised by qualified/experienced people (9 members team) reporting to the Plant Head. Our Laboratory has facilities towards the environmental samples analysis like pH Meter, Conductivity Meter, Spectrophotometer, Gas Chromatograph (organic analysis), Nephelometric/Turbidimetric Analyser along with all facilities related to classical analysis
xv	A separate Environment Management Cell with suitably qualified people to carry out various functions should be set up under the control of Senior Executive, who will report directly to the Head of the organisation	Complied. A separate Environment Department with a qualified/experienced person is available, reporting directly to the Plant Head & Corporate Environment Team
xvi	The funds earmarked for the environmental protection measures should not be diverted for any other purposes and year-wise expenditure should be reported to this ministry	Complied. Separate budget for the environmental protection measures is earmarked every year. All the expenses are recorded by the advanced accounting system (SAP) of the company. Total environmental protection expenditures and investments FY 2024-25 were around Rs. 2.3 Crores which includes O&M contract, Green belt development, Environment monitoring, Waste management & disposal etc.
xvii	Six monthly reports on the compliance status of the project implementation vis-a-vis above environmental measures should be submitted to	Complied. Six monthly compliance reports are regularly submitted online to the

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	Regional Office of the Ministry at Bangalore	Integrated Regional Office of MoEF&CC, Chennai (via PARIVESH Portal) and PPCC (via Hard Copy). Latest Half Yearly Compliance Report for the period OCT 24 to MAR 25 was submitted to the authorities vide Letter No.: CSL/KKL/EN/MOEF&CC/2025/MAY/452 dated 23 MAY 2025
3	This Ministry or any competent authority may stipulate any further conditions (s) on receiving reports from the project authorities. The above conditions will be monitored by the Regional Office of this Ministry located in Karnataka (Bangalore)	Noted
4	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory	Noted
5	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974; and Air (Prevention and Control of Pollution) Act, 1981; The Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 with their amendments and rules	Agree to comply

Site visits of Ministerial staff

The following table shows the details of site inspection of ministerial representatives so far:

#	Name of Ministerial staff	Date of site inspection
1	Dr. Suresh, Regional Director & Ms. Anjana Kumari, Scientist -D Central Pollution Control Board (CPCB), Bangalore	07 NOV 2019
2	Dr.C.Palpandi, Scientist 'D' Ministry of Environment, Forest and Climate Change (MoEF&CC), Chennai	03 OCT 2024

Thanking you,

Yours faithfully,
For Chemplast Sanmar Limited,

S.Mathivanan,
Senior Vice President – Operations

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COMPLIANCE REPORT TO THE CONDITIONS SPECIFIED IN PPCC - CONSENT TO OPERATE/RENEWAL

Air Consent Order (To Operate/Renewal)

Ref. No.: (402166)/(2025) dated 03 JAN 2025

<table>
<tr><th>#</th><th>Conditions specified in Consent Order</th><th>Compliance status</th></tr>
<tr><td>1</td><td>SPECIAL CONDITIONS:
Notwithstanding anything contained in any other Act or Rules or Notifications this clearance is given from pollution angle only</td><td>Noted</td></tr>
<tr><td>2</td><td>Details of Products and By-products manufactured:
<table>
<tr><th>S. No.</th><th>Description</th><th>Quantity</th><th>Unit</th></tr>
<tr><td>a</td><td>Main products Manufactured</td><td></td><td></td></tr>
<tr><td>1</td><td>Caustic Soda (including Caustic Soda Flakes - 19162.5 TPA)</td><td>54,750</td><td>TPA</td></tr>
<tr><td>2</td><td>Chlorine Gas</td><td>48,181</td><td>TPA</td></tr>
<tr><td>3</td><td>Hydrogen Gas</td><td>1,387</td><td>TPA</td></tr>
<tr><td>4</td><td>Hydrochloric Acid</td><td>16,425</td><td>TPA</td></tr>
<tr><td>5</td><td>Sodium Hypo Chlorite</td><td>10,950</td><td>TPA</td></tr>
<tr><td>6</td><td>Ethylene di chloride</td><td>84,000</td><td>TPA</td></tr>
<tr><td>7</td><td>Natural gas based captive power plant(with standby engine)</td><td>8.5</td><td>MW</td></tr>
<tr><td>b</td><td>By-product</td><td></td><td></td></tr>
<tr><td>1</td><td>No by-product</td><td>0</td><td></td></tr>
</table></td><td>Complied.
Only the listed products are manufactured and within the specified quantity</td></tr>
<tr><td>3</td><td>The applicant shall erect the chimney(s)/stack(s) of the following specifications:
<table>
<tr><th>S. No.</th><th>Chimney/Stack attached to</th><th>Height of the stack in meter</th><th>Diameter, m</th><th>Volume Nm3/hr</th></tr>
<tr><td>1</td><td>Stack 1 - Flaker unit</td><td>46</td><td>1</td><td>30,000</td></tr>
<tr><td>2</td><td>Stack 2 - HCL Tower</td><td>22.5</td><td>0.15</td><td>200</td></tr>
<tr><td>3</td><td>Stack 3 – Hypo Tower</td><td>15</td><td>0.234</td><td>600</td></tr>
<tr><td>4</td><td>Stack 4 - Ethylene di chloride (Incinerator Stack with Waste Heat Recovery Boiler - 2.6 TPH</td><td>30</td><td>0.55</td><td>5,000</td></tr>
</table></td><td>Complied.
Stacks are erected as per the listed specifications only</td></tr>
</table>

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5	Stack 5 - Ethylene di chloride (Incinerator - Emergency Stack)	11	0.86	4,500
6	Stack 6 - Boiler IBR 8.0 TPH LSHS Fired	45	1.2	30,000
7	Stack No 7 - Natural Gas based Captive Power Plant (8.5 MW) and Waste Heat Recovery Boiler (4.8 TPH)	30	1.1	26,000
8	Stack 8 - DG Set 1 - 600 KVA	22 m from the GL	0.1	2,500
9	Stack 9 - DG Set 2 - 600 KVA	16.5 m from the GL	0.2	6,500
10	Stack 10 - DG Set 3 - 400 KVA	7 m from the GL	0.1	2,000
11	Stack 11 - DG Set 4 - 180 KVA	7 m from the GL	0.1	200
12	Stack 12 - DG Set 5 - 82.5 KVA	12 m from the GL	0.1	100

4 The applicant shall install a comprehensive air pollution control system consisting of control equipment as detailed below and operate and maintain the same continuously so as to achieve the level of pollutants to the following standards:

Chimney/Stack	Control Equipment	Relevant- parameters & standard limits
Stack 1 - Flaker unit	Stack	-
Stack 2 - HCL Tower	Tail Gas Absorption System and Stack	Chlorine - 15 mg/Nm3, Hydrochloric Acid Mist - 35 mg/Nm3
Stack 3 - Hypo Tower	3 Stage Caustic Wet Scrubber, Acid Mist Absorption System and	Chlorine - 15 mg/Nm3, Hydrochloric Acid Mist - 35 mg/Nm3

Complied.
Air pollution control system with the control equipment are operated and maintained continuously to achieve the prescribed standards

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	Stack	
Stack 4 - Ethylene di chloride (Incinerator Stack with Waste Heat Recovery Boiler - 2.6 TPH)	2 Combustion Chambers, Waste Heat Recovery Boiler and 3 Water Scrubbers	Chlorine - 15 mg/Nm3, Hydrochloric Acid Mist - 35 mg/Nm3
Stack 5 - Ethylene di chloride (Incinerator - Emergency Stack)	Stack	-
Stack 6 - Boiler IBR 8.0 TPH LSHS Fired	Stack	Particulate Matter - 150 mg/Nm3, Sulphur di oxide (SO2) - 600 mg/Nm3 @ 3% dry O_2, Oxides of Nitrogen (NOx) - 300 mg/Nm3 @ 3% dry O_2
Stack 7 - Natural Gas based Captive Power Plant (8.5 MW) and Waste Heat Recovery Boiler (4.8 TPH)	Stack	Oxides of Nitrogen (NOx) - 100 ppm m (v/v) at 15% excess oxygen
Stack 8 - DG Set 1 - 600 KVA	Acoustic Enclosure and Stack	Oxides of Nitrogen (NOx) - 0.4 g/kW-Hr, Hydrocarbon (HC) - 0.19 g/kW-Hr, Carbon Monoxide (CO) - 3.5 g/kW-Hr, Particulate Matter (PM) - 0.02 g/kW-Hr, Smoke Limit (Light Absorption Coefficient) 0.7 per m
Stack 9 - DG Set 2 - 600 KVA	Acoustic Enclosure and Stack	Oxides of Nitrogen (NOx) - 0.4 g/kW-Hr, Hydrocarbon (HC) - 0.19 g/kW-Hr, Carbon Monoxide (CO) - 3.5 g/kW-Hr, Particulate Matter (PM) - 0.02 g/kW-Hr,

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			Smoke Limit (Light Absorption Coefficient) 0.7 per m
	Stack 10 - DG Set 3 - 400 KVA	Acoustic Enclosure and Stack	Oxides of Nitrogen (NOx) - 0.4 g/kW-Hr, Hydrocarbon (HC) - 0.19 g/kW-Hr, Carbon Monoxide (CO) - 3.5 g/kW-Hr, Particulate Matter (PM) - 0.02 g/kW-Hr, Smoke Limit (Light Absorption Coefficient) 0.7 per m
	Stack 11 - DG Set 4 - 180 KVA	Acoustic Enclosure and Stack	Oxides of Nitrogen (NOx) - 0.4 g/kW-Hr, Hydrocarbon (HC) - 0.19 g/kW-Hr, Carbon Monoxide (CO) - 3.5 g/kW-Hr, Particulate Matter (PM) - 0.02 g/kW-Hr, Smoke Limit (Light Absorption Coefficient) 0.7 per m
	Stack 12 - DG Set 5 - 82.5 KVA	Acoustic Enclosure and Stack	Oxides of Nitrogen (NOx) - 0.4 g/kW-Hr, Hydrocarbon (HC) - 0.19 g/kW-Hr, Carbon Monoxide (CO) - 3.5 g/kW-Hr, Particulate Matter (PM) - 0.02 g/kW-Hr, Smoke Limit (Light Absorption Coefficient) 0.7 per m

5	The applicant shall observe the following fuel consumption:	Agree to observe. The unit of Diesel consumption for DG set is LPH, request to amend the unit as LPH instead of TPH

S. No.	Type of Fuel	Maximum quantity/day
1	Diesel for DG Sets (in TPH)	391
2	Hydrogen Gas (in TPA)	900
3	Super Kerosene (in TPD)	0.3
4	LSHS for Boiler (in Kgs/Hr)	675

6	The applicant shall provide ports in the chimney/stack and	Agree to comply

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	facilities such as ladder, platform etc. as per requirements for monitoring the air emissions and the same shall be open for inspection and use by the Board's staff. The chimney/stacks attached to various sources of emission shall be designated by numbers such as S-1, S-2 etc. and these shall be painted/displayed to facilitate identification. The unit shall comply with the guidelines mentioned in Emission Regulation, Part III published by the CPCB	
7	Interlocking shall be provided with the Process and Pollution Control Systems	Agree to comply
8	Separate Energy Meters shall be installed for the Air Pollution Control Systems and proper records shall be maintained in the log book	Complied. Separate Energy Meters are provided and readings are recorded in the log book regularly
9	The proponent shall take measures to comply with the provisions laid down under Noise pollution (Regulation and Control) Amendment Rules, 2010 and control the noise to the prescribed levels	Complied. Control measures taken to comply with the provisions laid down under Noise pollution (Regulation and Control) Amendment Rules, 2010. Noise monitoring is been done monthly and values are within the prescribed levels
10	The industry shall take adequate measures for control of noise from its own source so as to comply with the standards as may be applicable. Noise Level should not exceed .. dB (A) and. dB (A) during daytime and night times respectively	Complied. Adequate measured taken to control the noise from its own source. Noise monitoring is been done monthly and values are within the prescribed standards
11	DG Sets shall meet the noise and air emission standards prescribed under The Environment (Protection) Rules, 1986 and shall be provided with integral acoustic enclosure. The applicant shall comply with order of Hon'ble National Green Tribunal dated 11.05.2015 in Appeal No. 12(Tsc) of 2013, Original Application No. 17(THC) of 2013 and Original Application No. 32(ITHC) of 2013 and implement all conditions in the CPCB Guidelines for DG Set. The DG set which are 15 years old or completed 50,000 Hours of Operation shall not be used	Agree to comply. DG Sets meets the noise and air emission standards prescribed under The Environment (Protection) Rules, 1986 (Stack/Noise monitoring is been done quarterly/monthly and values are within the prescribed standards) and provided with the required acoustic enclosure. The DG Sets which are 15 years old are been replaced in phased manner. One number of DG Set replaced and two numbers will be replaced in this financial year 2025-26
12	The unit shall provide minimum stack height (H) to the DG sets as per the formula H = h + 0.2 SQRT (KVA) where KVA= total generation capacity and h= Height of the building where DG set is installed	Agree to comply. Stacks are modified & ensured for minimum stack height in phased manner i.e. during the DG Set replacement work
13	The Industry shall take appropriate measures to ensure that the ground level concentration shall comply with revised National Ambient Air Quality Standards dated 16.11.2009 notified by MoEF&CC, GOI	Complied. Appropriate measures taken to ensure that the ground level concentration comply with revised

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		National Ambient Air Quality Standards. Monthly monitoring is been done monthly and values are within the prescribed levels
14	There shall not be any be perceptible odour outside the industry's premises	Complied. There is no perceptible odour outside the industry's premises
15	Any change in the emission source/process/Air Pollution Control System/fuel shall be brought to the notice of this Authority in writing and fresh consent has to be obtained, as required	Agree to comply
16	The unit shall submit the Environmental Statement in Form V before 30th September every year as per the Rule No. 14 of the E(P) Rules, 1986 & Amendments	Complied. Last Environment Statement - Form V was submitted on 23 SEP 2025 (Ref. No.: CSL/KKL/EN/F5/2025/SEP/491)
17 (a)	Specific Conditions: Consent Validity: (i) The Section "Consent Validity" at Page No. 1 of this Consent Order is not applicable (ii) This Air Consent (To Operate/Renewal) Order is valid up to 31.03.2029 (iii) The Project Proponent shall apply for renewal of this Consent Order, before 120 Days of the Expiry of this Consent Order, as imposed vide (1) above, in prescribed formats, via online portal of this Committee – www.ponocmms.nic.in, along with relevant attachments and consent fees. No Other mode of application shall be entertained	Noted. Agree to comply
(b)	This Air Consent Order (to Operate/Renewal) is issued integrating Consent to Operate/Renewal towards Application Nos. 402166, 320706, 377118 and 421800 dated 19.12.2023, 02.01.2023, 17.08.2023 and 23.02.2024, including Consent to Operate for the Marine Terminal Facility (repair and replacement 6" to 8" dia of Caustic Soda pipeline and Maintenance of the Ethylene pipeline), newly installed Caustic Concentration Unit and DG Set and newly installed Incinerator system, respectively	Noted.
(c)	Conditions for Caustic Soda and Ethylene Di chloride Manufacturing: The caustic soda manufacturing shall be carried out in Electrolysers (A, B, C, D) with output capacity of 165 TPD	Complied. The Caustic Soda manufacturing is carried out in Electrolysers (A, B, C, D) with output capacity of 165 TPD
(d)	The fuel used for Caustic Soda Flakes production in the Fusion Furnace shall be Hydrogen Gas only, for heating of the Molten Salt and the quantity of Hydrogen Gas used shall not exceed 1100 Nm3/Hr., at any point of time	Complied. Fuel used for Caustic Soda Flakes production is Hydrogen Gas only and its consumption is within the limits
(e)	Chlorine gas produced in plant shall be stored in Bullet Storage Tanks (4 Nos + 1 No standby), (Water Capacity: 211.50 m3) and excess chlorine gas shall be vented to Sodium Hypo Chlorite manufacturing plant	Complied. Chlorine gas produced in plant are stored in Bullet Storage Tanks only

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(f)	The Ethylene Gas (C_2H_4) shall be stored with utmost safety and precautions, as per the provisions of Acts and Rules, prevailing till date, as applicable	Complied. Ethylene is stored in double walled storage tank with pressure/ temperature monitoring system and dedicated fire hydrant/sprinkler
(g)	The Vent gases from Ethylene Storage Tank and System for Maintenance Operations of Cryogenic conditions shall be properly burnt using Flare provided with the same	Complied. Forced draught flare with smokeless blower system is available
(h)	The fuel used in flare system shall be Kerosene/Natural gas/Hydrogen	Agree to comply
(i)	Adequate number of Ethylene Gas (C_2H_4) Sensors shall be provided around the Ethylene Gas (C_2H_4) Storage tank and Ethylene-Di-Chloride ($C_2H_4Cl_2$) plant and the same shall be closely monitored, to prevent any fire or explosion hazards	Complied. Sixteen numbers of Ethylene Gas Sensors are provided and are closely monitored though DCS system
(j)	The unreacted gases consisting of Ethylene Gas, Chlorine Gas shall be scrubbed with Caustic Scrubber to remove excess Chlorine Gas and then the remaining unreacted Ethylene Gas (C_2H_4), shall be incinerated in the incinerator	Complied. Unreacted gases are scrubbed with Caustic Scrubbers and remaining is incinerated regularly
(k)	The fuel used in the incinerator shall be Super Kerosene/ Hydrogen/Natural Gas. The maximum consumption of Super kerosene shall not exceed 1000 LPD	Complied. The fuel used in the incinerator is Super Kerosene or Hydrogen or Natural Gas
(l)	The emissions from incinerator shall be passed through Waste Heat Recovery Boiler (2.6 TPH), 3 Nos of water scrubbers and let out through Stack No. 4	Complied. The emissions from incinerator is passed through WHR Boiler, scrubbers and let out through the stack
(m)	The unit shall ensure the connectivity and maintain the Online Continuous Emission Monitoring System (OCEMS), as per the guidelines of the CPCB, regularly, for seamless transfer of data, of the 16 Nos. of strategically placed Ambient Chlorine Sensors, Chlorine Sensors at the Stacks, and the Particulate Matter, Sulphur di oxide and Oxides of Nitrogen from the Boilers, etc., to the servers of this Committee, which is viewable via https:1/ppcc.glensserver.com1PPCC_ONLINE/index.html and the CPCB, New Delhi, without interruption, synced in Cloud based system, of the Glens Server	Complied. OCEMS maintained as per CPCB Guidelines. Our CARE Air system is in continuous connection with the PPCC/CPCB servers through Glens/ENVEA servers
(n)	The industry shall take adequate measures for control of noise from its own source so as to comply with the standards as may be applicable. Noise Level should not exceed 75 dB (A) and 70 dB (A) during daytime and night times respectively	Complied. Adequate measured taken to control the noise from its own source. Noise monitoring is been done monthly and values are within the prescribed standards
(o)	The unit shall engage an NABL Accredited Laboratory for conducting Ambient Air and Noise and Stack Emissions Monitoring and Analysis of Process/Boiler/DG Set Stacks and the reports of the same shall be submitted to this Committee, once every 3 months, as per the frequency of monitoring and inspections recommended by the CPCB	Complied. Monthly environmental monitoring is been done through NABL/MoEF&CC approved laboratory and reports are submitted to your good office regularly

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(p)	The unit shall possess valid Public Liability Insurance under the provisions of Public Liability Insurance Act, 1991	Complied.
(q)	The unit shall comply with the provisions of Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and shall regularly conduct On-site and Offsite Emergency Mock drills as applicable to the MAH units, for all the facilities under the unit including the Marine Terminal Facilities	Complied. Regular on & off site mock drills are conducted including our Marine Terminal Facility
(r)	Conditions for Marine Terminal Facility: Adequate no. of ethylene sensors shall be provided around the Marine Terminal Facility and the same shall be closely monitored, to prevent any fire or explosion hazards	Complied. Sixteen numbers of Ethylene Gas Sensors are provided and are closely monitored though DCS system
(s)	There shall be no any spillages of Caustic Soda Lye or any kind of Oil/Ballast Water/Chemicals from the moored ships into the coastal waters. If any such spillages occur, at any point of time, the responsibility of containment/cleaning/ remediation of the same, lies solely on the unit	Complied. No spillages arises. If any occurs in future, the cleaning of the same is the sole responsibility of our unit
(t)	If any reversible/irreversible environmental damages or degradation occurs due to the operation of the Marine Terminal Facility, the unit is liable to carry out the rehabilitation of the damaged environment on the own cost and/or to bear the cost of the same, payable as environmental compensation, to this Committee, which may be worked out, specific to the occurrences of the event	Agree to comply
(u)	The unit shall comply with the conditions imposed by the Ministry of Environment, Forest and Climate Change, New Delhi, in its Environmental Clearance and the copy of the Compliance report shall be submitted to this Committee also, as and when submitted to the Ministry	Complied to all the conditions of MoEF&CC and copy of the half yearly compliance reports are submitted to PPCC regularly
(v)	The unit shall procure and keep the Oil Spill Tier I Equipment's ready to be deployed, at any point of time, if any such spills occur	Complied. All required Oil Spill Contingency Equipments are available and in ready to deploy condition during any spill
(w)	The unit shall notify this Committee, the details of the Ship and Shipment, as and when calls are proposed	Complied. All the shipment details are communicated regularly to your good office
(x)	The MTF shall put in place proper Oil Spill Disaster Contingency Plan as per the protocols and guidelines of the Indian Coast Guard and shall be strictly adhered to	Complied
(y)	The Storage Tanks of the Raw Materials, Intermediates and the Finished Goods shall be appropriately maintained for spillage free environment, with adequate containment/ emergency response plan	Complied. All dyke walls of storage tanks are built as per the said requirement to avoid contamination of land and to withstand any failure of tank structures or leaks
(z)	Conditions for Replacement of Old Incinerator system: The Emergency stack shall be operated in case of emergency conditions like power failure only. Preventive Maintenance schedule and error proof operation and maintenance SOP shall be generated and put to use at all	Agree to comply

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	times. The operation of the Emergency Stack of the incinerator shall be recorded in a log book and copies of the same shall be submitted to this Committee, as and when demanded for	
(aa)	Conditions for Boiler (Capacity 8 TPH): The fuel used in the Boiler shall be Low Sulphur Heavy Stock (LSHS) and/or Hydrogen Gas only. The quantity of Low Sulphur Heavy Stock (LSHS) and Hydrogen Gas used shall not exceed 675 Kgs/Hr., and 50 Nm3/Hr., respectively, at any point of time	Complied. LSHS is used as a fuel in the Boiler and the consumption quantity are within the prescribed limits
(bb)	Conditions for Natural Gas based Captive Power Plant (8.5 MW): The fuel used in the power generators shall be Natural gas only	Complied. Generator is operated in Natural Gas only
(cc)	The flue gas from above plant shall be passed through Waste Heat Recovery Boiler (4.8 TPH) and let out through Stack No. 7 after meeting the emission limits stipulated under the Environment (Protection) Rules, 1986 as amended from time to time	Complied. Flue gas is passed through the WHR Boiler and then to a stack after meeting the required emission standards
(dd) i)	Implementation Schedule : The old caustic concentration unit shall be dismantled immediately after commencement of operations of the new caustic concentration unit	Agree to comply. Dismantling is under progress
ii)	The old Incinerator system in the EDC unit shall be dismantled immediately after commencement of operations of the new incinerator system	Agree to comply. Dismantling is under progress
iii)	The unit shall carry out air pollution dispersion modelling studies for venting of air emissions from emergency stack during power failure scenario and validate the height of the stack provided for release of any unreacted gas from incinerator	Complied. 'Dispersion Modelling Study for Incinerator Stack and its Emergency Stack' is completed by M/s. Aqua-Air Environmental Engineers Private Limited in SEP 2025, report attached
iv)	The project proponent shall provide Retrofit Emission Control Devices as per the "System and Procedure for Emission Compliance Testing of Retro-fit Emission Control Devices (RECD) For Diesel Power Generating Set Engines Up to Gross Mechanical Power 800 kW" report of CPCB dated 01.02.2022, within 6 months from the date of issue of this consent order and shall submit compliance report to this Committee	Agree to comply. ▪ We will replace all DG Sets, which are 15 years old or completed 50,000 Hours of Operation in phased manner. The new DG Sets will be of CPCB IV+ Model and are designed for lower PM emissions; it is like upgrading from BS IV to BS VI on the highway segment thus do not require installation of RECD ▪ One number of DG Set replaced and two will be replaced in this financial year 2025-26
1	GENERAL CONDITIONS: Notwithstanding anything contained in this Consent to Establish, the Puducherry Pollution Control Committee hereby reserves its right and power under Section 27 (2) of the Water (Prevention and Control of Pollution) Act, 1974	Agree to comply

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	and Section 21 (4) of the Air (Prevention and Control of Pollution) Act, 1981 to revoke any or all the conditions imposed herein and to modify or stipulate additional conditions	
2	The applicant shall not undertake any expansion, modernization, diversification, change of location, change of process, change of products etc., without the prior approval /clearance from this authority	Agree to comply
3	The Green Belt shall be designed and maintained to achieve attenuation factor conforming to the day and night noise standards prescribed for land use. The open spaces inside the plot shall be suitably landscaped and covered with vegetation of suitable indigenous perennial varieties with specific reference to climate and soil conditions and maintained	Complied. Green Belt is maintained as per the requirement. Open spaces inside the plant is suitably landscaped and covered with vegetation
4	The Bio-degradable Solid Waste generated shall be properly collected, segregated and disposed through composting or Bio-methanation within the premises	Agree to comply
5	The Non-Bio-degradable Solid Waste shall be handed over to the concerned Municipality/Commune Panchayats. Dumping the same on land or in any water bodies is strictly prohibited	Agree to comply
6	The organic sludge from the secondary aeration process of Sewage/Effluent Treatment Plants shall be composted along with other Bio- degradable solid waste and shall be used as manure for the green belt development	Complied. Sludge from STP are used as manure for the green belt development
7	All Hazardous wastes shall be stored and disposed as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 after obtaining necessary authorization from the PPCC	Complied. All Hazardous Wastes are stored and disposed as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 after obtaining necessary authorization from the PPCC
8	The Plastic Waste generated shall be segregated and shall be disposed through authorized recyclers only	Agree to comply
9	The Project Proponent shall not use any items prohibited under the Notification on Ban of Single Use Plastics, vide G.O. Ms. No. 18/Envt./2019, Puducherry dated 30th July, 2019 and Plastic Waste Management (2nd Amendment) Rules, 2022, notified by MoEF&CC, GOI., failing which, enforcement action, as deemed fit, will be initiated, as per the provisions of the Environment (Protection) Act, 1986, along with its amendments, from time to time	Agree to comply
10	The project proponent shall ensure that, e-Waste generated shall be collected and segregated suitably and shall be channelized to authorized collection centers or registered dismantlers or recyclers or shall be returned back to pick up by the take back services provided by its producers, conforming to the E- Waste (Management) Amendment Rules, 2018, as amended from time to time	Complied. E-Waste generated are managed as per 'The E- Waste (Management) Amendment Rules, 2018' and disposed to authorized recyclers

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11	The project proponent shall ensure that, the used batteries are not disposed of in any manner, other than depositing with the dealer, manufacturer, importer, assembler, registered recycler, reconditioner or at the designated collection centers, confirming to the Batteries Waste Management Rules, 2001, as amended from time to time	Complied. Used batteries are disposed to the registered recycler confirming to 'The Batteries (Management & Handling) Rules, 2001'
12	Appropriate rainwater harvesting structures shall be installed for maximizing collection and reuse of rain water and/or recharge of ground water	Complied. Rainwater is been collected and reused in our process whenever available
13	Solar street lighting shall be provided for illumination of common areas, lighting for gardens, community recreational areas, in addition to the Solar Water Heaters	Complied
14	Traffic congestion at the entry and exit points from the roads adjoining the proposed site shall be avoided. The parking shall be fully internalized and no public space shall be utilized for the same	Complied
15	The project proponent shall make separate allocation of funds for the installation and maintenance of proper pollution and environmental measures and earmark separate staff for operation and maintenance of the control system	Agree to comply
16	Energy efficient lighting systems like LED's and energy efficient equipment with star rating shall be installed for energy conservation	Complied. Installation details FY 2024-25 are as follows., ▪ LED Lights – 255 Nos. ▪ IE3 Motors – 50 Nos. ▪ VFDs – 13 Nos.
17	Used CFL's/TFL's/LED's should be properly collected and disposed off/sent to for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid toxic contamination	Agree to comply
18	5% of power requirement of the unit shall be met out from renewable energy sources within period of three years as per PPA Building Bye-Laws vide G.O.Ms.No.5/2012 dt., 05.03.2012, as applicable	Agree to comply
19	The building shall comply with requirements of the Energy Conservation Building Code (ECBC), as applicable	Agree to comply
20	The applicant shall take all possible measures to create pollution free surroundings. Housekeeping shall be maintained clean. Sufficient green belt shall be provided all around the unit	Complied. Pollution free surroundings are maintained by regular housekeeping and through sufficient green belt
21	This Consent Order shall be exhibited in the office room and must be made available to the inspecting officers of this Committee	Complied. Consent Order is exhibited in the office room and is available to the inspecting officers
22	All the conditions shall be enforced under the provisions of the Environment (Protection) Act, 1986, along with its amendments, from time to time	Agree to comply

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Water Consent Order (To Operate/Renewal)

Ref. No.: (402166)/(2025) dated 03 JAN 2025

<table>
<tr><th>#</th><th>Conditions specified in Consent order</th><th>Compliance status</th></tr>
<tr><td>1</td><td>SPECIAL CONDITIONS:
Notwithstanding anything contained in any other Act or Rules or Notifications this clearance is given from pollution angle only</td><td>Noted</td></tr>
<tr><td>2</td><td>Details of Products and By-products manufactured:
<table>
<tr><th>S. No.</th><th>Description</th><th>Quantity</th><th>unit</th></tr>
<tr><td>a</td><td colspan="3">Main products Manufactured</td></tr>
<tr><td>1</td><td>Caustic Soda (including Caustic Soda Flakes - 19162.5 TPA)</td><td>54750</td><td>TPA</td></tr>
<tr><td>2</td><td>Chlorine Gas</td><td>48181</td><td>TPA</td></tr>
<tr><td>3</td><td>Hydrogen Gas</td><td>1387</td><td>TPA</td></tr>
<tr><td>4</td><td>Hydrochloric Acid</td><td>16425</td><td>TPA</td></tr>
<tr><td>5</td><td>Sodium Hypo Chlorite</td><td>10950</td><td>TPA</td></tr>
<tr><td>6</td><td>Ethylene di chloride</td><td>84000</td><td>TPA</td></tr>
<tr><td>7</td><td>Natural gas based captive power plant(with standby engine)</td><td>8.5</td><td>MW</td></tr>
<tr><td>b</td><td colspan="3">By-product</td></tr>
<tr><td>1</td><td>No by-product</td><td>0</td><td></td></tr>
</table></td><td>Complied.
Only the listed products are manufactured and within the specified quantity</td></tr>
<tr><td>3</td><td>Details of Water Consumption:
<table>
<tr><th>Water Requirement for</th><th>Quantity in KLD</th><th>Water Source</th></tr>
<tr><td>Process</td><td>520.0</td><td>PASIC Authorised Borewell/Desalination Plant (3 MLD)</td></tr>
<tr><td>Cooling</td><td>968.0</td><td>PASIC Authorised Borewell/Desalination Plant (3 MLD)</td></tr>
<tr><td>Boiler</td><td>190.0</td><td>PASIC Authorised Borewell/Desalination Plant (3 MLD)</td></tr>
<tr><td>Floor and Vessel Washing</td><td>32.0</td><td>PASIC Authorised Borewell/Desalination Plant (3 MLD)</td></tr>
<tr><td>Domestic Use</td><td>15.0</td><td>PASIC Authorised Borewell/Desalination</td></tr>
</table></td><td>Agree to comply</td></tr>
</table>

			Plant (3 MLD)
	Garden	38.0	PASIC Authorised Borewell/Desalination Plant (3 MLD)/STP Treated water
	Total	1763	

4 The applicant shall have the following outlets with maximum discharge quantities and disposal point as specified in the table for discharge of sewage/trade effluent. Any change in the outlets has to be brought to the notice of the Board and fresh consent has to be obtained if necessary.

Outlet No.	Description of Outlet	Maximum daily discharge in KLD	Point of disposal
1	Sewage	13.0	Shall be treated in existing STP of 50 KLD and the treated water shall be used for gardening after conforming to the prescribed standards
2	Trade Effluent	14.0	Shall be treated in existing ETP and shall entirely be recycled into process
3	Trade Effluent	70.0	The Reject of the existing RO Plant shall be recycled back to the Desalination Plant (3 MLD) and there shall be no any discharge in and around the unit
4	Trade Effluent	1800.0	The Rejects of the Existing 3 MLD Desalination Plant shall be let out to the back waters of Paravadayan River, after conforming to the standards prescribed in the

Agree to comply.
With reference to our previous CTO (R) dated 20 NOV 2019 (reference 1 above), our total Effluent discharge is 85 KLD i.e. 14 KLD from the Caustic Soda & Other By-products Manufacturing and 71 KLD from Ethylene Di Chloride Plant. Hence, Trade effluent in outlet quantity shall be amended to 85 KLD

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				GSR 7 dated 22.12.1998 of the Environment (Protection) Act, 1986.	
5	The applicant shall provide comprehensive effluent treatment plant consisting of Primary/ Secondary and/or Tertiary treatment as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of the treated effluent to the following standards before disposal (If applicable). S. No. | Name | Concentration Standard | Mass standard (if applicable) 1 | Not Applicable | Not Applicable | Not Applicable				Complied. Comprehensive Effluent Treatment Plant is available and is operated & maintained continuously
6	The applicant shall provide, comprehensive sewage treatment plant as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of treated waste water to the following standards before disposal (If applicable): S. No. | Name | Concentration Standard | Mass standard to be complied (if applicable) 1 | pH | 5.5 - 9.0 | - 2 | BOD, 3 days, 27 deg.C | 10 mg/l | - 3 | Suspended Solids (mg/l) | 20 mg/l | - 4 | COD | 50 mg/l | - 5 | N- Total | 10 mg/l | - 6 | Total Phosphorous | 1.0 mg/l | - 7 | Fecal Coliform(FC) | Desirable 100 MPN/100 ml, Permissible 230 MPN/100 ml | -			Complied. Comprehensive Sewage Treatment Plant is available and is operated & maintained continuously. Treated water meets the prescribed standards and reused for the green belt development
7	The details of STP/ETP to be provided is as follows: S. No. | Treatment unit name | No. of unit | Dimension (in meter) Sewage Treatment Plant Capacity: 50 KLD 1 | Sewage Treatment Plant | 1 | As per Design Effluent Treatment Plant Capacity: 20 KLD				Complied. Our existing ETP is of 100 KLD Capacity, which is capable of treating our daily treated effluent quantity of 85 KLD. Hence, ETP capacity shall be amended to 100 KLD

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	1 | Effluent Treatment Plant | 1 | As per Design	
8	The treated waste water shall be reused within the unit for gardening, toilet flushing and industrial use to the maximum extent possible	Complied. Treated waste waters are reused inside the factory premises itself
9	The ETP/STP units shall be impervious to prevent ground water pollution	Complied. ETP/STP units are impervious to prevent ground water pollution
10	Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas. The applicant shall maintain good housekeeping both within the factory and in the premises. All pipe valves, sewers, and drains shall be leak proof	Agree to comply
11	The chemical sludge from the ETP shall be properly collected, stored in the HDPE barrel and properly disposed off through authorized person	Complied. Sludge are properly collected, stored and properly disposed off through authorized person
12	There shall be no perceptible odour outside the industry's premises	Complied. There is no perceptible odour outside the industry's premises
13	The unit shall provide digital flow meter to the inlet and outlet of the treatment plant and proper records shall be maintained in log book	Complied. Digital flow meters are available and records are maintained
14	Separate energy meter shall be provided for the ETP/STP and proper records shall be maintained in log book	Agree to comply
15	The unit shall provide an alternate power source along with separate energy meter for the Effluent Treatment Plant/ Sewage Treatment Plant to ensure continuous operation of the Treatment Plant	Agree to comply
16	The applicant shall measure and record the water consumption by fixing up water meter at such places as may be prescribed and shall furnish Water Cess Returns in Form I on or before 5th of every calendar month under the provisions of Water (Prevention and Control of Pollution) Cess Rules, 1978, if applicable	Not applicable
17	The applicant shall submit the Environmental Statement in Form V before 30th September every year as per the Rule No.14 of the E(P) Rules, 1986 & Amendments	Complied. Last Environment Statement - Form V was submitted on 23 SEP 2025 (Ref. No.: CSL/KKL/EN/F5/2025/SEP /491)
18 (a)	Special Conditions: Validity of Consent: (i) The Section "Consent Validity" at Page No. 1 of this Consent Order is not applicable (ii) This Water Consent (To Operate/Renewal) Order to Operate is valid up to 31.03.2029 (iii) The Project Proponent shall apply for renewal of this Consent Order, before 120 Days of the Expiry of this Consent Order, as imposed vide (1) above, in prescribed formats, via	Noted. Agree to comply 

	online portal of this Committee – www.ponocmms.nic.in, along with relevant attachments and consent fees. No Other mode of application shall be entertained	
(b)	This Water Consent Order (to Operate/Renewal) is issued integrating Consent to Operate/Renewal towards Application Nos. 402166, 320706, 377118 and 421800 dated 19.12.2023, 02.01.2023, 17.08.2023 and 23.02.2024, including Consent to Operate for the Marine Terminal Facility (repair and replacement 6" to 8" dia of Caustic Soda pipeline and Maintenance of the Ethylene pipeline), newly installed Caustic Concentration Unit and DG Set and newly installed Incinerator system, respectively	Noted.
(c)	The water requirement shall be met out from the existing PASIC Borewell at the premises of the unit and the water drawl capacity shall not exceed 650 KLD	Complied. Drawl does not exceed 650 KLD from the PASIC Borewell
(d)	The unit shall maintain the Flow Meter attached to the Borewell and the readings of the same shall be recorded in a logbook, which shall be made available to the inspecting officials, as and when called for	Complied. Flow meters are installed and readings are recorded in a log book
(e)	R.O Plant of capacity 260 KLD shall be operated to meet the domestic water requirements of the entire plant and the Colony. The Reject of the RO Plant, generated to a quantum of 70 KLD, shall be recycled to the Desalination Plant	Complied. Consumption is within the prescribed limits and ZLD system is maintained regularly
(f)	The Sea Water consumption for the Desalination Plant shall not exceed 3000 KLD. The Utility water requirement of the entire plant shall be met out from the Permeate water of 1200 KLD from the same	Complied. Water consumption for the Desalination Plant is within 3,000 KLD
(g)	The Reject of the Desalination Plant, generated to a quantum of 1800 KLD, shall be let into the Back Waters of the Paravadayan River, using appropriate diffusers, at the appropriate dilution levels	Complied. Reject water of the Desalination Plant is let out into the Back Waters of the Paravadayan River using appropriate diffusers
(h)	The general standards for discharge of environmental pollutants into marine/coastal areas stipulated under Schedule VI Part A of the Environment Protection Rules, 1986 as amended shall be strictly complied for disposal of desal reject wastewater	Complied. Reject water quality is maintained & monitored regularly and are within given standards
(i)	The following Primary Water Quality Criteria for Class SW-I Waters stipulated under the Environment (Protection) Rules, 1986 for coastal water marine outfalls shall be complied with: i) pH - 6.5 - 8.5 ii) Dissolved Oxygen (DO) - 5.0 mg/l iii) Colour - No noticeable colour and odour iv) Odour - No noticeable colour and odour v) Floating Material - No obnoxious or detrimental for use purpose vi) Suspended Solids - None from the Sewage and/ or Industrial Origin vii) Oil and Grease - 0.1 mg/1 viii) Mercury (As Hg) - 0.1 mg/l	Complied. Reject water quality is maintained & monitored regularly and are within given standards

	ix) Lead (As Pb) - 0.1 mg/1 x) Cadmium (As Cd) 0.1 mg/l	
(j)	The wastewater generated from all caustic soda plant, Ethylene dichloride plant, power plant cooling water discharge shall be treated in ETP (20 KLD) and recycled back to process	Complied. Our existing ETP is of 100 KLD Capacity, which is capable of treating our daily treated effluent quantity of 85 KLD. Hence, ETP capacity shall be amended to 100 KLD
(k)	The unit shall ensure connectivity of Online Continuous Effluent Monitoring Systems as per the SOP prescribed by the CPCB, at all times. The discrepancies shall be notified immediately to this Committee and CPCB through email. The flow meter readings of ETP Inlet, Outlet, and totalizer with camera provisions shall be connected to servers of PPCC and CPCB	Complied. OCEMS maintained as per CPCB Guidelines. Our CARE Air system is in continuous connection with the PPCC/CPCB servers through Glens/ENVEA servers
(l)	The unit shall engage an NABL Accredited Laboratory for conducting Monitoring and Analysis of STP Outlet and Desalination Plant Outlet and the reports of the same shall be submitted to this Committee, once every month	Complied. Monthly environmental monitoring is been done through NABL/ MoEF&CC approved laboratory and reports are submitted to your good office regularly
(m)	The Hazardous Waste like waste oil, Waste or residues containing oil, Ion exchange resins and empty liner/container shall be disposed to authorised agencies/disposal facility of Hazardous waste	Complied. Hazardous wastes are disposed to authorised agencies/disposal facility
(n)	The unit shall dispose Brine sludge to authorised TSDF facility/authorised re-processor unit manufacturing bricks from brine sludge. The unit shall comply with the CPCB SOP for Utilisation of Brine sludge	Agree to comply. Brine Sludge is disposed to authorized TSDF and to an authorised re-processor unit manufacturing bricks from sludge
(o)	In the Marine Terminal Facility, there shall be no spillages of Caustic Soda Lye or any kind of Oil/Ballast Water/ Chemicals from the moored ships into the coastal waters. If any such spillages occur, at any point of time, the responsibility of containment/cleaning/remediation of the same, lies solely on the unit	Complied. No spillages arises. If any occurs in future, the cleaning of the same is the sole responsibility of our unit
(p)	If any reversible/irreversible environmental damages or degradation occurs due to the operation of the Marine Terminal Facility, the unit is liable to carry out the rehabilitation of the damaged environment on their own cost and/or to bear the cost of the same, payable as environmental compensation, to this Committee, which may be worked out, specific to the occurrences of the event	Agree to comply
(q)	The MTF shall put in place proper Oil Spill Disaster Contingency Plan as per the protocols and guidelines of the Indian Coast Guard and shall be strictly adhered to	Complied
(r)	The Storage Tanks of the Raw Materials, Intermediates and the Finished Goods shall be appropriately maintained for spillage free environment, with adequate containment/ emergency response plan	Complied. All dyke walls of storage tanks are built as per the said requirement to avoid contamination of land and to

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		withstand any failure of tank structures or leaks
(s)	Bulk Storage Tanks of Caustic Soda Lye, Sulphuric Acid and Hydrochloric Acid shall be provided with adequate safety measures, such as, dyke walls, forming an outer concentric tank; provided with anticorrosive impervious flooring, of capacity at least 1.5 times the capacity of the respective storage tank, to avoid contamination of surround land, in case of any failure of tank structures or leaks occurs	Complied. All dyke walls of storage tanks are built as per the standards to avoid contamination of land and to withstand any failure of tank structures or leaks
(t)	The Special Condition No. 16 related to water cess mentioned above in this consent order is not applicable and shall be ignored.	Noted
1	GENERAL CONDITIONS: Notwithstanding anything contained in this Consent to Establish, the Puducherry Pollution Control Committee hereby reserves its right and power under Section 27 (2) of the Water (Prevention and Control of Pollution) Act, 1974 and Section 21 (4) of the Air (Prevention and Control of Pollution) Act, 1981 to revoke any or all the conditions imposed herein and to modify or stipulate additional conditions	Agree to comply
2	The applicant shall not undertake any expansion, modernization, diversification, change of location, change of process, change of products etc., without the prior approval/clearance from this authority	Agree to comply
3	The Green Belt shall be designed and maintained to achieve attenuation factor conforming to the day and night noise standards prescribed for land use. The open spaces inside the plot shall be suitably landscaped and covered with vegetation of suitable indigenous perennial varieties with specific reference to climate and soil conditions and maintained	Complied. Green Belt maintained as per the requirement. Open spaces inside the plant is suitably landscaped and covered with vegetation
4	The Bio-degradable Solid Waste generated shall be properly collected, segregated and disposed through composting or Bio-methanation within the premises	Agree to comply
5	The Non-Bio-degradable Solid Waste shall be handed over to the concerned Municipality/Commune Panchayats. Dumping the same on land or in any water bodies is strictly prohibited	Agree to comply
6	The organic sludge from the secondary aeration process of Sewage/Effluent Treatment Plants shall be composted along with other Bio- degradable solid waste and shall be used as manure for the green belt development	Complied. Sludge from STP are used as manure for the green belt development
7	All Hazardous wastes shall be stored and disposed as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 after obtaining necessary authorization from the PPCC	Complied. All Hazardous Wastes are stored and disposed as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 after obtaining necessary authorization from the PPCC

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8	The Plastic Waste generated shall be segregated and shall be disposed through authorized recyclers only	Agree to comply
9	The Project Proponent shall not use any items prohibited under the Notification on Ban of Single Use Plastics, vide G.O. Ms. No. 18/Envt./2019, Puducherry dated 30th July, 2019 and Plastic Waste Management (2nd Amendment) Rules, 2022, notified by MoEF&CC, GOI., failing which, enforcement action, as deemed fit, will be initiated, as per the provisions of the Environment (Protection) Act, 1986, along with its amendments, from time to time	Agree to comply
10	The project proponent shall ensure that, e-Waste generated shall be collected and segregated suitably and shall be channelized to authorized collection centers or registered dismantlers or recyclers or shall be returned back to pick up by the take back services provided by its producers, conforming to the E- Waste (Management) Amendment Rules, 2018, as amended from time to time	Complied. E-Waste generated are managed as per 'The E- Waste (Management) Amendment Rules, 2018' and disposed to authorized recyclers
11	The project proponent shall ensure that, the used batteries are not disposed of in any manner, other than depositing with the dealer, manufacturer, importer, assembler, registered recycler, reconditioner or at the designated collection centers, confirming to the Batteries Waste Management Rules, 2001, as amended from time to time	Complied. Used batteries are disposed to the registered recycler confirming to 'The Batteries (Management & Handling) Rules, 2001'
12	Appropriate rainwater harvesting structures shall be installed for maximizing collection and reuse of rain water and/or recharge of ground water	Complied. Rainwater is been collected and reused in our process whenever available
13	Solar street lighting shall be provided for illumination of common areas, lighting for gardens, community recreational areas, in addition to the Solar Water Heaters	Complied
14	Traffic congestion at the entry and exit points from the roads adjoining the proposed site shall be avoided. The parking shall be fully internalized and no public space shall be utilized for the same	Complied
15	The project proponent shall make separate allocation of funds for the installation and maintenance of proper pollution and environmental measures and earmark separate staff for operation and maintenance of the control system	Agree to comply
16	Energy efficient lighting systems like LED's and energy efficient equipment with star rating shall be installed for energy conservation	Complied. Installation details FY 2024-25 are as follows., ▪ LED Lights – 255 Nos. ▪ IE3 Motors – 50 Nos. ▪ VFDs – 13 Nos.
17	Used CFL's/TFL's/LED's should be properly collected and disposed off/sent to for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid toxic contamination	Agree to comply

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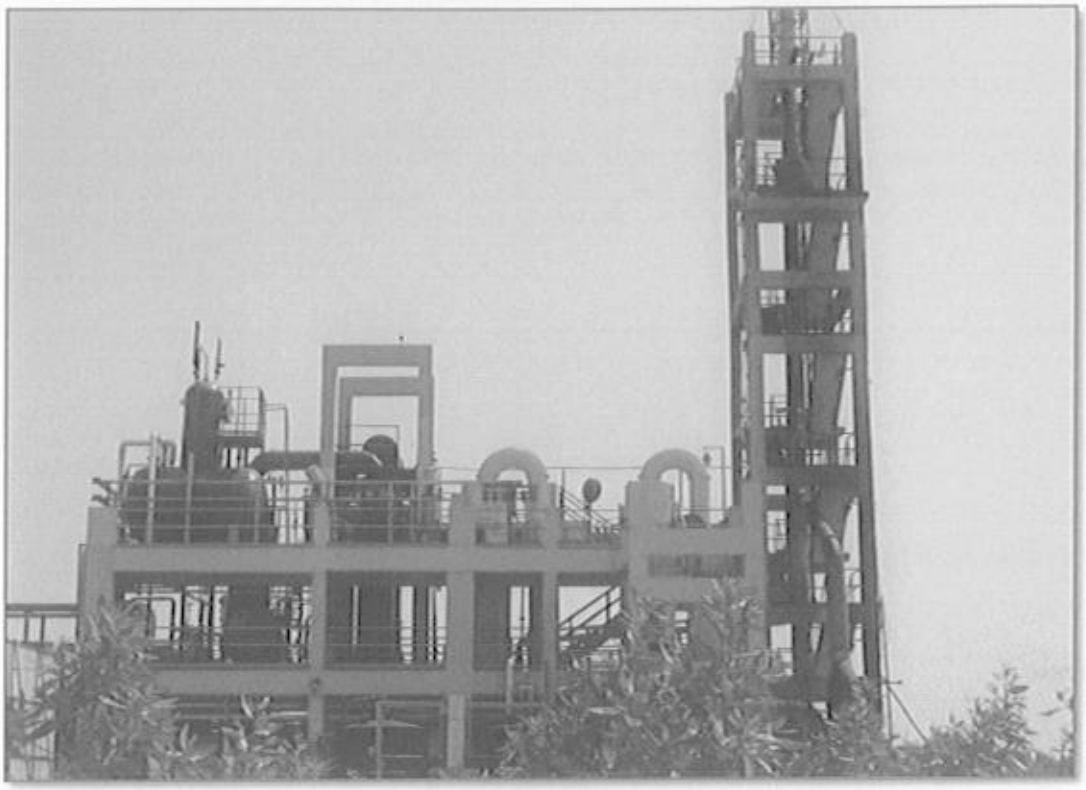
18	5% of power requirement of the unit shall be met out from renewable energy sources within period of three years as per PPA Building Bye-Laws vide G.O.Ms.No.5/2012 dt., 05.03.2012, as applicable	Agree to comply
19	The building shall comply with requirements of the Energy Conservation Building Code (ECBC), as applicable	Agree to comply
20	The applicant shall take all possible measures to create pollution free surroundings. Housekeeping shall be maintained clean. Sufficient green belt shall be provided all around the unit	Complied. Pollution free surroundings are maintained by regular housekeeping and through sufficient green belt
21	This Consent Order shall be exhibited in the office room and must be made available to the inspecting officers of this Committee	Complied. Consent Order is exhibited in the office room and is available to the inspecting officers
22	All the conditions shall be enforced under the provisions of the Environment (Protection) Act, 1986, along with its amendments, from time to time	Agree to comply

CHEMPLAST SANMAR LTD MELAMANJORE

"Dispersion Modelling Study for Incinerator Stack and it's Emergency Stack"

At

Chemplast Sanmar Limited, Karaikal



Prepared by:

Aqua-Air Environmental Engineers Pvt. Ltd.
403-404, Centre Point, Ring Road, Jay Prakash Narayan Marg, near Kadiwala School, Sagrampura, Surat, Gujarat 395002

September – 2025

Introduction

Chemplast Sanmar Limited (hereafter referred to as 'CSL') is the flagship company of Sanmar Group, which is one of the largest industrial firms in the Southern Part of India. The Sanmar Group manages over 30 businesses that are grouped under various industry segments viz., Chemicals, Engineering, Shipping and Metals and most prominent corporate groups in South India.

At Karaikal, CSL is engaged in manufacturing Caustic Soda & Ethylene Di Chloride (EDC) - an intermediate for PVC at its manufacturing plant located in Vanjore Village, T.R Pattinam Commune, Karaikal.

Need for the Study

To carry out the dispersion modelling study for the Incinerator Stack and it's Emergency Stack during power failure scenario and to validate the height of the stack provided for release of any unreacted gas from incinerator using Industrial Source Complex – Short Term (ISCST3) dispersion model Software.

Methodology of Modelling

Predictions and Evaluation of Impacts

An impact can be defined as any change in physical, chemical, biological, cultural and/or socioeconomic environment that can be attributed to activities related to alternatives under study for meeting the project needs. Impact methodology provides an organized approach for prediction and assessing these impacts. Scientific techniques and methodologies based on mathematical modeling are available for studying the impacts of various project activities on environmental parameters.

The nature of the impacts due to said project activities are discussed here in detail. Each parameter identified in the proceeding chapter, is singularly considered for the anticipated impact due to various activities listed. The impact is quantified using numerical scores 0, 1, 2, 3, 4 and 5 in increasing order of activity. To assess the impact accurately, each parameter is discussed in detail covering the following:

1) Project activities likely to generate impact
2) Quantification and prediction of impact

Air Environment

The dispersion of pollutants in the atmosphere is a function of several meteorological parameters, viz. temperature, wind speed and direction, mixing depths, inversion level, etc. Several models have been developed for the prediction of pollutant concentration at any point from an emitting source. The Industrial Source Complex – Short Term (ISCST3) dispersion model is a steady-state Gaussian plume model. It is most widely accepted for its interpretability. It gives reasonably correct values because this obeys the equation of continuity and it also takes care of diffusion, which is a random process. For the present study, this model is used for the prediction of maximum ground level concentration (GLC).

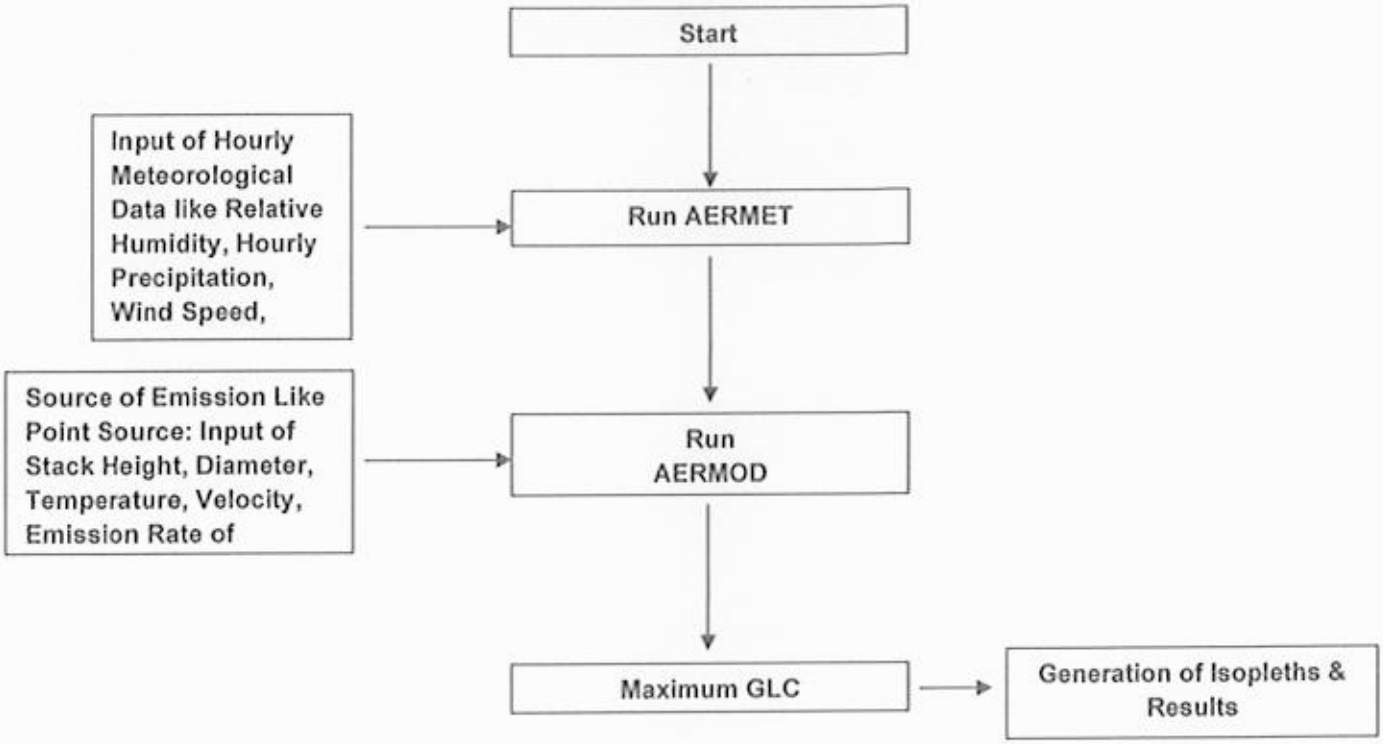
The air emissions at M/s. Chemplast Sanmar Limited are PM, CO, SO_x, NO_x and Hg. The site specific and monitored details considered for input data for the software "ISC-AERMOD View" by Lakes Environmental, Canada for prediction of impact on air environment are given in Table. To conduct a refined air dispersion modeling using ISCST3 and ISC-PRIME short-term air quality dispersion models, the site specific hourly meteorological data measured at site is pre-processed using the U.S. EPA PCRAMMET and U.S. EPA AERMET programs. Before starting air dispersion modeling with ISC-AERMOD View, a building downwash analysis using BPIP View was done. BPIP View is a graphical user interface designed to speed up the work involved in setting up input data for the U.S. EPA Building Profile Input Program (BPIP) and Building Profile Input Program – Plume Rise Model Enhancements (BPIP-PRIME).

The air pollution caused by the gaseous emissions from a single or small group of stacks is a local phenomenon. Its impacts will occur at a distance ranging from within the immediate vicinity of the stack to several kilometers away from the stack. Maximum ground level concentration will occur within this range. All plumes at more downwind distances from the source by stack emission become so diluted by diffusion in the ambient atmosphere that concentrations of pollutants become negligible. The maximum ground level concentration for different parameters is given in Table. Equal concentration contour plots for PM, CO, SO_x, NO_x and Hg are given in Figure. Adequate measures should be taken to minimize air pollution by providing air pollution control equipment. Flue gases are discharged from stacks at adequate height (as per

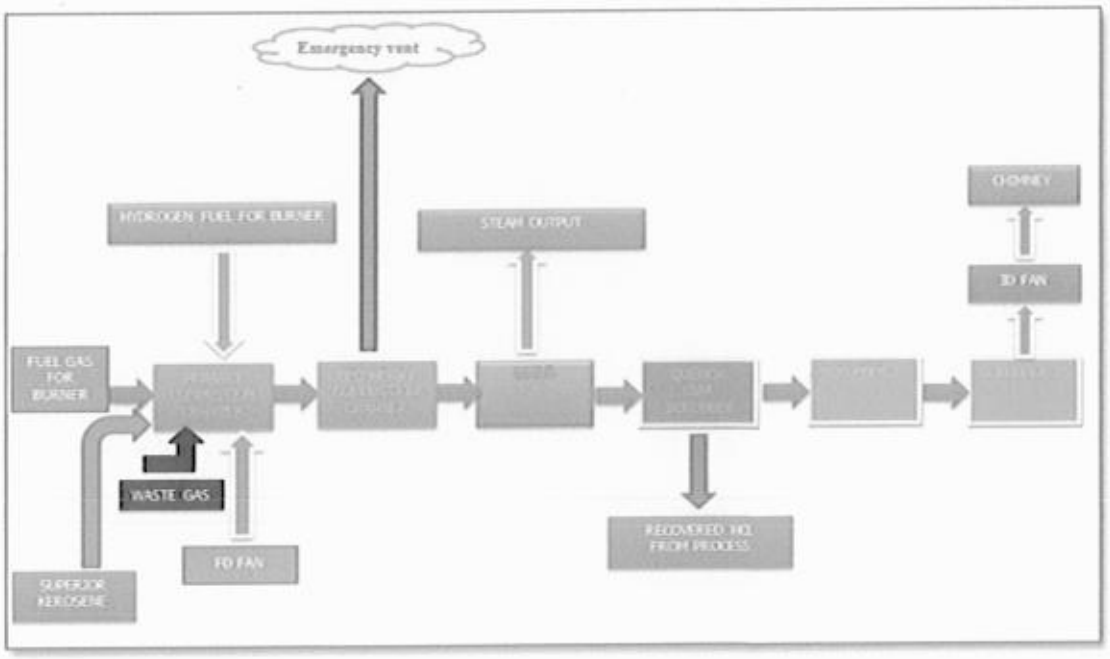
PPCC norms). The methodology for Air Quality Modeling using AERMOD View model is given in Figure – 1.

Methodology for AQM

Figure - 1



Process Flow Diagram



Process Description of Incinerator

The incinerator is a thermal oxidizer of a dual chamber design consisting of primary and secondary combustion chambers. In the primary combustion chamber, the inlet gases (VOC gases) are introduced into a firing box near the burners, and enough residence time is provided to get the desired destruction removal efficiency (DRE) of the VOCs. The incinerator is brought to its operating temperature by firing natural gas (fuel) or by kerosene or by hydrogen and combustion air. The waste gas will be allowed to enter the chamber once the pre-heating temperature is achieved. VOC gas is fed to the incinerator chamber for combustion through nozzles. An on/off valve is provided on both VOC and fuel gas lines.

The secondary combustion chamber is provided to ensure and maintain 2 second residence time for the flue gas as per Pollution Control Board requirements. All products of combustion from the chambers flow to a series of scrubbers to maintain the exit gas temperature and to ensure that the emission parameters, viz. CO_2, N_2, NO_x, H_2O, HCl, and PCCD/F are within the specified emission limits.

Similar thermal oxidizing incinerators have been used world over for air pollution control in many chemical plants and oil & gas fields to decompose hazardous gases at a high temperature (900°C to 1,150°C) before releasing them into the atmosphere. These pollutants are generally hydrocarbon based and when destroyed via thermal combustion, they are chemically changed to form CO_2 and H_2O. However, due to the chlorine load in the input gas stream, we have offered scrubbers to ensure final values are within limits.

Important factors which are considered for design of the incinerator are temperature, residence time and turbulence and mixing of combustion air with the waste gas. The chambers are horizontal cum vertical, cylindrical and lined with a special type of refractory with high alumina and low silica (required due to the possible reaction of HF with silica). The chamber volume ensures complete combustion of all organic pollutants. The chamber will be made of carbon steel conforming to IS:1062 with required thickness.

The chamber is maintained at a slightly negative pressure by interlocking a pressure transmitter to the induced draft fan. All the necessary instruments and valves are provided in vent gas, natural gas and instrument airline.

In the event of a power failure, hot gases are directly exhausted to the emergency stack, by passing the scrubber, preventing damage. Simultaneously water from the emergency water tank will flow into the scrubber to bring down the temperature.

A separate forced draft fan is provided for supply of combustion air to the chamber. The chamber will have two temperature controllers and combustion air flow to the chamber is varied depending on oxygen value measured in the stack.

A Waste Heat Recovery Boiler is provided to recover steam from the waste heat generated by the incineration process. A tube type boiler is provided for heat recovery. Flue gas from the secondary chamber at a temperature of 1,150°C enters the boiler and comes out at a temperature of 220°C.

The incinerator is also designed to recover HCl as a byproduct from the flue gas. Thus, the whole process will sustain itself due to recovery of heat and production of steam and HCl.

An ID fan (VFD driven) is provided to ensure negative pressure throughout the system and to discharge the flue gases through a stack. A 30-m stack is provided to release the cleaned flue gas to the atmosphere.

Inlet Gas Composition:

- Co2 - 0.7 % (Max)
- H2O - 0 % (Max)
- O2 - 4.3 to 5 %
- N2 - 80- 85.3 %
- VOC- 9 to 12% (Majorly Ethylene, EDC & Ethly Chloride)
- HCl + Cl2 - 0.8 to 1 %

Details of Emission (30 Meter Stack Height – Incinerator Stack)

Sr. No.	Operating Parameter	Unit	Emergency Incinerator Stack
1.	Stack Height	Meter	30
2.	Diameter	Meter	1.1
3.	Flue Gas Temperature	^0K	332
4.	Air Pollution Control Equipment	--	Adequate Stack Height
5.	Flue Gas Velocity	m/s	10.3
6.	Emission Concentration*		
	PM	mg/nm^3 (g/s)	10.7 (0.0939)
	CO	mg/nm^3 (g/s)	8.8 (0.0772)
	NO_X	mg/nm^3 (g/s)	106 (0.9308)
	SO_2	mg/nm^3 (g/s)	11.5 (0.1009)
	Hg	mg/nm^3 (g/s)	0.03 (0.0002)

Isopleths of PM

Isopleths of CO

Isopleths of NO_x

Isopleths of SO_2

Isopleths of Hg

Predicted Summary of ISCST3 Model Output

Sr. No.	Locations	X, Y Co-Ordinates	Concentration				
			PM ($\mu g/m^3$)	CO ($\mu g/m^3$)	NO_x ($\mu g/m^3$)	SO_2 ($\mu g/m^3$)	Hg ($\mu g/m^3$)
1.	Project Site	(0, 0)	0.00000	0.00000	0.00000	0.00000	0.00000
2.	Vadakku Vanjore	(759, 633)	0.07762	0.06382	0.76946	0.08341	0.00017
3.	Keezhaiyur	(-127, 1899)	0.03467	0.02850	0.34367	0.03725	0.00007
4.	Polagam	(-1266, 1772)	0.00413	0.00340	0.04097	0.00444	0.00001
5.	Akkaraivattam	(127, 5443)	0.01363	0.01121	0.13512	0.01465	0.00003
6.	Panangudi	(-2278, -1013)	0.00001	0.00001	0.00007	0.00001	0.00000
7.	Nagore	(-127, -3544)	0.00000	0.00000	0.00000	0.00000	0.00000
8.	Vadakudi	(-3165, -5063)	0.00000	0.00000	0.00000	0.00000	0.00000
9.	Boothangudi	(-2911, -3671)	0.00000	0.00000	0.00000	0.00000	0.00000
10.	Vengidangal	(-7342, -2785)	0.00000	0.00000	0.00000	0.00000	0.00000

Resultant Ambient Air Quality

Sr. No.	Sampling Location	PM ($\mu g/m^3$)			CO ($\mu g/m^3$)		
		AAQ Value	Predicated Model Value	Resultant Value	AAQ Value	Predicated Model Value	Resultant Value
1.	Project Site	77.59	0.00000	77.59	0.23	0.00000	0.23
2.	Vadakku Vanjore	59.63	0.07762	59.7076	BDL	0.06382	0.06382
3.	Keezhaiyur	62.13	0.03467	62.1647	BDL	0.02850	0.0285
4.	Polagam	63.71	0.00413	63.7141	0.15	0.00340	0.1534
5.	Akkaraivattam	70.58	0.01363	70.5936	BDL	0.01121	0.01121
6.	Panangudi	60.59	0.00001	60.59	0.27	0.00001	0.27001
7.	Nagore	79.54	0.00000	79.54	0.18	0.00000	0.18
8.	Vadakudi	60.09	0.00000	60.09	0.16	0.00000	0.16
9.	Boothangudi	73.5	0.00000	73.5	BDL	0.00000	0
10.	Vengidangal	61.8	0.00000	61.8	0.14	0.00000	0.14

Resultant Ambient Air Quality

Sr. No.	Sampling Location	NO_x (µg/m³)			SO_2 (µg/m³)		
		AAQ Value	Predicated Model Value	Resultant Value	AAQ Value	Predicated Model Value	Resultant Value
1.	Project Site	16.45	0.00000	16.45	10.25	0.00000	10.25
2.	Vadakku Vanjore	13.01	0.76946	13.7795	7.25	0.08341	7.33341
3.	Keezhaiyur	13.76	0.34367	14.1037	7.65	0.03725	7.68725
4.	Polagam	13.93	0.04097	13.971	6.82	0.00444	6.82444
5.	Akkaraivattam	14.61	0.13512	14.7451	6.76	0.01465	6.77465
6.	Panangudi	13.36	0.00007	13.3601	6.65	0.00001	6.65001
7.	Nagore	16.58	0.00000	16.58	8.38	0.00000	8.38
8.	Vadakudi	13.66	0.00000	13.66	6.48	0.00000	6.48
9.	Boothangudi	15.20	0.00000	15.2	7.58	0.00000	7.58
10.	Vengidangal	13.87	0.00000	13.87	7.2	0.00000	7.2

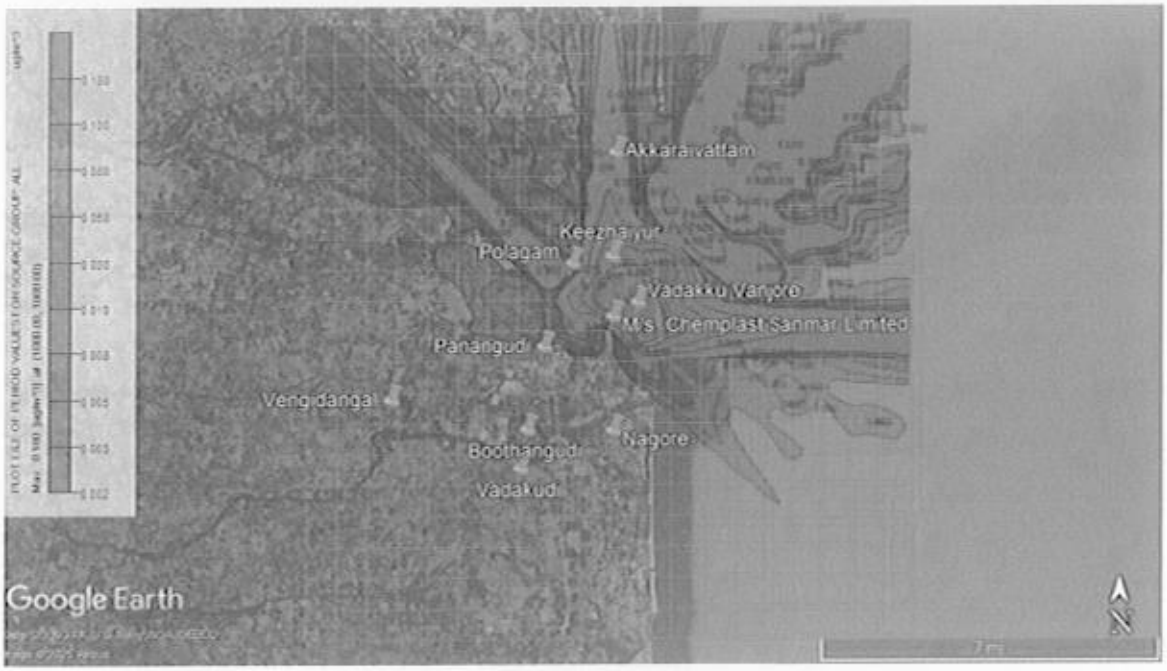
Resultant Ambient Air Quality

Sr. No.	Sampling Location	Hg (µg/m³)		
		AAQ Value	Predicated Model Value	Resultant Value
1.	Project Site	BDL	0.00000	0.00000
2.	Vadakku Vanjore	BDL	0.00017	0.00017
3.	Keezhaiyur	BDL	0.00007	0.00007
4.	Polagam	BDL	0.00001	0.00001
5.	Akkaraivattam	BDL	0.00003	0.00003
6.	Panangudi	BDL	0.00000	0.00000
7.	Nagore	BDL	0.00000	0.00000
8.	Vadakudi	BDL	0.00000	0.00000
9.	Boothangudi	BDL	0.00000	0.00000
10.	Vengidangal	BDL	0.00000	0.00000

Details of Emission (11 Meter Stack Height – Incinerator Emergency Stack)

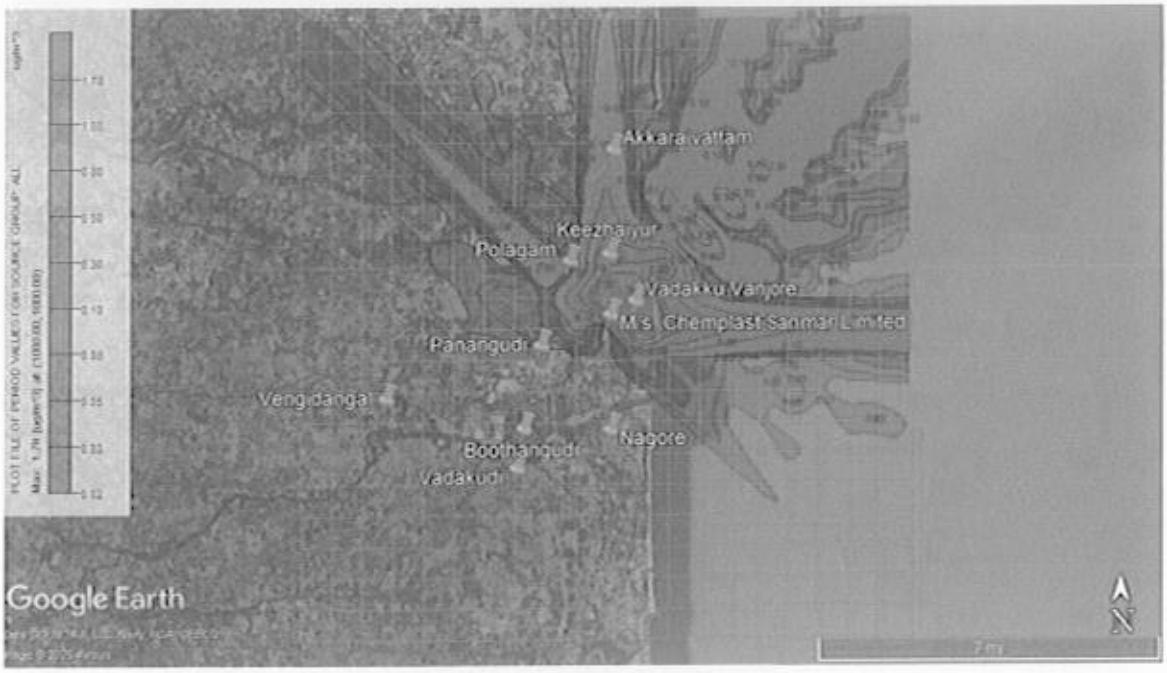
Sr. No.	Operating Parameter	Unit	Emergency Incinerator Stack
1.	Stack Height	Meter	11
2.	Diameter	Meter	1.1
3.	Flue Gas Temperature	^0K	332
4.	Air Pollution Control Equipment	--	Adequate Stack Height
5.	Flue Gas Velocity	m/s	10.3
6.	Emission Concentration*		
	PM	mg/nm^3 (g/s)	10.7 (0.0939)
	CO	mg/nm^3 (g/s)	8.8 (0.0772)
	NO_X	mg/nm^3 (g/s)	106 (0.9308)
	SO_2	mg/nm^3 (g/s)	11.5 (0.1009)
	Hg	mg/nm^3 (g/s)	0.03 (0.0002)

Isopleths of PM

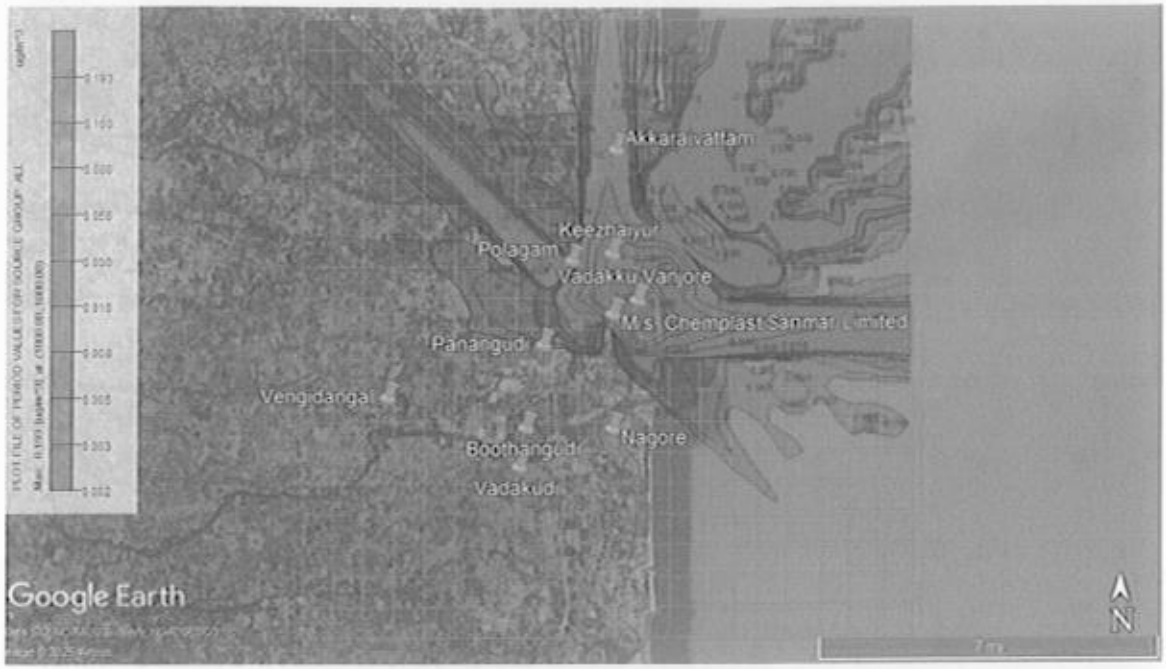


Isopleths of CO

Isopleths of NO_x



Isopleths of SO_2



Isopleths of Hg

Predicted Summary of ISCST3 Model Output

Sr. No.	Locations	X, Y Co-Ordinates	Concentration				
			PM ($\mu g/m^3$)	CO ($\mu g/m^3$)	NO_x ($\mu g/m^3$)	SO_2 ($\mu g/m^3$)	Hg ($\mu g/m^3$)
1.	Project Site	(0, 0)	0.00000	0.00000	0.00000	0.00000	0.00000
2.	Vadakku Vanjore	(759, 633)	0.15408	0.12668	1.52732	0.16556	0.00033
3.	Keezhaiyur	(-127, 1899)	0.06594	0.05421	0.65364	0.07086	0.00014
4.	Polagam	(-1266, 1772)	0.00537	0.00442	0.05328	0.00578	0.00001
5.	Akkaraivattam	(127, 5443)	0.02325	0.01912	0.23051	0.02499	0.00005
6.	Panangudi	(-2278, -1013)	0.00001	0.00001	0.00007	0.00001	0.00000
7.	Nagore	(-127, -3544)	0.00000	0.00000	0.00000	0.00000	0.00000
8.	Vadakudi	(-3165, -5063)	0.00000	0.00000	0.00000	0.00000	0.00000
9.	Boothangudi	(-2911, -3671)	0.00000	0.00000	0.00000	0.00000	0.00000
10.	Vengidangal	(-7342, -2785)	0.00000	0.00000	0.00000	0.00000	0.00000

Resultant Ambient Air Quality

Sr. No.	Sampling Location	PM ($\mu g/m^3$)			CO ($\mu g/m^3$)		
		AAQ Value	Predicated Model Value	Resultant Value	AAQ Value	Predicated Model Value	Resultant Value
1.	Project Site	77.59	0.00000	77.59	0.23	0.00000	0.23
2.	Vadakku Vanjore	59.63	0.15408	59.7841	BDL	0.12668	0.12668
3.	Keezhaiyur	62.13	0.06594	62.1959	BDL	0.05421	0.05421
4.	Polagam	63.71	0.00537	63.7154	0.15	0.00442	0.15442
5.	Akkaraivattam	70.58	0.02325	70.6033	BDL	0.01912	0.01912
6.	Panangudi	60.59	0.00001	60.59	0.27	0.00001	0.27001
7.	Nagore	79.54	0.00000	79.54	0.18	0.00000	0.18
8.	Vadakudi	60.09	0.00000	60.09	0.16	0.00000	0.16
9.	Boothangudi	73.5	0.00000	73.5	BDL	0.00000	0
10.	Vengidangal	61.8	0.00000	61.8	0.14	0.00000	0.14

Resultant Ambient Air Quality

Sr. No.	Sampling Location	NO_x (µg/m³)			SO_2 (µg/m³)		
		AAQ Value	Predicated Model Value	Resultant Value	AAQ Value	Predicated Model Value	Resultant Value
1.	Project Site	16.45	0.00000	16.45	10.25	0.00000	10.25
2.	Vadakku Vanjore	13.01	1.52732	14.5373	7.25	0.16556	7.41556
3.	Keezhaiyur	13.76	0.65364	14.4136	7.65	0.07086	7.72086
4.	Polagam	13.93	0.05328	13.9833	6.82	0.00578	6.82578
5.	Akkaraivattam	14.61	0.23051	14.8405	6.76	0.02499	6.78499
6.	Panangudi	13.36	0.00007	13.3601	6.65	0.00001	6.65001
7.	Nagore	16.58	0.00000	16.58	8.38	0.00000	8.38
8.	Vadakudi	13.66	0.00000	13.66	6.48	0.00000	6.48
9.	Boothangudi	15.20	0.00000	15.2	7.58	0.00000	7.58
10.	Vengidangal	13.87	0.00000	13.87	7.2	0.00000	7.2

Resultant Ambient Air Quality

Sr. No.	Sampling Location	Hg (µg/m³)		
		AAQ Value	Predicated Model Value	Resultant Value
1.	Project Site	BDL	0.00000	0.00000
2.	Vadakku Vanjore	BDL	0.00033	0.00033
3.	Keezhaiyur	BDL	0.00014	0.00014
4.	Polagam	BDL	0.00001	0.00001
5.	Akkaraivattam	BDL	0.00005	0.00005
6.	Panangudi	BDL	0.00000	0.00000
7.	Nagore	BDL	0.00000	0.00000
8.	Vadakudi	BDL	0.00000	0.00000
9.	Boothangudi	BDL	0.00000	0.00000
10.	Vengidangal	BDL	0.00000	0.00000

Conclusion:

Primary Combustion Chamber oxidizes all inlet gases at 1,150 degree C (around 99.9% will be oxidized), only the remaining gas will be going to the Secondary Combustion Chamber. Emergency vent/stack is attached to the Secondary Combustion Chamber only. During any blackout of all power supplies like PED, CPP & DG, only the oxidised volume of gas (free from VOCs & HCl, Cl2, CO2) present in the Primary & Secondary will be vented out.

Further, based on the Ground level concentrations calculated for the Incinerator Stack and its Emergency Stack are superimposed on existing ambient air quality monitoring results and the combined values are found well within the permissible National Ambient Air Quality Standards.

In conclusion, the air pollution dispersion modeling study for venting air emissions from the emergency stack during a power failure scenario indicates that there will be no adverse impact on the environment, as the model output values are well within the NAAQM standards. Furthermore, the height of the stack designed for the release of gases from the incinerator is deemed sufficient to ensure effective dispersion. These findings affirm Chemplast Sanmar Limited's commitment to environmental compliance and the safe operation of facilities.

****

A-23

Gaseous Emission Data - APR 25 to SEP 25

Process Stacks						
Caustic Soda (Flaker), Hypo & HCl Tower						
Parameters	APR	MAY	JUN	JUL	AUG	SEP
Cl2, mg/Nm3	BDL (DL 1.0)	BDL (DL 1.0)	BLQ (LOQ: 0.02)	BLQ (LOQ: 0.02)	BLQ (LOQ: 0.02)	BLQ (LOQ: 0.02)
HCL, mg/Nm3	BDL (DL 1.0)	BDL (DL 1.0)	BLQ (LOQ: 0.02)	BLQ (LOQ: 0.02)	BLQ (LOQ: 0.02)	BLQ (LOQ: 0.02)
EDC Incinerator						
Cl2, mg/Nm3	BDL (DL 1.0)	BDL (DL 1.0)	BLQ (LOQ: 0.02)	BLQ (LOQ: 0.02)	BLQ (LOQ: 0.02)	BLQ (LOQ: 0.02)
HCL, mg/Nm3	BDL (DL 1.0)	BDL (DL 1.0)	BLQ (LOQ: 0.02)	BLQ (LOQ: 0.02)	BLQ (LOQ: 0.02)	BLQ (LOQ: 0.02)
Ethylene , mg/m3	BDL (DL 0.1)	BDL (DL 0.1)	BLQ (LOQ: 0.1)	BLQ (LOQ: 0.1)	BLQ (LOQ: 0.1)	BLQ (LOQ: 0.1)
EDC, mg/m3	BDL (DL 0.1)	BDL (DL 0.1)	BLQ (LOQ: 0.1)	BLQ (LOQ: 0.1)	BLQ (LOQ: 0.1)	BLQ (LOQ: 0.1)

** Sample reports attached*

CHEMPLAST SANMAR LTD MELAVANJORE

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090054

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Stack Emission	Sampling From	:	29-Aug-2025
Sample Description#	:	Stack Emission	Received Date	:	02-Sep-2025
Sampling Location	:	Caustic Soda - Flaker Unit	Commenced On	:	02-Sep-2025
Latitude	:	N-10°50'83.0''	Completed On	:	08-Sep-2025
Longitude	:	E- 079 50'33.0''	Report Date	:	09-Sep-2025
Sample Submission Type	:	Collected by Lab Repeesentative			
Sample Condition	:	Fit for Analysis			
Sampling Plan and Method	:	GLÆN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Chlorine as Cl2	mg/Nm3	BLQ(LOQ- 0.02)	GLÆN/SOP/153 Issue no & Dt: 02.05.04	15 Max
2	Acid Mist as HCl	mg/Nm3	BLQ(LOQ- 0.02)	GLÆN/SOP/153 Issue no & Dt: 02.05.04	35 Max

represents Customer Defined Fields

Note:- BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Remarks: The above Stack Complies as per CPCB norms with respect to the above tested parameters.

End of Report

Authorized By

R. Abubacker Sithick

Chemist

Terms and Conditions:

* The test results related only to the items tested.
* The test report shall not be reproduced in full or part without the written approval of Glens.
* The test items will not be retained for more than 15 days from the date of issue of test report except in the case as required by the applicable regulations.
* The Laboratory's responsibility under this report is limited to proven wilful negligence and will in no case be more than the invoiced amount.
* A Satisfactory test report in no way implies that the product tested is approved by NABL.
* Laboratory is not responsible for the authenticity of the photocopied test reports.

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090882

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Stack Emission	Sampling From	:	25-Sep-2025
Sample Description#	:	Stack Emission	Received Date	:	26-Sep-2025
Sampling Location	:	HCL Tower	Commenced On	:	26-Sep-2025
Latitude	:	N-10°50'76.2"	Completed On	:	06-Oct-2025
Latitude	:	E-79°50'17.1"	Report Date	:	06-Oct-2025
Sample Submission Type	:	Collected by Lab Representative			
Sample Condition	:	Fit for Analysis			
Sampling Plan and Method	:	GLÆN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Pollution and Environment					
1	Chlorine as Cl2	mg/Nm3	BLQ(LOQ: 0.02)	GLÆN/SOP/153 Issue no & Dt: 02/05.04	15 Max
2	Acid Mist as HCl	mg/Nm3	BLQ(LOQ: 0.02)	GLÆN/SOP/153 Issue no & Dt: 02/05.04	35 Max

represents Customer Defined Fields

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification.

Remarks: The above Stack Complies as per CPCB norms with respect to the above tested parameters.

End of Report

Authorized By

E. PRITHVIRAJAN

LAB MANAGER

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GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090883

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Stack Emission	Sampling From	:	25-Sep-2025
Sample Description#	:	Stack Emission	Received Date	:	26-Sep-2025
Sampling Location	:	Hypo Tower	Commenced On	:	26-Sep-2025
Latitude	:	N-10°50'79.3''	Completed On	:	06-Oct-2025
Longitude	:	E-079°50'28.7''	Report Date	:	06-Oct-2025
Sample Submission Type	:	Collected by Lab Representative			
Sample Condition	:	Fit for Analysis			
Sampling Plan and Method	:	GL/EN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Chlorine as Cl2	mg/Nm3	BLQ(LOQ: 0.02)	GL/EN/SOP/153 Issue no & Dt: 02.05.04	15 Max
2	Acid Mist as HCl	mg/Nm3	BLQ(LOQ: 0.02)	GL/EN/SOP/153 Issue no & Dt: 02.05.04	35 Max

represents Customer Defined Fields

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Remarks: The above Stack Complies as per CPCB norms with respect to the above tested parameters.

End of Report

Authorized By
E. PRITHVIRAJAN
LAB MANAGER

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090884

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Stack Emission	Sampling From	:	25-Sep-2025
Sample Description#	:	Stack Emission	Received Date	:	26-Sep-2025
Sampling Location	:	Ethylene Di Chloride - Incinerator	Commenced On	:	26-Sep-2025
Latitude	:	N-10°50'76.2''	Completed On	:	06-Oct-2025
Latitude	:	E-79°50'17.1''	Report Date	:	06-Oct-2025
Sample Submission Type	:	Collected by Lab Representative			
Sample Condition	:	Fit for Analysis			
Sampling Plan and Method	:	GL/EN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Pollution and Environment					
1	Ethylene Di Chloride	mg/m3	BLQ(LOQ: 0.1)	By GC-MS	NA
2	Chlorine as Cl2	mg/Nm3	BLQ(LOQ: 0.02)	GL/EN/SOP/153 Issue no & Dt: 02/05.04	15 Max
3	Acid Mist as HCl	mg/Nm3	BLQ(LOQ: 0.02)	GL/EN/SOP/153 Issue no & Dt: 02/05.04	35 Max
4	Ethylene	mg/m3	BLQ(LOQ: 0.1)	By GCMS	NA

represents Customer Defined Fields

Note:- BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Remarks: The above Stack Complies as per CPCB norms with respect to the above tested parameters.

End of Report

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A3

Environment Monitoring Data - APR 25 to SEP 25

Ambient Air Quality Monitoring						
Locations: OHC, HCl/Hypo, Flaker/STP, Ethylene Storage, Desalination Plant, ICD Plant (Main Gate), CPP-2 *(Maximum values recorded is given below)*						
Parameters	APR	MAY	JUN	JUL	AUG	SEP
SO2, ug/m3	8.54	8.45	18.8	18.4	17.8	21.2
NO2, ug/m3	19.21	18.59	27.8	30.7	27.5	31
PM10, ug/m3	71.07	70.65	64.8	58.6	59.4	59.2
PM 2.5, ug/m3	32.24	34.29	30.6	27.7	27.6	29.1
O3, ug/m3	17.21	17.11	BDL (LOQ: 20)	BDL (LOQ: 20)	BDL (LOQ: 20)	BDL (LOQ: 20)
Pb, ug/m3	BDL (DL 0.02)	BDL (DL 0.02)	BDL (LOQ: 0.002)	BDL (LOQ: 0.002)	BDL (LOQ: 0.002)	BDL (LOQ: 0.002)
NH3, ug/m3	7.82	7.78	BDL (LOQ: 20)	BDL (LOQ: 20)	BDL (LOQ: 20)	BDL (LOQ: 20)
C6H6, ug/m3	BDL (DL 1.0)	BDL (DL 1.0)	BDL (LOQ: 4)	BDL (LOQ: 4)	BDL (LOQ: 4)	BDL (LOQ: 4)
Benzo / Pyrene, ng/m3	BDL (DL 1.0)	BDL (DL 1.0)	BDL (LOQ: 0.03)	BDL (LOQ: 0.03)	BDL (LOQ: 0.03)	BDL (LOQ: 0.03)
As, ng/m3	BDL (DL 2.0)	BDL (DL 2.0)	BDL (LOQ: 2.0)	BDL (LOQ: 2.0)	BDL (LOQ: 2.0)	BDL (LOQ: 2.0)
Ni, ng/m3	BDL (DL 2.0)	BDL (DL 2.0)	BDL (LOQ: 2.0)	BDL (LOQ: 2.0)	BDL (LOQ: 2.0)	BDL (LOQ: 2.0)
Acid Mist/HCl, ug/m3	BDL (DL 1.0)	BDL (DL 1.0)	BDL (LOQ: 20)	BDL (LOQ: 20)	BDL (LOQ: 20)	BDL (LOQ: 20)
CO, ug/m3	BDL (DL 1.0)	BDL (DL 1.0)	BDL (LOQ: 1000)	BDL (LOQ: 1000)	BDL (LOQ: 1000)	BDL (LOQ: 1000)
Cl2, ug/m3	BDL (DL 1.0)	BDL (DL 1.0)	BDL (LOQ: 10)	BDL (LOQ: 10)	BDL (LOQ: 10)	BDL (LOQ: 10)
Stack Monitoring - Captive Power Plants						
Locations: Waste Heat Recovery Boiler – CPP 1 & CPP 2 *(Maximum values recorded is given below)*						
Velocity, m/s	9.2	8.9	8	8.5	9.1	8.4
PM, mg/m3	16.13	14.06	19.5	18.7	27.2	16.4
SO2, mg/m3	19.43	16.5	49	34.4	37.2	43
Nox, mg/Nm3	58.51	45.16	58.4	47.4	38.2	58.3
CO2, %	5.5	5.1	8.5	4.3	4.5	8.6
O2, %	13.5	14.2	11	13.9	14.1	11.2
Stack temperature, oC	210	169	254	251	251	254
Flow rate, Nm3/hr	15,822	15,341	15,452	16,113	16,698	16,021
CO, mg/Nm3	BDL (DL 0.2)	BDL (DL 0.2)	BDL (DL 0.2)	BDL (DL 0.2)	BDL (DL 0.2)	BDL (DL 0.2)
Mercury, mg/Nm3	BDL (DL 0.01)	BDL (DL 0.01)	BDL (LOQ: 0.03)	BDL (LOQ: 0.03)	BDL (LOQ: 0.03)	BDL (LOQ: 0.03)
Stack Monitoring - DG Sets						
Locations: 600 (Old), 600 (New), 400, 250, 180 & 82.5 KVA *(Maximum values recorded is given below)*						
Velocity, m/s	10.4	10.2	9.7	11.6	19.1	11.5
SO2, mg/Nm3	BDL (DL 4.0)	BDL (DL 4.0)	31.6	71.7	94.6	32
CO2, %	3.2	3.3	1.4	1.8	3.8	1.5
O2, %	16.8	17	17.9	18.4	18	18.5
Stack temperature, oC	134	122	78	112	93	110
Flow rate, Nm3/hr	848	1,342	1,053	1,053	2,162	253
PM, g/kw-hr	0.12	0.07	0.05	0.07	0.1	0.1
Nox + HC, g/kw-hr	0.6	0.51	0.05	0.39	0.97	0.19
CO, g/kw-hr	0.5	0.6	0.19	0.74	1.05	1.13
Smoke limit, m-1	0.3	0.3	0.2	0.2	0.2	0.2
Stack Monitoring - Boiler						
Location: 8 TPH (LSHS fired Boiler) *(Maximum values recorded is given below)*						
Velocity, m/s PM, mg/m3 SO2, mg/m3 Nox, mg/Nm3 CO2, % O2, % Stack temperature, oC Flow rate, Nm3/hr CO, mg/Nm3 Mercury, mg/Nm3	No operation	No operation	No operation	No operation	No operation	No operation

** Sample reports attached*

CHEMPLAST SANMAR LTD MELAMANJORE

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090856

ULR No. : TC-858225000006753F

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Ambient Air Quality	Sampling From	:	23-Sep-2025 10.15 AM
Sample Description #	:	Ambient Air Quality	Sampling To	:	24-Sep-2025 10.15 AM
Sampling Location	:	Near OHC	Received Date	:	26-Sep-2025
Latitude	:	N-10°50'02.2"	Commenced On	:	26-Sep-2025
Longitude	:	E-079°50'23.3"	Completed On	:	06-Oct-2025
Sample Submission Type	:	Collected by Lab Representative	Report Date	:	06-Oct-2025
Sample Condition	:	Fit for Analysis	Sampling Plan and Method	:	IS 5182 Part V & XIV
Humidity	:	51%	Duration of Monitoring, minutes	:	1440
Temperature	:	33°C	Sky Appearance	:	Clear Sky

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Sulphur Dioxide as SO2	µg/m3	18.5	IS 5182 (Part 2/Sec-1)	80 Max
2	Nitrogen dioxide as NO2	µg/m3	25.4	IS 5182 (Part 6)	80 Max
3	Particulate Matter (PM10)	µg/m3	53.4	IS 5182 (Part 23)	100 Max
4	Particulate Matter (PM2.5)	µg/m3	27.7	GL/EN/SOP/062 Issue no & Dt: 02/05.04	60 Max
5	Ozone as O3	µg/m3	BLQ(LOQ : 20)	IS 5182 (Part 9)	180 Max
6	Lead as Pb	µg/m3	BLQ(LOQ : 0.002)	IS 5182 (Part 22)	1.0 Max
7	Ammonia as NH3	µg/m3	BLQ(LOQ : 20)	GL/EN/SOP/057 Issue no & Dt:02/05.04 (By Indophenol Method)	400 Max
8	Benzene (C6H6)	µg/m3	BLQ(LOQ : 4.0)	GL/INS/SOP/08 Issue no & Dt. 02/05.04	5 Max
9	Benzo (a) Pyrene (Particulate Phase)	ng/m3	BLQ(LOQ : 0.03)	GL/EN-INS/SOP/039 Issue no & Dt: 02/05.04	1 Max
10	Arsenic as As	ng/m3	BLQ(LOQ : 2.0)	IS 5182 (Part 22)	6 Max
11	Nickel as Ni	ng/m3	BLQ(LOQ : 2.0)	IS 5182 (Part 22) ICP-MS- method after sampling on EPM 2000 or Equivalent filter paper.	20 Max

represents Costumer Defined Fields.

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification. NAAQ-National Ambient Air Quality, Instrument Used: Respirable Dust Sampler (RDS), Fine Particulate Sampler (FPS), Multi-gas Analyzer, Low Volume Air Sampler.

Remarks: The above sample complies as per NAAQS/PPCC Limit which is provided in the environmental protection Rule 3, (3B) Nov. 2009, against the above tested parameters.

End of Report

Authorized By

E. PRITHVIRAJAN
LAB MANAGER

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GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090856-1

Name of the Client	: M/s. Chemplast Sanmar Limited		
Address of the Client	: 315, Melvanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002		
Sample Name	: Ambient Air Quality	Sampling From	: 23-Sep-2025 10:15 AM
Sample Description #	: Ambient Air Quality	Sampling To	: 24-Sep-2025 10:15 AM
Sampling Location	: Near OHC	Received Date	: 26-Sep-2025
Latitude	: N-10°50'82.2"	Commenced On	: 26-Sep-2025
Longitude	: E-079°50'23.3"	Completed On	: 06-Oct-2025
Sample Submission Type	: Collected by Lab Representative	Report Date	: 06-Oct-2025
Sample Condition	: Fit for Analysis	Sampling Plan and Method	: IS 5182 Part V & XIV
Humidity	: 51%	Duration of Monitoring, minutes	: 1440
Temperature	: 33°C	Sky Appearance	: Clear Sky

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Chlorine as Cl2	µg/m3	BLQ(LOQ 10)	IS 5182 (Part 19)	30 Max
2	Acid Mist as HCl	µg/m3	BLQ(LOQ 20)	GLAVN/SOP/153 Issue no & Dt. 02.05.04	70 Max
3	Carbon Monoxide as CO	µg/m3	BLQ(LOQ : 1000)	IS 5182 (Part 10)	5000 Max

represents Costumer Defined Fields.

Note - Instrument Used : Respirable Dust Sampler (RDS), Fine Particulate Sampler (FPS), Multi-gas Analyzer, Low Volume Air Sampler

Remarks: The above sample complies as per PPCC limit against the above tested parameters.

End of Report

Authorized By

E. PRITHIVIRAJAN

LAB MANAGER

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GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090857

ULR No. : TC-858225000006754F

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Mekvanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Ambient Air Quality	Sampling From	:	24-Sep-2025 10.25 AM
Sample Description #	:	Ambient Air Quality	Sampling To	:	25-Sep-2025 10.25 AM
Sampling Location	:	Near HCL/Hypo Plant	Received Date	:	26-Sep-2025
Latitude	:	N-10°50'8.9"	Commenced On	:	26-Sep-2025
Longitude	:	E-079°50'28.2"	Completed On	:	06-Oct-2025
Sample Submission Type	:	Collected by Lab Representative	Report Date	:	06-Oct-2025
Sample Condition	:	Fit for Analysis	Sampling Plan and Method	:	IS 5182 Part V & XIV
Humidity	:	57%	Duration of Monitoring, minutes	:	1440
Temperature	:	34°C	Sky Appearance	:	Clear Sky

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Sulphur Dioxide as SO2	µg/m3	17.8	IS 5182 (Part 2/Sec-1)	80 Max
2	Nitrogen dioxide as NO2	µg/m3	29.5	IS 5182 (Part 6)	80 Max
3	Particulate Matter (PM10)	µg/m3	59.2	IS 5182 (Part 23)	100 Max
4	Particulate Matter (PM2.5)	µg/m3	29.1	GL/EN/SOP/062 Issue no & Dt. 02.05.04	60 Max
5	Ozone as O3	µg/m3	BLQ(LOQ : 20)	IS 5182 (Part 9)	180 Max
6	Lead as Pb	µg/m3	BLQ(LOQ : 0.002)	IS 5182 (Part 22)	1.0 Max
7	Ammonia as NH3	µg/m3	BLQ(LOQ : 20)	GL/EN/SOP/057 Issue no & Dt 02.05.04 (By Indophenol Method)	400 Max
8	Benzene (C6H6)	µg/m3	BLQ(LOQ : 1.0)	GL/ENS/SOP/08 Issue no & Dt. 02.05.04	5 Max
9	Benzo (a) Pyrene (Particulate Phase)	ng/m3	BLQ(LOQ : 0.03)	GL/EN-ENS/SOP/009 Issue no & Dt. 02.05.04	1 Max
10	Arsenic as As	ng/m3	BLQ(LOQ : 2.0)	IS 5182 (Part 22)	6 Max
11	Nickel as Ni	ng/m3	BLQ(LOQ : 2.0)	IS 5182 (Part 22) ICP-MS- method after sampling on FPM 2000 or Equivalent fiber paper.	20 Max

represents Customer Defined Fields.

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification. NAAQ-National Ambient Air Quality, Instrument Used: Respirable Dust Sampler (RDS), Fine Particulate Sampler (FPS), Multi-gas Analyzer, Low Volume Air Sampler.

Remarks: The above sample complies as per NAAQS/PPCC limit which is provided in the environmental protection Rule 3, (3B) Nov. 2009, against the above tested parameters.

End of Report

Authorized By

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LAB MANAGER

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TEST REPORT

Report No. : EN25090857-1

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Ambient Air Quality	Sampling From	:	24-Sep-2025 10.25 AM
Sample Description #	:	Ambient Air Quality	Sampling To	:	25-Sep-2025 10.25 AM
Sampling Location	:	Near HCL/Hypo Plant	Received Date	:	26-Sep-2025
Latitude	:	N-10°5078.9"	Commenced On	:	26-Sep-2025
Longitude	:	E-079°5028.2"	Completed On	:	06-Oct-2025
Sample Submission Type	:	Collected by Lab Representative	Report Date	:	06-Oct-2025
Sample Condition	:	Fit for Analysis	Sampling Plan and Method	:	IS 5182 Part V & XIV
Humidity	:	57%	Duration of Monitoring, minutes	:	1440
Temperature	:	34°C	Sky Appearance	:	Clear Sky

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Chlorine as Cl2	µg/m3	BLQ(LOQ-10)	IS 5182 (Part 19)	30 Max
2	Acid Mist as HCl	µg/m3	BLQ(LOQ-26)	GLEN/SOP/153 Issue no & Dt: 02/05.04	70 Max
3	Carbon Monoxide as CO	µg/m3	BLQ(LOQ : 1000)	IS 5182 (Part 10)	5000 Max

represents Costumer Defined Fields.

Note - Instrument Used : Respirable Dust Sampler (RDS), Fine Particulate Sampler (FPS), Multi-gas Analyzer, Low Volume Air Sampler.

Remarks: The above sample complies as per PPCC limit against the above tested parameters.

End of Report

Authorized By

E. PRITHIVIRAJAN

LAB MANAGER

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GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

TC-8582

Report No. : EN25090029

ULR No. : TC-858225000006349F

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Ambient Air Quality	Sampling From	:	29-Aug-2025 11:20 AM
Sample Description #	:	Ambient Air Quality	Sampling To	:	30-Aug-2025 11:20 AM
Sampling Location	:	Near Flaker/STP Area	Received Date	:	02-Sep-2025
Latitude	:	N-10°50'80.0"	Commenced On	:	02-Sep-2025
Longitude	:	E-079°50'35.9"	Completed On	:	08-Sep 2025
Sample Submission Type	:	Collected by Lab Representative	Report Date	:	09-Sep-2025
Sample Condition	:	Fit for Analysis	Sampling Plan and Method	:	IS 5182 Part V & XIV
Humidity	:	51%	Duration of Monitoring, minutes	:	1440
Temperature	:	33°C	Sky Appearance	:	Clear Sky

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Sulphur Dioxide as SO2	µg/m3	16.0	IS 5182 (Part 2/Sec-1)	80 Max
2	Nitrogen dioxide as NO2	µg/m3	25.4	IS 5182 (Part 6)	80 Max
3	Particulate Matter (PM10)	µg/m3	52.2	IS 5182 (Part 23)	100 Max
4	Particulate Matter (PM2.5)	µg/m3	24.6	GL/EN/SOP/062 Issue no & Dt: 02/05.04	60 Max
5	Ozone as O3	µg/m3	BLQ(LOQ : 20)	IS 5182 (Part 9)	180 Max
6	Lead as Pb	µg/m3	BLQ(LOQ : 0.007)	IS 5182 (Part 22)	1.0 Max
7	Ammonia as NH3	µg/m3	BLQ(LOQ : 20)	GL/EN/SOP/057 Issue no & Dt 02/05.04 (By Indophenol Method)	400 Max
8	Benzene (C6H6)	µg/m3	BLQ(LOQ : 4.0)	GL/INS/SOP/08 Issue no & Dt. 02/05.04	5 Max
9	Benzo (a) Pyrene (Particulate Phase)	ng/m3	BLQ(LOQ : 0.03)	GL/EN-INS/SOP/009 Issue no & Dt: 02/05.04	1 Max
10	Arsenic as As	ng/m3	BLQ(LOQ : 2.0)	IS 5182 (Part 22)	6 Max
11	Nickel as Ni	ng/m3	BLQ(LOQ : 2.0)	IS 5182 (Part 22) ICP-MS- method after sampling on EPM 2000 or Equivalent filter paper.	20 Max

represents Costumer Defined Fields.

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification. NAAQ-National Ambient Air Quality, Instrument Used: Respirable Dust Sampler (RDS), Fine Particulate Sampler (FPS), Multi-gas Analyzer, Low Volume Air Sampler.

Remarks: The above sample complies as per NAAQS/PPCC Limit which is provided in the environmental protection Rule 3, (3B) Nov. 2009, against the above tested parameters.

End of Report

Authorized By

R. Abubacker Sithick

Chemist

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090029-1

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002.			
Sample Name	:	Ambient Air Quality	Sampling From	:	29-Aug-2025 11:20 AM
Sample Description #	:	Ambient Air Quality	Sampling To	:	30-Aug-2025 11:20 AM
Sampling Location	:	Near Flaker/STP Area	Received Date	:	02-Sep-2025
Latitude	:	N-10°50'80.0"	Commenced On	:	02-Sep -2025
Longitude	:	E-079°50'35.9"	Completed On	:	08-Sep 2025
Sample Submission Type	:	Collected by Lab Representative	Report Date	:	09-Sep -2025
Sample Condition	:	Fit for Analysis	Sampling Plan and Method	:	IS 5182 Part V & XIV
Humidity	:	51%	Duration of Monitoring, minutes	:	1440
Temperature	:	33°C	Sky Appearance	:	Clear Sky

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Chlorine as Cl2	µg/m3	BLQ(LOQ-10)	IS 5182 (Part 19)	30 Max
2	Acid Mist as HCl	µg/m3	BLQ(LOQ-20)	GL/EN/SOP/153 Issue no & Dt. 02/05.04	70 Max
3	Carbon Monoxide as CO	µg/m3	BLQ(LOQ : 1000)	IS 5182 (Part 10)	5000 Max

represents Costumer Defined Fields.

Note:- Instrument Used : Respirable Dust Sampler (RDS), Fine Particulate Sampler (FPS), Multi-gas Analyzer, Low Volume Air Sampler.

Remarks: The above sample complies as per PPCC limit against the above tested parameters.

End of Report

Authorized By
R. Abubacker Sithick
Chemist

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* The test results related only to the items tested.
* The test report shall not be reproduced in full or part without the written approval of Glens.
* The test items will not be retained for more than 15 days from the date of issue of test report except in the case as required by the applicable regulations.
* The Laboratory's responsibility under this report is limited to proven wilful negligence and will in no case be more than the invoiced amount.
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GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090858

ULR No. : TC-858225000006755F

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Ambient Air Quality	Sampling From	:	23-Sep-2025 10:35 AM
Sample Description #	:	Ambient Air Quality	Sampling To	:	24-Sep-2025 10:35 AM
Sampling Location	:	Near Ethylene Storage	Received Date	:	26-Sep-2025
Latitude	:	N-10°50'95.2"	Commenced On	:	26-Sep-2025
Longitude	:	E-079°50'40.7"	Completed On	:	06-Oct-2025
Sample Submission Type	:	Collected by Lab Representative	Report Date	:	06-Oct-2025
Sample Condition	:	Fit for Analysis	Sampling Plan and Method	:	IS 5182 Part V & XIV
Humidity	:	57%	Duration of Monitoring, minutes	:	1440
Temperature	:	34°C	Sky Appearance	:	Clear Sky

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospherle Pollution					
1	Sulphur Dioxide as SO2	µg/m3	17.8	IS 5182 (Part 2/Sec-1)	80 Max
2	Nitrogen dioxide as NO2	µg/m3	25.8	IS 5182 (Part 6)	80 Max
3	Particulate Matter (PM10)	µg/m3	57.3	IS 5182 (Part 23)	100 Max
4	Particulate Matter (PM2.5)	µg/m3	25.0	GLÆN/SOP/062 Issue no & Dt: 02/05.04	60 Max
5	Ozone as O3	µg/m3	BLQ(LOQ : 20)	IS 5182 (Part 9)	180 Max
6	Lead as Pb	µg/m3	BLQ(LOQ : 0.002)	IS 5182 (Part 22)	1.0 Max
7	Ammonia as NH3	µg/m3	BLQ(LOQ : 20)	GLÆN/SOP/057 Issue no & Dt 02/05.04(By Indophenol Method)	400 Max
8	Benzene (C6H6)	µg/m3	BLQ(LOQ : 4.0)	GLÆNS/SOP/08 Issue no & Dt. 02/05.04	5 Max
9	Benzo (a) Pyrene (Particulate Phase)	ng/m3	BLQ(LOQ : 0.03)	GLÆN-INS/SOP/009 Issue no & Dt: 02/05.04	1 Max
10	Arsenic as As	ng/m3	BLQ(LOQ : 2.0)	IS 5182 (Part 22)	6 Max
11	Nickel as Ni	ng/m3	BLQ(LOQ : 2.0)	IS 5182 (Part 22) ICP-MS- method after sampling on EPM 2000 or Equivalent filter paper.	20 Max

represents Costumer Defined Fields.

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification. NAAQ-National Ambient Air Quality, Instrument Used : Respirable Dust Sampler (RDS), Fine Particulate Sampler (FPS), Multi-gas Analyzer, Low Volume Air Sampler.

Remarks: The above sample complies as per NAAQS/PPCC Limit which is provided in the environmental protection Rule 3, (3B) Nov. 2009, against the above tested parameters.

End of Report

Authorized By

E. PRITHIVIRAJAN
LAB MANAGER

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GLens Innovation Labs Pvt Ltd.

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TEST REPORT

Report No. : EN25090858-1

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Ambient Air Quality	Sampling From	:	23-Sep-2025 10:35 AM
Sample Description #	:	Ambient Air Quality	Sampling To	:	24-Sep-2025 10:35 AM
Sampling Location	:	Near Ethylene Storage	Received Date	:	26-Sep-2025
Latitude	:	N-10°50'95.2"	Commenced On	:	26-Sep-2025
Longitude	:	E-079°50'40.7"	Completed On	:	06-Oct-2025
Sample Submission Type	:	Collected by Lab Representative	Report Date	:	06-Oct-2025
Sample Condition	:	Fit for Analysis	Sampling Plan and Method	:	IS 5182 Part V & XIV
Humidity	:	57%	Duration of Monitoring, minutes	:	1440
Temperature	:	34°C	Sky Appearance	:	Clear Sky

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospherk Pollution					
1	Chlorine as Cl2	µg/m3	BLQ(LOQ 10)	IS 5182 (Part 19)	20 Max
2	Acid Mist as HCl	µg/m3	BLQ(LOQ 20)	GLAN/SOP/153 Issue no & Dt. 02/03.04	70 Max
3	Carbon Monoxide as CO	µg/m3	BLQ(LOQ : 1000)	IS 5182 (Part 10)	5000 Max

represents Costumer Defined Fields.

Note - Instrument Used : Respirable Dust Sampler (RDS), Fine Particulate Sampler (FPS), Multi-gas Analyzer, Low Volume Air Sampler.

Remarks: The above sample complies as per PPCC limit against the above tested parameters.

End of Report

Authorized By

E. PRITHIVIRAJAN

LAB MANAGER

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TEST REPORT

TC-8582

Report No. : EN25090031

ULR No. : TC-8582250000006354F

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Ambient Air Quality	Sampling From	:	29-Aug-2025 11:45 AM
Sample Description #	:	Ambient Air Quality	Sampling To	:	30-Aug-2025 11:45 AM
Sampling Location	:	Near Desalination Plant	Received Date	:	02-Sep-2025
Latitude	:	N-10°50'95.3"	Commenced On	:	02-Sep -2025
Longitude	:	E-079°50'35.2"	Completed On	:	08-Sep 2025
Sample Submission Type	:	Collected by Lab Representative	Report Date	:	09-Sep -2025
Sample Condition	:	Fit for Analysis	Sampling Plan and Method	:	IS 5182 Part V & XIV
Humidity	:	57%	Duration of Monitoring, minutes	:	1440
Temperature	:	34°C	Sky Appearance	:	Clear Sky

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Sulphur Dioxide as SO2	µg/m3	14.5	IS 5182 (Part 2/Sec-1)	80 Max
2	Nitrogen dioxide as NO2	µg/m3	23.9	IS 5182 (Part 6)	80 Max
3	Particulate Matter (PM10)	µg/m3	59.4	IS 5182 (Part 23)	100 Max
4	Particulate Matter (PM2.5)	µg/m3	27.6	GLÆN/SOP/062 Issue no & Dt. 02/05.04	60 Max
5	Ozone as O3	µg/m3	BLQ(LOQ : 20)	IS 5182 (Part 9)	180 Max
6	Lead as Pb	µg/m3	BLQ(LOQ : 0.002)	IS 5182 (Part 22)	1.0 Max
7	Ammonia as NH3	µg/m3	BLQ(LOQ : 20)	GLÆN/SOP/057 Issue no & Dt 02/05.04(By Indophenol Method)	400 Max
8	Benzene (C6H6)	µg/m3	BLQ(LOQ : 4.0)	GLÆNS/SOP/08 Issue no & Dt. 02/05.04	5 Max
9	Benzo (a) Pyrene (Particulate Phase)	ng/m3	BLQ(LOQ : 0.03)	GLÆN-INS/SOP/009 Issue no & Dt: 02/05.04	1 Max
10	Arsenic as As	ng/m3	BLQ(LOQ : 2.0)	IS 5182 (Part 22)	6 Max
11	Nickel as Ni	ng/m3	BLQ(LOQ : 2.0)	IS 5182 (Part 22) ICP-MS- method after sampling on EPM 2000 or Equivalent filter paper.	20 Max

represents Costumer Defined Fields.

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification. NAAQ-National Ambient Air Quality, Instrument Used : Respirable Dust Sampler (RDS), Fine Particulate Sampler (FPS), Multi-gas Analyzer, Low Volume Air Sampler.

Remarks: The above sample complies as per NAAQS/PPCC Limit which is provided in the environmental protection Rule 3, (3B) Nov. 2009, against the above tested parameters.

End of Report

Authorized By

R. Abubacker Sithick

Chemist

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GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090031-1

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002.			
Sample Name	:	Ambient Air Quality	Sampling From	:	29-Aug-2025 11:45 AM
Sample Description #	:	Ambient Air Quality	Sampling To	:	30-Aug-2025 11:45 AM
Sampling Location	:	Near Desalination Plant	Received Date	:	02-Sep-2025
Latitude	:	N-10°50'95.3"	Commenced On	:	02-Sep -2025
Longitude	:	E-079°50'35.2"	Completed On	:	08-Sep 2025
Sample Submission Type	:	Collected by Lab Representative	Report Date	:	09-Sep -2025
Sample Condition	:	Fit for Analysis	Sampling Plan and Method	:	IS 5182 Part V & XIV
Humidity	:	57%	Duration of Monitoring, minutes	:	1440
Temperature	:	34°C	Sky Appearance	:	Clear Sky

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Chlorine as Cl2	µg/m3	BLQ(LOQ:10)	IS 5182 (Part 19)	30 Max
2	Acid Mist as HCl	µg/m3	BLQ(LOQ:20)	GL/EN/SOP/153 Issue no & Dt. 02/05.04	70 Max
3	Carbon Monoxide as CO	µg/m3	BLQ(LOQ : 1000)	IS 5182 (Part 10)	5000 Max

represents Costumer Defined Fields.

Note:- Instrument Used : Respirable Dust Sampler (RDS), Fine Particulate Sampler (FPS), Multi-gas Analyzer, Low Volume Air Sampler.

Remarks: The above sample complies as per PPCC limit against the above tested parameters.

End of Report

Authorized By

R. Abubacker Sithick

Chemist

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TEST REPORT

TC-8582

Report No. : EN25090855

ULR No. : TC-858225000006752F

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Ambient Air Quality	Sampling From	:	23-Sep-2025 10:00 AM
Sample Description #	:	Ambient Air Quality	Sampling To	:	24-Sep-2025 10:00 AM
Sampling Location	:	ICD Plant (Near Main Gate)	Received Date	:	26-Sep-2025
Latitude	:	N-10°50'78.0"	Commenced On	:	26-Sep-2025
Longitude	:	E-079°50'07.6"	Completed On	:	06-Oct-2025
Sample Submission Type	:	Collected by Lab Representative	Report Date	:	06-Oct-2025
Sample Condition	:	Fit for Analysis	Sampling Plan and Method	:	IS 5182 Part V & XIV
Humidity	:	59%	Duration of Monitoring. minutes	:	1440
Temperature	:	34°C	Sky Appearance	:	Clear Sky

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Sulphur Dioxide as SO2	µg/m3	21.2	IS 5182 (Part 2/Sec-1)	80 Max
2	Nitrogen dioxide as NO2	µg/m3	31.0	IS 5182 (Part 6)	80 Max
3	Particulate Matter (PM10)	µg/m3	50.7	IS 5182 (Part 23)	100 Max
4	Particulate Matter (PM2.5)	µg/m3	24.9	GL/EN/SOP/062 Issue no & Dt. 02.05.04	60 Max
5	Ozone as O3	µg/m3	BLQ(LOQ : 20)	IS 5182 (Part 9)	180 Max
6	Lead as Pb	µg/m3	BLQ(LOQ : 0.002)	IS 5182 (Part 22)	1.0 Max
7	Ammonia as NH3	µg/m3	BLQ(LOQ : 20)	GL/EN/SOP/057 Issue no & Dt 02.05.04 (By Indophenol Method)	400 Max
8	Benzene (C6H6)	µg/m3	BLQ(LOQ : 4.0)	GL/INS/SOP/08 Issue no & Dt. 02.05.04	5 Max
9	Benzo (a) Pyrene (Particulate Phase)	ng/m3	BLQ(LOQ : 0.03)	GL/EN-INS/SOP/009 Issue no & Dt. 02.05.04	1 Max
10	Arsenic as As	ng/m3	BLQ(LOQ : 2.0)	IS 5182 (Part 22)	6 Max
11	Nickel as Ni	ng/m3	BLQ(LOQ : 2.0)	IS 5182 (Part 22) ICP-MS- method after sampling on EPM 2000 or Equivalent filter paper	20 Max

represents Costumer Defined Fields.

Note:- BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification, NAAQ-National Ambient Air Quality, Instrument Used: Respirable Dust Sampler (RDS), Fine Particulate Sampler (FPS), Multi-gas Analyzer, Low Volume Air Sampler

Remarks: The above sample complies as per NAAQS/PPCC Limit which is provided in the environmental protection Rule 3, (3B) Nov. 2009, against the above tested parameters.

End of Report

Authorized By

E. PRITHIVIRAJAN
LAB MANAGER

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090855-1

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Ambient Air Quality	Sampling From	:	23-Sep-2025 10:00 AM
Sample Description #	:	Ambient Air Quality	Sampling To	:	24-Sep-2025 10:00 AM
Sampling Location	:	ICD Plant (Near Main Gate)	Received Date	:	26-Sep-2025
Latitude	:	N-10°50'78.0"	Commenced On	:	26-Sep-2025
Longitude	:	E-079°50'07.6"	Completed On	:	06-Oct-2025
Sample Submission Type	:	Collected by Lab Representative	Report Date	:	06-Oct-2025
Sample Condition	:	Fit for Analysis	Sampling Plan and Method	:	IS 5182 Part V & XIV
Humidity	:	59%	Duration of Monitoring, minutes	:	1440
Temperature	:	34°C	Sky Appearance	:	Clear Sky

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Chlorine as Cl2	µg/m3	BLQ(LOQ 10)	IS 5182 (Part 19)	30 Max
2	Acid Mist as HCl	µg/m3	BLQ(LOQ 20)	GLAEN/SOP/153 Issue no & Dt. 02.05.04	70 Max
3	Carbon Monoxide as CO	µg/m3	BLQ(LOQ : 1000)	IS 5182 (Part 10)	5000 Max

represents Costumer Defined Fields.

Note - Instrument Used : Respirable Dust Sampler (RDS), Fine Particulate Sampler (FPS), Multi gas Analyzer, Low Volume Air Sampler.

Remarks: The above sample complies as per PPCC limit against the above tested parameters.

End of Report

Authorized By

E. PRITHIVIRAJAN

LAB MANAGER

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TEST REPORT

TC-8582

Report No. : EN25090030

ULR No. : TC-858225000006351F

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002.			
Sample Name	:	Ambient Air Quality	Sampling From	:	29-Aug-2025 11:35 AM
Sample Description #	:	Ambient Air Quality	Sampling To	:	30-Aug-2025 11:35 AM
Sampling Location	:	ICD Plant (Near CPP – 2)	Received Date	:	02-Sep-2025
Latitude	:	N-10°5077.6"	Commenced On	:	02-Sep -2025
Longitude	:	E-079°5018.7"	Completed On	:	08-Sep 2025
Sample Submission Type	:	Collected by Lab Representative	Report Date	:	09-Sep -2025
Sample Condition	:	Fit for Analysis	Sampling Plan and Method	:	IS 5182 Part V & XIV
Humidity	:	57%	Duration of Monitoring, minutes	:	1440
Temperature	:	34°C	Sky Appearance	:	Clear Sky

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Sulphur Dioxide as SO2	µg/m3	11.4	IS 5182 (Part 2/Sec-1)	80 Max
2	Nitrogen dioxide as NO2	µg/m3	22.3	IS 5182 (Part 6)	80 Max
3	Particulate Matter (PM10)	µg/m3	57.2	IS 5182 (Part 23)	100 Max
4	Particulate Matter (PM2.5)	µg/m3	26.5	GLÆN/SOP/062 Issue no & Dt: 02/05.04	60 Max
5	Ozone as O3	µg/m3	BLQ(LOQ : 20)	IS 5182 (Part 9)	180 Max
6	Lead as Pb	µg/m3	BLQ(LOQ : 0.002)	IS 5182 (Part 22)	1.0 Max
7	Ammonia as NH3	µg/m3	BLQ(LOQ : 20)	GLÆN/SOP/057 Issue no & Dt:02/05.04 (By Indophenol Method)	400 Max
8	Benzene (C6H6)	µg/m3	BLQ(LOQ : 4.0)	GL/INS/SOP/08 Issue no & Dt. 02/05.04	5 Max
9	Benzo (a) Pyrene (Particulate Phase)	ng/m3	BLQ(LOQ : 0.03)	GLÆN-INS/SOP/009 Issue no & Dt: 02/05.04	1 Max
10	Arsenic as As	ng/m3	BLQ(LOQ : 2.0)	IS 5182 (Part 22)	6 Max
11	Nickel as Ni	ng/m3	BLQ(LOQ : 2.0)	IS 5182 (Part 22) ICP-MS- method after sampling on EPM 2000 or Equivalent filter paper.	20 Max

represents Costumer Defined Fields.

Note :- BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification. NAAQ-National Ambient Air Quality, Instrument Used: Respirable Dust Sampler (RDS), Fine Particulate Sampler (FPS), Multi-gas Analyzer, Low Volume Air Sampler.

Remarks: The above sample complies as per NAAQS/PPCC limit which is provided in the environmental protection Rule 3, (3B) Nov. 2009, against the above tested parameters.

End of Report

Authorized By

R. Abubacker Sithick

Chemist

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TEST REPORT

Report No. : EN25090030-1

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002.			
Sample Name	:	Ambient Air Quality	Sampling From	:	29-Aug-2025 11:35 AM
Sample Description #	:	Ambient Air Quality	Sampling To	:	30-Aug-2025 11:35 AM
Sampling Location	:	ICD Plant (Near CPP – 2)	Received Date	:	02-Sep-2025
Latitude	:	N-10°50'77.6"	Commenced On	:	02-Sep -2025
Longitude	:	E-079°50'18.7"	Completed On	:	08-Sep 2025
Sample Submission Type	:	Collected by Lab Representative	Report Date	:	09-Sep -2025
Sample Condition	:	Fit for Analysis	Sampling Plan and Method	:	IS 5182 Part V & XIV
Humidity	:	57%	Duration of Monitoring, minutes	:	1440
Temperature	:	34°C	Sky Appearance	:	Clear Sky

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Chlorine as Cl2	µg/m3	BLQ(LOQ:10)	IS 5182 (Part 19)	30 Max
2	Acid Mist as HCl	µg/m3	BLQ(LOQ:20)	GL/EN/SOP/153 Issue no & Dt. 02/05.04	70 Max
3	Carbon Monoxide as CO	µg/m3	BLQ(LOQ : 1000)	IS 5182 (Part 10)	5000 Max

represents Costumer Defined Fields.

Note :- Instrument Used : Respirable Dust Sampler (RDS), Fine Particulate Sampler (FPS), Multi-gas Analyzer, Low Volume Air Sampler.

Remarks: The above sample complies as per PPCC limit against the above tested parameters.

End of Report

Authorized By

R. Abubacker Sithick

Chemist

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090877

ULR No. : TC-858225000006756F

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Stack Emission	Sampling From	:	24-Sep-2025
Sample Description#	:	Boiler Stack	Received Date	:	26-Sep-2025
Sampling Location	:	CPP-I (Waste Heat Recovery Boiler)	Commenced On	:	26-Sep-2025
Latitude	:	N-10°50'92.1''	Completed On	:	06-Oct-2025
Longitude	:	E-079°50'28.5''	Report Date	:	06-Oct-2025
Sample Submission Type	:	Collected by Lab Representative			
Sample Condition	:	Fit for Analysis			
Sampling Plan and Method	:	GLÆN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Gaseous Discharge	Nm3/Hr	16021	IS 11255 (Part-3)	NA
2	Stack Temperature	K	527	IS 11255 (Part 3)	NA
3	Velocity	m/sec	8.3	EPA method 1-3 (Title 40 – Protection of Environment)	NA
4	Oxygen as O2	%	11.2	GLÆN/SOP/149 Issue no & Dt: 02/05.04	NA
5	Carbon Monoxide as CO	mg/Nm3	510	GLÆN/SOP/149 Issue no & Dt: 02/05.04	NA
6	Carbon Dioxide as CO2	%	8.6	GLÆN/SOP/149 Issue no & Dt: 02/05.04	NA
7	Particulate Matter	mg/Nm3	15.1	GL/EN/SOP/113 Issue no & Dt: 02/05.04	30 Max
8	Oxides of Nitrogen as NOx*	ppm	58.3	GLÆN/SOP/149 Issue no & Dt: 02/05.04	100 Max
9	Sulphur Dioxide as SO2	mg/Nm3	43.0	EPA 6 (Title 40 – Protection of Environment)	100 Max
10	Mercury as Hg	mg/Nm3	BLQ(LOQ : 0.03)	EPA method- 29(Title 40 – Protection of Environment)	0.03 Max

represents Customer Defined Fields

*NOx- at 15% excess Oxygen

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Remarks: The above Stack Complies as per CPCB norms with respect to the above tested parameters.

End of Report

Authorized By

E. PRITHVIRAJAN

LAB MANAGER

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Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

TC-8582

Report No. : EN25090878

ULR No. : TC-858225000006757F

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Stack Emission	Sampling From	:	24-Sep-2025
Sample Description#	:	Boiler Stack	Received Date	:	26-Sep-2025
Sampling Location	:	CPP-2 (Waste Heat Recovery Boiler)	Commenced On	:	26-Sep-2025
Latitude	:	N-10°50'77''	Completed On	:	06-Oct-2025
Longitude	:	E-079°50'17.6''	Report Date	:	06-Oct-2025
Sample Submission Type	:	Collected by Lab Representative			
Sample Condition	:	Fit for Analysis			
Sampling Plan and Method	:	GLEN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Gaseous Discharge	Nm3/hr	7310	IS 11255 (Part 3)	NA
2	Stack Temperature	K	487	IS 11255 (Part 3)	NA
3	Velocity	m/sec	8.4	EPA method 1-3 (Title 40 – Protection of Environment)	NA
4	Oxygen as O2	%	11.1	GLEN/SOP/149 Issue no & Dt: 02/05.04	NA
5	Carbon Monoxide as CO	mg/Nm3	630	GLEN/SOP/149 Issue no & Dt: 02/05.04	NA
6	Carbon Dioxide as CO2	%	8.3	GLEN/SOP/149 Issue no & Dt: 02/05.04	NA
7	Particulate Matter	mg/Nm3	16.4	GLEN/SOP/113 Issue no & Dt: 02/05.04	30 Max
8	Oxides of Nitrogen as NOx *	ppm	18.0	GLEN/SOP/149 Issue no & Dt: 02/05.04	100 Max
9	Sulphur Dioxide as SO2	mg/Nm3	14.3	EPA 6 (Title 40 – Protection of Environment)	100 Max
10	Mercury as Hg	mg/Nm3	BLQ(LOQ : 0.03)	EPA method- 29 (Title 40 – Protection of Environment)	0.03 Max

represents Customer Defined Fields

*NOx- at 15% excess Oxygen

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Remarks: The above Stack Complies as per CPCB norms with respect to the above tested parameters.

End of Report

Authorized By

R. Abubacker Sithick

Chemist

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090058

ULR No. : TC-858225000006398F

Name of the Client	: M/s. Chemplast Sanmar Limited			
Address of the Client	: 315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	: Stack Emission	Sampling Date	:	29-Aug-2025
Sample Description	: DG Stack	Received Date	:	02-Sep-2025
Sampling Location	: DG Set (82.5 KVA)	Commenced On	:	02-Sep-2025
Latitude	: N-10°50'91.6"	Completed On	:	08-Sep-2025
Longitude	: E-079°50'27.7"	Report Date	:	09-Sep-2025
Sample Submission Type	: Collected by Lab Representative			
Sample Condition	: Fit for Analysis			
Sampling Plan and Method	: GL/EN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Limit as per CPCB Standard
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Velocity	m/sec	10.2	EPA method 1-3 (Title 40 – Protection of Environment)	NA
2	Stack Temperature	K	354	IS 11255 (Part 3)	NA
3	Flow Rate	Nm3/hr	242	IS 11255 (Part 3)	NA
4	Particulate Matter	g/kw-hr	0.09	GL/EN/SOP/113 Issue no & Dt: 02/05.04	≤0.2
5	Oxides of Nitrogen (NOx as NO2)	g/kw-hr	0.97	GLAEN/SOP/149 Issue no & Dt: 02/05.04	≤4.0
6	Carbon Monoxide as CO	g/kw-hr	1.05	GLAEN/SOP/149 Issue no & Dt: 02/05.04	≤3.5
7	Oxygen as O2	%	18.0	GLAEN/SOP/149 Issue no & Dt: 02/05.04	NA
8	Carbon Dioxide as CO2	%	2.2	GLAEN/SOP/149 Issue no & Dt: 02/05.04	NA
9	Sulphur Dioxide as SO2	mg/Nm3	94.6	EPA 6 (Title 40 – Protection of Environment)	NA

Note :- BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification.

Note: *NOX+HC - ≤ 4.0g/kw-hr

End of Report

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R. Abubacker Sithick

Chemist

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TEST REPORT

Report No. : EN25090058-1

Name of the Client	: M/s. Chemplast Sanmar Limited			
Address of the Client	: 315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	: Stack Emission	Sampling Date	:	29-Aug-2025
Sample Description	: DG Stack	Received Date	:	02-Sep-2025
Sampling Location	: DG Set (82.5 KVA)	Commenced On	:	02-Sep-2025
Latitude	: N-10°5091.6''	Completed On	:	08-Sep-2025
Longitude	: E-079°5927.7''	Report Date	:	09-Sep-2025
Sample Submission Type	: Collected by Lab Representative			
Sample Condition	: Fit for Analysis			
Sampling Plan and Method	: GL/EN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Limit as per CPCB Standard
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Hydrocarbon (HC)	g/kw-hr	BLQ(LOQ : 1.0)	IS: 5182 (Part1-17)	≤ 4.0
2	Smoke Light (Light Absorption Co-Efficient)	m-1	0.2	By Instrument Method	≤ 0.7

Note:- BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Note: *NOX+HC - ≤ 4 Dg/kw-hr

End of Report

Authorized By

R. Abubacker Sithick

Chemist

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TEST REPORT

Report No. : EN25090880

ULR No. : TC-858225000006748F

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	:	Stack Emission	Sampling Date	:	25-Sep-2025
Sample Description	:	DG Stack	Received Date	:	26-Sep-2025
Sampling Location	:	DG Set (180 KVA)	Commenced On	:	26-Sep-2025
Latitude	:	N-10°50'91.6''	Completed On	:	06-Oct-2025
Longitude	:	E-079°50'27.7''	Report Date	:	06-Oct-2025
Sample Submission Type	:	Collected by Lab Representative			
Sample Condition	:	Fit for Analysis			
Sampling Plan and Method	:	GLÆN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Limit as per CPCB Standard
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Velocity	m/sec	9.4	EPA method 1-3 (Title 40 – Protection of Environment)	NA
2	Stack Temperature	K	353	IS 11255 (Part 3)	NA
3	Flow Rate	Nm3/hr	224	IS 11255 (Part 3)	NA
4	Particulate Matter	g/kw-hr	0.1	GL/EN/SOP/113 Issue no & Dt: 02/05.04	≤ 0.2
5	Oxides of Nitrogen (NOx as NO2)	g/kw-hr	0.19	GLÆN/SOP/149 Issue no & Dt: 02/05.04	≤ 4.0
6	Carbon Monoxide as CO	g/kw-hr	0.78	GLÆN/SOP/149 Issue no & Dt: 02/05.04	≤ 3.5
7	Oxygen as O2	%	18.2	GLÆN/SOP/149 Issue no & Dt: 02/05.04	NA
8	Carbon Dioxide as CO2	%	1.5	GLÆN/SOP/149 Issue no & Dt: 02/05.04	NA
9	Sulphur Dioxide as SO2	mg/Nm3	14.3	EPA 6 (Title 40 – Protection of Environment)	NA

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Note: *NOX+HC - ≤ 4.0g/kw-hr

End of Report

Authorized By

E. PRITHVIRAJAN

LAB MANAGER

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TEST REPORT

Report No. : EN25090880-1

Name of the Client	: M/s. Chemplast Sanmar Limited			
Address of the Client	: 315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	: Stack Emission	Sampling Date	: 25-Sep-2025	
Sample Description	: DG Stack	Received Date	: 26-Sep-2025	
Sampling Location	: DG Set (180 KVA)	Commenced On	: 26-Sep-2025	
Latitude	: N-10°50'91.6''	Completed On	: 06-Oct-2025	
Longitude	: E-079°50'27.7''	Report Date	: 06-Oct-2025	
Sample Submission Type	: Collected by Lab Representative			
Sample Condition	: Fit for Analysis			
Sampling Plan and Method	: GL/EN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Limit as per CPCB Standard
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Hydrocarbon (HC)	g/kw-hr	BLQ(LOQ : 1.0)	IS: 5182 (Part1-17)	≤4.0
2	Smoke Light (Light Absorption Co-Efficient)	m-1	0.2	By Instrument Method	≤0.7

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification.

Note: *NOX+HC - ≤ 4.0g/kw-hr

End of Report

Authorized By

E. PRITHIVIRAJAN
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TEST REPORT

Report No. : EN25090881

ULR No. : TC-858225000006749F

Name of the Client	: M/s. Chemplast Sanmar Limited		
Address of the Client	: 315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002		
Sample Name	: Stack Emission	Sampling Date	: 25-Sep-2025
Sample Description	: DG Stack	Received Date	: 26-Sep-2025
Sampling Location	: DG Set (400 KVA)	Commenced On	: 26-Sep-2025
Latitude	: N-10°50'95.6''	Completed On	: 06-Oct-2025
Longitude	: E-079°50'40.4''	Report Date	: 06-Oct-2025
Sample Submission Type	: Collected by Lab Representative		
Sample Condition	: Fit for Analysis		
Sampling Plan and Method	: GL/EN/SOP/111		

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Limit as per CPCB Standard
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Velocity	m/sec	11.5	EPA method 1-3 (Title 40 – Protection of Environment)	NA
2	Stack Temperature	K	383	IS 11255 (Part 3)	NA
3	Flow Rate	Nm3/hr	253	IS 11255 (Part 3)	NA
4	Particulate Matter	g/kw-hr	0.07	GL/EN/SOP/113 Issue no & Dt: 02/05.04	≤0.2
5	Oxides of Nitrogen (NOx as NO2)	g/kw-hr	0.04	GL/EN/SOP/149 Issue no & Dt: 02/05.04	≤4.0
6	Carbon Monoxide as CO	g/kw-hr	1.13	GL/EN/SOP/149 Issue no & Dt: 02/05.04	≤3.5
7	Oxygen as O2	%	18.5	GL/EN/SOP/149 Issue no & Dt: 02/05.04	NA
8	Carbon Dioxide as CO2	%	1.4	GL/EN/SOP/149 Issue no & Dt: 02/05.04	NA
9	Sulphur Dioxide as SO2	mg/Nm3	32.0	EPA 6 (Title 40 – Protection of Environment)	NA

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Note: *NOX+HC - ≤ 4.0g/kw-hr

End of Report

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TEST REPORT

Report No. : EN2509881-1

Name of the Client	: M/s. Chemplast Sanmar Limited		
Address of the Client	: 315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002		
Sample Name	: Stack Emission	Sampling Date	: 25-Sep-2025
Sample Description	: DG Stack	Received Date	: 26-Sep-2025
Sampling Location	: DG Set (400 KVA)	Commenced On	: 26-Sep-2025
Latitude	: N-10°50'95.6''	Completed On	: 06-Oct-2025
Longitude	: E-079°50'40.4''	Report Date	: 06-Oct-2025
Sample Submission Type	: Collected by Lab Representative		
Sample Condition	: Fit for Analysis		
Sampling Plan and Method	: GLÆN/SOP/111		

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Limit as per CPCB Standard
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Hydrocarbon (HC)	g/Kw-hr	BLQ(LOQ : 1.0)	IS: 5182 (Part1-17)	≤4.0
2	Smoke Light (Light Absorption Co-Efficient)	m-1	0.2	By Instrument Method	≤0.7

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Note: *NOX+HC - ≤ 4.0g/kw-hr

End of Report

Authorized By
E. PRITHIVIRAJAN
LAB MANAGER

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090057

ULR No. : TC-858225000006399F

Name of the Client	: M/s. Chemplast Sanmar Limited			
Address of the Client	: 315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	: Stack Emission	Sampling Date	:	29-Aug-2025
Sample Description	: DG Stack	Received Date	:	02-Sep-2025
Sampling Location	: DG Set (600 KVA-Old)	Commenced On	:	02-Sep-2025
Latitude	: N-10°50'85.7"	Completed On	:	08-Sep-2025
Longitude	: E-079°50'29.1"	Report Date	:	09-Sep-2025
Sample Submission Type	: Collected by Lab Representative			
Sample Condition	: Fit for Analysis			
Sampling Plan and Method	: GL/EN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Limit as per CPCB Standard
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Velocity	m/sec	19.1	EPA method 1-3 (Title 40 – Protection of Environment)	NA
2	Stack Temperature	K	366	IS 11255 (Part 3)	NA
3	Flow Rate	Nm3/hr	2162	IS 11255 (Part 3)	NA
4	Particulate Matter	g/kw-hr	0.10	GL/EN/SOP/111 Issue no & Dt: 02.05.04	≤0.2
5	Oxides of Nitrogen (NOx as NO2)	g/kw-hr	0.74	GL/EN/SOP/149 Issue no & Dt: 02.05.04	≤4.0
6	Carbon Monoxide as CO	g/kw-hr	1.04	GL/EN/SOP/149 Issue no & Dt: 02.05.04	≤3.5
7	Oxygen as O2	%	16.2	GL/EN/SOP/149 Issue no & Dt: 02.05.04	NA
8	Carbon Dioxide as CO2	%	3.8	GL/EN/SOP/149 Issue no & Dt: 02.05.04	NA
9	Sulphur Dioxide as SO2	mg/Nm3	37.3	EPA 6 (Title 40 – Protection of Environment)	NA

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Note: *NOX+HC - ≤ 4.0g/kw-hr

End of Report

Authorized By

R. Abubacker Sithick

Chemist

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25080057-1

Name of the Client	: M/s. Chemplast Sanmar Limited			
Address of the Client	: 315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Name	: Stack Emission	Sampling Date	: 29-Aug-2025	
Sample Description	: DG Stack	Received Date	: 02-Sep-2025	
Sampling Location	: DG Set (600 KVA-Old)	Commenced On	: 02-Sep-2025	
Latitude	: N-10°50'85.7''	Completed On	: 08-Sep-2025	
Longitude	: E-079°50'29.1''	Report Date	: 09-Sep-2025	
Sample Submission Type	: Collected by Lab Representative			
Sample Condition	: Fit for Analysis			
Sampling Plan and Method	: GL/EN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Limit as per CPCB Standard
Discipline : Chemical					
Group	: Atmospheric Pollution				
1	Hydrocarbon (HC)	g/kw-hr	BLQ(LOQ : 1.0)	IS: 5182 (Part1-17)	≤4.0
2	Smoke Light (Light Absorption Co-Efficient)	m-1	0.2	By Instrument Method	≤0.7

Note:- BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Note: *NOX+HC - ≤ 4.0g/kw-hr

End of Report

Authorized By
R. Abubacker Sithick
Chemist

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TEST REPORT

Report No. : EN25080030

ULR No. : TC-858225000005474F

Name of the Client	: M/s. Chemplast Sanmar Limited			
Address of the Client	: 315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry , Pincode-611002			
Sample Name	: Stack Emission	Sampling Date	:	29-Jul-2025
Sample Description	: DG Stack	Received Date	:	01-Aug-2025
Sampling Location	: DG Set (600 KVA-New)	Commenced On	:	01-Aug-2025
Latitude	: N-10°50'85.7''	Completed On	:	09-Aug-2025
Longitude	: E-079°50'29.1''	Report Date	:	09-Aug-2025
Sample Submission Type	: Collected by Lab Representative			
Sample Condition	: Fit for Analysis			
Sampling Plan and Method	: GL/EN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Limit as per CPCB Standard
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Velocity	m/sec	11.6	EPA method 1-3 (Title 40 - Protection of Environment)	NA
2	Stack Temperature	K	371	IS 11255 (Part 3)	NA
3	Flow Rate	Nm3/hr	1053	IS 11255 (Part 3)	NA
4	Particulate Matter	g/kw-hr	0.07	GL/EN/SOP/113 Issue no & Dt: 02.05.04	≤ 0.2
5	Oxides of Nitrogen (NOx as NO2)	g/kw-hr	0.33	GL/EN/SOP/149 Issue no & Dt: 02.05.04	≤ 4.0
6	Carbon Monoxide as CO	g/kw-hr	0.53	GL/EN/SOP/149 Issue no & Dt: 02.05.04	≤ 3.5
7	Oxygen as O2	%	18.3	GL/EN/SOP/149 Issue no & Dt: 02.05.04	NA
8	Carbon Dioxide as CO2	%	1.5	GL/EN/SOP/149 Issue no & Dt: 02.05.04	NA
9	Sulphur Dioxide as SO2	mg/Nm3	45.9	EPA 6 (Title 40 - Protection of Environment)	NA

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Note: *NOX+HC - ≤ 4.0g/kw-hr

End of Report

Authorized By
E. PRITHIVIRAJAN
LAB MANAGER

Terms and Conditions:

* The test results related only to the items tested.
* The test report shall not be reproduced in full or part without the written approval of Glens.
* The test items will not be retained for more than 15 days from the date of issue of test report except in the case as required by the applicable regulations.
* The Laboratory's responsibility under this report is limited to proven willful negligence and will in no case be more than the invoiced amount.
* A Satisfactory test report in no way implies that the product tested is approved by NABL.

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN250800830-1

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry , Pincode-611002			
Sample Name	:	Stack Emission	Sampling Date	:	29-Jul-2025
Sample Description	:	DG Stack	Received Date	:	01-Aug-2025
Sampling Location	:	DG Set (600 KVA-New)	Commenced On	:	01-Aug-2025
Latitude	:	N-10°50'85.7''	Completed On	:	09-Aug-2025
Longitude	:	E-079°50'29.1''	Report Date	:	09-Aug-2025
Sample Submission Type	:	Collected by Lab Representative			
Sample Condition	:	Fit for Analysis			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Limit as per CPCB Standard
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Hydrocarbon (HC)	g/kw-hr	BLQ(LOQ : 1.0)	IS. 5182 (Part1-17)	≤ 4.0
2	Smoke Light (Light Absorption Co-Efficient)	m-1	0.2	By Instrument Method	≤ 0.7

Note:- BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Note: *NOX+HC - ≤ 4.0g/kw-hr

End of Report

Authorized By
E. PRITHIVIRAJAN
LAB MANAGER

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*Laboratory is not responsible for the authenticity of the photocopied test reports.

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

TC-8582

Report No. : EN2508003

ULR No. : TC-858225000005482F

Name of the Client	: M/s. Chemplast Sanmar Limited			
Address of the Client	: 315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry , Pincode-611002			
Sample Name	: Stack Emission	Sampling Date	:	29-Jul-2025
Sample Description	: DG Stack	Received Date	:	01-Aug-2025
Sampling Location	: DG Set (250 KVA)	Commenced On	:	01-Aug-2025
Latitude	: N-10°50'92.1''	Completed On	:	09-Aug-2025
Longitude	: E-079°50'28.5''	Report Date	:	09-Aug-2025
Sample Submission Type	: Collected by Lab Representative			
Sample Condition	: Fit for Analysis			
Sampling Plan and Method	: GL/EN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Limit as per CPCB Standard
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Velocity	m/sec	10.2	EPA method 1-3 (Title 40 - Protection of Environment)	NA
2	Stack Temperature	K	351	IS 11255 (Part 3)	NA
3	Flow Rate	Nm3/hr	244	IS 11255 (Part 3)	NA
4	Particulate Matter	g/kw-hr	0.05	GL/EN/SOP/113 Issue no & Dt: 02/05.04	≤0.2
5	Oxides of Nitrogen (NOx as NO2)	g/kw-hr	0.39	GL/EN/SOP/149 Issue no & Dt: 02/05.04	≤4.0
6	Carbon Monoxide as CO	g/kw-hr	0.19	GL/EN/SOP/149 Issue no & Dt: 02/05.04	≤3.5
7	Oxygen as O2	%	17.9	GL/EN/SOP/149 Issue no & Dt: 02/05.04	NA
8	Carbon Dioxide as CO2	%	1.8	GL/EN/SOP/149 Issue no & Dt: 02/05.04	NA
9	Sulphur Dioxide as SO2	mg/Nm3	31.6	EPA 6 (Title 40 - Protection of Environment)	NA

Note - BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Note: *NOX+HC - ≤ 4.0g/kw-hr

End of Report

Authorized By

E. PRITHIVIRAJAN

LAB MANAGER

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- A Satisfactory test report in no way implies that the product tested is approved by NABL.

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25080033-I

Name of the Client	: M/s. Chemplast Sanmar Limited			
Address of the Client	: 315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry , Pincode-611002			
Sample Name	: Stack Emission	Sampling Date	: 29-Jul-2025	
Sample Description	: DG Stack	Received Date	: 01-Aug-2025	
Sampling Location	: DG Set (250 KVA)	Commenced On	: 01-Aug-2025	
Latitude	: N-10°50'92.1"	Completed On	: 09-Aug-2025	
Longitude	: E-079°50'28.5"	Report Date	: 09-Aug-2025	
Sample Submission Type	: Collected by Lab Representative			
Sample Condition	: Fit for Analysis			
Sampling Plan and Method	: GLEN/SOP/111			

Test Results

S. No.	Parameters	Units	Results Obtained	Test Method	Limit as per CPCB Standard
Discipline : Chemical					
Group : Atmospheric Pollution					
1	Hydrocarbon (HC)	g/kw-hr	BLQ(LOQ : 1.0)	IS: 5182 (Part-I-17)	≤ 4.0
2	Smoke Light (Light Absorption Co-Efficient)	m-1	0.2	By Instrument Method	≤ 0.7

Note:- BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification

Note: *NOX+HC - ≤ 4.0g/kw-hr

End of Report

Authorized By

E. PRITHIVIRAJAN

LAB MANAGER

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A4

Online Monitoring Data - APR 25 to SEP 25

Location: 16 numbers of Chlorine sensors located around the plant (Maximum values recorded is given below)						
Parameters	APR	MAY	JUN	JUL	AUG	SEP
Chlorine-ppm	0.02	0.02	0.02	0.02	0.03	0

CHEMPLAST SANMAR LTD MELAVANJORE

A5

Water Analysis Data - APR 25 to SEP 25

Location: Desalination Plant (Reject water)						
Parameters	APR	MAY	JUN	JUL	AUG	SEP
pH value	7.48	7.38	6.67	7.26	7.26	6.72
DO, mg/L	5.9	6.4	6.4	5.8	6	5.9
Colour, Hazen Units	Clear liquid	Clear liquid	Clear liquid	Clear liquid	Clear liquid	Clear liquid
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Floating Material	No presence	No presence	No presence	No presence	No presence	No presence
TSS, mg/L	BLQ(LOQ:1.0)	BLQ(LOQ:1.0)	BLQ (LOQ: 1.0)	BLQ (LOQ: 1.0)	BLQ (LOQ: 1.0)	BLQ (LOQ: 1.0)
Oil & Greece	BLQ(LOQ:0.1)	BLQ(LOQ:0.1)	BLQ (LOQ: 0.1)	BLQ (LOQ: 0.1)	BLQ (LOQ: 0.1)	BLQ (LOQ: 0.1)
Hg, mg/L	BLQ(LOQ:0.001)	BLQ(LOQ:0.001)	BLQ (LOQ: 0.0005)	BLQ (LOQ: 0.0005)	BLQ (LOQ: 0.0005)	BLQ (LOQ: 0.0005)
Pb, mg/L	BLQ(LOQ:0.01)	BLQ(LOQ:0.01)	BLQ (LOQ: 0.005)	BLQ (LOQ: 0.005)	BLQ (LOQ: 0.005)	BLQ (LOQ: 0.005)
Cd, mg/L	BLQ(LOQ:0.01)	BLQ(LOQ:0.01)	BLQ (LOQ: 0.005)	BLQ (LOQ: 0.005)	BLQ (LOQ: 0.005)	BLQ (LOQ: 0.005)

** Sample report attached*

CHEMPLAST SANMAR LTD MELVAMANJORE

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No: EN25090888

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region,U.T.of Puducherry, Pincode-611002			
Sample Name	:	Desalination Reject Water	Sampling Date	:	25-Sep-2025
Sample Description	:	Desalination Reject Water	Received Date	:	26-Sep-2025
Sampling Location	:	Desalination Plant	Commenced On	:	26-Sep-2025
Latitude	:	N-10°50'96.0''	Completed On	:	06-Oct-2025
Latitude	:	E-079°50'35.5''	Report Date	:	06-Oct-2025
Sample Submission Type	:	Collected by Lab Representative			
Sample Condition	:	Fit for Analysis			
Sample Quantity	:	2.00 Litre			
Sampling Plan and Method	:	GL/EN/SOP/001&003			

Test Results

S.No.	Parameters	Units	Results Obtained	Test Method	Specification
Discipline : Chemical					
Group : Pollution and Environment					
1	pH Value @ 25°C	-	6.72	APHA 24th Edition Part 4500 H+ B	6.5 – 8.5
2	Dissolved Oxygen	mg/L	5.9	APHA 24th Edition Part 4500 O,B,C	5.0
3	Colour	-	Clear Liquid	Visual Examination	No Noticeable
4	Odour	-	Agreeable	APHA 24th Edition Part 2150 B	No Noticeble
5	Floating Material	-	No Suspended Matter Presence in Liquid	By Visual Method	No Obnoxious or detrimental for use purpose
6	Total Suspended Solids (TSS) @ 105°C	mg/L	BLQ(LOQ : 1.0)	APHA 24th Edition Part 2540 D	None from the Sewage and or Industrial Origin
7	Oil and Grease @ 105°C	mg/L	BLQ(LOQ : 0.1)	APHA 24th Edition Part 5520 B (Partition Gravimetric Method)	0.1
8	Mercury as Hg	mg/L	BLQ(LOQ : 0.0005)	APHA 24th Edition Part 3125 B	0.1
9	Lead as Pb	mg/L	BLQ(LOQ : 0.005)	APHA 24th Edition Part 3125 B	0.1
10	Cadmium as Cd	mg/L	BLQ(LOQ : 0.005)	APHA 24th Edition Part 3125 B	0.1

Note:- BLQ - Below the Limit of Quantification, LOQ - Limit of Quantification. mg/L - Milligram per liter.

Remarks: The above Water Sample Conforms to CPCB/PPCB Norms Specification Limit with respect to the above tested parameters.

End of Report

Authorized By
E. PRITHIVIRAJAN
LAB MANAGER

A6

Noise Survey Data - APR 25 to SEP 25

Location: Around the entire plant area (Maximum values recorded is given below)						
Parameters	APR	MAY	JUN	JUL	AUG	SEP
Day Leq, dBA	58.9	58	58.8	59.2	58.4	58.9
Night Leq, dBA	57	55.4	55.4	54.6	54	54.3

** Sample report attached*

CHEMPLAST SANMAR LTD MELAVANJORE

GLens Innovation Labs Pvt Ltd.

Certified as per ISO 9001:2015 & ISO 45001:2018

TEST REPORT

Report No. : EN25090867-876

ULR No. : TC-858225000006737F-6741F

Name of the Client	:	M/s. Chemplast Sanmar Limited			
Address of the Client	:	315, Melavanjore, Nagore Post, Karaikal Region, U.T. of Puducherry, Pincode-611002			
Sample Description #	:	Noise Level Monitoring	Sampling From	:	23-Sep-2025
Sampling Location	:	Ambient	Received Date	:	26-Sep-2025
Test Report as per	:	CPCB Norms	Commenced On	:	26-Sep-2025
Sample Submission Type	:	Collected by Lab Representative	Completed On	:	06-Oct-2025
Sample Condition	:	Fit for Analysis	Report Date	:	06-Oct-2025

Test Results

S.No	Location Name	Method	Result	Specification
Discipline : Chemical				
Group	**: Atmospheric Pollution**			
1	ICD Plant- GAIL Station (Day Time), Leq dB (A)	IS 9989	49.2	75 dBA (Max) 06.00 AM to 10.00 PM
2	ICD Plant- GAIL Station (Night Time), Leq dB (A)	IS 9989	47.4	70 dBA (Max) 10.00 PM to 06.00 AM
3	ICD Plant-Near Temple (Day Time), Leq dB (A)	IS 9989	50.2	75 dBA (Max) 06.00 AM to 10.00 PM
4	ICD Plant-Near Temple (Night Time), Leq dB (A)	IS 9989	48.6	70 dBA (Max) 10.00 PM to 06.00 AM
5	PVC Plant- Active SLF (Day Time), Leq dB (A)	IS 9989	56.0	75 dBA (Max) 06.00 AM to 10.00 PM
6	PVC Plant- Active SLF (Night Time), Leq dB (A)	IS 9989	52.9	70 dBA (Max) 10.00 PM to 06.00 AM
7	PVC Plant-Old SLF (Day Time), Leq dB (A)	IS 9989	57.0	75 dBA (Max) 06.00 AM to 10.00 PM
8	PVC Plant-Old SLF (Night Time), Leq dB (A)	IS 9989	50.6	70 dBA (Max) 10.00 PM to 06.00 AM
9	PVC Plant-Scrap Yard (Day Time), Leq dB (A)	IS 9989	58.9	75 dBA (Max) 06.00 AM to 10.00 PM
10	PVC Plant-Scrap Yard (Night Time), Leq dB (A)	IS 9989	54.3	70 dBA (Max) 10.00 PM to 06.00 AM

represents Customer Defined Fields.

Note:- Instrument Used : Sound Level meter.

Remarks: The above sample complies with CPCB norms with respect to the above tested parameters.

*** End of Report***

Authorized By

E. PRITHIVIRAJAN

LAB MANAGER

GLENS INNOVATION LABS Pvt Ltd, #6/1,1 St Floor , Sri Jothi Complex Murugesam Street , Balavinayagar Nagar , Arumbakkam Chennai 600106

A7

NABL M(EL)T LABS

HOSCONS® Medical Laboratories

Employee Name	:	Mr. L JOHN ANAND ANTONY	SID No	:	141272
Employee Hos_ ID	:	HOSCONS39842	Received On	:	19-12-2024
Age/Sex	:	46.0Yrs/Male	Printed On	:	26-12-2024
Employee ID	:	LJ 501	Mobile No	:	9894923005
Department	:	PRODUCTION	Report Status	:	Final

MEDICAL HISTORY

Personal History	Nil
Present Complaints	Nil Specific Complaint
Family History	Father & Mother-DM

ANTHROPOMETRIC DATA

Height	174-Cm	Weight	83-Kg	BMI	27.4	BP	119/83mm Hg	Pulse	71/min

REPORT ENCLOSED

Blood Report	Normal

GENERAL ADVICES

* Eat green, leafy vegetable such as spinach and collards
* Drink Three liters of water daily

FITNESS STATUS

Mr. L JOHN ANAND ANTONY is medically examined and found to be "FIT" for work.

Dr. C. SATHYANARAYANAN,
MBBS, APUI, Dip. Cos Health
HOSCONS Healthcare India Pvt Ltd
Occupational Physician
Reg. No: 80127

NABL M(EL)T LABS

HOSCONS® Medical Laboratories

Employee Name	:	Mr. L JOHN ANAND ANTONY	SID No	:	141272
Employee Hos_ ID	:	HOSCONS39842	Received On	:	19-12-2024
Age/Sex	:	46.0Yrs/Male	Printed On	:	26 12-2024
Employee ID	:	LJ 501	Mobile No	:	9894923005
Department	:	PRODUCTION	Report Status	:	Final

TEST NAME	RESULT	UNIT	NORMAL RANGE
HAEMATOLOGY			
COMPLETE BLOOD COUNT			
HAEMOGLOBIN	17.6	gm/dl	Male :13.5 - 18.0 gm/dl Female: 11.5 - 16.4 gm/dl
PCV	59.8	%	40 - 65 %
TOTAL WBC COUNT	5420	Cells/cmm	4,500- 11,000 Cells/cmm
RBC COUNT	5.3	Mill/Cmm	4.7- 6.1 Mill/Cmm
MCV	94	fL	76 - 96 fL
MCH	30.2	pg	27 - 32 pg
MCHC	32	gm%	30 - 35 gm%
PLATELET COUNT	2.61	Lakhs / cmm	1.5 - 4.5 Lakhs cells/mm
NEUTROPHILS	61	%	40.0 - 80.0
LYMPHOCYTES	29	%	20.0 - 40.0
EOSINOPHILS	4	%	1.0 - 6.0
MONOCYTES	6	%	2.0 - 10.0
BIOCHEMISTRY			
BLOOD SUGAR (RANDOM)	87	mm/dl	80 - 140 mm/dl
BLOOD UREA	23	mgs/dl	10 – 40 mgs/dl
BUN	10.7	mgs/dl	5 – 21 mgs/dl
S. CREATININE	0.90	mg/dl	0.6 – 1.2 mg/dl
LIPID PROFILE			
TOTAL CHOLESTEROL	163	mg/dL	Desirable: < 200 Borderline: 200 - 239 High: >=240

NABL M(EL)T LABS

HOSCONS® Medical Laboratories

Employee Name	:	Mr. L JOHN ANAND ANTONY	SID No	:	141272
Employee Hos_ ID	:	HOSCONS39842	Received On	:	19-12-2024
Age/Sex	:	46.0Yrs/Male	Printed On	:	26-12-2024
Employee ID	:	LJ 501	Mobile No	:	9894923005
Department	:	PRODUCTION	Report Status	:	Final

TEST NAME	RESULT	UNIT	NORMAL RANGE
LIVER FUNCTION TEST			
BILIRUBIN – TOTAL	0.8	mg/dL	0.1 - 1.2
BILIRUBIN – DIRECT	0.3	mg/dL	0 - 0.3
BILIRUBIN – INDIRECT	0.5	mg/dl	0.2 - 0.8
S.G.O.T	38	U/L	5.0 - 40.0
S.G.P.T	42	U/L	7 to 56
ALKALINE PHOSPHATASE	57	U/L	44 to 147
T.PROTEIN	6.9	gms/dl	6.0 - 8.7
S.ALBUMIN	4.0	gms/dl	3.2 to 5.0
GLOBULIN	2.9		2 - 3.5
A G RATIO	1.38		

*** End of Report****

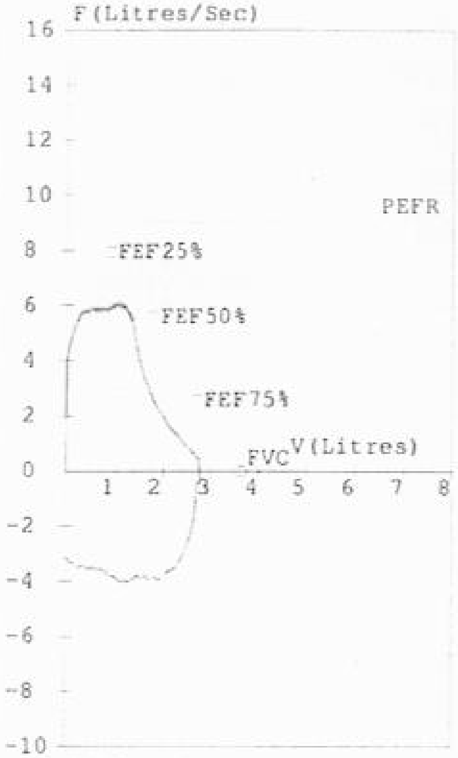
Lab Technician

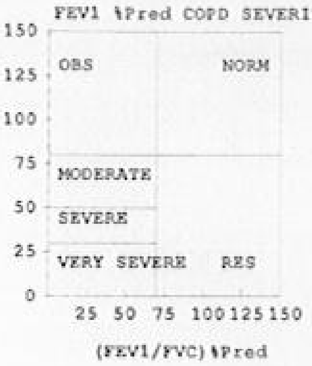
Mr. Prabaharan. B.Sc (Microbiology)
Chief of Laboratory Services

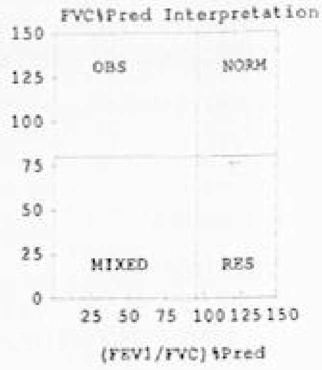
RECORDERS & MEDICARE SYSTEMS

Plot # 196,Industrial Area,Phase-1, Panchkula, Haryana INDIA - 134113

Patient: John 1j501	Age : 45 Yrs	Gender : Male
Refd.By:	Height : 175 Cms	Smoker : No
Pred.Eqns: RECORDERS	Weight : 82 Kgs	Eth. Corr: 100
Date : 10-Jun-2024 04:06 PM	ID : 14	Temp :

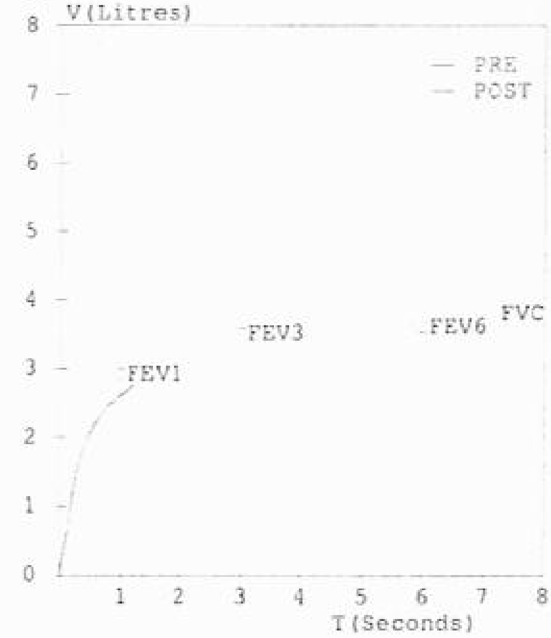






FVC Results

Parameter		Pred	M.Pre	%Pred	M.Post	%Pred	%Imp
FVC	(L)	03.63	02.76	076	------	---	---
FEV1	(L)	02.92	02.64	090	------	---	---
FEV1/FVC	(%)	80.44	95.65	119	------	---	---
FEF25-75	(L/s)	03.81	03.77	099	------	---	---
PEFR	(L/s)	09.03	06.06	067	------	---	---
FIVC	(L)	------	03.50	---	------	---	---
FEV.5	(L)	------	02.09	---	------	---	---
FEV3	(L)	03.52	02.76	078	------	---	---
PIFR	(L/s)	------	04.01	---	------	---	---
FEF75-85	(L/s)	------	01.41	---	------	---	---
FEF.2-1.2	(L/s)	06.80	05.74	084	------	---	---
FEF 25%	(L/s)	07.96	05.77	072	------	---	---
FEF 50%	(L/s)	05.60	05.15	092	------	---	---
FEF 75%	(L/s)	02.58	01.72	067	------	---	---
FEV.5/FVC	(%)	------	75.72	---	------	---	---
FEV3/FVC	(%)	96.97	100.00	103	------	---	---
FET	(Sec)	------	01.23	---	------	---	---
ExplTime	(Sec)	------	00.03	---	------	---	---
Lung Age	(Yrs)	045	049	109	------	---	---
FEV6	(L)	03.63	------	---	------	---	---
FIF25%	(L/s)	------	03.96	---	------	---	---
FIF50%	(L/s)	------	03.47	---	------	---	---
FIF75%	(L/s)	------	00.75	---	------	---	---



Pre Test COPD Severity

Test within normal limits

Doctor's Notes

Spirometry within normal limits.

Dr.senthilkumar

Dr. SENTHIL KUMAR

Factory Medical Officer

Chemplast Sanmar Ltd

Karaikal

Employee Name	:	Mr. JAYACHANDIRAN C	SID No	:	141289
Employee Hos_ ID	:	HOSCONS39859	Received On	:	19-12-2024
Age/Sex	:	36.0Yrs/Male	Printed On	:	26-12-2024
Employee ID	:	CJ 2	Mobile No	:	9865131541
Department	:	PRODUCTION	Report Status	:	Final

MEDICAL HISTORY

Personal History	Nil
Present Complaints	Nil Specific Complaint
Family History	Father-DM

ANTHROPOMETRIC DATA

Height	170-Cm	Weight	79-Kg	BMI	27.3	BP	129/87mm Hg	Pulse	95/min

REPORT ENCLOSED

Blood Report	Normal

GENERAL ADVICES

* Eat green, leafy vegetable such as spinach and collards
* Drink Three liters of water daily

FITNESS STATUS

Mr. JAYACHANDIRAN C is medically examined and found to be "FIT" for work.

Dr. G. SATHYANARAYANAN,
MBBS, APHL, Dip. Occ Health
HOSCONS Healthcare India Pvt Ltd
Occupational Physician
Reg. No: 89127

NABL M(EL)T LABS

HOSCONS® Medical Laboratories

Employee Name	: Mr. JAYACHANDIRAN C		SID No	:	141289
Employee Hos_ ID	: HOSCONS39859		Received On	:	19-12-2024
Age/Sex	: 36.0Yrs/Male		Printed On	:	26-12-2024
Employee ID	: CJ 2		Mobile No	:	9865131541
Department	: PRODUCTION		Report Status	:	Final

TEST NAME	RESULT	UNIT	NORMAL RANGE
HAEMATOLOGY			
COMPLETE BLOOD COUNT			
HAEMOGLOBIN	16.7	gm/dl	Male :13.5 - 18.0 gm/dl Female: 11.5 - 16.4 gm/dl
PCV	66.97	%	40 - 65 %
TOTAL WBC COUNT	7890	Cells/cmm	4,500- 11,000 Cells/cmm
RBC COUNT	6.41	Mill/Cmm	4.7- 6.1 Mill/Cmm
MCV	97	fL	76 - 96 fL
MCH	30	pg	27 - 32 pg
MCHC	31.1	gm%	30 - 35 gm%
PLATELET COUNT	2.88	Lakhs / cmm	1.5 - 4.5 Lakhs cells/mm
NEUTROPHILS	54	%	40.0 - 80.0
LYMPHOCYTES	33	%	20.0 - 40.0
EOSINOPHILS	4	%	1.0 - 6.0
MONOCYTES	9	%	2.0 - 10.0
BIOCHEMISTRY			
BLOOD SUGAR (RANDOM)	77	mm/dl	80 - 140 mm/dl
BLOOD UREA	19	mgs/dl	10 – 40 mgs/dl
BUN	8.9	mgs/dl	5 – 21 mgs/dl
S. CREATININE	0.82	mg/dl	0.6 – 1.2 mg/dl
LIPID PROFILE			
TOTAL CHOLESTEROL	164	mg/dL	Desirable: < 200 Borderline: 200 - 239 High: >=240

NABL M(EL)T LABS

HOSCONS® Medical Laboratories

Employee Name	:	Mr. JAYACHANDIRAN C	SID No	:	141289
Employee Hos_ ID	:	HOSCONS39859	Received On	:	19-12-2024
Age/Sex	:	36.0Yrs/Male	Printed On	:	26-12-2024
Employee ID	:	CJ 2	Mobile No	:	9865131541
Department	:	PRODUCTION	Report Status	:	Final

TEST NAME	RESULT	UNIT	NORMAL RANGE
LIVER FUNCTION TEST			
BILIRUBIN -- TOTAL	0.9	mg/dL	0.1 - 1.2
BILIRUBIN -- DIRECT	0.2	mg/dL	0 - 0.3
BILIRUBIN -- INDIRECT	0.7	mg/dl	0.2 - 0.8
S.G.O.T	23	U/L	5.0 - 40.0
S.G.P.T	34	U/L	7 to 56
ALKALINE PHOSPHATASE	131	U/L	44 to 147
T.PROTEIN	6.9	gms/dl	6.0 - 8.7
S.ALBUMIN	4.1	gms/dl	3.2 to 5.0
GLOBULIN	2.8		2 - 3.5
A G RATIO	1.46		

*** End of Report****

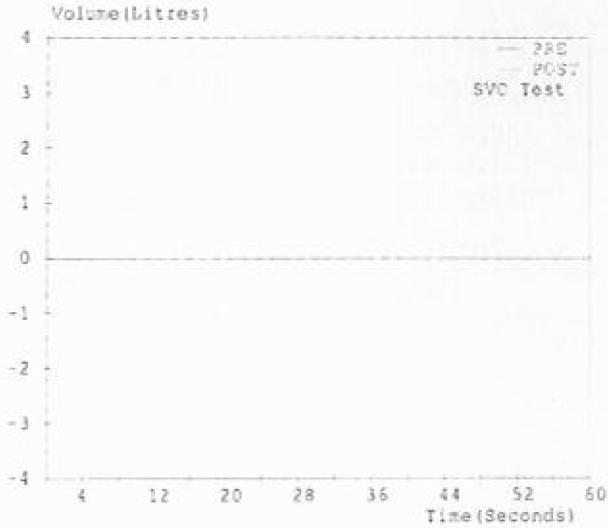
Lab Technician

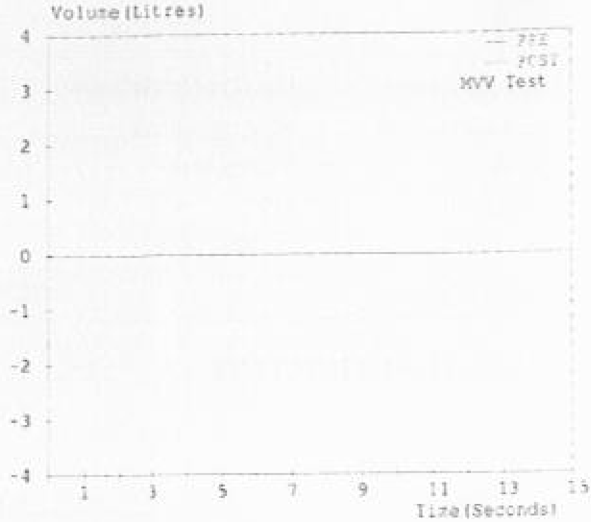
Mr. Prabaharan. B.Sc (Microbiology)
Chief of Laboratory Services

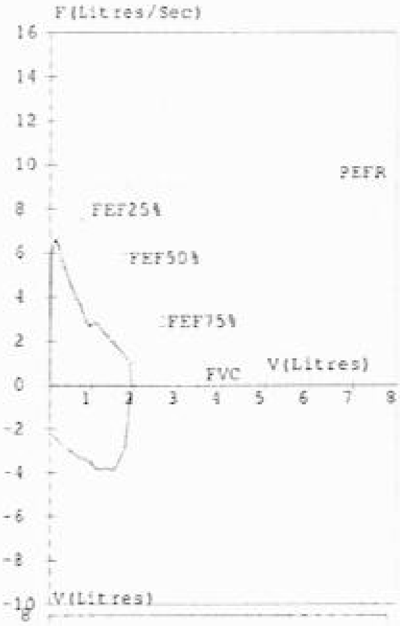
RECORDERS & MEDICARE SYSTEMS

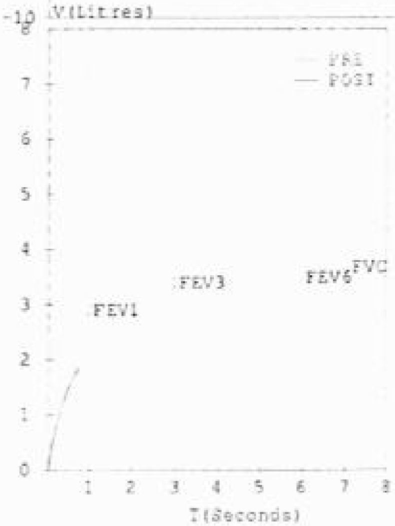
Plot # 196,Industrial Area,Phase-1, Panchkula, Haryana INDIA - 134113

Patient: Jayachandiran EDC	Age : 36 Yrs 02 Mths	Gender : Male
Refd.By:	Height : 170 Cms	Smoker : No
Pred.Eqns: RECORDERS	Weight : 82 Kgs	Eth. Corr: 100
Date : 25-Jun-2024 10:51 AM	ID : 88	Temp :









Spirometry Results

Parameter		Pred	M.Pre	%Pred	M.Post	%Pred	%Imp
FVC	(L)	03.51	01.92	055	-----	---	---
FEV1	(L)	02.91	01.92	066	-----	---	---
FEV1/FVC	(%)	82.91	100.00	121	-----	---	---
FEF25-75	(L/s)	04.12	02.35	057	-----	---	---
PEFR	(L/s)	08.99	06.53	073	-----	---	---
FIVC	(L)	-----	01.37	---	-----	---	---
FEV.5	(L)	-----	01.59	---	-----	---	---
FEV3	(L)	03.40	01.92	056	-----	---	---
PIFR	(L/s)	-----	03.85	---	-----	---	---
FEF75-85	(L/s)	-----	01.67	---	-----	---	---
FEF.2-1.2	(L/s)	07.16	03.50	049	-----	---	---
FEF 25%	(L/s)	07.96	04.48	056	-----	---	---
FEF 50%	(L/s)	05.74	02.69	047	-----	---	---
FEF 75%	(L/s)	02.88	02.00	069	-----	---	---
FEV.5/FVC	(%)	-----	82.81	---	-----	---	---
FEV3/FVC	(%)	96.87	100.00	103	-----	---	---
FET	(Sec)	-----	00.77	---	-----	---	---
ExplTime	(Sec)	-----	00.92	---	-----	---	---
Lung Age	(Yrs)	036	028	141	-----	---	---
FEV6	(L)	03.51	-----	---	-----	---	---
FIF 25%	(L/s)	-----	01.43	---	-----	---	---
FIF 50%	(L/s)	-----	02.71	---	-----	---	---
FIF 75%	(L/s)	-----	01.31	---	-----	---	---
SVC	(L)	-----	-----	---	-----	---	---
ERV	(L)	01.42	-----	---	-----	---	---
IRV	(L)	-----	-----	---	-----	---	---
VE	(L/min)	-----	-----	---	-----	---	---
Rf	(1/min)	-----	-----	---	-----	---	---
Ti	(sec)	-----	-----	---	-----	---	---
Te	(sec)	-----	-----	---	-----	---	---
VT	(L)	-----	-----	---	-----	---	---
VT/Ti		-----	-----	---	-----	---	---
Ti/Ttot		-----	-----	---	-----	---	---
IC	(L)	-----	-----	---	-----	---	---
MVV	(L/min)	136	-----	---	-----	---	---
MRf	(1/min)	-----	-----	---	-----	---	---
MVT	(L)	-----	-----	---	-----	---	---

Doctor's Notes
Spirometry within normal limits.

Dr.B.SENTHIL KUMAR, MBBS AFIH
Dr.senthilkumar
Factory Medical Officer
Chemplast Sanmar Ltd.
Karaikal

Employee Name	:	Mr. PRAKASH K	SID No	:	141219
Employee Hos_ ID	:	HOSCONS39789	Received On	:	19-12-2024
Age/Sex	:	29.0Yrs/Male	Printed On	:	26-12-2024
Employee ID	:	KP529	Mobile No	:	8344566751
Department	:	PRODUCTION	Report Status	:	Final

MEDICAL HISTORY

Personal History	Nil
Present Complaints	Nil Specific Complaint
Family History	Nil Significant

ANTHROPOMETRIC DATA

Height	153.5-Cm	Weight	50-Kg	BMI	21.2	BP	117/82mm Hg	Pulse	80/min

REPORT ENCLOSED

Blood Report	Normal

GENERAL ADVICES

* Eat green, leafy vegetable such as spinach and collards
* Drink Three liters of water daily

FITNESS STATUS

Mr. PRAKASH K is medically examined and found to be "FIT" for work.

Dr. C. SATHYANARAYANAN,
MBBS, AFIH, Dip. Occ Health
HOSCONS Healthcare India Pvt Ltd
Occupational Physician
Reg. No: 80127

NABL M(EL)T LABS

HOSCONS Medical Laboratories

Employee Name	:	Mr. PRAKASH K	SID No	:	141219
Employee Hos_ ID	:	HOSCONS39789	Received On	:	19-12-2024
Age/Sex	:	29.0Yrs/Male	Printed On	:	26-12-2024
Employee ID	:	KP529	Mobile No	:	8344566751
Department	:	PRODUCTION	Report Status	:	Final

TEST NAME	RESULT	UNIT	NORMAL RANGE
HAEMATOLOGY			
COMPLETE BLOOD COUNT			
HAEMOGLOBIN	16.1	gm/dl	Male :13.5 - 18.0 gm/dl Female: 11.5 - 16.4 gm/dl
PCV	50.08	%	40 - 65 %
TOTAL WBC COUNT	7750	Cells/cmm	4,500- 11,000 Cells/cmm
RBC COUNT	5.0	Mill/Cmm	4.7- 6.1 Mill/Cmm
MCV	102	fL	76 - 96 fL
MCH	32.5	pg	27 - 32 pg
MCHC	31.7	gm%	30 - 35 gm%
PLATELET COUNT	2.99	Lakhs / cmm	1.5 - 4.5 Lakhs cells/mm
NEUTROPHILS	67	%	40.0 - 80.0
LYMPHOCYTES	22	%	20.0 - 40.0
EOSINOPHILS	4	%	1.0 - 6.0
MONOCYTES	7	%	2.0 - 10.0
BIOCHEMISTRY			
BLOOD SUGAR (RANDOM)	90	mm/dl	80 - 140 mm/dl
BLOOD UREA	19	mgs/dl	10 – 40 mgs/dl
BUN	8.9	mgs/dl	5 – 21 mgs/dl
S. CREATININE	0.61	mg/dl	0.6 – 1.2 mg/dl
LIPID PROFILE			
TOTAL CHOLESTEROL	133	mg/dL	Desirable: < 200 Borderline: 200 - 239 High: >=240

NABL M(EL)T LABS

HOSCONS Medical Laboratories

Employee Name	:	Mr. PRAKASH K	SID No	:	141219
Employee Hos_ ID	:	HOSCONS39789	Received On	:	19-12-2024
Age/Sex	:	29.0Yrs/Male	Printed On	:	26-12-2024
Employee ID	:	KP529	Mobile No	:	8344566751
Department	:	PRODUCTION	Report Status	:	Final

TEST NAME	RESULT	UNIT	NORMAL RANGE
LIVER FUNCTION TEST			
BILIRUBIN – TOTAL	0.7	mg/dL	0.1 - 1.2
BILIRUBIN – DIRECT	0.2	mg/dL	0 - 0.3
BILIRUBIN – INDIRECT	0.5	mg/dl	0.2 - 0.8
S.G.O.T	30	U/L	5.0 - 40.0
S.G.P.T	46	U/L	7 to 56
ALKALINE PHOSPHATASE	124	U/L	44 to 147
T.PROTEIN	7.0	gms/dl	6.0 - 8.7
S.ALBUMIN	3.6	gms/dl	3.2 to 5.0
GLOBULIN	3.4		2 - 3.5
A G RATIO	1.06		

*** End of Report****

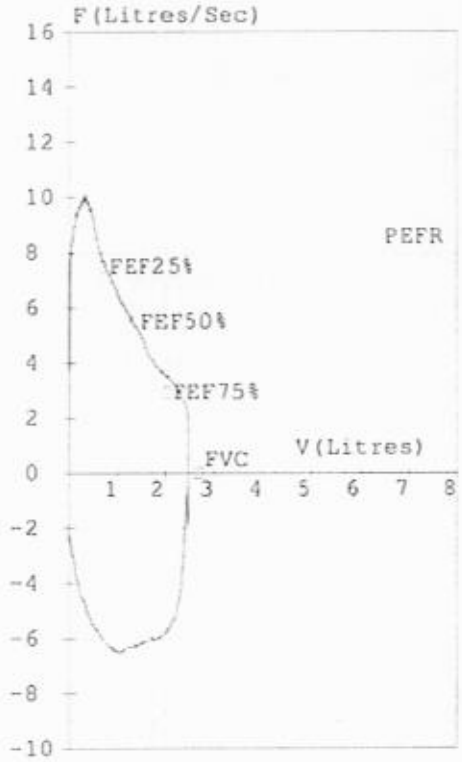
Lab Technician

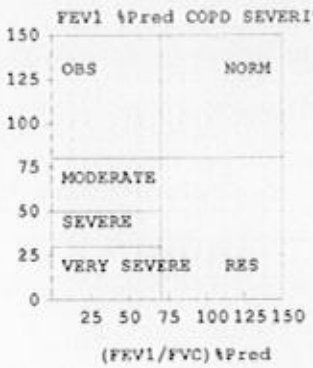
Mr. Prabaharan. B.Sc (Microbiology)
Chief of Laboratory Services

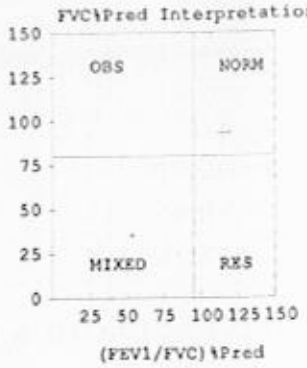
RECORDERS & MEDICARE SYSTEMS

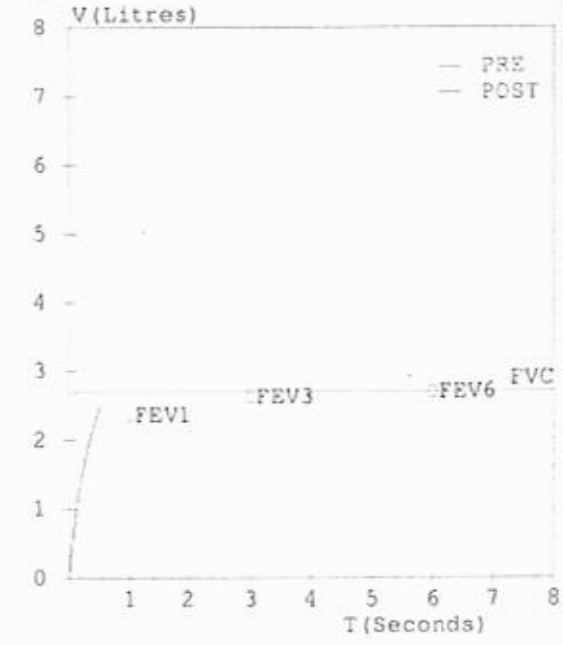
Plot # 196,Industrial Area,Phase-1, Panchkula, Haryana INDIA - 134113

Patient: KPrakash		Age	: 29 Yrs	Gender	: Male
Refd.By:		Height	: 152 Cms	Smoker	: No
Pred.Eqns: RECORDERS		Weight	: 48 Kgs	Eth. Corr	: 100
Date	: 11-06-2024 07:25 PM	ID	: 36	Temp	:









FVC Results

Parameter		Pred	M.Pre	%Pred	M.Post	%Pred	%Imp
FVC	(L)	02.70	02.50	093	-----	---	---
FEV1	(L)	02.34	02.50	107	-----	---	---
FEV1/FVC	(%)	86.67	100.00	115	-----	---	---
FEF25-75	(L/s)	04.09	05.38	132	-----	---	---
PEFR	(L/s)	07.96	10.10	127	-----	---	---
FIVC	(L)	-----	02.54	---	-----	---	---
FEV.5	(L)	-----	02.48	---	-----	---	---
FEV3	(L)	02.62	02.50	095	-----	---	---
PIFR	(L/s)	-----	06.46	---	-----	---	---
FEF75-85	(L/s)	-----	03.36	---	-----	---	---
FEF.2-1.2	(L/s)	06.72	07.49	111	-----	---	---
FEF 25%	(L/s)	07.47	07.88	105	-----	---	---
FEF 50%	(L/s)	05.48	05.50	100	-----	---	---
FEF 75%	(L/s)	02.92	03.74	128	-----	---	---
FEV.5/FVC	(%)	-----	99.20	---	-----	---	---
FEV3/FVC	(%)	97.04	100.00	103	-----	---	---
FET	(Sec)	-----	00.51	---	-----	---	---
ExplTime	(Sec)	-----	00.01	---	-----	---	---
Lung Age	(Yrs)	029	027	093	-----	---	---
FEV6	(L)	02.70	-----	---	-----	---	---
FIF25%	(L/s)	-----	06.02	---	-----	---	---
FIF50%	(L/s)	-----	06.32	---	-----	---	---
FIF75%	(L/s)	-----	05.59	---	-----	---	---

Pre Test COPD Severity

Test within normal limits

Pre Medication Report Indicates

Spirometry within normal limits as (FEV1/FVC)%Pred >95 and FVC%Pred >80

Dr.Senthilkumar
Reg.No: M4225
Factory Medical Officer
Champlast Sanmar Ltd.
Kanch...

Employee Name	:	Mr. ROBINS V	SID No	:	141328
Employee Hos_ ID	:	HOSCONS39898	Received On	:	19-12-2024
Age/Sex	:	32.0Yrs/Male	Printed On	:	26-12-2024
Employee ID	:	KLBS 00052	Mobile No	:	8072777185
Department	:	TUNNER	Report Status	:	Final

MEDICAL HISTORY

Personal History	Nil
Present Complaints	Nil Specific Complaint
Family History	Nil Significant

ANTHROPOMETRIC DATA

Height	164-Cm	Weight	81-Kg	BMI	30.1	BP	134/76mm Hg	Pulse	94/min

REPORT ENCLOSED

Blood Report	Normal

GENERAL ADVICES

* Eat green, leafy vegetable such as spinach and collards
* Drink Three liters of water daily

FITNESS STATUS

Mr. ROBINS V is medically examined and found to be "FIT" for work.

Dr. C. SATHYANARAYANAN,
MBBS, AFIH, Dip. Cos Rank
HOSCONS Healthcare India Pvt Ltd
Occupational Physician
Reg. No: 80127

NABL M(EL)T LABS

HOSCONS® Medical Laboratories

Employee Name	:	Mr. ROBINS V	SID No	:	141328
Employee Hos_ ID	:	HOSCONS39898	Received On	:	19-12-2024
Age/Sex	:	32.0Yrs/Male	Printed On	:	26-12-2024
Employee ID	:	KLBS 00052	Mobile No	:	8072777185
Department	:	TUNNER	Report Status	:	Final

TEST NAME	RESULT	UNIT	NORMAL RANGE
HAEMATOLOGY			
COMPLETE BLOOD COUNT			
HAEMOGLOBIN	15.1	gm/dl	Male :13.5 - 18.0 gm/dl Female: 11.5 - 16.4 gm/dl
PCV	47.14	%	40 - 65 %
TOTAL WBC COUNT	7500	Cells/cmm	4,500- 11,000 Cells/cmm
RBC COUNT	4.5	Mill/Cmm	4.7- 6.1 Mill/Cmm
MCV	105	fL	76 - 96 fL
MCH	33.5	pg	27 - 32 pg
MCHC	32	gm%	30 - 35 gm%
PLATELET COUNT	2.59	Lakhs / cmm	1.5 - 4.5 Lakhs cells/mm
NEUTROPHILS	65	%	40.0 - 80.0
LYMPHOCYTES	30	%	20.0 - 40.0
EOSINOPHILS	2	%	1.0 - 6.0
MONOCYTES	3	%	2.0 - 10.0
BIOCHEMISTRY			
BLOOD SUGAR (RANDOM)	80	mm/dl	80 - 140 mm/dl
BLOOD UREA	19	mgs/dl	10 – 40 mgs/dl
BUN	8.9	mgs/dl	5 - 21 mgs/dl
S. CREATININE	1.06	mg/dl	0.6 – 1.2 mg/dl
LIPID PROFILE			
TOTAL CHOLESTEROL	194	mg/dL	Desirable: < 200 Borderline: 200 - 239 High: >=240

NABL M(EL)T LABS

HOSCONS® Medical Laboratories

Employee Name	:	Mr. ROBINS V	SID No	:	141328
Employee Hos_ ID	:	HOSCONS39898	Received On	:	19-12-2024
Age/Sex	:	32.0Yrs/Male	Printed On	:	26-12-2024
Employee ID	:	KLBS 00052	Mobile No	:	8072777185
Department	:	TUNNER	Report Status	:	Final

TEST NAME	RESULT	UNIT	NORMAL RANGE
LIVER FUNCTION TEST			
BILIRUBIN – TOTAL	0.8	mg/dL	0.1 - 1.2
BILIRUBIN – DIRECT	0.2	mg/dL	0 - 0.3
BILIRUBIN – INDIRECT	0.6	mg/dl	0.2 - 0.8
S.G.O.T	24	U/L	5.0 - 40.0
S.G.P.T	29	U/L	7 to 56
ALKALINE PHOSPHATASE	66	U/L	44 to 147
T .PROTEIN	6.2	gms/dl	6.0 - 8.7
S.ALBUMIN	3.1	gms/dl	3.2 to 5.0
GLOBULIN	3.1		2 - 3.5
A G RATIO	1		

*** End of Report****

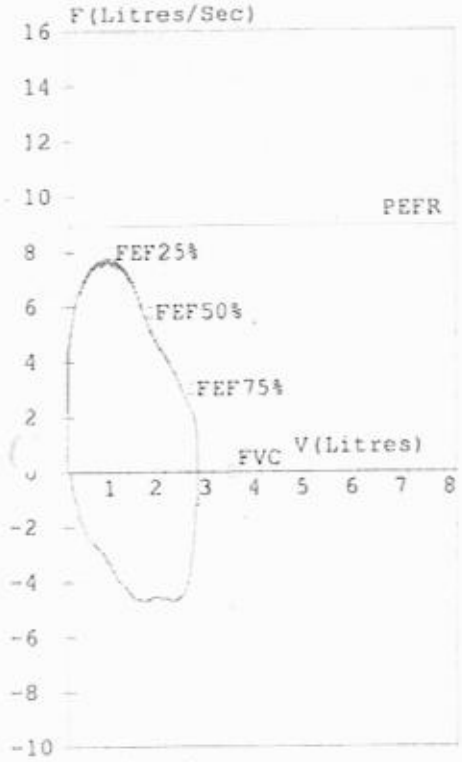
Lab Technician

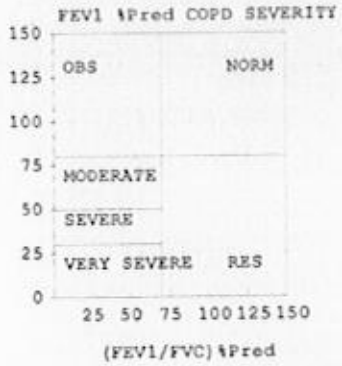
Mr. Prabaharan. B.Sc (Microbiology)
Chief of Laboratory Services

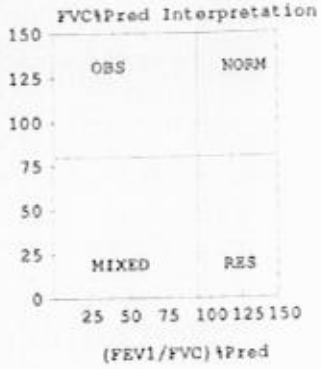
RECORDERS & MEDICARE SYSTEMS

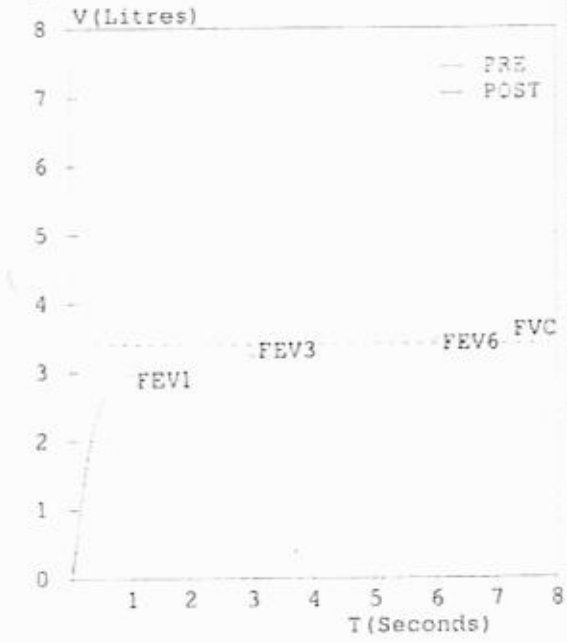
Plot # 196,Industrial Area,Phase-1, Panchkula, Haryana INDIA - 134113

Patient: V Robins	Age	: 32 Yrs	Gender	: Male
Refd.By:	Height	: 167 Cms	Smoker	: No
Pred.Eqns: RECORDERS	Weight	: 78 Kgs	Eth. Corr	: 100
Date : 02-Jul-2024 12:19 PM	ID	: 127	Temp	:









FVC Results

Parameter		Pred	M.Pre	%Pred	M.Post	%Pred	%Imp
FVC	(L)	03.41	02.72	080	-----	---	---
FEV1	(L)	02.88	02.72	094	-----	---	---
FEV1/FVC	(%)	84.46	100.00	118	-----	---	---
FEF25-75	(L/s)	04.24	06.02	142	-----	---	---
PEFR	(L/s)	08.92	07.68	086	-----	---	---
FIVC	(L)	-----	02.65	---	-----	---	---
FEV.5	(L)	-----	02.59	---	-----	---	---
FEV3	(L)	03.31	02.72	082	-----	---	---
PIFR	(L/s)	-----	04.66	---	-----	---	---
FEF75-85	(L/s)	-----	03.47	---	-----	---	---
FEF.2-1.2	(L/s)	07.28	07.19	099	-----	---	---
FEF 25%	(L/s)	07.94	07.66	096	-----	---	---
FEF 50%	(L/s)	05.78	06.64	115	-----	---	---
FEF 75%	(L/s)	03.01	04.13	137	-----	---	---
FEV.5/FVC	(%)	-----	95.22	---	-----	---	---
FEV3/FVC	(%)	97.07	100.00	103	-----	---	---
FET	(Sec)	-----	00.58	---	-----	---	---
ExplTime	(Sec)	-----	00.04	---	-----	---	---
Lung Age	(Yrs)	032	034	106	-----	---	---
FEV6	(L)	03.41	-----	---	-----	---	---
FIF25%	(L/s)	-----	04.63	---	-----	---	---
FIF50%	(L/s)	-----	04.62	---	-----	---	---
FIF75%	(L/s)	-----	03.22	---	-----	---	---

Pre Test COPD Severity

Test within normal limits

Doctor's Notes

Spirometry within normal limits.

Dr.B.SENTHIL KUMAR, MBBS AFIH,
Reg.No.2114325
Factory Medical Officer
Chemplast Sanmar Ltd.
Karaikal

A8

Photographs - Green Belt

CHEMPLAST SANMAR LTD
MELAVANJORE

A9

भारत सरकार/Government of India
वाणिज्य और उद्योग मंत्रालय/Ministry of Commerce & Industry
पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पैसो) /Petroleum & Explosives Safety Organisation (PESO)
A और D - विंग, ब्लॉक 1-8, दूसरा तल, शास्त्री भवन, 26 हड्डोउस रोड, नुंगम्बक्कम
चेन्नै- 600006
A & D - Wing, Block 1-8, IInd Floor, Shastri Bhavan,
26 Haddous Road, Nungambakkam,
Chennai - 600006

ई-मेल:/E-mail : jtccechennai@explosives.gov.in
फोन / फ़ैक्स नंबर:/Phone/Fax No : 044 - 28287118,28281023,28281041,28287119/28284848

अनुज्ञप्ति सं./No : S/HO/PY/03/11(S13690) दिनांक/Dated : 02/08/2024

सेवा में/To,

M/S. CHEMPLAST SANMAR LIMITED,
9, CATHEDRAL ROAD,
Parthasarathypuram, Teynampet,
Chennai,
Chennai,
Taluka: Chennai,
District: CHENNAI,
State: Tamil Nadu
PIN: 600086

विषय :/Sub : Plot No, In the plant, Nagore Main Road,, MELAVANJORE, Karaikal, Taluka: Karaikal, District: KARAIKAL, State: Pondicheri, PIN: 611002 स्थित CHLORINE, गैस के संपीडित पात्र / पात्रों में भंडारण के लिए स्थिर एवं गतिशील दाब पात्र (अज्वलित) नियम, 2016 के अधीन स्वीकृत अनुज्ञप्ति संख्या S/HO/PY/03/11 के नवीनीकरण संबंध में /Storage of NCHLORINE gas in pressure vessels at Plot No, In the plant, Nagore Main Road,, MELAVANJORE, Karaikal, Taluka: Karaikal, District: KARAIKAL, State: Pondicheri, PIN: 611002 - Licence No : S/HO/PY/03/11 grant in form LS-1A of SMPV(U) Rules, 2016-Renewal of Licence Regarding

महोदय/Sir(s),

कृपया आपके दिनांक : 31/07/2024 के पत्र संख्या: **OIN1724512** का संदर्भ ग्रहण करें I/Please refer to your application No.**OIN1724512** dated 31/07/2024 .

अनुज्ञप्ति संख्या : **S/HO/PY/03/11** का नवीकरण दिनांक 30th सितंबर 2027 तक कर इसके साथ अग्रेषित की जा रही हैं ।
Licence Number: **S/HO/PY/03/11** is renewed and is valid upto **30th September 2027** is forwarded herwith.

दिनांक 30/09/**2027** . से आगे अनुज्ञप्ति नवीनीकरण हेतु उपरोक्त नियम के नियम 55 के प्रावधानों का पालन किया जाएं । विलंब शुल्क से बचने हेतु शुल्क के साथ मूल अनुज्ञप्ति तथा अन्य दस्तावेज अधिकतम दिनांक : 30 सितंबर, **2027** तक **The Jt. Chief Controller of Explosives, South Circle, Chennai** में जरूर पहुंच जाने चाहिए ।
The provisions of the Rule 55 of the above said rules shall be followed for further renewal of the licence beyond 30/9/**2027**. The renewal application along with fees, Original licence and other documents shall reach in the Office of **The Jt. Chief Controller of Explosives, South Circle, Chennai**, latest by 30th September,**2027** to avoid late fee.

कृपया अनुज्ञप्ति प्राप्ति की पावती दें I/Please acknowledge the receipt of the licence.

भवदीय/Yours faithfully,

((डा.डी.जीवारत्नम्)
(Dr. D. Jeevarathinam))
उप विस्फोटक नियंत्रक
Dy. Controller of Explosives
कृते संयुक्त मुख्य विस्फोटक नियंत्रक
For Jt. Chief Controller of Explosives
चेन्नै/Chennai

(अधिक जानकारी जैसे आवेदन की स्थिति, शुल्क तथा अन्य विवरण के लिए हमारी वेबसाइट : http://peso.gov.in देखें)
(For more information regarding status,fees and other details please visit our website http://peso.gov.in)

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FORM LS-1A/प्ररुप - एलएस–1क

(See Rules 50, 51, 54 and 55)/(नियम 50 , 51, 54 और 55 देखें)

Licence to Store Compressed gas in pressure vessel or vessels

दाब पात्र या पात्रों में संपीड़ित गैस भण्डारकरण के लिए अनुज्ञप्ति

अनुज्ञप्ति सं/Licence No. : **S/HO/PY/03/11(S13690)** फीस रुपए/Fee Rs. **50000/-** per year/प्रति वर्ष

Licence is hereby granted to M/S. CHEMPLAST SANMAR LIMITED, 9, CATHEDRAL ROAD, Parthasarathypuram, Teynampet ,Chennai,Chennai, Taluka: Chennai, District: CHENNAI , State: Tamil Nadu PIN: 600086 valid only for the storage of compressed gas in 5 Number(s) of pressure vessels as indicated below in the licensed premises described below and shown in the plan No.S/HO/PY/03/11(S13690) dated 17/06/2019 subject to the provisions of the Indian Explosives Act, 1884 (4 of 1884) and the rules made thereunder and to the further conditions of this licence.

श्री M/S. CHEMPLAST SANMAR LIMITED, 9, CATHEDRAL ROAD, Parthasarathypuram, Teynampet ,Chennai,Chennai, Taluka: Chennai, District: CHENNAI , State: Tamil Nadu PIN: 600086 को नीचे वर्णित अनुज्ञप्त परिसरों में और रेखांकन संख्या S/HO/PY/03/11(S13690) dated 17/06/2019 में भारतीय विस्फोटक अधिनियम, 1884 (1884 का 4) और उसके अधीन बनाए गए नियमों तथा इस अनुज्ञप्ति की अन्य शर्तों पर 5 दाब पात्र / पात्रों में संपीड़ित गैस के भण्डारण के लिए अनुज्ञप्ति मंजूर की जाती है।

यह अनुज्ञप्ति 30 सितंबर 2027 तक प्रवृत्त रहेगी।

The Licence shall remain in force till the **30th September2027.**

Vessel No./वेसल नंबर	Name of Gas/ गैस का नाम	State of Gas/ गैस की स्थिति	Water Capacity in cubic meter/ जल क्षमता (घ.मी.)	Max. working Pre.(kg/cm^2)/ अधिकतम वर्किंग प्रेशर	Quantity Granted in kgs(Liquified gas)/किलोग्रॅम में जारी मात्रा (लिक्विफाईड गैसेस)
24-T-01 A	CHLORINE	Liquified	42.50	18	50000
24-T-01-B	CHLORINE	Liquified	42.50	18	50000
24-T-01-C	CHLORINE	Liquified	42.50	18	50000
24-T-01 D	CHLORINE	Liquified	42.00	18	1
22-T-01E	CHLORINE	Liquified	42.00	12	47880
Total Water capacity			**211.50**		

August 27, 2003

For Chief Controller of Explosives
HQ, Nagpur
कृते मुख्य विस्फोटक नियंत्रक
नागपुर

1). Amendment dated - 19/07/2006
2). Amendment dated - 13/10/2010

DESCRIPTION AND LOCATION OF THE LICENSED PREMISES/अनुज्ञप्त परिसर का विवरण और अवस्थिती

The licensed premises, the layout boundaries and other particulars of which are shown in the attached approved plan No. S/HO/PY/03/11 dated 17/06/2019 are situated at KaraikalMELAVANJORE and consists of 5 Number(s) vessel(s) (out of 5 vessel(s), one vessel each for CHLORINE, CHLORINE, CHLORINE, CHLORINE, CHLORINE, of largest capacity will be kept empty for emergency for storage of :/अनुज्ञप्त परिसर, प्रदर्शित सीमा और अन्य विवरण जो संलग्न अनुमोदित रेखाचित्र क्र.S/HO/PY/03/11 दिनांक 17/06/2019 में दर्शाए गए है KaraikalMELAVANJORE पर स्थित है और इसमे 5 वेसल सम्मिलित है।

a) Flammable/Corrosive/Toxic Gases :/ज्वलनशील / संक्षारक / विषैली गैसों: CHLORINE

b) Non-Toxic Gases :/अविषैली गैसों :

and is situated at PlotNo : In the plant, Village/Town : KaraikalMELAVANJORE, Police Station : Melvanjore, District : KARAIKAL, State : Pondicheri , Pin : 611002.

/प्लाट संख्या PlotNo : In the plant, गांव या नगर : KaraikalMELAVANJORE, पुलीस थाना : Melvanjore, जिला : KARAIKAL, राज्य : Pondicheri , Pin : 611002 में स्थित है।

SPACE FOR ENDORSEMENT OF RENEWALS/नवीकरण के पृष्ठांकन के लिए स्थान

	Date of Renewal/ नवीकरण की तारीख	Date of Expiry/ अनुज्ञप्ति की समाप्ति की तारीख	Signature and stamp of the licensing authority/अनुज्ञापन प्राधिकारी के हस्ताक्षर और कार्यालय की मुद्रा

This licence shall be renewable without any concession in fee for three years in the absence of contravention of the provision of the Indian Explosives Act, 1884, or the Static and Mobile Pressure Vessles (Unfired) Rules,2016, framed thereunder or of the conditions of the licence./अनुज्ञप्ति, भारतीय विस्फोटक अधिनियम, 1884 या उसके अधीन अधीन बनाए गए स्थिर एवं गतिशील दाब पात्र (अज्वलित) नियम, 2016 या इस अनुज्ञप्ति की शर्तों का उल्लंघन न होने की दशा में, फीस में बिना किसी छूट के तीन वर्ष तक नवीकृत की जाएगी।	02/08/2024	30/09/2027	Dr. D. Jeevarathinam DCE For Jt. Chief Controller of Explosives Chennai

This licence is liable to be cancelled if the licenced premises are not found conforming to the description and conditions attached hereto and contravention of any of the rules and conditions under which this licence is granted and the holder of this licence is also punishable with imprisonment for the term which may extend to two years or with fine which may extend to three thousand rupees or with both./यदि निरीक्षण के समय अनुज्ञप्त परिसर इससे उपाबद्ध विवरण और शर्तों के अनुरुप नहीं पाया जाता है और जिन नियमों और शर्तों के अधीन यह अनुज्ञप्ति मंजूर की गई है, उनमे से किसी का उल्लंघन होता है तो उस दशा में यह अनुज्ञप्ति रद्द की जा सकती है और अनुज्ञप्ति का धारक कारावास से, जिसकी अवधि दो वर्ष तक की हो सकेगी, या जुर्माने से, जो तीन हजार रुपये तक का हो सकेगा, या दोनों से दण्डनीय भी होगा।

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Digitally signed by DR JEEVRATHINAM D
Reason: Licence No. : S/HO/PY/03/11
Location:South Circle Office [S13690]
Date:2024.08.02 01:34:46 +05:30

Conditions of FORM LS-1A

License No. :S/HO/PY/03/11(S13690)

1. The licensed premises shall conform to the description of location and facilities and to the approved plan, as mentioned on the body of the licence.
2. The licensed premises shall have prominently marked thereon the number of the licence held for it.
3. The emergency telephone numbers of local fire service, police and the principal marketing company or supplier of the compressed gas, and emergency instructions shall be conspicuously displayed in the licensed premises.
4. The licensed premises shall not be used for any purpose other than the purpose for which the licence is granted.
5. The compressed gas shall be stored only in the vessels specified in the licence and shown in the approved plan attached hereto.
6. The storage vessel shall at all times maintain requisite safety distance from any other facility, building, boundary, fencing or protected works as specified in appropriate Table specified in rule 22.
7. A suitable hard stand for parking of the vehicle during loading or unloading of any compressed gas shall be provided . The following minimum safety distances shall be provided between the centre of the hard stand and the storage vessel or boundary line of installation; as well as between the loading or unloading points and storage vessel or boundary line of installation as specified under item (ii) of sub-rule 5 of Rule 27.
8. All fitments of the vessel shall be maintained in good operating condition.
9. No alteration of the position of the vessel and no replacement of the vessel shall be effected except with the previous sanction, in writing, of the licensing authority as provided in the rules.
10. Every vessel before being repaired or exhumed shall be made free of compressed gas and thoroughly cleaned in a safe manner. When a vessel is opened for cleaning or repairs, no lamp of any description either ordinary or electric, electric cables or fans and no articles, appliances or equipment capable of igniting flammable vapours shall be brought near the vessel.
11. No person shall cause to repair or repair either by the use of fire, welding, hot riveting or brazing any vessel used for the storage of flammable gas unless it has been thoroughly cleaned and gas-freed or otherwise prepared for safely carrying out such hot work and certified in writing, by a competent person, to have been so prepared. Where the vessel has been certified as gas-free, the certificate shall be preserved by the licensee for a period of not less than three months and produced to the licensing authority on demand.
12. No person shall enter any vessel used for the storage of a toxic or corrosive gas unless he is adequately protected by means of protective clothing, gas masks and such other equipments as may be required in the specific case.
13. Compressed gas shall be filled into or removed from the vessel through designated pipes of required specification and through transfer facilities shown in the approved plan.
14. The vessel shall not be filled between the hours of sunset and sunrise, unless adequate lighting of approved type is provided and except in such manner and such other condition or conditions as are specifically endorsed on the licence by the licensing authority.
15. All operations in the licensed premises shall be carried out by persons competent in such operation. Every person managing or employed on or in connection with the licensed premises shall abstain from any act whatsoever which tends to cause fire or explosion and which is not reasonably necessary and to the best of his ability, shall prevent any other person from doing such act.
16. The licensee shall provide for each licensed premises a minimum of two portable foam type or dry chemical type fire extinguishers of 9 kg. capacity each, which shall be kept ready at convenient location for immediate use in the event of any fire in addition to other fire fighting or other mitigating facilities required for flammable or toxic gases.
17. All valves in the premises must be permanently marked in a manner clearly indicating the direction of opening and shutting the valve.
18. Free access to the licensed premises shall be given at all reasonable times to any of the officers specified in

rule 70 and every facility shall be afforded to such officer for ascertaining that the rules and the conditions of this licence are duly observed.

19. If the licensing authority calls upon the holder of a licence by a notice in writing to execute any repairs in the licensed premises which are, in the opinion of such authority, necessary for the safety of the premises, the holder of the licence shall execute the repairs within such period as may be specified in the notice.
20. Every vessel shall be outside any building and shall be supported on well designed calculations.
21. No artificial light capable of igniting flammable vapour shall at any time be present within nine meters of the vehicle and the loading or unloading points during the transfer of the compressed gas and no person engaged in such transfer shall smoke.
22. All electrically equipment such as motors switches, starters used for transfer of liquefied petroleum gas shall be of flameproof construction conforming to IS/IEC 60079-1 to 11 or of a type approved by the Chief Controller.
23. Smoking, naked lights, lamps, source of fire or any other stimulant capable of igniting flammable vapours shall not be allowed inside the premises. Every person managing or employed on or in connection with licensed premises shall abstain from any act whatsoever which tends to cause fire or explosion and which is not reasonably necessary and to the best of his ability, shall prevent any other person from doing such act.
24. Any accident, fire ,explosion or untoward incident occurred within the licensed premises shall be immediately reported to the Chief Controller of Explosives, Controller, nearest police station and District Magistrate by quickest mode of communication.

For The Jt. Chief Controller of Explosives, South Circle, Chennai

भारत सरकार
Government of India
वाणिज्य और उद्योग मंत्रालय
Ministry of Commerce & Industry
पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पेसो)
Petroleum & Explosives Safety Organisation (PESO)
A और D - विंग, ब्लॉक 1-8, दूसरा तल, शास्त्री भवन, 26 हड्डोउस रोड, नुंगम्बक्कम
चेन्नै- 600006
A & D - Wing, Block 1-8, IInd Floor, Shastri Bhavan, 26 Haddous Road, Nungambakkam,
Chennai - 600006

E-mail : jtccechennai@explosives.gov.in
Phone/Fax No : 044 -
28287118,28281023,28281041,28287119/28284848

संख्या /No. : P/HQ/PY/15/524 (P163312)

दिनांक /Dated : 07/12/2022

सेवा में
/To,

M/s. M/s. Chemplast Sanmar Limited,
PVC Division, Karaikal Plant,
Melavanjore Village,
Karaikal,
Taluka: Karaikal,
District: KARAIKAL,
State: Pondicheri
PIN: 611002

विषय /Sub : Plot No, S. No. 39/3, 315,MELAVANJORE VILLAGE, NAGORE POST-611002,KARAIKAL REGION,PUDUCHERRY UT, Melavanjore Village, TR. Pattinam Panchayat, Nagor, Karaikal, Taluka: Karaikal, District: KARAIKAL, State: Pondicheri, PIN: 611002 में स्थित विद्यमान पेट्रोलियम वर्ग B,C अधिष्ठापन में अनुज्ञप्ति सं P/HQ/PY/15/524 (P163312) के नवीकरण के संदर्भ में ।
Existing Petroleum Class B,C Installation at Plot No, S. No. 39/3, 315,MELAVANJORE VILLAGE, NAGORE POST-611002,KARAIKAL REGION,PUDUCHERRY UT, Melavanjore Village, TR. Pattinam Panchayat, Nagor, Karaikal, Taluka: Karaikal, District: KARAIKAL, State: Pondicheri, PIN: 611002 - Licence No. P/HQ/PY/15/524 (P163312) - Renewal regarding.

महोदय /Sir(s),

कृपया आपके पत्र क्रमांक OIN1215207 दिनांक 26/11/2022 का अवलोकन करें ।
Please refer to your letter No.: OIN1215207, dated 26/11/2022

अनुज्ञप्ति संख्या P/HQ/PY/15/524 (P163312) दिनांक 26/04/2022 को दिनांक 31/12/2027 तक नवीनीकृत कर इस पत्र के साथ अग्रेषित की जा रही है ।
Licence No. P/HQ/PY/15/524 (P163312) dated 26/04/2022 is forwarded herewith duly renewed upto 31/12/2027.

कृपया पेट्रोलियम नियम 2002 के अधीन बनाए गए नियम 148 में दी गई प्रक्रिया का कड़ाई से पालन करें । अनुज्ञप्ति के नवीकरण हेतु समस्त दस्तावेजों को अनुज्ञप्ति की वैधता समाप्त होने की तिथि से कम से कम 30 दिन पूर्व Jt. Chief Controller of Explosives, South Circle Office, Chennai कार्यालय को प्रेषित करें ।
Please follow the procedure strictly as laid down in rule 148 of the Petroleum Rules, 2002 and submit complete documents for the Renewal of the licence to Jt. Chief Controller of Explosives, South Circle Office, Chennai, so as to reach his office on or before the date on which Licence expires.

कृपया पावती दें।
Please acknowledge the receipt.

भवदीय /Yours faithfully,

((डा.टी.एल.धनुलिंगम)
(Dr. T. L. THANULINGAM))
उप मुख्य विस्फोटक नियंत्रक
Dy. Chief Controller of Explosives
कृते संयुक्त मुख्य विस्फोटक नियंत्रक
For Jt. Chief Controller of Explosives
चेन्नै/Chennai

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(अधिक जानकारी जैसे आवेदन की स्थिति, शुल्क तथा अन्य विवरण के लिए हमारी वेबसाइट : http://peso.gov.in देखें)
(For more information regarding status,fees and other details please visit our website: http://peso.gov.in)

अनुज्ञप्ति संख्या-(Licence No.) P/HQ/PY/15/524 (P163312)

नवीनीकरण के पृष्ठांकन के लिए स्थान
SPACE FOR ENDORSEMENT OF RENEWALS

पेट्रोलियम अधिनियम, १९३४ के उपबन्धों या उनके अधीन बनाए गए नियमों या इस अनुज्ञप्ति की शर्तों का उल्लंघन न होने की दशा में यह अनुज्ञप्ति फ़िस में बिना किसी छूट के दस वर्ष तक नवीकृत की जा सकेगी। This licence shall be renewable without any concession in fee for ten years in the absence of contravention of any provisions of the Petroleum Act, 1934 or of the rules framed thereunder or of any of the conditions of this licence.	नवीकरण की तारीख Date of Renewal	समाप्ति की तारीख Date of Expiry of license	अनुज्ञापन प्राधिकारी के हस्ताक्षर और दाम्य Signature and office stamp of the licencing authority.
1).	08/05/2008	31/12/2010	Sd/- Dr.Karunamay Pandey
2).	23/12/2010	31/12/2013	Sd/-
3).	19/12/2013	31/12/2016	Sd/- Dr. P. K. Rana Dy. Chief Controller of Explosives For Jt. Chief Controller of Explosives Chennai
4).	09/09/2016	31/12/2019	Sd/- Dr Ashok Kumar Yadav Dy. Chief Controller of Explosives For Jt. Chief Controller of Explosives Chennai
5).	05/11/2019	31/12/2022	Sd/- Vijay kumar Dy. Controller of Explosives For Jt. Chief Controller of Explosives Chennai
6).	07/12/2022	31/12/2027	Dr. T. L. THANULINGAM Dy. Chief Controller of Explosives For Jt. Chief Controller of Explosives Chennai

यदि अनुज्ञप्ति परिसर इसमें उपबद्ध विवरण और शर्तों के अनुरूप नहीं पाए जाते हैं और जिन नियमों और शर्तों के अधीन यह अनुज्ञप्ति मंजूर की गई है उनमें से किसी का उल्लंघन होने की दशा में यह अनुज्ञप्ति रद्द की जा सकती है और अनुज्ञप्तिधारी प्रथम अपराध के लिए साधारण कारावास से, जो एक मास तक हो सकता है, या जुर्माने से, जो एक हजार रुपये तक हो सकता है, या दोनों से, और प्रत्येक पश्चातवर्ती अपराध के लिए साधारण कारावास से जो तीन मास तक हो सकता है, या जुर्माने से, जो पांच हजार रुपये तक हो सकता है, या दोनों से, दण्डनीय होगा।

This licence is liable to be cancelled if the licensed premises are not found conforming to the description given on the approved plan attached hereto and contravention of any of the rules and conditions under which this licence is granted and the holder of this licence is also punishable for the first offence with simple imprisonment which may be extend to one month, or with fine which may extend to one thousand rupees, or with both and for every subsequent offence with simple imprisonment which may extend to three months, or with fine which may extend to five thousand rupees or with both.

Note:-This is system generated document does not require signature.

प्ररूप XV
(प्रथम अनुसूची का अनुच्छेद 6 देखिए)
FORM XV
(see Article 6 of the First Schedule)

अधिष्ठापनों में पेट्रोलियम के आयात और भंडारकरण के लिए अनुज्ञप्ति
LICENCE TO IMPORT AND STORE PETROLEUM IN AN INSTALLATION

अनुज्ञप्ति सं. (Licence No.) : P/HQ/PY/15/524(P163312)

फीस रूपए (Fee Rs.) 24000/- per year

M/s. M/s. Chemplast Sanmar Limited, PVC Division, Karaikal Plant, Melavanjore Village, Karaikal, Taluka: Karaikal, District: KARAIKAL, State: Pondicheri, PIN: 611002 को केवल इसमें यथा विनिर्दिष्ट वर्ग और मात्राओं में पेट्रोलियम 380.00 KL आयात करने के लिए और उसका, नीचे वर्णित और अनुमोदित नक्शा संख्या P/HQ/PY/15/524(P163312) तारीख 26/04/2022 जो कि इससे उपाबद्ध है, में दिखाए गए स्थान पर भण्डारकरण के लिए पेट्रोलियम अधिनियम, 1934 के उपबंधों या उसके अधीन बनाए गए नियमों तथा इस अनुज्ञप्ति की अतिरिक्त शर्तों के अधीन रहते हुए, यह अनुज्ञप्ति अनुदत्त की जाती है ।

Licence is hereby granted to M/s. M/s. Chemplast Sanmar Limited, PVC Division, Karaikal Plant, Melavanjore Village, Karaikal, Taluka: Karaikal, District: KARAIKAL, State: Pondicheri, PIN: 611002 valid only for the importation and storage of 380.00 KL Petroleum of the class and quantities as herein specified and storage thereof in the place described below and shown on the approved plan No P/HQ/PY/15/524(P163312) dated 26/04/2022 attached hereto subject to the provisions of the Petroleum Act, 1934 and the rule made thereunder and to the further conditions of this Licence.

यह अनुज्ञप्ति 31st day of December 2027 तक प्रवृत रहेगी ।
The Licence shall remain in force till the 31st day of December 2027

पेट्रोलियम का विवरण /Description of Petroleum	अनुज्ञप्त मात्रा (किलोलीटरों में) /Quantity licenced in KL
वर्ग क प्रपुंज पेट्रोलियम /Petroleum Class A in bulk	NIL
वर्ग क प्रपुंज पेट्रोलियम से भिन्न /Petroleum Class A, otherwise than in bulk	NIL
वर्ग ख प्रपुंज पेट्रोलियम /Petroleum Class B in bulk	80.00 KL
वर्ग ख प्रपुंज पेट्रोलियम से भिन्न /Petroleum Class B, otherwise than in bulk	NIL
वर्ग ग प्रपुंज पेट्रोलियम /Petroleum Class C in bulk	300.00 KL
वर्ग ग प्रपुंज पेट्रोलियम से भिन्न /Petroleum Class C,otherwise than in bulk	NIL
कुल क्षमता /Total Capacity	380.00 KL

July 9, 2007

For Chief Controller of Explosives
HQ, Nagpur

1). Amendment dated - 26/04/2022

अनुज्ञप्त परिसरों का विवरण और अवस्थान
DESCRIPTION AND LOCATION OF THE LICENSED PREMISES

अनुज्ञप्त परिसर जिसकी विन्यास सीमाएं अन्य विशिष्टयां संलग्न अनुमोदित नक्शों में दिखाई गई हैं Plot No: S. No. 39/3, 315,MELAVANJORE VILLAGE, NAGORE POST-611002,KARAIKAL REGION,PUDUCHERRY UT, Melavanjore Village, TR. Pattinam Panchayat, Nagor, Karaikal, Taluka: Karaikal, District: KARAIKAL, State: Pondicheri, PIN: 611002 स्थान पर अवस्थित है तथा उसमें निम्नलिखित Two aboveground Petroleum Class B & one aboveground Petroleum Class C storage tanks together with connected facilities. सम्मिलित हैं ।

The licensed premises, the layout , boundaries and other particulars of which are shown in the attached approved plan are situated at Plot No: S. No. 39/3, 315,MELAVANJORE VILLAGE, NAGORE POST-611002,KARAIKAL REGION,PUDUCHERRY UT, Melavanjore Village, TR. Pattinam Panchayat, Nagor, Karaikal, Taluka: Karaikal, District: KARAIKAL, State: Pondicheri, PIN: 611002 and consists of Two aboveground Petroleum Class B & one aboveground Petroleum Class C storage tanks together with connected facilities. together with connected facilities.

Note:-This is system generated document does not require signature.

A 19

SANMAR

Chemplast Sanmar Limited

Karaikal Plant:
Melavanjore Village T R Pattinam Panchayat
Nagore 611 002 India
Tel + 91 4365 256 475/ 476
E-mail: csl@sanmargroup.com
www.chemplastsanmar.com
CIN L24230TN1985PLC011637

CSL/KKL/SAF-04/2025-2026
03rd September 2025

To,
The Inspector of Factories,
Kamaraj Complex,
Karaikal – 609 602.

Dear Sir,

Sub: Submitting the Report of Onsite Mock Drill.

We are herewith submitting Report of "**Onsite Emergency – Mock Drill**" based on the scenario Bush fire near the west side of the Scrap yard conducted on 29.08.2025

We hereby submitting the above said information for your kind perusal.

Thanking you and assuring our best cooperation at all time.

Yours truly,

For Chemplast Sanmar Limited

S.Mathivanan
Factory Manager
(Sr.Vice President – Operations)

o/c.

KSJ 3-9-25
DESPATCHER
Office of the Inspector of Factories
Peruntalaivar Kamarajar Administrative Comple
Nagore Road, Karaikal.

Responsible Care®

Chemplast Sanmar Limited

Karaikal

Emergency preparedness-Mock Drill Report

1. Type of Drill : On Site Emergency Mock Drill

2. Date of Drill: 29.08.2025

3. Mock drill Started: 16:02 Hrs Mock Drill Ended: 16:27 Hrs.

4. Assumed emergency scenario:

Bush fire near scrap yard west side

5. No. of Observers: 04

Internal Observers & their Locations:

Internal Observers and Locations	1.Mr.M. Mohan-Incident Site
	2.Mr.C. Krishnakumar–Safe assembly point 1
	3.Mr.Visvanathan.S.-Emergency control centre
	4.Mr. Kavi Anand- Plant Gate

6. External Observer details (ifany):

-

7. Objectives of the mock drill:

- Observe the sequence of action.
- Response time.
- Role-play of individuals.
- Co-ordinate among various Co-ordinators.
- Shortcomings on recommendations for further improvements.

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8. Description of Emergency Scenario:

S.No	Sequence of Activities	TimeHrs
1.	Bush Fire observed at the scrap yard west side at M/s Chemplast Sanmar, karaikal	16:00
2.	Immediately, this information passes through Emergency control centre in Chemplast Sanmar, karaikal by Works Main Controller and told to declare emergency	16:01
3.	Emergency declaration messages were communicated to the Emergency control center and the Control room Engineer activated the Emergency siren. Continuous announcement was made through the public announcement system by Emergency control room engineer briefing emergency scenario situation, emergency scenario site and wind direction for safe evacuation and nearby emergency assembly point to assemble.	16:02
4.	In the meantime, the nearby fire hydrant with hoses was activated to put off the fire	16:02
5.	Mock evacuation of the employees and contract workers were carried out.	16:03
6.	All contractors and employees assembled at the assembly point and Head count was checked which was matched with attendance.	16:10
7.	The Site Main Controller Mr. S Mathivanan, and Incident Controller, briefed the workers about emergency and how to handle the emergency situation.	16:15
8.	The fire responders mitigated the fire and was put off and was under control	16:23
9.	The shelters were already listed as Admin, canteen, OHC, Mechanical workshop, Instrument workshop and contractor sheds.	16:26
10.	The "All clear signal" was declared by Works Main Controller byalong sirenfor60 seconds.	16:27
	All returned back to their workspot.	16:28

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9. HeadCountDetails:

Theheadcountwastallied.

TotalNo.ofpersonsassembledintheassemblypoints	153
No.ofpersonsretainedintherespectivesectionsfor Maintainingproduction	84

10. Observations&Recommendationsfromobservers:

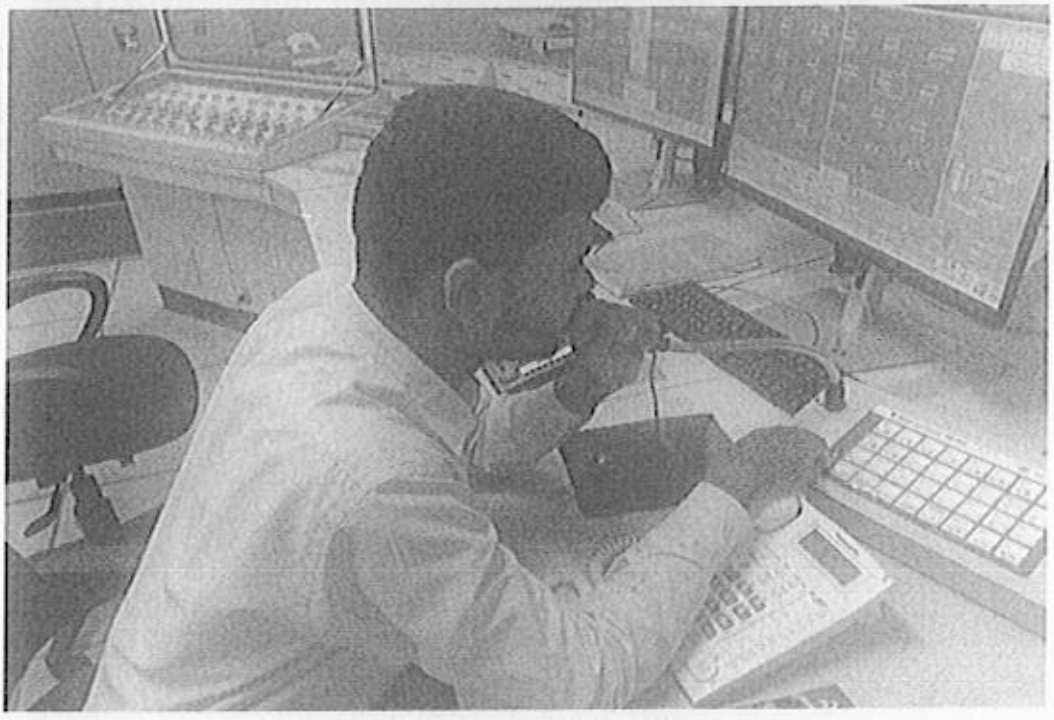
Positives:

- The fire responders quickly mitigated the fire scenario with fire resistant suits.
- Availability of required infrastructure & resources
- Clear Communication received from Emergency Control Center.
- The mock drill fire emergency notice board was displayed at the factory gate .

Area of improvement in the Incident location:

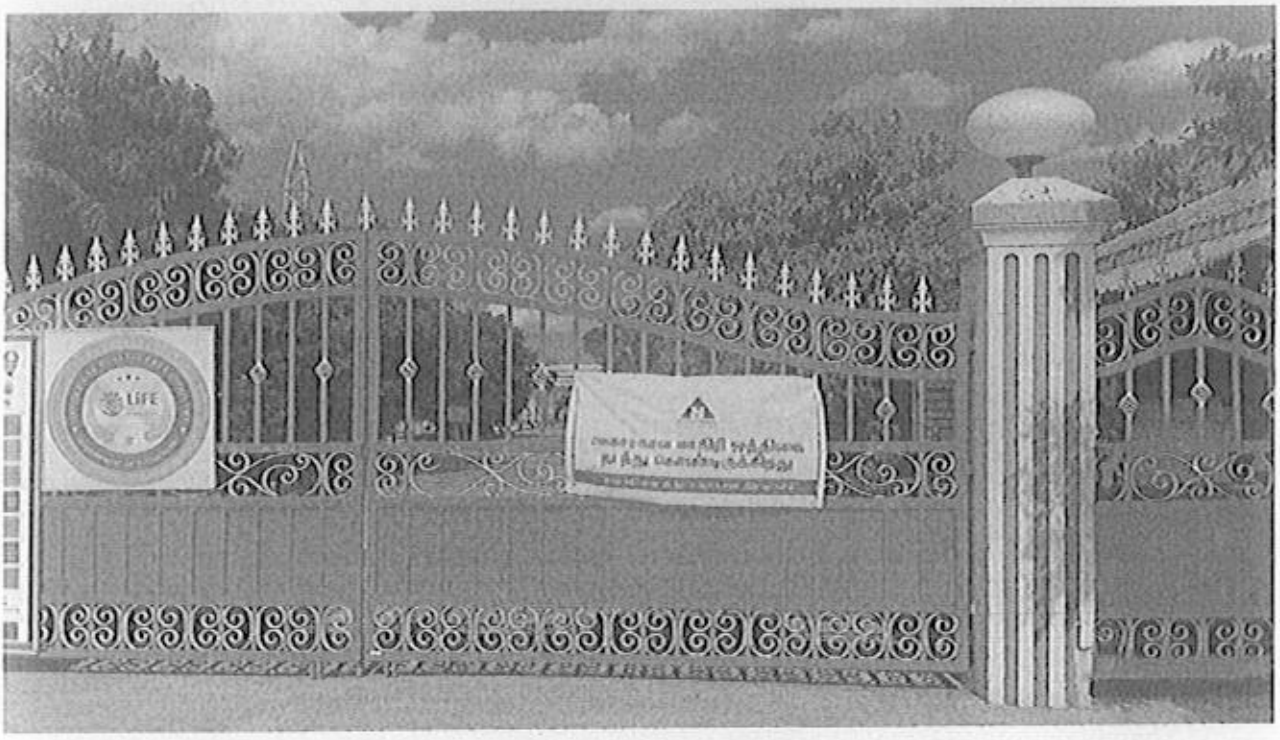
- New Emergency siren shall be fixed at the CPP I nearby area for improved audibility.
- New Public address system shall be fixed at Hydrogen bottling project area .
- The assembly point head count marking shall be repainted near canteen .

MockDrillPhotos



After receiving fire emergency communication from site main controller, immediately announced through public address system about the scenario.

The Emergency Siren was Activated at Emergency control centre



Factory gate closed and Emergency mock drill notice was displayed to outsiders

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MELAYANJORE

Water spraying with fire hose by fire responders was activated to control and put off the fire

Incident controller communicationg to the fire responders for mitigating the fire emergency situation

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All wokers rushingtowards the Emergency assesmbly point

Evacuation was ensured at all areas

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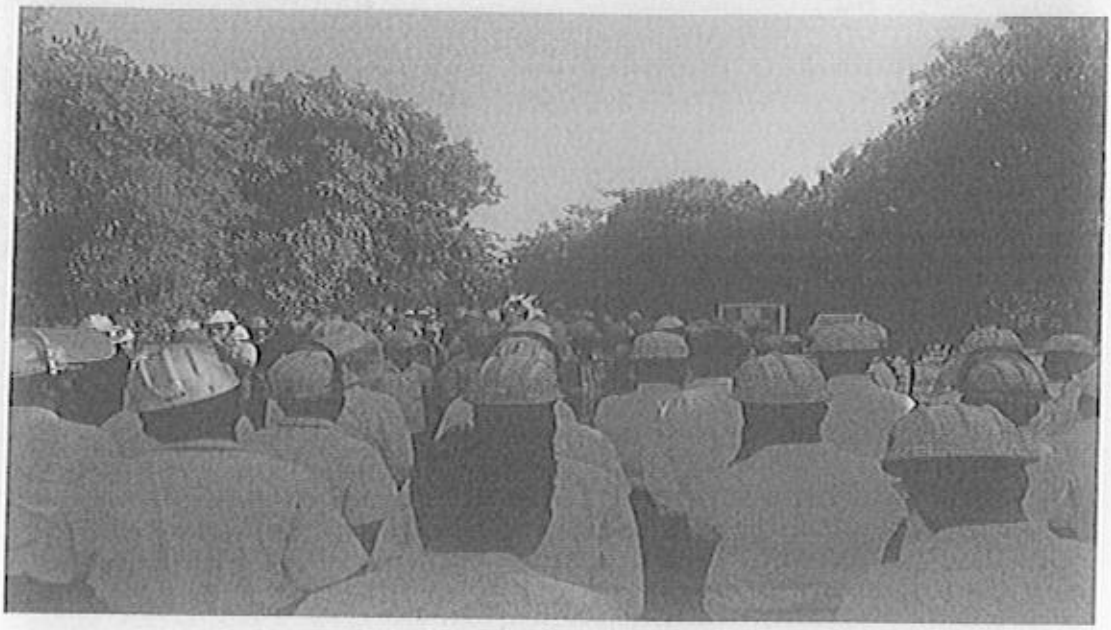

Gathering of employees and workers assembled at Safe Assembly Point

Head count was taken at assembly point by Emergency Response team

Works main controller Mr. S. Mathivanan(PlantHead) briefed how to handle the fire emergency among employees and workers and declared Call Off siren.

Post drill meeting chaired by the Plant Head

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GOVERNMENT OF PUDUCHERRY
DEPARTMENT OF SCIENCE, TECHNOLOGY AND ENVIRONMENT
PUDUCHERRY POLLUTION CONTROL COMMITTEE

3rd Floor, Housing Board Complex, Anna Nagar, Puducherry - 605 005
Phone : (0413) 2201256 Fax : (0413) 2203494

LiFE Lifestyle for Environment

Form 2
[See rule 6(2)]

FORM FOR GRANT OR RENEWAL OF AUTHORISATION BY STATE POLLUTION CONTROL BOARD TO THE OCCUPIERS, RECYCLERS, REPROCESSORS, REUSERS, USER AND OPERATORS OF DISPOSAL FACILITIES

1. Number of authorisation: **HWM/1/2025/488628** and date of issue: **25/03/2025**
2. Reference of application No.: **488628** and date: **09/01/2025**
3. The occupier of **Chemplast sanmar limited** is hereby granted an authorisation based on the enclosed signed inspection report for hazardous or other wastes or both on the premises situated at **No.:315, Melavanjore Village, T.R. Pattinam Panchayat, Nagore Post-611002, Karaikal Region, Puducherry U.T.**

Details of Authorisation

SN.	Schedule / Name of the Processes	Name of Hazardous Waste (with category No)	Quantity	Activities for which Authorization is issued
1	Schedule I/33. Handling of hazardous chemicals and wastes	33.1 Empty barrels/containers/liners contaminated with hazardous chemicals/wastes	6 T/Annum	Generation, storage and disposal to authorized pre-processor/ utilizer.
2	Schedule I/16 Production of caustic soda and chlorine	16.3 Brine sludge	3000 T/Annum	Generation, storage and disposal to authorized secured landfill facility.
3	Schedule I/5 Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems	5.2 Wastes or residues containing oil	2 T/Annum	Generation, storage and disposal to authorized pre-processor/ co-processor.
4	Schedule I/5 Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems	5.1 Used or spent oil	35 T/Annum	Generation, storage and disposal to authorized recycler.

4 The authorisation shall be valid for a period of **12/03/2030**

5 The authorisation is subject to the following general and specific conditions
(Please specify any conditions that need to be imposed over and above general conditions, if any):

A. General conditions of authorisation:

1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
3. The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.
4. Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.
5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty
7. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.
8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation.
11. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
12. An application for the renewal of an authorisation shall be made as laid down under these Rules.
13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
14. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.

B. Specific conditions:

1. The occupier/generator shall be responsible for safe and environmentally sound management of hazardous and other waste.
2. The occupier shall follow the following steps for the management of hazardous and other wastes. (a) Prevention (b) minimization (c) reuse (d) recycling (e) recovery, utilisation including co-processing and (f) safe disposal.
3. The occupier shall store the hazardous and other wastes for a period not exceeding ninety days.
4. The hazardous and other wastes shall be stored temporarily in an isolated area earmarked for the purpose within the occupiers premises (it shall not be accessible to rain water) till scientific disposal.
5. The storage area shall be provided with impervious flooring with separate provision for individual category of waste and a sign of danger shall be placed at the storage site.
6. The occupier handling hazardous or other wastes shall maintain daily records of such operations of generation, handling, storage and disposal as per Form 3.
7. The occupier handling hazardous or other wastes shall ensure that the hazardous and other wastes are packaged in a manner suitable for safe handling, storage and transport as per the guidelines issued by the Central Pollution Control Board from time to time.
8. The labelling of package of hazardous or other wastes shall be done as per Form 8. The label shall be of non-washable material, weather proof and easily visible.
9. The occupier shall provide the transporter with the relevant information in Form 9, regarding the hazardous nature of the wastes and measures to be taken in case of an emergency and shall label the hazardous and other wastes containers as per Form 8.

10. The authorisation for transport shall be obtained by either the sender or the receiver on whose behalf the transport is being arranged.
11. The transporter/sender of the hazardous and other wastes shall prepare and maintain manifest in Form 10. The unit shall ensure submission of green or grey copies of Manifest by the receiver to PPCC for every consignment.
12. Transportation of hazardous and other waste for final disposal to a facility existing in a state other than the state where the waste is generated, the sender shall obtain No Objection Certificate from the State Pollution Control Board of both the states.
13. Transportation of Hazardous and other waste for recycling, utilisation including co-processing or disposal through a State other than the States of origin and destination, the sender shall give prior intimation to the concerned State Pollution Control Board of the States of transit before handing over the wastes to the transporter.
14. The occupier or the operator, or the transporter shall immediately intimate PPCC through telephone, e-mail about the accident and subsequently send a report in Form- 11, where an accident occurs at the facility of the occupier handling hazardous or other wastes and operator of the disposal facility or during transportation.
15. The unit shall provide display board showing hazardous waste details as per the Honble Supreme Court directions.
16. Any increase in quantity of handling of hazardous and other wastes, any change in category of hazardous and other wastes and any change in method of handling operations shall be brought to the notice of the PPCC and fresh authorization shall be obtained.

C. Additional Specific conditions:

(i) The unit shall update the online environmental display board at the entrance gate of the factory on daily basis.
(ii) The unit shall comply with CPCB guidelines for storage of Incinerable hazardous waste.
(iii) The unit shall label all the hazardous waste in the storage yard as per Form-8 in accordance to the rules.
(iv) The unit shall maintain records in Form-3 on daily basis and file annual returns in Form-4 on or before 30th June of every year.
(v) The unit shall expedite the disposal of the hazardous waste brine sludge through authorized secured landfill facility.
(vi) The authorization is subject to the conditions mentioned above and also to such conditions as specified in the Hazardous and Other waste (Management & Transboundary Movement) Rules, 2016 as amended from time to time framed under the Environment (Protection) Act 1986.
(vii) Puducherry Pollution Control Committee reserves the right to review impose additional condition or conditions, revoke, change or alter the terms and conditions of this authorization.

NATARAJAN RAMESH

Digitally signed by NATARAJAN RAMESH
Date: 2025.03.28 10:38:06 +05'30'

Date: 25/03/2025

Signature of Issuing Authority
Designation and Seal

A 12

Point wise compliance status & actions taken on the Integrated Guidance Framework for Chemicals Safety in Respect of the Isolated Storages and Industries Covered Under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989

#	Guidelines	Compliance status
A. Guidelines for Industries and Isolated Storages:		
REPORTING		
1	An occupier (of an industry or isolated storage) shall identify the major accident hazards and shall take adequate steps to prevent such major accidents and to limit their consequences to persons and the environment and shall provide the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety	Complied. • All possible major accidents hazards have been identified through various safety studies like QRA, HAZOP, Process Safety Audit, Hazardous Area Classification, Lightening Protection Study etc. • All the emergency scenarios captured in emergency response plan comprising of mitigation procedures along with individual responsibilities of each function and accordingly periodic mock drills are conducted to improve the emergency response & its effectiveness • Adequate training imparted to all operating personnel for handling and controlling such emergencies • Necessary safety equipments are made available in plants for the mitigation of emergencies • Well-equipped OHC facility and the Doctor along with supporting staff to cater the medical emergencies of the plant are available
2	Where a major accident occurs on a site or in a pipe line, the occupier shall within 48 hours notify the concerned authority as identified in Schedule 5 (of the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as amended) of that accident, and furnish thereafter to the concerned authority a report relating to the accidents in Schedule 6 (of the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 (as amended)). However, the concerned authorities, local crisis group, District emergency authorities etc. have to be informed by the occupier as early as possible	Agree to comply in case any major accident occurred
3	The occupier shall not undertake any industrial activity or isolated storage unless he has been granted an approval for undertaking such an activity by the concerned authorities and has submitted a written report to the concerned	Complied. We always get prior approval from concerned authorities for any modification undertaken in our existing

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	authority containing the particulars specified in Schedule 7 of the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as amended. In case of an activity in which subsequently there is or is liable to be a threshold quantity or more of an additional hazardous chemical shall be deemed to be a different activity and the occupier has to take a separate approval for undertaking such activity	industrial activity or isolated storage. In case of an activity involving more than the threshold quantity for a chemical as per MSIHC Rules, we will ensure that a separate approval will be obtained from the regulating authorities
4	The occupier shall furnish a further report to the concerned authorities, in case the changes to the threshold quantity of hazardous chemicals are made	Complied. We get prior approval from concerned authorities in case of any changes in threshold quantity of hazardous chemicals
5	An occupier shall not undertake any industrial activity or isolated storage to which the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 (as amended) applies, unless he has prepared a safety report on that industrial activity containing the information specified in Schedule 8 of the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 (as amended) and has sent a copy of that report to the concerned authority at least ninety days before commencing that activity	Agree to comply for industrial activity or isolated storage, which is attracted by MSIHC Rules , the safety report will be sent to the concerned authority at least 90 days prior to the commencing that activity
6	The occupier of both the new and the existing industrial activities or isolated storage shall carry out an independent safety audit of the respective industrial activities with the help of an expert, not associated with such industrial activities. The occupier shall forward a copy of the auditor's report along with his comments to the concerned authorities within 30 days after the completion of such audit	Complied. • External safety audit is being conducted by a Third-Party Auditor approved by Ministry of Labour and Employment of India • Auditor who is appointed for audit is not associated with our industrial activities as being an independent auditor and auditor's report with compliance status are being submitted to concerned authorities within time frame
7	The occupier shall update the safety audit report once a year by conducting a fresh safety audit and forward a copy of it with his comments to the concerned authorities	Complied. External safety audit is conducted by a Third-Party Auditor approved by Ministry of Labour and Employment of India once in a year. Auditor's report with compliance status is being submitted to concerned authorities within time frame
8	The occupier, within 30 days of the completion of the safety audit, shall send a report to the Chief Inspector of Factories with respect to the implementation of the audit recommendations	Complied. Safety audit report with compliance status is submitted to Inspector of Factory after audit completion
9	The occupier shall not make any modification to the industrial activity or isolated storage to which that safety report relates which could materially affect the particulars in that report, unless he has made a further report to take account of those modifications and has sent a copy of that	Complied. We never do any modification of the industrial activity or isolated storage without getting prior approval from concerned authorities

CHEMPLAST SANMAR LTD MELVANJORE

	report to the concerned authorities at least 90 days before making those modifications	
10	Where an occupier has made a safety report and that industrial activity or isolated storage is continuing, the occupier shall within three years of the date of the last such report, make a further report which shall have regard in particular to new technical knowledge which has affected the particulars in the previous report relating to safety and hazard assessment and shall within 30 days send a copy of the report to the concerned authority	Agree to comply with the requirements
11	For the purpose of enabling the concerned authority to prepare the off-site emergency plan, the occupier shall provide the concerned authority with such information relating to the industrial activity or isolated storage under his control as the concerned authority may require, including the nature, extent and likely effects off-site of possible major accidents	Agree to comply. We have prepared Off Site Emergency Plan and same have been submitted to concerned authorities
12	The occupier of an industry or isolated storage shall take appropriate steps to inform persons outside the site either directly or through District Emergency Authority who are likely to be in an area which may be affected by a major accident about the nature of the major accident hazard and the safety measures and the "Do's' and 'Don'ts" which should be adopted in the event of a major accident. The occupier of a new industry or isolated storage shall take these steps, before that activity is commenced	We have conducted several awareness programmes to nearby communities on "Do's' and 'Don'ts" during industrial emergency as well as during the off-site drills
13	The industries/isolated storages shall update the comprehensive safety audit, on-site emergency plans and risk analysis reports annually and ensure that the reports are furnished to the concerned authorities	We wish to inform your good office that the Onsite Emergency Plan is revised and submitted periodically as & when required
14	The industry or isolated storage shall conduct comprehensive hazard identification and risk assessment (HIRA) to identify the non-compliances and take corrective actions for the non-compliances identified. Emergency plans shall be established to deal with leakages/accidents. The safety & hazard audit should identify the control measures necessary to be taken during an emergency	• Hazard Identification and Risk Assessment (HIRA) is available to identify the non-compliances and necessary corrective actions are taken • On & Off-site Emergency Plans are available to deal with leakages/ accidents
15	A detailed study on the risk assessment and disaster management shall be carried out by the industry/isolated storage. Hazard identification and evaluation in a local community, preparation of standard operating procedures for accident prevention, preparedness and response, onsite emergency plans etc. have to be reviewed at least once in a year	• All possible major risks & hazards have been identified through various studies like QRA, HAZOP, Process Safety Audit, Hazardous Area Classification, Lightening Protection Study etc. • All the emergency scenarios are captured in emergency response plans and periodic mock drills are conducted to improve the emergency response • Adequate training imparted to all local communities & operating personal for

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		handling such emergencies
16	In the industries/isolated storages where gas leakages are suspected, an emergency plan to vent out/neutralize the gases safely should be prepared	An emergency plan to vent out/ neutralize the gases safely & the procedures derived for each emergency and complied
17	All industries and isolated storages should have mitigation plans for spillages/leakages of hazardous chemicals, fires, explosion or any other accident	Mitigation plans for spillages/leakages of hazardous chemicals, fires, explosions or any other accident are available in our On and Off-Site emergency Plans along with mitigation and practiced & familiarized with mock drills periodically.
18	Standard Operating Procedure (SOP) for the steps to be taken during emergency situations/accidents shall be prepared by all industrial activities/isolated storages that are handling hazardous chemicals	SOPs available for emergency situations & accidents detailing on the steps to be followed during emergency situations/ accidents
TESTING		
19	The pressure test and leak test must be ensured after replacement of valves, pipes, joints etc. as per the original equipment manufacturer (OEM) manual or as per standard established procedure	Complied. Whenever replacement of valves, pipes, joints etc. are done, pressure test & leak test are carried out before installation according to the established system procedure
20	Check valves, relief valves should be installed at appropriate locations. Flow meters, sensors, measuring devices have to be regularly calibrated. Vents from relief valves shall be directed to a safe place	Complied. • Check Valves and Safety Relief Valves are installed in appropriate locations • Measuring devices are calibrated at defined interval and redundancy for measuring devices are also ensured
21	Seals, glands and gaskets shall be regularly inspected, without dismantling. Leak detectors should be provided for all piping, valves, seals, flanges, and other pertinent equipment	Complied. Mechanical Integrity programme available and LDAR (Leak detection and Repair) program is followed for the fugitive VOC emission as per the protocol
22	All hazardous chemicals carrying piping should be periodically inspected for failed insulation/vapour barrier, rust and corrosion. Damaged and deteriorated piping/equipment should be replaced	Complied. Mechanical Integrity programme available for periodic inspection of insulation, rust and corrosion. In case of any damage/deterioration the pipe/equipment is replaced
23	Operation and process control systems like Supervisory Control and Data Acquisition (SCADA) and Leak Detection and Repair (LDAR) systems should be adopted by the major accident hazard installations	Complied. • SCADA available for operation and process control devices • LDAR programme carried out by third party for hazardous installations
24	The safety measures including valve regulated systems shall be regularly checked and the concerned workers involved in the activity shall be properly trained	Complied. Inspection programme available for valve regulated systems and the

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		workers concerned involved in activities are trained periodically
25	Periodic inspection of equipment and machineries w.r.t. safety aspects should be done	Complied. Periodic inspection available for equipments and machineries w.r.t safety aspects of machine guarding, equipment earthing etc.
26	Portable gas masks should be kept at critical locations for use in any emergency	Complied. Portable half face and full-face cartridge type organic-gas masks provided to all employees working in toxic gas area and spare portable gas masks kept in strategic locations like Emergency Control Center, OHC etc.
27	Material Safety Data Sheets of raw materials & products should be made available to all the concerned personnel	Complied. MSDS of raw materials & products available in Shop floor, Laboratory, Stores, OHC and Emergency Control Center & updated periodically
28	The design of storage tanks, pressure vessels etc. should be as per applicable standards. The material of the storage tanks, pressure vessels etc. should be of adequate strength and chemically inert for the chemicals to be stored. The inspection of storage tanks, pressure vessels etc. should be as per standard protocols	Complied. The design of storage tanks, pressure vessels are done as per standards and inspection is carried out by competent person authorized by Chief Inspector of Factories and Boilers, Puducherry & Petroleum & Explosives Safety Organization
29	All the vessels should be examined periodically by a competent person under the Factory Act/applicable extant laws	Complied. All the pressure vessels examination (External, Hydro Test, Ultrasonic Thickness Test) are carried out by competent person authorized by Chief Inspector of Factories and Boilers, Puducherry and inspection reports are submitted in Form 8 Inspector of Factory
30	Blanketing of tanks for fire protection of volatile/flammable chemicals should be considered	Nitrogen blanketing is done on the required areas, vulnerable for fire risk.
31	Free Fall of any flammable material in the vessel has to be avoided. All solvents and flammable material storage tanks should be at a safe distance from the Process plant and required quantity of material should be charged in reactor through appropriate safe mode	Complied. Flammable material storage tanks are in safe distance from the process area
32	Earth connection should be provided to all solvent handling equipment, pipelines, reactors, vessels etc. for protection from electric current/ static electricity	Complied. Earth connection provided to all the equipments, pipelines, reactors, vessels for protection from electric current/ static electricity
33	Separate safety manual should be prepared for each equipment along with the emergency management plan	Complied. Safety manual available for equipments

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		with emergency management plan
34	Periodic testing of firefighting equipment should be conducted	In-house and third-party testing/inspections are carried out for firefighting equipments
DUTIES		
35	Mock drills must be conducted regularly at every six months by the industries/isolated storages in controlled environment on actions to be taken during accidents, gas leakage, failure of critical process parameters etc.	Complied. Onsite emergency mock drill are conducted once a three months covering various emergency scenarios
36	It shall be ensured that the chemical storage tanks should be appropriately located so that adequate space to take action during emergency situation is available	Complied. Adequate space available for all the chemical storage tanks
37	A clear documented emergency procedure should be laid down which details the precise duties of all staff and arrangements for evacuation, rescue, first aid etc. during an emergency	Complied. Onsite emergency procedures are available with duties of all staffs and arrangements available for evacuation, rescue, first aid etc. during emergency
38	All pipework containing hazardous chemicals shall be identified by colour coding or labelling (as per standards notified by Bureau of Indian Standards) and shall be protected to prevent corrosion/damage. The practice to identify the parts of the system that contain gas or liquid and the direction of flow should be followed	Complied. Colour code and labeling available as per IS standard for hazardous chemicals and direction flow marking is also done
39	The industry or isolated storage shall install sensors with alarm system for detecting leakage of hazardous chemicals. Emergency ventilation, electricity tripping system to stop the process, sprinkling system to contain the leaked hazardous chemicals/gases etc. may be interlinked with the sensors for taking a prompt action in case of leakage/emergency	Complied. Sensors with alarm system installed for hazardous chemicals (like Chlorine, VOC) and deluge sprinkler system installed for flammable storage area
40	Suitable gas sensors and alarm system should be installed in the industrial unit/isolated storages at appropriate locations where emission of gas is suspected so that any leaked gas is detected and the employees are immediately alerted. In sensitive areas of the unit where gas leakages are suspected, the unit shall work out an emergency prepared plan to neutralize/vent out the gases safely	Complied. Sensors with alarm system installed hazardous chemicals and connected to control room to alert employees
41	The industries/isolated storages should install automatic alarming system to alert its personnel as well as surrounding localities simultaneously in case of emergency situation and likelihood of emergency situation if any process parameter goes out of control	Complied. Automatic alarming system available to alert in case of emergency related to process
42	There should be auto alarm system to alert the employees in case of any deviations noticed in process parameter that may cause emergency	Complied. Automatic alarming system available for alerting the employees to take appropriate action
43	Only fully trained and qualified operators shall be permitted to operate the industrial processes involving hazardous chemicals. Training to all employees on Standard Operating Procedures, production process, safety aspects etc. should be provided. Refresher trainings should be conducted at	Complied. • Qualified (Master of Science in Chemistry) and trained operators are only allowed to operate industrial processes

	least every year regarding safety and emergency preparedness aspects associated with the industrial process/isolated storage. The employees shall be given hands on experience with the product process under the supervision of senior employees. The industries/isolated storages only after ensuring that adequate training is imparted to its employees should engage the employees for independent works	• SOP, Process and Safety training conducted to employees • Yearly refresher training for emergency responses also given to employees • Mock drills are being carried out periodically
44	The industries and isolated storages should impart regular training to the staff to make them aware about process details, process functionalities. The employees should be trained to deal with emergencies arising out of leakage, abnormal temperature & pressure, increased emissions, pump failures, failure of air pollution control devices or effluent treatment plant, shock loads or any other accidents likely to occur. Overall the industries and isolated storages should be prepared for emergency response readiness & effectiveness in terms of major & minor accidents	Complied. • Regular awareness training given to staff about process detail and its functionalities • Emergency response training is conducted by third party
45	Any non-operational industry/isolated storage shall carry out proper risk study and safety audit before resuming the operations	Various risk studies and safety audits conducted, and all the recommendations are complied
46	Hazard and operability study must be carried out strictly and regularly by the industries and isolated storages. The concerned personnel should be made aware of the hazard and safety aspects associated with the process and material handled by them	Complied. HAZOP (Hazard and Operability) study carried out at regular interval and staffs are made aware of hazard & safety aspects associated with the process
47	The industry/isolated storage should procure chemicals from authorized dealers only. The spent solvents shall be procured from only those industries/solvent recyclers that are authorized by respective State Pollution Control Boards (SPCBs)/ Pollution Control Committees (PCCs)	• Chemicals are procured from authorized dealers only • Spent solvents are not used in our industry at all
48	The industry/isolated storage shall provide essential Personnel Protective Equipment (PPE) to all the concerned employees and make it mandatory that the employees have to wear PPE during working hours	Complied. Mandatory PPE (Safety helmet, Safety shoe and Goggles) and Job specific PPE (Face shield, Gloves, Full body aprons) provided to all the employees
49	Occupational Health surveillance i.e., periodical health check-up of the employees should be conducted by the industries/ isolated storage	Complied. Periodic health check-up conducted to all the employees
50	The industries/isolated storages have to ensure self-compliance regarding recruiting competent staff, imparting Industrial, Environmental and Safety training to the staff, conducting safety audit, onsite emergency plans with record maintenance and information to SPCB/PCCs/Concerned Authorities	Complied. Self-compliance audit conducted internally, and information shared to the concerned authorities for taking action towards improvement
51	The distancing criteria for storage of hazardous chemicals have to be followed as per extant safety guidelines/rules. The chemicals should be stored as per compatibility and separate area for flammable, corrosive, explosive and toxic chemicals should be earmarked	Complied. Hazardous chemicals storage area designed as per chemical compatibility matrix

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52	The labelling of hazardous chemical storing containers shall be as per extant rules. The concerned employees should be made aware of the risks associated with the stored hazardous chemicals and appropriate precautions that need to be taken	Complied. NFPA labeling made available for all chemical storage containers
53	To contain any spillage or leakage of hazardous chemicals or any uncontrolled reaction that may cause any emergency or accident, the industries/isolated storages should have sufficient stock of neutralizing chemicals, absorbents, reaction quenchers with proper equipment and trained manpower	Complied. • Adequate neutralizing chemicals are available for quenching spill or leak of hazardous chemicals • Well trained manpower available to contain the spill or leak
54	Emergency ambulance services should be arranged in the industrial zones along with experienced doctors and paramedic staff	Complied. We wish to inform your good office that we have dedicated ambulance and fully equipped OHC with experienced doctor and paramedic staff in our factory
55	Safety in operation greatly depends on proper commissioning of an industry/isolated storage and hence utmost care should be taken to monitor every aspect during erection and maintenance schedules or other areas which require proper planning	Agree to comply for every aspect of erection and maintenance schedules
56	The industries/isolated storages shall ensure that their premises should be constructed in accordance with the local government regulations	Complied. All our constructions are in accordance with the local government regulation
57	A control room to deal with the emergencies should be commissioned by the industries/isolated storages. A quick response team of responsible officers should be constituted having duly assigned duties to be executed during emergencies	Complied. • Control room available to deal with emergencies • Response team is available as per our On-Site emergency plan
58	The industry/isolated storage should conduct public awareness programmes in the surrounding localities about do's & don'ts during emergency situations on annual basis	Several industrial emergency awareness program has been conducted to the surrounding communities
59	'Mutual Aid Scheme' among industries to meet required response measures during chemical emergencies should be adopted	Complied. Our industry has signed 'Mutual Aid Agreement' with nearby industries
60	Emergency contact numbers should be readily available at the isolated storages or industrial installations similar to 'Crisis Alert System' or Red Book	Emergency contact numbers of displays is available in predominant locations of our factory
61	Placing/indicating hazard signs at appropriate places in the isolated storage or industry or outside the shop floor (within the premises) should be done	Cautionary notices in English and local languages are displayed in appropriate locations of our factory
62	Increased automation that avoids physical handling of dangerous chemicals and substances should be brought into practice	Complied. In our plant maximum possible areas are fully automated and there is very few manual operations in our activities
63	The industry/isolated storage should have proper firefighting arrangements in accordance with The Factories Act, 1948/ applicable extant laws	In our factory we have micro-processor based automatic fire fighting facility in accordance with applicable rules/laws
64	All emergency valves and switches and emergency handling facilities should be easily accessible	Complied. In our factory all emergency valves,

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		switches and emergency handling facilities are located in easily accessible areas
65	Safety audit reports shall be made online for public	Agree to comply by accessing public through our website
66	To ensure safety during operation/handling/storage of hazardous chemicals, the industries/isolated storages wherever and as applicable, shall obtain requisite clearances from The Chief Inspector, Factories and Boilers/Department of explosives/Fire Department etc. without fail	The factory is in operation for several years now and necessary details pertaining to safety during operation/ handling/storage of hazardous chemicals and its hazards have been informed to The Chief Inspector, Factories and Boilers/Department of Explosives/Fire Department etc. and necessary clearance received
67	The industries isolated storages shall ensure that the effluent generated during any accident because of firefighting/ decontamination activities etc. should be disposed in scientific manner after proper treatment. The hazardous wastes generated after any accident must be disposed in accordance with the extant rules	• In our plant we have a state-of-the-art Effluent Treatment Plant (ETP) and facility available to divert all used firefighting/contaminated water to ETP & is treated in a scientific manner • Hazardous waste generated is disposed of to authorized people as per State Pollution Control Committee
68	Occupiers of storage installations like warehouses/tank farms are required to prepare an On-Site Emergency Plan and make available information regarding any possible off-site consequences to the District Collector to enable him to include the same in the Off Site Emergency Plan for the district or the particular area	Possible emergencies that could occur in our storage installations like warehouses/tank farms are identified and same as incorporated in onsite emergency plan/Offsite emergency plan. List of emergencies and plans to meet them and same has already submitted to district crisis group authorities
69	In order to avoid accidents, the following measures may be taken while establishing a warehouse/tank-farm. These should also be carried out in existing installations to enhance safety: i. Hazardous chemical storages should be located away from densely populated areas from drinking water sources, water bodies or from areas liable to flooding ii. The location should have easy access for transport and emergency services iii. Adequate emergency requirements like water for firefighting, drainage to prevent ground water contamination, standby source of electricity etc. should be provided iv. The layout of warehouses should be designed in accordance with nature of materials to be stored. The construction material should be non-flammable v. Floors should be impermeable to liquids and should be designed for easy cleaning vi. Drains should not be connected directly to water ways or	Complied. The factory is in operation for several years now and our plant has designed considering all said Environment Health & Safety requirements. Company has been certified for ISO 45000 towards Safety & Occupational health & ISO 14000 for Environmental Management

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	public sewers. The drains should be connected to an interceptor pit vii. Proper embankments to contain any accidental spillage should be provided for all hazardous materials storages viii. Loading and unloading operations are to be done with utmost care ix. Procedure for receipt, despatch and transport should be clearly laid down x. Details of hazardous chemicals, access and escape routes, available emergency & firefighting equipment should be available xi. In addition to a storage plan, a safe operation of a storage facility should have planning for safety training, personal protective clothing and equipment, spillages and leaking containers, waste disposal, first aid, fire detection and protection equipment, environment protection, proper on site emergency plan etc.	
70	Wherever applicable, the industries or the isolated storages shall invariably comply with the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 (as amended), The Major Accident Hazard Control Rules, 1997, The Factories Act, any other applicable rules or guidelines issued by the respective Government of State/Union Territory, The Ministry of Labour & Employment, Petroleum and Explosive Safety Organization, Oil Industry Safety Directorate etc.	All activities related to our industry are complying with the MSIHC Rules, 1989 (as amended), The Major Accident Hazard Control Rules, 1997, The Factories Act, and all other applicable rules or guidelines issued by the respective Government of State/Union Territory, The Ministry of Labour & Employment, Petroleum and Explosive Safety Organization, Oil Industry Safety Directorate etc.
B. Guidelines on the On Site Emergency Plans (for industries and isolated storages):		
1	The occupier of an industrial activity/isolated storage shall prepare and keep up-to-date an on-site emergency plan containing details specified in Schedule 11 of the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 (as amended) detailing how major accidents will be dealt with on the site on which the industrial activity is carried on and that plan shall include the name of the person who is responsible for safety on the site and the names of those who are authorized to take action in accordance with the plan in case of an emergency	Complied. On Site Emergency Plan is periodically reviewed and required details are mentioned appropriately
2	The occupier shall ensure that the emergency plan prepared takes into account any modification made in the industrial activity/isolated storage and that every person on the site who is affected by the plan is informed of its relevant provisions	If any modification made in our factory, emergency preparedness plan is reviewed and same is communicated through a proper training to all workers in the factory
3	The occupier shall prepare the emergency plan in the case of a new industrial activity or isolated storage, before that activity is commenced	No new industrial activity or isolated storage were done recently. However, when there is any new industrial activity or isolated storage, emergency preparedness plan will be reviewed

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4	The occupier shall conduct a mock drill of the on-site emergency plan every six months and a detailed report of the mock drill conducted shall be made immediately available to the concerned authorities as and when demanded	We wish to inform your good office that the Mock Drill is conducted once in three months and its outcomes are submitted to Inspector of Factories, Karaikal
5	With every change or modification made in a factory, operation or process, the on-site emergency plan may have to be modified and updated to keep it meaningful and effective. An on-site emergency plan should contain the following key elements: i. basis of the plan and hazard analysis ii. accident prevention procedure/measures iii. accident/emergency response procedure/measures and iv. recovery procedure Proper planning by industries/isolated storages helps in reducing the chances of accidents. For proper planning, the following needs to be considered: i. risk associated with the process technology ii. safety measures iii. siting and layout of industry/isolated storage iv. emergency preparedness and v. compliance with the regulatory requirements Assessing the hazard potential of an installation is the first step in planning for emergencies. Preliminary Hazard Analysis which comprises hazard identification and vulnerability analysis should always be carried out at the conceptual stage for all installations including small and medium installation. However, Major Accident Hazard (MAH) installations, both existing and proposed ones, should carry out a risk analysis. <u>Hazard Analysis:</u> Hazard analysis is a critical component in planning for emergencies. To analyse the safety of a major installation as well as its potential hazards, a hazard analysis should be carried out covering the following areas: i. The toxic, reactive, explosive or flammable substance in the installation that constitute a major hazard ii. The failures or errors that may cause abnormal conditions leading to a major accident iii. The consequences of a major accident for the workers, people living or	• On Site Emergency Plan is reviewed during any modification in factory and for any changes in process/operation • During revision of our Onsite Emergency Plan, all said key elements are captured

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	working outside the installation and the environment iv. Preventive measures for accidents v. Mitigation of the consequences of an accident Vulnerability Analysis: Considering the maximum loss scenario e.g. catastrophic vessel rupture, the occupier may estimate the vulnerable zone or the zones which will be affected by the release of hazardous chemicals. It should be borne in mind that every effort should be made to confine the vulnerable zone within the factory premises. In order to achieve this, the following could be adopted: i. Reduce the quantity of hazardous substances stored ii. Split the hazardous storages into number of smaller ones iii. Isolate the storages that might lead to cascading effect iv. Substitute extremely hazardous substances with less hazardous substance Risk Analysis: Risk analysis can provide a relative measure of the likelihood and severity of various possible hazardous events and enable the emergency plan to focus on the greatest potential risks. Risk analysis involves an estimate of the probability or likelihood that an event will occur	
E. Guidelines on Safety Audit:		
1	The safety audits should be conducted by the competent agency to be accredited by an Accreditation Board to be constituted by the Ministry of Labour and Employment, Government of India in this behalf and in absence of such Accreditation Board by a competent agency approved by Chief inspector of Factories	Complied. External safety audit is conducted by a third-party auditor approved by Ministry of Labour and Employment of India or by a competent agency approved by Chief Inspector of Factories
2	The qualifications and experience of safety auditor should be as per extant rules	We wish to inform your good office that the safety auditor qualifications and experience is followed as mentioned in rules
3	The safety auditor carrying out the safety audit under Rule 10 of the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 (MSIHC Rules, 1989) shall bring out the status of compliance by the occupier in his safety audit report in addition to the compliance of provisions of the MSIHC Rules, 1989 (as amended from time to time) and the state CIMAH Rules. A copy of the safety audit report to be forwarded by the safety auditor to the concerned authority as identified under schedule 5 of the MSIHC Rules, 1989	Agree to comply
4	The audit should be carried out as per IS 14489:2018 – Code of Practice on Occupational Safety & Health Audit (as amended time to time)	Complied. External safety audit is carried out as per IS 14489:2018 – Code of Practice on Occupational Safety & Health Audit only
5	The broad areas to be covered in the Safety Audit should be: i. Occupational Health and Safety Management	All the scopes said in the rules are captured in our external safety audit

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	ii. Physical, Mechanical and Electrical Hazards and their Control Measures iii. Chemical Hazards and their Control Measures iv. Fire and Explosion Hazard and their Control Measures v. Industrial Hygiene/Occupational Health vi. Accident/Incident Reporting, Investigation and Analysis vii. Emergency Preparedness (On-Site/Off Site) viii. Safety Inspection	
6	The Objectives of Safety Audit should be: i. To examine the existing procedures, system and control measures for hazards ii. To assess the adequacy of hazard identification iii. To identify potential hazards not covered by the existing safety systems, procedures and practices iv. To identify the adequacy of the control measures put in place by the occupier v. To bring out any deviation from the set procedures and statutory noncompliance vi. To recommend improvements for better effectiveness of the existing safety system, procedures & practices and also other measures of hazards control vii. To recommend system, procedure and control measures for identified hazards viii. To study compliance with statutory provisions and relevant codes of practice and recommend actions to be taken, wherever there is noncompliance ix. To identify the compliance with the provisions under these guidelines	Complied. All the Objectives of the Safety Audit is full filled in our external safety audit

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