



Tamilnadu Petroproducts Limited

Ref: TPL – HCD/ 2024/EC Comp/03

8th May- 2024

The Director (S)
Ministry of Environment, Forest & Climate Change
Integrated Regional Office
First Floor, Additional Office Block for GPOA
Shastri Bhawan, Haddows Road,
Nungambakkam,
Chennai – 600 006.

Dear Sir,

Sub: TPL – HCD Plant – Environmental Clearance (EC) – Six Monthly Compliance Report – Oct 2023 to Mar-2024 - reg.

Ref: F.No. J-11011/20/99-IA-II(I) dated 18.09.2023

This has reference to the Environmental Clearance (EC) obtained from MoEF&CC, New Delhi for Expansion of Caustic Soda production capacity from 150 TPD to 250 TPD by bipolar membrane cell process in the existing Heavy Chemicals Division Plant (HCD Plant) at Manali, Chennai.

We herewith attach the EC compliance status report for the period from October 2023 to March 2024 for your kind reference.

Thanking you,

Yours faithfully,
For Tamilnadu Petroproducts Limited

V.S. Prakash Kumar

V.S. Prakash Kumar
DGM – Operations



Regd. Office & Factory :
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Tel. : (0091) - 44 - 25945500 to 09 Telefax : 044-2594 5588
Website : www.tnpetro.com CIN : L23200TN1984PLC010931
TPL GSTIN : 33AAACT1295M1Z6

Environmental Clearance Compliance Status Report

For the period from Oct-2023 to Mar-2024.

Environment Clearance Compliance Status

Ref: No. J-11011/20/99-IA-II(I) dated 18.09.2023.

(A) Specific Condition

S.No	Condition	Compliance Status
1	The directions issued in the Judgement dated 20.07.2023 by the Hon'ble NGT in O.A. No. 256/2020 shall be strictly complied and the compliance to each of the direction shall be submitted to the IRO, MoEF&CC along with the six-monthly reports	Being complied Compliance status of the O.A. No. 256/2020 judgement directions by the Hon'ble NGT has been fulfilled and the same has been submitted to IRO, MoEF&CC along with the six-monthly reports
2	Adequate stack height as per CPCB/SPCB guidelines shall be provided. Stack emission levels shall be stringent than the existing standards in terms of the identified critical pollutants	Complied Adequate stack height of all point sources of emissions ensured as per CPCB/SPCB guidelines and emission levels being maintained within the existing standards.
3	CEMS shall be installed and connected to SPCB/CPCB Server.	Complied Continuous Emission Monitoring System already installed. And OCEMS data is being uploaded continuously in TNPCB / CPCB server.
4	Effective fugitive emission control measures shall be adopted in the process, transportation, packing etc.	Being complied The following measures are being taken by the industry to control the fugitive emissions. <ul style="list-style-type: none"> • Regular preventive maintenance of equipment, effective plant operation and continuous monitoring are being carried out. Records are being maintained. • Chlorine detectors are installed at chlorine handling areas for monitoring and to take immediate corrective and preventive actions. • Chemicals used in the manufacturing process are stored in closed shed. • Preventive maintenance of pumps, valves, pipelines is being carried out periodically. • To eliminate leakage & to ensure maximum sealing safety, double

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		<p>mechanical seals are provided in Pumps, based on Hazardous service applications.</p> <ul style="list-style-type: none">• 1 Number of Continuous Ambient Air Quality Monitoring Station is provided to monitor Chlorine, HCl Vapour and Ammonia and monitoring data is connected to CPCB/TNPCB.																				
5	Fuel (R - LNG) shall be transferred through pipeline from IOCL. Raw material and products shall be transported through dedicated road tankers, Raw material Common salt shall be shipped and transported by sea, and majority quantity of gaseous chlorine shall be transferred through pipeline	<p>Complied</p> <p>Fuel (R - LNG) is received through a pipeline from IOCL. Raw material and products are transported through dedicated road tankers. Raw material Common salt is shipped by sea, and the gaseous chlorine is transferred through pipeline.</p>																				
6	Regasified Liquefied Natural Gas / Hydrogen shall be used as fuel in Boiler.	<p>Complied</p> <p>We switched over from Fuel Oil (FO) to cleaner fuels for Boiler i.e., R-LNG / Hydrogen since 2019.</p>																				
7	The best available technology shall be used and as committed by the PP, Caustic soda shall be manufactured through latest energy efficient bipolar membrane cell technology	<p>Shall be complied</p> <p>Caustic soda manufacturing shall be carried out by using latest energy efficient bipolar membrane cell technology</p>																				
8	The PP shall develop greenbelt over an area of at least 14 acres (42.18% of total land area) by planting approx. 7000 numbers of saplings within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1 st July of every year for the activities carried	<p>Being complied</p> <p>Green belt development details</p> <table><tr><th>Sl.No</th><th>Green belt details</th><th>Area in Acres</th><th>% of green belt area</th><th>No of trees</th></tr><tr><td>1</td><td>Green belt within the plant premises</td><td>5.00</td><td>15.06</td><td>5000</td></tr><tr><td>2</td><td>Green belt adjacent to the premises – *Polymer plant</td><td>9.00*</td><td>27.11</td><td>9000</td></tr><tr><td>3</td><td>Total green belt area</td><td>14.00</td><td>42.18</td><td>14000</td></tr></table>	Sl.No	Green belt details	Area in Acres	% of green belt area	No of trees	1	Green belt within the plant premises	5.00	15.06	5000	2	Green belt adjacent to the premises – *Polymer plant	9.00*	27.11	9000	3	Total green belt area	14.00	42.18	14000
Sl.No	Green belt details	Area in Acres	% of green belt area	No of trees																		
1	Green belt within the plant premises	5.00	15.06	5000																		
2	Green belt adjacent to the premises – *Polymer plant	9.00*	27.11	9000																		
3	Total green belt area	14.00	42.18	14000																		

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	out during previous year	<p>1.* The total Green Belt area is 14 Acres (42.18% of Total Land Area), Green Belt area of 5 Acres (15.06%) was developed inside the plant premises and 9 Acres (27.11%) was developed outside the plant premises at TPL-Polymer Plant which is located 250m from the project site.</p> <p>2. Additionally, we have developed a green belt area of around 15.14 acres outside the plant premises at Morai Village, Pandeswaram Village and Grandlyon village, Thiruvallur District during 2022 – 2023. (No. of tree sapling planted– 15000).</p>
9	1400 Nos. of avenue plantation shall develop in highway median nearby plant.	<p>Complied</p> <p>Avenue plantation was developed in highway median.</p>
10	The transportation load on roads shall be within their carrying capacity and adequate width of roads shall be maintained inside the industrial premises.	<p>Complied</p> <p>Sufficient road space is available within the site premises for transportation of loads. The width of existing roads is min 7 m, which is adequate for transportation of loads.</p>
11	Entire liquid Effluent generated shall neutralized with Acid / Alkali and treated effluent shall be utilized in ECH – PO Process. Sludge shall be used as manure for Greenbelt.	<p>Complied</p> <p>We have an adequate effluent treatment plant to treat the effluent and the treated effluent is being utilized in ECH – PO Process. The Sewage water is being treated in combined STP plant and STP sludge is utilized as manure for greenbelt.</p>
12	As committed by the PP, zero liquid discharge shall be ensured.	<p>Complied</p> <p>There is no discharge of treated effluents into the land or any water bodies, both from existing plant and proposed expansion. Entire quantity of treated trade effluent is being recycled and reused in the TPL (ECH PO Plant) which is adjacent to TPL (HCD Plant), as per consent order issued by TNPCB.</p>
13	Online continuous effluent monitoring system (OCEMS) shall be provided for pH, TSS and Flow for Effluent treated water shall be connected to TNPCB and CPCB	<p>Complied</p> <p>Online continuous effluent monitoring system (OCEMS) is provided for monitoring pH, TSS and flow of treated effluent and it is connected to TNPCB & CPCB.</p>
14	The roof top rainwater shall be collected in the existing Rain water harvesting pits is	<p>Being complied</p> <p>The existing rainwater Harvesting facility has</p>

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	2 Nos and 2 Nos of water reservoir 3000 KL (72m x 25m x 1.7m) & 2000 KL (26m x 36m x 2.1m) shall be maintained and used for process purpose. Rain water percolation pit shall be provided to collect rain water from Canteen building for ground water recharge. The PP also proposed to provide roof rain water harvesting facility for 4000 sq.m. which shall be collected in the existing reservoir and will be utilized for process purpose	been maintained and is being ensured that the rain water is collected in 2 Nos of water reservoir 3000 KL (72m x 25m x 1.7m) & 2000 KL (26m x 36m x 2.1m) and it is utilized for process purpose. Rain water percolation pit is also provided to collect the rainwater from the canteen to ensure ground water recharge. We proposed to provide roof rain water harvesting facility for 4000 sq.m. which shall be collected in the existing reservoir and will be utilized for process purpose.
15	4 KLD of sewage shall be treated in Common STP of capacity 160 KLD. Sewage after treatment in STP shall be used for Green Belt.	Shall be complied. The proposed additional sewage effluent will be treated in the existing combined STP which is adequate to treat the additional load, treated sewage effluent will be utilized for green belt.
16	As committed by the PP, no Fly ash, slag, red mud, etc., shall be generated from the plant.	Complied Ensured that no fly ash, slag, red mud, etc., shall be generated from the plant.
17	All the hazardous wastes generated from HCD plant shall be handled and disposed, as per the Authorization obtained from TNPCB	Complied All the hazardous waste generated from the HCD process is being stored at temporary storage area and is transported to approved TSDF/recycler.
18	Monitoring of the compliance of EC conditions shall be submitted with third party audit every year.	Complied Compliance of EC conditions was audited by Third party.
19	As proposed, an amount of ₹2.5 crore shall be allocated towards CER in nearby communities	Being complied. An amount of ₹2.5 crore shall be allocated towards CER in nearby communities.
20	As committed by the PP, industry shall use renewable energy of 8MW from wind energy and 2MW from solar energy within 18 months from the date of EC of the project.	Shall be complied.

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21	As committed by the PP, industry shall use organic waste for the manure preparation and the same shall be used for Greenbelt development	Shall be complied.
22	As committed by the PP, industry shall install roof top solar panel and the power from the same shall be utilized for the plant to facilitate the renewable energy utilisation	Shall be complied.
23	As committed by the PP, Industry shall proceed long term feasibility study for the green hydrogen generation	Shall be complied.
24	A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage whole time director operations- DGM operations- Head Environment- HOD-Tech service- HOD quality Assurance. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1 st July of every year for the activities carried out during previous year.	<p>Being complied</p> <p>A separate Environmental Management cell is available with qualified environmental science personnel.</p> <p>Full-fledged laboratory is available to carryout Environmental Management and Monitoring functions.</p> <p>Safety & health officer as per the qualification given in Factories Act 1948 has been engaged.</p>
25	<p>The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.</p> <p>The budget propose under EMP is ₹285</p>	<p>Being complied</p> <p>All the environmental protection measures and safeguards proposed in the documents submitted to the Ministry is being complied.</p> <p>All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures being implemented.</p>

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	Lakh (Capital cost) and ₹23.5lakhs per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1 st July of every year for the activities carried out during previous year.	Being complied EMP budget annual allocation details shall be intimated and separate account with annual audit details shall be submitted along with proof of implementation to the Regional Office of MoEF&CC.
26	The total water requirement is 1710 m3/day (Existing 1170 m3/day & Proposed 540 m3/day) of which fresh water requirement of 1690 m3/day (Existing 1154 m3/day & Proposed 536 m3/day) will be met from CMWSSB-City Sewage TTRO. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawn only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.	Being complied The proposed water demand will be met through CMWSSB-City Sewage TTRO, we have established the agreement with CMWSSB and committed to use the water within the consented quantity, The TTRO water utilization details shall be submitted.
27	No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.	Complied No banned chemicals/raw materials used in the manufacturing process and always ensured for the adherence of notifications/guidelines issued by Government in this regard.
28	The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.	Being complied Carbon sequestration has been achieved by the greenbelt development. Carbon sequestration and Carbon footprint study was conducted by the NABL accredited lab.

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29	The PP shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608(E), dated 21.7.2010 under the provisions of the Environment (Protection) Rules, 1986	Vide GSR 608(E), dated 21.7.2010 under the provisions of the Environment (Protection) Rules, 1986 is meant for Emission standards for organic chemicals manufacturing Industry. TPL-HCD plant is under category of Chlor-Alkali industry, have complied the chlorine and Hydrochloric acid emission as per the applicable standard.
30	All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996	Complied We have taken all necessary precautions to avoid accidents and we have adequate Onsite emergency plan which is approved by the Directorate of Industrial Health and Safety dept. We have been conducting mock drill once in three months to verify the effectiveness of on-site plan as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996
31	The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.	Organic compounds (VOCs)/Fugitive emissions are meant for organic chemicals manufacturing Industry. TPL-HCD plant is under category of Chlor-Alkali industry However we have complied the chlorine and Hydrochloric acid emission as per the applicable standard.
32	The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.	Being complied We shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal
33	The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.	Being complied The storage of toxic/hazardous raw material being maintained at bare minimum with respect to quantity and inventory as per Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 The inventory quantity and days of storage

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		<p>shall submit to the Regional Office of Ministry and SPCB along with the compliance report.</p> <p>As on April Liquid Chlorine inventory is 300MT</p> <p>And Hydrochloric Acid Inventory is 150MT</p>
34	<p>An occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.</p>	<p>Complied</p> <p>Occupational health centre is available in the site with the following facility.</p> <ul style="list-style-type: none"> • Doctor • Nurse, round the clock. • Ambulance <p>Periodic medical check-up for all employees is being done at regular interval. Records are maintained. The health data is being used in deploying the duties of the employees.</p> <p>Primary Health Care Centres (PHCC) and mobile clinic are provided at nearby villages (Vichoor, Sadayankuppam, Periyasekkadu, Kannampalayam and Seemavaram) to cater to the primary health care needs of the peoples residing nearby areas.</p> <p>Required Personal Protective Equipment (PPEs) are being given to all employees & contractors.</p>
35	<p>Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.</p>	<p>Being complied</p> <p>Training are being imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training also provided through periodic refresh/demonstration kind of programme.</p>
36	<p>The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms</p>	<p>Complied</p> <p>Firefighting system is provided as per the Tamilnadu Factories Rules.</p> <p>Fire hydrant system along with hydrants, fire monitors, portable fire extinguishers, foam pourers, sprinkler system and flame</p>

		detectors, etc are provided in the process as well as in the storage areas for protection of possible fire hazards during manufacturing process in material handling. Fire license obtained from Tamilnadu Fire & Rescue services, Govt. of Tamilnadu. (Renewal Fire license validity is up to 19.09.2024).
37	<p>The solvent management shall be carried out as follows:</p> <p>(a) Reactor shall be connected to chilled brine condenser system.</p> <p>(b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.</p> <p>(c) Solvents shall be stored in a separate space specified with all safety measures.</p> <p>(d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.</p> <p>(e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.</p> <p>(f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation</p>	TPL-HCD plant is under category of Chlor-Alkali industry. we don't have solvents stock/ solvent handling equipment. However, we have provided Proper earthing for all the electrical equipment as we are handling Hydrogen gas in the caustic soda manufacturing.
38	<p>The PP shall undertake waste minimization measures as below.</p> <p>(a) Metering and control of quantities of active ingredients to minimize waste;</p> <p>(b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.</p> <p>(c) Use of automated filling to minimize spillage.</p> <p>(d) Use of Close Feed system into batch reactors.</p> <p>(e) Venting equipment through vapour recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.</p>	Being complied

Environmental Clearance – General Condition

S. No	Condition	Compliance Status
1	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.,	Complied. No further expansion or modification in the plant will be carried out without prior approval of the Ministry of Environment, Forests & Climate Change. in case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference will be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.,
2	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.	Complied.
3	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	Complied Energy efficient LED bulbs are being used for lighting purpose to conserve energy and environment betterment.
4	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources	complied Acoustic hoods, silencers, enclosures, etc., are provided at DG sets to keep the noise level within the prescribed standards. All machineries like blowers, compressors are being maintained properly and

	of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night time).	preventive maintenance are taken as per the schedule to control the noise levels. Ambient noise levels are being monitored periodically through in-house laboratory and TNPCB laboratory.
5	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	<p>Being complied</p> <p>All relevant measures will be taken towards the improvement of socio-economic conditions of the surrounding area.</p> <p>Action plan is prepared to undertake eco-developmental measures including community welfare measures under Corporate Environmental Responsibility (CER) involving local villages and administration in the project area for the overall improvement of the environment. Following community welfare measures are taken under CSR activities.</p> <p>Primary Health Care Centre (PHCC) is provided at following location in Manali area to cater to the primary health care needs of the peoples residing nearby areas.</p> <ul style="list-style-type: none"> • Sadayankuppam, • Vichoor, • Periyasekkadu, • Kannampalayam, • Seemavaram, • Mobile Primary Health Care Centre (Dr. Mobile). <p>Constructed rest rooms in Government schools at following location in, Manali.</p> <ul style="list-style-type: none"> • Government high school at Manali New Town • Government high school at Redhill • Government high school at Vichoor.
6	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of	<p>Being complied</p> <p>Sufficient funds are earmarked towards capital cost and recurring cost per annum to implement the conditions stipulated by</p>

TPL-HCD plant -EC Compliance Report

	Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.	the Ministry of Environment, Forest and Climate Change as well as the State Government and implementation schedule is prepared and being followed. Funds earmarked for environmental management / pollution control measures will not be diverted for any other purpose.
7	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.	Complied No suggestion was received from Panchayat / Municipal corporation urban local body and local NGO while processing the proposal.
8	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the company.	Being complied Six monthly reports on the status of the compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) has been submitted to MOEF Regional Office/ the Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report are uploaded in our company's website (www.tnpetro.com) and will be updated periodically.
9	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC	Complied The environmental statement (Form V) is being submitted to TNPCB once in a year before 30 th Sep every year. Environmental statement (Form V) for the year 2022 – 2023 was submitted to TNPCB on 27.09.2023. The six-monthly compliance status of environmental clearance conditions including results of monitored data is being submitted to MOEF Regional Office through e-mail regularly.

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	by e-mail.	A copy of Form V and six-monthly compliance status of environmental clearance conditions were uploaded in the company's website. (www.tnpetro.com)
10	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/ . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Complied Detail of the Environmental clearance obtained for the project was published in English & Tamil newspapers (The Financial Express and Makkal Kural on 26.09.2023) as public notice advertisements. Advertisements were submitted through mail to the Regional Office,
11	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Shall be complied. The details of date of financial closure, final approval of the project by the concerned authorities and the date of start of the project will be submitted to IRO, MOEFCC
12	This Environmental clearance is granted subject to outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	Noted and shall be complied.





Tamilnadu Petroproducts Limited

Ref: TPL – HCD/EC/2023

05th Oct- 2023

To
The Director
Integrated Regional Office
Ministry of Environment, Forest & Climate Change
First Floor, Additional Office Block
Shastri Bhavan, Haddows Road
Nungambakkam, Chennai – 600 006.

Dear Sir

Sub: TPL-HCD Plant - Intimation of EC granted – Newspaper publication – Reg.
Ref: EC Identification No: EC23A013TN173796 - File No. J-11011/20/99-IA-II(I)
dated 18.09.2023.

We wish to inform you that the Ministry of Environment, Forest & Climate Change (MOEFCC) has granted Environmental Clearance (EC) for the Expansion of Caustic Soda production capacity from 150 TPD to 250 TPD by bipolar membrane cell process in the existing Heavy Chemicals Division Plant (HCD Plant), Manali, Chennai - 600068 vide EC Identification No: EC23A013TN173796; File No. J-11011/20/99-IA-II(I) dated 18.09.2023.

To comply with one of conditions stated in the EC, Public Notice advertisements in English & Tamil were published in the two local newspapers viz 'The Financial Express' and 'Makkal Kural' on 26.09.2023.

Copies of the EC and Public Notice advertisements (English & Tamil) are attached as Annexure for your kind reference and record.

Thanking you

Yours faithfully
For Tamilnadu Petroproducts Limited

D. Senthikumar
Whole Time Director

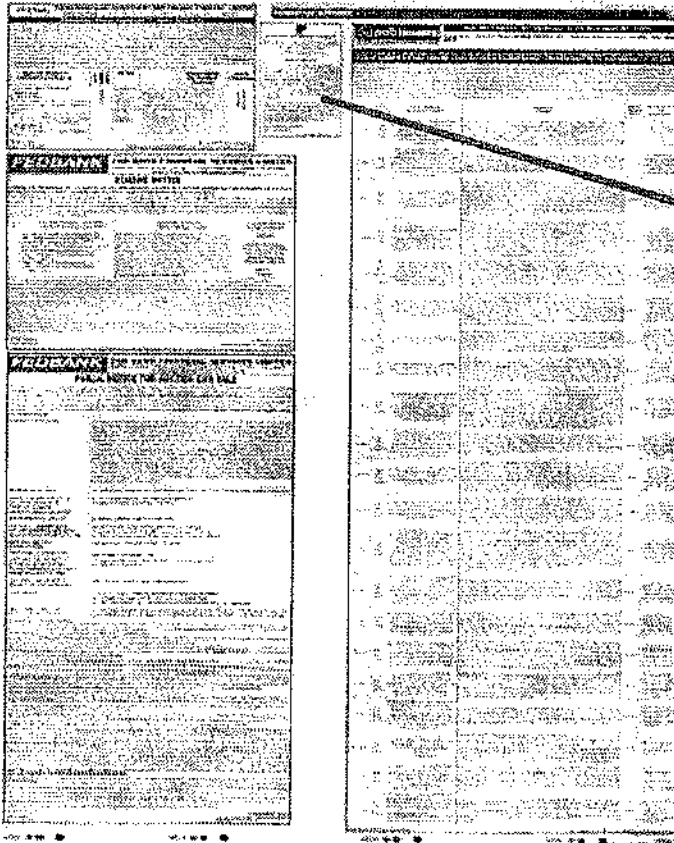


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Website : www.tnpetro.com CIN : L23200TN1984PLC010931

TPL GSTIN : 33AAACT1295M1Z6



English Newspaper-Financial Express dated 26.09.2023.

7 x 4

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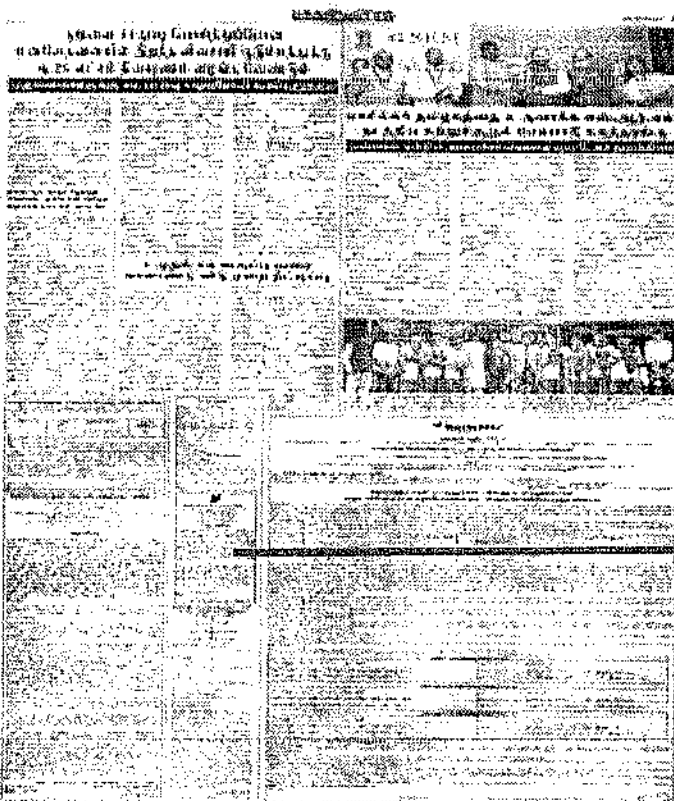
Tamilnadu Petroproducts Limited
 Regd. Office & Factory: Manali Express Highway,
 Manali, Chennai-600 068, Telefax: 044-25945500
 CIN: L23200TN1984PLC010031
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 E-mail: secy-legal@inpetro.com

PUBLIC NOTICE

This is to inform you that the Ministry of Environment, Forest and Climate Change, New Delhi has accorded Environmental clearance for the Expansion of Caustic Soda production capacity from 150 TPD to 250 TPD by bipolar membrane cell process in the existing Heavy Chemicals Division Plant (HCD Plant) Manali, Chennai - 600068 vide their letter No.J-11011/20/99-IA-II(I) dated 18.09.2023.

Copy of the Environmental Clearance letter referred above for the proposed project is available at Tamilnadu Pollution Control Board / Committee, Chennai and can also be seen at website of Ministry of Environment, Forest and Climate Change at <https://parivesh.nic.in>.

Place : Chennai - 600068
 Date : 25.09.2023
 Dy. General Manager - HR



7 x 4

IP

தமிழ்நாடு பெட்ரோபுரடக்ட்ஸ் லிமிடெட்
 பதிவு அலுவலகம் - துறை: மானலி எக்ஸ்பிரஸ் ஹைவே,
 மானலி, சென்னை-600 068
 இடம்: L23200TN1984PLC010031
 தொலைபேசி எண்: 044-25945500
 வலைத்தளம்: www.inpetro.com
 மின்னஞ்சல்: secy-legal@inpetro.com

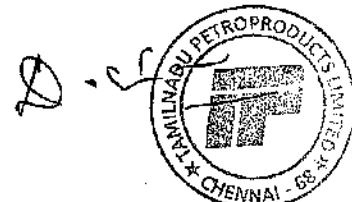
பொது அறிவிப்பு

தமிழ்நாடு பெட்ரோபுரடக்ட்ஸ் லிமிடெட், மானலி, சென்னை 600068ல் அமைந்துள்ள ஹெவ் கெமிக்கல்ஸ் பிரிவு (HCD) ஆலையில் காஸ்டிக் சோடா 150 டன் தின உற்பத்தியிலிருந்து 250 டன் தின உற்பத்தி அளவிற்கு காஸ்டிக் சோடா உற்பத்தி விரிவாக்கத் திட்டத்திற்கு மத்திய சுற்றுச்சூழல், வனம் மற்றும் காப்பாற்றலை மாற்றம் அமைச்சகம், புது தில்லி, சுற்றுச்சூழல் அனுமதி வழங்கியுள்ளது. (J-11011/20/99-IA-II(I) தேதி 18.09.2023).

மேற்படி விரிவாக்கத் திட்டத்திற்கான சுற்றுச்சூழல் அனுமதி கீழ்க்கண்ட தகவல் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம் / கமிட்டி அனுமதி வழங்கியுள்ளது. மேலும் தகவலுக்கான தகவல் மத்திய சுற்றுச்சூழல், வனம் மற்றும் காப்பாற்றலை மாற்றம் அமைச்சகத்தின் இணையதளத்திலும் (<https://parivesh.nic.in>) காணலாம்.

இடம்: சென்னை - 600068
 தேதி : 25.09.2023
 துணை பொது மேலாளர் - மனிதவளம்

Tamil Newspaper-Makkal Kural dated 26.09.2023.



S. No	OA 256-2020 Verdict directions TPL-HCD plant	Compliance Status
1	<p>The Tamil Nadu Pollution Control Board should constitute a dedicated team to monitor the OCEMS data.</p> <p>The industries should also create an internal mechanism to closely monitor the functioning of OCEMS as well as critically analyse the data for immediate corrections and shall submit a monthly analysis report to the Tamil Nadu Pollution Control Board.</p> <p>Senior Officers of TNPCB shall conduct a monthly review with designated officers of major industries in different industrial parks</p>	<p>We will abide by the directions of the dedicated team to be constituted by TNPCB for OCEMS monitoring.</p> <p>OCEMS has been installed in M/s.Tamilnadu Petroproducts Limited (HCD Plant) on 01.09.2015.</p> <p>Internal mechanism is already adopted to closely monitor the functioning of OCEMS as well to critically analyse the data to immediately initiate necessary corrective actions, if required.</p> <p>The monthly report will be submitted to TNPCB on monthly basis.</p> <p>OCEMS data are being uploaded continuously in TNPCB / CPCB server.</p> <p>The Company commits to cooperate and provide necessary support to Senior officers of TNPCB to conduct the meeting and follow up with corrective actions if any during their review.</p>
2	<p>The CPCB should constitute a committee which may also include experts in the field of air pollution as well as water pollution to examine the existing CPCB Protocols for OCEMS and submit revised Protocols to</p>	<p>We cooperate and provide necessary support to CPCB. Once the revised protocol is made available by CPCB, the Company commits to comply with the requirement.</p>

	the Tribunal within a period of 3 (Three) months.	
3	Committee may also suggest the periodicity at which the said sensor / equipment need to be calibrated. Once the periodicity is fixed, a mechanism may be put in place to check whether the calibration of sensors /equipment is being undertaken by the industries as per the timeline fixed, failing which, necessary action may be taken including the imposition of environmental compensation.	<p>Will be complied with the periodicity for calibration of sensors and equipment once the direction is received from the Central / State Pollution control board.</p> <p>Notwithstanding the above, the Analysers which are connected to OCEMS are already being calibrated once in six months</p>
4	The CPCB may constitute a new committee or revive the earlier committee constituted based on directions issued in Original Application No.195 of 2016 (SZ) [Tandur Citizens Welfare Society Vs. Government of Telangana and Ors.] dated 24.08.2021 to once again examine the issue of interlocking/ alerting / alarm systems, considering the advancements in Machine learning and Artificial Intelligence, that will ensure fool proof operations of the OCEMS system.	<p>We cooperate and provide necessary support to CPCB.</p> <p>Based on the recommendations of CPCB committee the Company commits to upgrade the existing OCEMS system to meet the new requirements to ensure fool proof operation of OCEMS.</p>

5	<p>The TNPCB is directed to verify the list of industries which are yet to install the OCEMS system. In case, some of the units have not yet been mandated to install the OCEMS system, the TNPCB is directed to issue instructions to all the units to install the OCEMS system within the shortest possible time, failing which, appropriate action should be taken. The TNPCB is directed to report the reasons for not directing or exempting certain industries from establishing the OCEMS. Failure by TNPCB also would attract fine plus compensation.</p>	<p>OCEMS has already been installed in M/s.Tamilnadu Petroproducts Limited (HCD Plant) on 01.09.2015 and its data are being uploaded continuously in TNPCB / CPCB server.</p> <p>OCEMS data are being uploaded continuously in TNPCB / CPCB server.</p> <p>We will cooperate and provide necessary support to TNPCB.</p>
6	<p>Industries should switchover completely to cleaner fuels including conversion of usage of liquid fuel into gaseous fuels within a stipulated period of time. During the interregnum, the industries may be directed to use low sulphur fuels till the conversion to gaseous fuels is completed</p>	<p>We wish to submit here, we switched over from Fuel Oil (FO) to cleaner fuels i.e., R-LNG / Hydrogen since 2019 other than 2nos. of backup DG which is operating only for 300hrs per year on an average.</p> <p>For 1no of EMDG (500kVA) Retrofitting of Emission control device has already been done and for other EMDG (437kVA) it is planned to install.</p>
7	<p>Industries shall install Flue Gas Desulfurization (FGD) systems wherever it is applicable without fail before the timeline</p>	<p>Flue Gas Desulfurization (FGD) systems are required for the reduction of sulphur emissions in flue gas originating from Equipment using high sulphur fuel.</p> <p>We wish to submit here, we switched over from Fuel Oil (FO) to cleaner fuels i.e., R-LNG / Hydrogen since 2019 other than 2nos. of</p>

	<p>fixed by MoEF&CC without seeking extension of time.</p> <p>All the units having Electrostatic Precipitator (ESP) should upgrade to the latest generation of ESP available today within a reasonable period of time. For the up-gradation, CPCB may provide necessary guidelines.</p>	<p>backup DG which is operating only for 300hrs per year on an average.</p> <p>For 1no of EMDG (500kVA) Retrofitting of Emission control device has already been done and for other EMDG (437kVA) it is planned to be installed in the during commissioning stage of the proposed project.</p> <p>For the proposed project, one additional Gas Engine generator for backup (1 No. of 750kVA) being proposed for which R-LNG will the fuel.</p> <p>The Sox level after expansion has been shown below,</p> <table border="1"> <thead> <tr> <th rowspan="2">S. NO</th><th rowspan="2">Descriptions</th><th>Emission (g/s)</th></tr> <tr> <th>SO2</th></tr> </thead> <tbody> <tr> <td>1</td><td>Before CEPI (Before 2018)</td><td>199.46</td></tr> <tr> <td>2</td><td>After CEPI (After 2018)</td><td>0.0613</td></tr> </tbody> </table> <p>There is no dust collector, cyclone separator or Electrostatic Precipitator (ESP) in plant as the process and utility equipment as there is no requirement.</p>	S. NO	Descriptions	Emission (g/s)	SO2	1	Before CEPI (Before 2018)	199.46	2	After CEPI (After 2018)	0.0613
S. NO	Descriptions	Emission (g/s)										
		SO2										
1	Before CEPI (Before 2018)	199.46										
2	After CEPI (After 2018)	0.0613										
8	Industries shall install latest pollution control measures for reduction of NOx emissions, such as Selective Catalytic Reduction system / Selective Non-Catalytic Reduction system / low NOx burners with Over Fire Air (OFA) system to achieve the NOx emission standards	<p>The Nox level has been shown below,</p> <table border="1"> <thead> <tr> <th rowspan="2">S. NO</th><th rowspan="2">Descriptions</th><th>Emission (g/s)</th></tr> <tr> <th>NOx</th></tr> </thead> <tbody> <tr> <td>1</td><td>Before CEPI (Before 2018)</td><td>30.1</td></tr> <tr> <td>2</td><td>After CEPI (After 2018)</td><td>0.547</td></tr> </tbody> </table>	S. NO	Descriptions	Emission (g/s)	NOx	1	Before CEPI (Before 2018)	30.1	2	After CEPI (After 2018)	0.547
S. NO	Descriptions	Emission (g/s)										
		NOx										
1	Before CEPI (Before 2018)	30.1										
2	After CEPI (After 2018)	0.547										
9	All the industries discharging effluents may be directed by TNPCB to switch over to the ZLD system by granting a reasonable time frame. Only if ZLD systems are not technically feasible,ETPs/CETPs can continue	<p>There is no discharge of treated effluents into the land or any water bodies, both from existing plant and proposed project.</p> <p>Entire quantity of treated trade effluent is being recycled and reused in the TPL (ECH PO Plant) which adjacent to TPL (HCD Plant), as per consent order issued by TNPCB as vide issued under Water Act vide 2208143452729 dated 25/04/2022, valid till 31.03.2024</p>										
10	A committee of experts in CPCB may	We will cooperate and provide necessary support to CPCB.										

meet periodically (preferably once in a quarter) to evaluate the advancements in pollution control equipment, especially those relating to the capture of Particulate Matter (PM), SO ₂ , NO ₂ and other toxic air pollutants. In respect of existing industries, reasonable time may be granted to the industries, taking into account the cost involved and also the compliance status of the industries.	Already, TPL (HCD Plant) has adopted latest available pollution control techniques through retrofitting of Emission control device for EMDG, conversion from FO to cleaner fuel (R-LNG/Hydrogen) in Boiler, Auto Air fuel ratio controller in Boiler, providing appropriate scrubbers in HCL synthesis unit and Waste air Dechlorination plant to ensure HCL and Cl ₂ within a specified limit.																					
	The Particulate Matter (PM), SO ₂ , NO ₂ and other toxic air pollutants level after expansion without APC-Low Nox Burner has been shown below,																					
	<table><tr><th rowspan="2">S.NO</th><th rowspan="2">Descriptions</th><th colspan="3">Emission (g/s)</th></tr><tr><th>PM</th><th>SO₂</th><th>NO_x</th></tr><tr><td>1</td><td>Before CEPI (Before 2018)</td><td>3.1</td><td>199.46</td><td>30.1</td></tr><tr><td>2</td><td>After CEPI (After 2018)</td><td>0.038</td><td>0.0613</td><td>0.547</td></tr></table>	S.NO	Descriptions	Emission (g/s)			PM	SO ₂	NO _x	1	Before CEPI (Before 2018)	3.1	199.46	30.1	2	After CEPI (After 2018)	0.038	0.0613	0.547			
	S.NO			Descriptions	Emission (g/s)																	
		PM	SO ₂		NO _x																	
	1	Before CEPI (Before 2018)	3.1	199.46	30.1																	
	2	After CEPI (After 2018)	0.038	0.0613	0.547																	
	Low NOx burners will be installed in boiler, which will further reduce the Nox level.																					
	Retrofitting of Emission Control Device has been done for 1no of EMDG (500kVA) and is planned for another EMDG (437kVA).																					
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1	Before CEPI (Before 2018)	3.1	199.46	30.1																		
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The emission levels of the other air pollutants are given in the table below.																						
<table><tr><th rowspan="2">S. NO</th><th rowspan="2">Descriptions</th><th colspan="4">Emission (g/s)</th></tr><tr><th>CO</th><th>Cl</th><th>HCl</th><th>NH₃</th></tr><tr><td>1</td><td>Before CEPI (Before 2018)</td><td>3.94</td><td>0.0006</td><td>0.0007</td><td>0.0011</td></tr><tr><td>2</td><td>After CEPI (After 2018)</td><td>0.213</td><td>0.0006</td><td>0.0007</td><td>0</td></tr></table>	S. NO	Descriptions	Emission (g/s)				CO	Cl	HCl	NH ₃	1	Before CEPI (Before 2018)	3.94	0.0006	0.0007	0.0011	2	After CEPI (After 2018)	0.213	0.0006	0.0007	0
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1	Before CEPI (Before 2018)	3.94	0.0006	0.0007	0.0011																	
2	After CEPI (After 2018)	0.213	0.0006	0.0007	0																	
The Company commits to upgrade the pollution control equipment time to time as proposed by the TNPCB committee.																						

11	The committee should also examine the technological advancements which are in place in other countries like installing air purifiers centrally in industrial areas as well as in urban pockets with heavy vehicular populations to reduce the pollution load.	We will cooperate and provide necessary support to CPCB/TNPCB. The industry commits to support the committee and strive to reduce the pollution load wherever possible.																											
12	The Expert Committee of CPCB to come out with stricter pollution norms for the industries to be established in areas earmarked for Industries as against the general norms for the establishment of industries in areas without or with only one or two industries in an area about the size of industrial parks. In respect of new Parks to be established the CPCB may also prescribe a buffer zone around the Industrial Area/Park. The CPCB and the SPCBs should work out special norms in industrial areas factoring in vehicular pollution, fugitive emissions, flare gas emissions and also a need for having higher stack height even for non-thermal power plants	<p>Direction issued under the scope of CPCB.</p> <p>Vehicular pollution</p> <p>Expected emission levels viz. Particulate Matter (PM), NO₂ and CO considering additional vehicular movement after expansion, has been shown below,</p> <table><tr><th rowspan="2">S. no</th><th rowspan="2">Type of Vehicle</th><th rowspan="2">No. of Vehicle</th><th colspan="3">Emission(g/s)</th></tr><tr><th>PM</th><th>NOX</th><th>CO</th></tr><tr><td>1</td><td>Raw material Truck</td><td>6</td><td>0.000133</td><td>0.00613</td><td>0.0533</td></tr><tr><td>2</td><td>Product Truck</td><td>5</td><td>0.000111</td><td>0.00511</td><td>0.0444</td></tr><tr><td colspan="3">Total(g/s)</td><td>0.00024</td><td>0.0112</td><td>0.0978</td></tr></table> <p>Fugitive emissions:</p> <p>The following measures are being taken by the industry to control the fugitive emission.</p> <p>Existing:</p> <ul style="list-style-type: none">• Regular preventive maintenance of equipment, effective plant operation and continuous monitoring are being carried out. Records are being maintained.• Chlorine and Ammonia detectors are installed at chlorine and ammonia handling areas for monitoring and to take immediate corrective and preventive actions.• Chemicals used in the manufacturing process are stored in closed shed.• Preventive maintenance of pumps, valves, pipelines is carried out periodically.• To eliminate leakage & to ensure maximum sealing safety, double mechanical seals are provided in Pumps, based on Hazardous service applications.• 1 Number of Continuous Ambient Air Quality Monitoring Station is provided to monitor Chlorine, HCl Vapour and	S. no	Type of Vehicle	No. of Vehicle	Emission(g/s)			PM	NOX	CO	1	Raw material Truck	6	0.000133	0.00613	0.0533	2	Product Truck	5	0.000111	0.00511	0.0444	Total(g/s)			0.00024	0.0112	0.0978
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		Ammonia and monitoring data is connected to CPCB/TNPCB.																																												
13	The CPCB should re-examine the norms for the stack height for all point sources of emissions whether significant or not to ensure that they are designed according to the Good International Industry Practice (GIIP). The stack height should be established with due consideration to emissions from all other project sources both point and fugitive. Projects which have potentially significant fugitive sources of emissions can be directed to have special measures to reduce the same	<p>The stack height of all point sources of emissions have been given below, which meets present CPCB Standards.</p> <table><tr><th>S. NO</th><th>Point Source of emission</th><th>Actual Stack Height (m)</th><th>CPCB Norms (m)</th></tr><tr><td>1</td><td>Fusion Plant</td><td>25</td><td>Above building height</td></tr><tr><td>2</td><td>Boiler 4 TPL + 9TPH</td><td>33</td><td>30</td></tr><tr><td>3</td><td>EMDG 500 kVA</td><td>8</td><td>7.47</td></tr><tr><td>4</td><td>EMDG 437 KVA</td><td>8</td><td>7.18</td></tr><tr><td colspan="2">Process stack</td><td></td><td></td></tr><tr><td>5</td><td>WAD</td><td>16</td><td>Above building height</td></tr><tr><td>6,7</td><td>HCl - Unit 1 & 2</td><td>18</td><td>Above building height</td></tr><tr><td>8</td><td>HCl - Unit 3</td><td>18</td><td>Above building height</td></tr><tr><td>9</td><td>Hydrogen Plant</td><td>12</td><td>Above building height</td></tr><tr><td>10</td><td>Fusion Plant</td><td>20</td><td>Above building height</td></tr></table> <p>The industry commits to make necessary improvements as suggested by CPCB, in future.</p>	S. NO	Point Source of emission	Actual Stack Height (m)	CPCB Norms (m)	1	Fusion Plant	25	Above building height	2	Boiler 4 TPL + 9TPH	33	30	3	EMDG 500 kVA	8	7.47	4	EMDG 437 KVA	8	7.18	Process stack				5	WAD	16	Above building height	6,7	HCl - Unit 1 & 2	18	Above building height	8	HCl - Unit 3	18	Above building height	9	Hydrogen Plant	12	Above building height	10	Fusion Plant	20	Above building height
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14	We also notice from the reports of the Joint Committee and Tamil Nadu Pollution Control Board that there are certain gaps in the pollution control measures adopted by the six industries and certain directions were issued by the	Joint committee suggestions compliance status was complied.																																												

	<p>Tamil Nadu Pollution Control Board to the respective industries along with certain suggestions for improvement. We do not wish to repeat those directions and suggestions, except to state that the Tamil Nadu Pollution Control Board should fix a specific deadline for compliance with the directions and adoption of the suggestions. The Tamil Nadu Pollution Control Board should file a periodical compliance report once in 6 (Six) months before this Tribunal</p>	
15	<p>The environmental compensation imposed following due process should be collected and utilized by the Tamil Nadu Pollution Control Board for the conversion of the existing roads in the Manali Industrial areas into concrete roads to minimize the dust emissions from the vehicular population</p>	<p>We are meeting the requirements with respect to emission and effluent treatment and reuse and Environmental compensation has not been demanded from TPL- HCD plant.</p>
16	<p>We are of the view that in areas where multiple industries are established, the CPCB may consider</p>	

	increasing the requirement of greenbelt area and increasing the density of tree population. In case of constraints of land, the industries may be permitted to create greenbelt in the areas adjacent to the industries including in private lands. However, it should be made mandatory that the periphery of the industries have a thick green cover with the tallest growing native trees	<p>HCD plant green belt details: Green belt details is attached as Annexure-13,13A</p> <table><tr><th>S.No</th><th>Green belt details</th><th>Area in Acres</th><th>% of greenbelt area</th><th>No Of trees</th></tr><tr><td>1</td><td>Green belt within the plant premises</td><td>5</td><td>15.06</td><td>5000</td></tr><tr><td>2</td><td>Green belt adjacent to the premises – *Polymer plant</td><td>9*</td><td>27.11</td><td>9000</td></tr><tr><td>3</td><td>Total green belt area</td><td>14</td><td>42.18</td><td>14000</td></tr></table>	S.No	Green belt details	Area in Acres	% of greenbelt area	No Of trees	1	Green belt within the plant premises	5	15.06	5000	2	Green belt adjacent to the premises – *Polymer plant	9*	27.11	9000	3	Total green belt area	14	42.18	14000
S.No	Green belt details	Area in Acres	% of greenbelt area	No Of trees																		
1	Green belt within the plant premises	5	15.06	5000																		
2	Green belt adjacent to the premises – *Polymer plant	9*	27.11	9000																		
3	Total green belt area	14	42.18	14000																		
17	We also direct that TNPCB/CPCB should also mandate that industrial parks/areas shall have only concrete roads with three to four rows of tree plantations to act as a buffer for trapping air pollutants	We will abide and support.																				
18	It is recommended to create a corpus fund which shall consist of deposit of minimum 01% of the annual turnover from all the companies located in the Manali complex for the restoration of any affected area after the orders passed by the Tribunal. The said corpus fund shall be	<p>The industry agrees for the proposal. However, the creation of funds and modality of utilising the fund are to be frozen by Chief Secretary, Govt of Tamilnadu and Other Govt officials.</p> <p>The industry commits to abide by the requirements once the Corpus fund is created and procedures developed.</p>																				

	<p>operated jointly by the Chief Secretary, Government of Tamil Nadu and the Additional Chief Secretary, Department of Environment, Forest and Climate Change and shall utilise for restoration of the environment and for constructing RCC roads in the entire affected area as per the decision taken by the said Committee. The said fund may be called as „Manali Environmental Relief Fund”.</p>	
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TAMILNADU POLLUTION CONTROL BOARD

District Environmental Laboratory, Manali

From

To

Dr. P. Vijayalakshmi, M.Sc., Ph.D.,
Deputy Chief Scientific Officer,(Adl Charge)
District Environmental Laboratory, Manali
Tamil Nadu Pollution Control Board,
950/1, Poonamallee High Road,
Arumbakkam,
Chennai-106

M/s. TPL (HCD),
Manali Express Highway,
Manali,
Chennai – 600 068.

Lr.No.TNPC Bd/DEL-MNL/Air Survey/F. No.73/2023-24, Dt. 22.12.2023

Sir,

Sub: Furnishing of Report of Analysis of Ambient Air Quality /
Stack Monitoring / Ambient Noise Level Survey – Reg.

Ref: 1. This office Lr.No. TNPCB/DEL/MNL/AAQS/SM/NLS/F.No.73/2023-24 dt. 07.08.2023
2. Your Lr.No.Nil dt. 29.08.2023
3. Cash Receipt No.251 dt.01.09.2023 Rs.1,27,200/-

I am herewith sending the Report of Analysis of Ambient Air Quality / Stack Monitoring / Ambient Noise Level Survey conducted in the vicinity of your industry on **M/s. TPL (HCD)**, Manali Express Highway, Manali, Chennai – 68 on **12.10.2023** with invoice for Rs.1,27,200/- (Rupees One lakh Twenty Seven Thousand and Two Hundred only) towards the above survey / analytical charges, and the same has been adjusted vide reference (3) cited.

Kindly acknowledge the receipt of the above without fail.

[Handwritten Signature]

Deputy Chief Scientific Officer(A/C)
District Environmental Laboratory
Tamil Nadu Pollution Control Board
Manali

Encl.: As above.

Copy submitted to:

1. The Joint Chief Environmental Engineer (M), TNPC Bd, Chennai for favour of kind information please.
2. The District Environmental Engineer, TNPC Bd, Ambattur for favour of kind information please.
3. Copy to file.



TAMIL NADU POLLUTION CONTROL BOARD

District Environmental Laboratory, Manali

AMBIENT AIR QUALITY SURVEY – Report of Analysis

Report No. 40/AAQS/2023-24

Date: 22.12.2023

1. Name of the Industry : M/s. TPL (HCD),
2. Address of the Industry : Manali Express Highway, Manali, Chennai - 68.
3. Date of Survey : 12.10.2023
4. Duration of Survey : **8 Hours** / 24 hours
5. Category : **Red** / Orange / Green – **Large** / Medium / Small
6. Land use classification : **Industrial** / Commercial / Residential / Sensitive

Meteorological Conditions

Ambient Temperature ($^{\circ}$ C)	Min	Max	Relative Humidity (%)	Min	Max
	28	32		70	84
Weather Condition	Partially Cloudy		Rain Fall (mm)	Nil	
Predominant Wind Direction	SE-NW		Mean Wind Speed (km/hr)	11	

Ambient Air Quality Survey Results

Sl. No.	Location	Direction *	Distance (m) *	Height Form GL (m)	Pollutants Concentration (microgram / m ³)				
					PM 2.5	PM 10	SO ₂	NO ₂	Cl ₂
1	On top of platform adjacent to Canteen	NE	100	3.0	--	78	13	17	<0.1
2	On top of platform near CPP	E	50	3.0	--	74	11	15	< 0.1
3	On top of platform near salt yard (Gate No 5)	SE	100	3.0	20	60	10	12	< 0.1
4	On top of CP station – platform near scarp yard	SW	100	3.0	--	72	12	16	< 0.1
5	On top of platform near NaOH Tank	W	75	3.0	--	75	11	16	<0.1
6	On top of the fire hydrant pump house	NW	100	4.0	38	82	15	24	< 0.1

Note: * With respect to major emission sources. The analytical results are restricted to the sampling period of **8 hrs/24hrs**

P. S. S. S. S.
Deputy Chief Scientific Officer(A/C)
District Environmental Laboratory
Tamil Nadu Pollution Control Board
Manali

Test Performed	Test Method
PM10	IS 5182 : (Part 23) – 2006
SO2	Modified West – Gaeke / IS 5182 : (Part 2) – 2001 RA: 2012
NO2	Jacobs – Hochheiser / IS 5182 : (Part 6) – 2006 RA:2012



TAMILNADU POLLUTION CONTROL BOARD

District Environmental Laboratory, Manali

AMBIENT AIR QUALITY SURVEY

Schematic Diagram Showing Location of Sampling

Report No. 40/AAQ/SM/2023-24

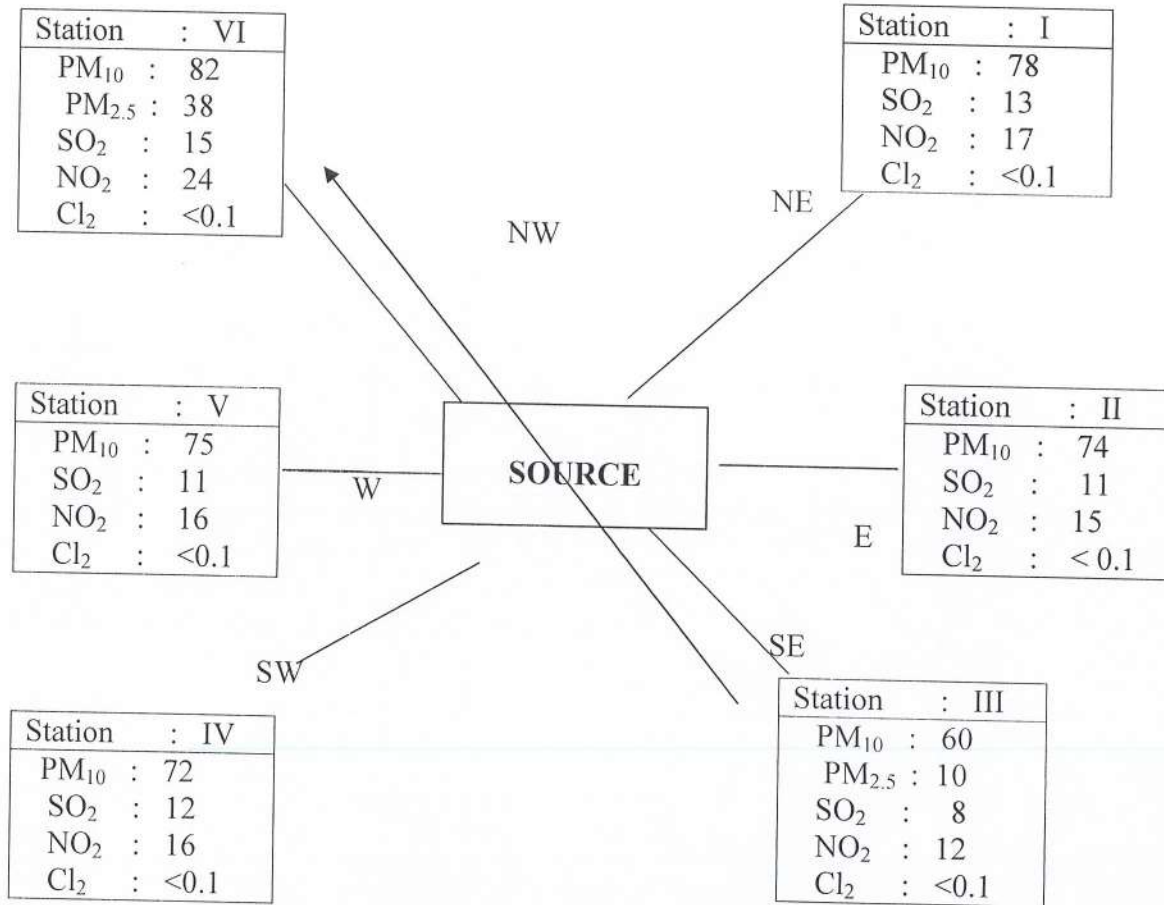
Name and Address of the Industry

: **M/s. TPL (HCD)**

Manali Express Highway, Manali, Chennai – 68.

Date of Survey

: 12.10.2023



Note: All the values are expressed in $\mu\text{g}/\text{m}^3$ and restricted to sampling period of **8 hrs/24hrs**

Meteorological Conditions:	
Predominant Wind Direction	SE – NW
Wind Speed (Km/hr)	11
Weather Condition	Partially Cloudy
Rainfall	Nil

[Signature]
Deputy Chief Scientific Officer(A/C)
District Environmental Laboratory
Tamil Nadu Pollution Control Board
Manali



TAMIL NADU POLLUTION CONTROL BOARD

District Environmental Laboratory, Manali

STACK MONITORING SURVEY – Report of Analysis

Report No. 40/ SM/2023-24

Date: 22.12.2023

1. Name of the Industry : **M/s. TPL (HCD),**
2. Address of the Industry : **Manali Express Highway, Manali, Chennai – 68**
3. Date of Survey : **12.10.2023**
4. Type of Industry : **Coal/Chemical/Sugar/Paper & Pulp/
Power plant / Textile Processing**

Stack Monitoring Survey Results

Sl. No.	Stack attached to	Fuel used	Stack Temp °K	Velocity in (m/ sec)	Discharge rate In Nm ³ /hr	Pollutants (mg / Nm ³)				
						PM	SO ₂	NO _x	Cl ₂	HCl
1	DG-500 KVA	Diesel	520	15.89	589	15	24	284	--	--
2	Boiler Thermax	LNG	480	16.19	41589	3	BDL	57	--	--
3	Waste Air Dechlorination Plant	--	307	13.30	6240	--	--	--	5	--
4	HCl Scrubber	--	308	13.33	1558	--	--	--	--	4

Test Performed	Test Method
PM10	IS 5182 : (Part 23) – 2006
SO ₂	Modified West – Gaeke / IS 5182 : (Part 2) – 2001 RA: 2012
NO _x	Jacobs – Hochheiser / IS 5182 : (Part 6) – 2006 RA:2012

[Signature]
Deputy Chief Scientific Officer(A/C)
District Environmental Laboratory
Tamil Nadu Pollution Control Board
Manali



TAMILNADU POLLUTION CONTROL BOARD
District Environmental Laboratory, Manali

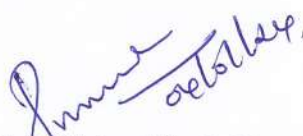
Stack Details

Report No.40/AAQ/SM/2023-24

1. Name and Address of the Industry : **M/s. TPL (HCD)**
Manali Express Highway, Manali, Chennai – 68

2. Date of Survey : 12.10.2023

Sl. No.	Particulars	1	2
1.	Stack attached to	DG	Boiler
2.	Details of process stack	DG 500 KVA	Boiler
3.	Height from G Level in (m)	8	33
4.	Diameter in (m)	0.15	1.2
5.	Port hole height from Ground Level or bends or ducts in (m)	7	20
6.	Fuel Used (with % Sulphur content)	Diesel	LNG
7.	Fuel Consumption rate per hr (mention units)	80 Litre / hr	--
8.	Type of Stack and capacity	Round	Round
9.	APC Measures provided	Automatic Air/Fuel ratio	Automatic Air/Fuel ratio
10.	APC functional status	Functional	Functional
11.	Moisture content in %	--	--
12.	Ambient temp in °K	303	303
13.	Temp of flue gas in °K	520	480
14.	Velocity of flue gas in m/sec	15.89	16.19
15.	Volume of flue gas sampled in m ³	1.09	1.009
16.	Gaseous Discharge rate per day in Nm ³ /hr	589	41589
17.	Combustion efficiently %	--	--


Deputy Chief Scientific Officer(A/C)
District Environmental Laboratory
Tamil Nadu Pollution Control Board
Manali



TAMILNADU POLLUTION CONTROL BOARD
District Environmental Laboratory, Manali

Stack Details

Report No.40/AAQ/SM/2023-24

1. Name and Address of the Industry : **M/s. TPL (HCD)**
Manali Express Highway, Manali, Chennai – 68
2. Date of Survey : 12.10.2023

Sl. No.	Particulars	3	4
1.	Stack attached to	Chlorine Scrubber	HCl Scrubber
2.	Details of process stack	Waste Air Dechlorination Plant	HCl
3.	Height from G Level in (m)	16	18
4.	Diameter in (m)	0.3	0.15
5.	Port hole height from Ground Level or bends or ducts in (m)	14	16
6.	Fuel Used (with % Sulphur content)	--	--
7.	Fuel Consumption rate per day (mention units)	--	--
8.	Type of Stack and capacity	Round	Round
9.	APC Measures provided	Scrubber	Scrubber
10.	APC functional status	Functional	Functional
12.	Moisture content in %	--	--
13.	Ambient temp in °K	303	303
14.	Temp of flue gas in °K	307	308
15.	Velocity of flue gas in m/sec	13.30	13.33
16.	Volume of flue gas sampled in m ³	0.997	0.996
17.	Gaseous Discharge rate per day in Nm ³ /hr	6240	1558
18.	Combustion efficiently %	--	--

[Signature]
Deputy Chief Scientific Officer(A/C)
District Environmental Laboratory
Tamil Nadu Pollution Control Board
Manali



TAMIL NADU POLLUTION CONTROL BOARD

District Environmental Laboratory, Manali

STACK MONITORING SURVEY – Additional details

Report No. 40/ SM/2023-24

Date: 22.12.2023

1. Name of the Industry : M/s. TPL (HCD)
2. Address of the Industry : Manali Express Highway, Manali, Chennai – 68
3. Date of Survey : 12.10.2023
4. Type of Industry : Coal/Chemical/Sugar/Paper & Pulp/
Power plant / Textile Processing

Stack Monitoring Additional details

Sl. No.	Details of stack mentioned in the Air Consent order	Details of stack available and in working condition	Details of stack for which stack Emission sampling have been done	Justification for the left out of stack Emission Sampling
1.	DG-500 KVA	Working	Sampling Done	--
2.	Boiler Thermax	Working	Sampling Done	--
3.	Waste Air Dechlorination Plant	Working	Sampling Done	--
4.	HCl Scrubber	Working	Sampling Done	--


Deputy Chief Scientific Officer(A/C)
District Environmental Laboratory
Tamil Nadu Pollution Control Board
Manali



TAMIL NADU POLLUTION CONTROL BOARD

District Environmental Laboratory, Manali
AMBIENT/SOURCE NOISE LEVEL SURVEY - Report of Analysis

Report No. 40/ NLS/2023-24

Date: 22.12.2023

1.	Name of the Industry	M/s. TPL (HCD)		
2.	Address of the Industry	Manali Express Highway, Manali, Chennai - 68		
3.	Date of Survey	12.10.2023		
Category		RL	Land use Classification	Industrial
Type of Survey		Ambient/Source	Time of Survey	Day
Meteorological conditions			Calm/Windy/Rainy	Windy

Logging Parameters

Logging Parameters					
Instrument Used		CESVA Model SC310		Serial No	
Logging Interval		10 Minutes each point		T243103	
Weighting		“A”		Measuring Range	
		Peak Weighting		50-110 dB(A)	
		“C”		Time Weighting	
				FAST	
Sound Incidence		RANDOM		Time in hrs	
				14.00 – 15.00	

Report of Noise Level Monitoring

Sl No	Location	Duration (min)	Distance (M)	Direction	Sound Level – dB (A)		
					Leq	Min	Max
1	Near Canteen	10	100	NE	59.0	55.1	70.1
2	Near CPP	10	50	E	57.4	52.8	69.9
3	Near Salt Yard (Gate No.5)	10	100	SE	61.2	54.3	68.7
4	Near Scarp Yard	10	100	SW	58.1	55.9	70.9
5	Near Pump Room	10	100	NW	68.1	59.9	71.8

Note: Leq value is the average energy for the measured period.

[Signature]
Deputy Chief Scientific Officer(A/C)
District Environmental Laboratory
Tamil Nadu Pollution Control Board
Manali



TAMIL NADU POLLUTION CONTROL BOARD
District Environmental Laboratory, Manali

INFERENCE REPORT ON A.A.Q.S./ S.M.

1. Name of Industry : M/s. TPL (HCD)
2. Pollution Category : Red Large
3. Date of A.A.Q. Survey : 12.10.2023
4. Predominant Wind Direction : SE - NW
5. Weather condition : Partially Cloudy

STATUS OF POLLUTANTS LEVEL

I. AMBIENT AIR QUALITY :-

1. Total No. of A.A.Q. stations monitored : 6
2. No. of A.A.Q. stations in which Pollutants
Level exceeded the Boards standards : Nil

Maximum and Minimum values of Pollutants Level observed:

Sl. No.	POLLUTANT	Values in microgram/m ³		BOARD's STANDARD (As per consent order)
		Maximum	Minimum	
1.	PM ₁₀	82	60	100
2.	PM _{2.5}	38	20	60
	<u>GASEOUS POLLUTANTS:-</u>			
	(i) SO ₂	15	10	80
	(ii) NO ₂	24	12	80

II. STACK MONITORING:-

1. Total No. of Stacks Monitored : 4
2. No. of Stacks in which Pollutants level
Exceeded the Boards standards : Nil


Deputy Chief Scientific Officer(A/C)
District Environmental Laboratory
Tamil Nadu Pollution Control Board
Manali

**TAMIL NADU POLLUTION CONTROL BOARD**

District Environmental Laboratory, Manali

BILL**Report No. 40/AAQ/SM/2023-24**

Bill No.	40/2023-24
Date	22.12.2023

To
M/s. TPL (HCD),
 Manali Express Highway
 Manali, Chennai - 600 068

Ref: 1. B.PMs.No.6 Dt.31.03.2009.

2. This office Lr.No. TNPCB/DEL/MNL/AAQS/SM/NLS/F.No.73/2023-24 dt. 07.08.2023

3. Your Lr.No.Nil dt. 29.08.2023

4. Cash Receipt No.251 dt.01.09.2023 Rs.1,27,200/-

Sl. No.	Description	Rate (Rs.)	No. of Stations/ Stacks	Amount (Rs.)
1.	SAMPLING CHARGES:			
	(i) Ambient Air Quality monitoring PM ₁₀	3500	6	21,000
	(ii) Source Emission Monitoring (PM, SO ₂ , NO _x etc.,)	13,100	4	52,400
	(iii) Ambient Air Quality monitoring PM _{2.5}	3500	2	7,000
2.	ANALYTICAL CHARGES:			
	(i) Ambient Air Samples PM ₁₀ , SO ₂ , NO ₂ & Cl ₂ (each Rs. 1050/-)	4200	6	25,200
	(ii) Ambient Air Samples PM _{2.5}	1800	2	3,600
	(iii) Source Emission Samples PM, SO ₂ , NO _x , Cl ₂ & HCl (each Rs.1050/-)	3150	2	6,300
	(iv) Source Emission sample (PM & Cl ₂ Only)	2100	2	4,200
3.	AMBIENT NOISE MONITORING CHARGES:			
	(i) For first 5 stations	1400	5	7,000
Transportation charges				500
Total				1,27,200
Received Vide SBI Bank DD No.476385 dated:28.08.2023				
Our CR.No. 251 dated :01.09.2023				1,27,200
Balance				Nil

[Signature]
 Deputy Chief Scientific Officer(A/C)
 District Environmental Laboratory
 Tamil Nadu Pollution Control Board
 Manali

Hubert Enviro Care Systems (P) Ltd.

A-21, III Phase, Thiru Vi Ka Industrial Estate,
Guindy, Chennai - 600 032.
Ph: 42985555 / 43635555 Fax : 42985500
E-mail : labsales@hecs.in



TC-12310

Laboratory Services Division

(Chemical & Biological Testing)
FSSAI Notified Laboratory
ISO 9001, 14001 & 45001 Certified.



TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Atmospheric Pollution
Sample Name : Ambient Air
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : Near Main Security Gate 3
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 5182 Part 5 & Part 14

ULR : TC1231024000016277F
Report No. : HECS/AP/91/050424
Sample ID No : 050424272
Sampling Date : 04/04/2024 To 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 10/04/2024
Report Date : 11/04/2024
Sample quantity :-

S.No.	Test Parameters	Units	Results	Test Method	NAAQ Standards : 2009	
Discipline : Chemical						
1	Lead	µg/m3	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours)	0.5 (Annual)
2	Arsenic	ng/m3	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	6 (Annual)	6 (Annual)
3	Nickel	ng/m3	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	20 (Annual)
4	Benzene-AAQ	µg/m3	BLQ (LOQ: 0.1)	IS 5182 Part 11: 2006	5 (Annual)	5 (Annual)
5	Benzo (a) pyrene-AAQ	ng/m³	BLQ (LOQ: 0.1)	IS : 5182 Part 12: 2004	1 (Annual)	1 (Annual)
6	Ammonia as NH3	µg/m³	7.20	IS 5182 (Part 25) 2018	400 (24 hours)	100 (Annual)
7	Carbon Monoxide (CO)	mg/ m³	BLQ(LOQ 0.05)	IS 5182 (Part 10) Clause 4 1999	4 (1 hours)	2 (8 hours)
8	Nitrogen dioxides as NO2	µg/m³	18.37	IS 5182 (Part 6) 2006	80 (24 hours)	40 (Annual)
9	Ozone as O3	µg/m³	13.44	IS 5182 (Part 9) 1974	180 (1 hours)	100 (8 hours)
10	Particulate matter (Size less than 10 µm)	µg/m³	56.90	IS 5182 (Part 23) 2006	100 (24 hours)	60 (Annual)
11	Particulate matter (Size less than 2.5 µm)	µg/m³	26.79	IS 5182 (Part 24) 2019	60 (24 hours)	40 (Annual)
12	Sulphur dioxide as SO2	µg/m³	14.66	IS 5182 (Part 2) 2001	80 (24 hours)	50 (Annual)
13	Total Suspended Particular Matter	µg/m³	83.69	IS 5182 (Part 4) 1999	-	

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³-Milligrams per cubic meter, ng/m³-Nanograms per cubic meter, NA -Not Applicable.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report



M. Sivaprakasam
Lab Manager
Authorized Signatory

Hubert Enviro Care Systems (P) Ltd.

A-21, III Phase, Thiru Vi Ka Industrial Estate,
Guindy, Chennai - 600 032.
Ph: 42985555 / 43635555 Fax : 42985500
E-mail : labsales@hecs.in



TC-12310

Laboratory Services Division

(Chemical & Biological Testing)
FSSAI Notified Laboratory
ISO 9001, 14001 & 45001 Certified.



TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Atmospheric Pollution
Sample Name : Ambient Air
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : Near WAD Area
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 5182 Part 5 & Part 14

ULR : TC1231024000016278F
Report No. : HECS/AP/92/050424
Sample ID No : 050424273
Sampling Date : 04/04/2024 To 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 10/04/2024
Report Date : 11/04/2024
Sample quantity : NA

S.No.	Test Parameters	Units	Results	Test Method	NAAQ Standards : 2009	
Discipline : Chemical						
1	Lead	µg/m3	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours)	0.5 (Annual)
2	Arsenic	ng/m3	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	6 (Annual)	6 (Annual)
3	Nickel	ng/m3	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	20 (Annual)
4	Benzene-AAQ	µg/m3	BLQ (LOQ: 0.1)	IS 5182 Part 11: 2006	5 (Annual)	5 (Annual)
5	Benzo (a) pyrene-AAQ	ng/m³	BLQ (LOQ: 0.1)	IS : 5182 Part 12: 2004	1 (Annual)	1 (Annual)
6	Ammonia as NH3	µg/m³	6.37	IS 5182 (Part 25) 2018	400 (24 hours)	100 (Annual)
7	Carbon Monoxide (CO)	mg/ m³	BLQ(LOQ 0.05)	IS 5182 (Part 10) Clause 4 1999	4 (1 hours)	2 (8 hours)
8	Nitrogen dioxides as NO2	µg/m³	24.66	IS 5182 (Part 6) 2006	80 (24 hours)	40 (Annual)
9	Ozone as O3	µg/m³	10.72	IS 5182 (Part 9) 1974	180 (1 hours)	100 (8 hours)
10	Particulate matter (Size less than 10 µm)	µg/m³	50.26	IS 5182 (Part 23) 2006	100 (24 hours)	60 (Annual)
11	Particulate matter (Size less than 2.5 µm)	µg/m³	19.96	IS 5182 (Part 24) 2019	60 (24 hours)	40 (Annual)
12	Sulphur dioxide as SO2	µg/m³	10.33	IS 5182 (Part 2) 2001	80 (24 hours)	50 (Annual)
13	Total Suspended Particular Matter	µg/m³	70.22	IS 5182 (Part 4) 1999	-	

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³-Milligrams per cubic meter, ng/m³-Nanograms per cubic meter, NA -Not Applicable.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report



M. Sivaprakasam
Lab Manager
Authorized Signatory

Hubert Enviro Care Systems (P) Ltd.

A-21, III Phase, Thiru Vi Ka Industrial Estate,
Guindy, Chennai - 600 032.
Ph: 42985555 / 43635555 Fax : 42985500
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TC-12310

Laboratory Services Division

(Chemical & Biological Testing)
FSSAI Notified Laboratory
ISO 9001, 14001 & 45001 Certified.



TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,

Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.

Group : Atmospheric Pollution

Sample Name : Ambient Air

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Near Boiler

Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0

Sampling Method & Plan : IS 5182 Part 5 & Part 14

ULR : TC1231024000016279F

Report No. : HECS/AP/93/050424

Sample ID No : 050424274

Sampling Date : 04/04/2024 To 05/04/2024

Received Date : 05/04/2024

Commenced Date : 05/04/2024

Completed On : 10/04/2024

Report Date : 11/04/2024

Sample quantity : NA

S.No.	Test Parameters	Units	Results	Test Method	NAAQ Standards : 2009	
Discipline : Chemical						
1	Lead	µ g/m3	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours)	0.5 (Annual)
2	Arsenic	ng/m3	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	6 (Annual)	6 (Annual)
3	Nickel	ng/m3	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	20 (Annual)
4	Benzene-AAQ	µ g/m3	BLQ (LOQ: 0.1)	IS 5182 Part 11: 2006	5 (Annual)	5 (Annual)
5	Benzo (a) pyrene-AAQ	ng/m³	BLQ (LOQ: 0.1)	IS : 5182 Part 12: 2004	1 (Annual)	1 (Annual)
6	Ammonia as NH3	µ g/m³	8.94	IS 5182 (Part 25) 2018	400 (24 hours)	100 (Annual)
7	Carbon Monoxide (CO)	mg/ m³	BLQ(LOQ 0.05)	IS 5182 (Part 10) Clause 4 1999	4 (1 hours)	2 (8 hours)
8	Nitrogen dioxides as NO2	µ g/m³	20.47	IS 5182 (Part 6) 2006	80 (24 hours)	40 (Annual)
9	Ozone as O3	µ g/m³	12.54	IS 5182 (Part 9) 1974	180 (1 hours)	100 (8 hours)
10	Particulate matter (Size less than 10 µ m)	µ g/m³	47.62	IS 5182 (Part 23) 2006	100 (24 hours)	60 (Annual)
11	Particulate matter (Size less than 2.5 µ m)	µ g/m³	23.76	IS 5182 (Part 24) 2019	60 (24 hours)	40 (Annual)
12	Sulphur dioxide as SO2	µ g/m³	12.40	IS 5182 (Part 2) 2001	80 (24 hours)	50 (Annual)
13	Total Suspended Particular Matter	µ g/m³	71.38	IS 5182 (Part 4) 1999	-	

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³-Milligrams per cubic meter, ng/m³-Nanograms per cubic meter, NA -Not Applicable.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report



M. Sivaprakasam
Lab Manager
Authorized Signatory



TC-12310

**TEST REPORT**

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,

Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.

Group : Atmospheric Pollution

Sample Name : Ambient Air

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Near CPP

Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0

Sampling Method & Plan : IS 5182 Part 5 & Part 14

ULR : TC1231024000016280F

Report No. : HECS/AP/94/050424

Sample ID No : 050424275

Sampling Date : 04/04/2024 To 05/04/2024

Received Date : 05/04/2024

Commenced Date : 05/04/2024

Completed On : 10/04/2024

Report Date : 11/04/2024

Sample quantity : NA

S.No.	Test Parameters	Units	Results	Test Method	NAAQ Standards : 2009	
Discipline : Chemical						
1	Lead	µg/m3	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours)	0.5 (Annual)
2	Arsenic	ng/m3	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	6 (Annual)	6 (Annual)
3	Nickel	ng/m3	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	20 (Annual)
4	Benzene-AAQ	µg/m3	BLQ (LOQ: 0.1)	IS 5182 Part 11: 2006	5 (Annual)	5 (Annual)
5	Benzo (a) pyrene-AAQ	ng/m³	BLQ (LOQ: 0.1)	IS : 5182 Part 12: 2004	1 (Annual)	1 (Annual)
6	Ammonia as NH3	µg/m³	6.29	IS 5182 (Part 25) 2018	400 (24 hours)	100 (Annual)
7	Carbon Monoxide (CO)	mg/ m³	BLQ(LOQ 0.05)	IS 5182 (Part 10) Clause 4 1999	4 (1 hours)	2 (8 hours)
8	Nitrogen dioxides as NO2	µg/m³	23.64	IS 5182 (Part 6) 2006	80 (24 hours)	40 (Annual)
9	Ozone as O3	µg/m³	11.50	IS 5182 (Part 9) 1974	180 (1 hours)	100 (8 hours)
10	Particulate matter (Size less than 10 µm)	µg/m³	47.28	IS 5182 (Part 23) 2006	100 (24 hours)	60 (Annual)
11	Particulate matter (Size less than 2.5 µm)	µg/m³	19.06	IS 5182 (Part 24) 2019	60 (24 hours)	40 (Annual)
12	Sulphur dioxide as SO2	µg/m³	11.39	IS 5182 (Part 2) 2001	80 (24 hours)	50 (Annual)
13	Total Suspended Particular Matter	µg/m³	66.36	IS 5182 (Part 4) 1999	-	

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³-Milligrams per cubic meter, ng/m³-Nanograms per cubic meter, NA -Not Applicable.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report



M. Sivaprakasam
Lab Manager
Authorized Signatory

**TEST REPORT**

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,

Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.

Group : Atmospheric Pollution

Sample Name : Ambient Air

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Near Salt Yard

Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0

Sampling Method & Plan : IS 5182 Part 5 & Part 14

ULR : TC1231024000016281F

Report No. : HECS/AP/95/050424

Sample ID No : 050424276

Sampling Date : 04/04/2024 To 05/04/2024

Received Date : 05/04/2024

Commenced Date : 05/04/2024

Completed On : 10/04/2024

Report Date : 11/04/2024

Sample quantity : NA

S.No.	Test Parameters	Units	Results	Test Method	NAAQ Standards : 2009	
Discipline : Chemical						
1	Lead	µg/m3	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours)	0.5 (Annual)
2	Arsenic	ng/m3	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	6 (Annual)	6 (Annual)
3	Nickel	ng/m3	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	20 (Annual)
4	Benzene-AAQ	µg/m3	BLQ (LOQ: 0.1)	IS 5182 Part 11: 2006	5 (Annual)	5 (Annual)
5	Benzo (a) pyrene-AAQ	ng/m³	BLQ (LOQ: 0.1)	IS : 5182 Part 12: 2004	1 (Annual)	1 (Annual)
6	Ammonia as NH3	µg/m³	8.46	IS 5182 (Part 25) 2018	400 (24 hours)	100 (Annual)
7	Carbon Monoxide (CO)	mg/ m³	BLQ(LOQ 0.05)	IS 5182 (Part 10) Clause 4 1999	4 (1 hours)	2 (8 hours)
8	Nitrogen dioxides as NO2	µg/m³	19.94	IS 5182 (Part 6) 2006	80 (24 hours)	40 (Annual)
9	Ozone as O3	µg/m³	12.88	IS 5182 (Part 9) 1974	180 (1 hours)	100 (8 hours)
10	Particulate matter (Size less than 10 µm)	µg/m³	47.21	IS 5182 (Part 23) 2006	100 (24 hours)	60 (Annual)
11	Particulate matter (Size less than 2.5 µm)	µg/m³	24.10	IS 5182 (Part 24) 2019	60 (24 hours)	40 (Annual)
12	Sulphur dioxide as SO2	µg/m³	11.32	IS 5182 (Part 2) 2001	80 (24 hours)	50 (Annual)
13	Total Suspended Particular Matter	µg/m³	71.22	IS 5182 (Part 4) 1999	-	

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³-Milligrams per cubic meter, ng/m³-Nanograms per cubic meter, NA -Not Applicable.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report

M. Sivaprakasam
Lab Manager
Authorized Signatory

Hubert Enviro Care Systems (P) Ltd.

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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Atmospheric Pollution
Sample Name : Ambient Air
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : Near Fabrication Yard
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 5182 Part 5 & Part 14

ULR : TC1231024000016282F
Report No. : HECS/AP/96/050424
Sample ID No : 050424277
Sampling Date : 04/04/2024 To 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 10/04/2024
Report Date : 11/04/2024
Sample quantity : NA

Sampling Method & Plan						
IS 5182 Part 11: 2006						
S.No.	Test Parameters	Units	Results	Test Method	NAAQ Standards : 2009	
Discipline : Chemical						
1	Lead	µg/m3	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours)	0.5 (Annual)
2	Arsenic	ng/m3	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	6 (Annual)	6 (Annual)
3	Nickel	ng/m3	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	20 (Annual)
4	Benzene-AAQ	µg/m3	BLQ (LOQ: 0.1)	IS 5182 Part 11: 2006	5 (Annual)	5 (Annual)
5	Benzo (a) pyrene-AAQ	ng/m³	BLQ (LOQ: 0.1)	IS : 5182 Part 12: 2004	1 (Annual)	1 (Annual)
6	Ammonia as NH3	µg/m³	8.95	IS 5182 (Part 25) 2018	400 (24 hours)	100 (Annual)
7	Carbon Monoxide (CO)	mg/ m³	BLQ(LOQ 0.05)	IS 5182 (Part 10) Clause 4 1999	4 (1 hours)	2 (8 hours)
8	Nitrogen dioxides as NO2	µg/m³	26.62	IS 5182 (Part 6) 2006	80 (24 hours)	40 (Annual)
9	Ozone as O3	µg/m³	11.36	IS 5182 (Part 9) 1974	180 (1 hours)	100 (8 hours)
10	Particulate matter (Size less than 10 µm)	µg/m³	49.10	IS 5182 (Part 23) 2006	100 (24 hours)	60 (Annual)
11	Particulate matter (Size less than 2.5 µm)	µg/m³	21.84	IS 5182 (Part 24) 2019	60 (24 hours)	40 (Annual)
12	Sulphur dioxide as SO2	µg/m³	13.08	IS 5182 (Part 2) 2001	80 (24 hours)	50 (Annual)
13	Total Suspended Particular Matter	µg/m³	70.94	IS 5182 (Part 4) 1999	-	

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³-Milligrams per cubic meter, ng/m³-Nanograms per cubic meter, NA -Not Applicable.
Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report

M.Sivaprakasam
Lab Manager
Authorized Signatory



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Atmospheric Pollution
Sample Name : Stack Emission
Sample Mark : Emergency DG Set
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : ISO 16000

ULR Report : TC1231024000021114F
No. Sample : HECS/AP/118/050424
ID No : 050424320
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 11/05/2024
Report Date : 11/05/2024
Sample quantity : NA

S.No.	Test Parameters	Units	Results	Test Method	CPCB Standards
Discipline : Chemical					
1	Carbon Monoxide (CO)	mg/Nm ³	27.41	IS 13270 Clause 4 1992	150
2	Flue Gas Velocity	m/sec	10.1	IS 11255 (Part 3) 2008	-
3	Particulate matter (PM)	mg/Nm ³	19.15	IS 11255 Part 1 1985	75
4	Sulphur dioxide (SO ₂)	mg/Nm ³	12.40	IS 11255 (Part 2) 1985	-
5	Nitrogen dioxide (NO ₂)	mg/Nm ³	202.19	ASTM Method D6522 (by Flue gas Analyzer) 2000	710*
6	Carbon dioxide (CO ₂)	%	8.3	IS 13270 Clause 4 1992	-
7	Flue Gas Discharge (Flow Rate)	Nm ³ /hr	935.0	IS 11255 (Part 3) 2008	-
8	Fluegas Temperature	°C	129.0	IS 11255 (Part 3) 2008	-

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, Nm³/hr - Normal cubic meter per hour,
CNTE- Concentration not to Exceed, mg/Nm³- Milligrams per Normal cubic meter, °C- Degree Celsius,
m/s- Meter per second, % V/V - Percentage, NA - Not Applicable, *ppm- Parts Per Million.
Remarks: The Tested Parameters as above are within the Limits of CPCB Stack Emission Standards.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Atmospheric Pollution
Sample Name : Stack Emission
Sample Mark : Boiler Stack
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : ISO 16000

ULR : TC1231024000017112F
Report No. : HECS/AP/099/050424
Sample ID No : 050424280
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 17/04/2024
Report Date : 17/04/2024
Sample quantity : NA

Stack Details

S.No.	Particulars	Units	Stack Specification
1	Stack Height	Meter	30.0
2	Stack Diameter	Meter	1.4

Discipline : Chemical

S.No.	Test Parameters	Units	Results	Test Method	CPCB Standards
1	Carbon Monoxide (CO)	mg/Nm ³	7.5	IS 13270 Clause 4 1992	Max 150
2	Flue Gas Velocity	m/sec	4.7	IS 11255 (Part 3) 2008	-
3	Particulate matter (PM)	mg/Nm ³	5.3	IS 11255 Part 1 1985	Max 10
4	Sulphur dioxide (SO ₂)	mg/Nm ³	14.80	IS 11255 (Part 2) 1985	Max 50
5	Nitrogen dioxide (NO ₂)	mg/Nm ³	89.23	ASTM Method D6522 (by Flue gas Analyzer) 2000	Max 350
6	Carbon dioxide (CO ₂)	%	7.5	IS 13270 Clause 4 1992	-
7	Flue Gas Discharge (Flow Rate)	Nm ³ /hr	12689.0	IS 11255 (Part 3) 2008	-
8	Flue gas Temperature	°C	181.0	IS 11255 (Part 3) 2008	-

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, Nm³/hr - Normal cubic meter per hour,
CNTE- Concentration not to Exceed, mg/Nm³- Milligrams per Normal cubic meter, °C- Degree Celsius,
m/s- Meter per second, % V/V - Percentage, NA - Not Applicable.

Remarks: The Tested Parameters as above are within the Limits of CPCB Stack Emission Standards.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Atmospheric Pollution
Sample Name : Stack Emission
Sample Mark : Boiler Stack
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : ISO 16000

Report No. : HECS/AP/099/050424/N
Sample ID No : 050424280
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 17/04/2024
Report Date : 17/04/2024
Sample quantity : NA

Stack Details

Discipline : Chemical				
S.No.	Test Parameters	Units	Results	Test Method
1	Hydrocarbons	µg/Nm ³	BLQ (LOQ: 0.1)	HECS-G/INS/SOP/019 Issue No.:01 Issue Date:01.03.2021
2	Non Methane Hydrocarbons	mg/Nm ³	BLQ (LOQ:0.2)	HECS-G/INS/SOP/056 Issue No.:01 Issue Date:01.03: 2021

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

End of Report



M. Sivaprakasam
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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Atmospheric Pollution
Sample Name : Stack Emission
Sample Mark : WAD Plant
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : ISO 16000

Report No. : HECS/AP/098/050424/N
Sample ID No : 050424279
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 17/04/2024
Report Date : 17/04/2024
Sample quantity : NA

S.No.	Parameters	Units	Results	Test Method
1	Chlorine	mg/Nm ³	2.2	HECS/AIR/STACK/SOP026

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

End of Report



M. Sivaprakasam

M. Sivaprakasam
Lab Manager
Authorized Signatory

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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,

Report No. : HECS/AP/097/050424

Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.

Sample ID No : 050424278

Sampling Date : 05/04/2024

Group : Atmospheric Pollution

Received Date : 05/04/2024

Sample Name : Stack Emission

Commenced Date : 05/04/2024

Sample Mark : HCL Plant

Completed On : 17/04/2024

Sample Reference : NA

Report Date : 17/04/2024

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample quantity : NA

Sample Location : NA

Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0

Sampling Method & Plan : ISO 16000

S.No.	Parameters	Units	Results	Test Method
1	HCL Vapour	ppm	1.8	HECS/AIR/STACK/SOP027

Note:- ppm- Parts Per Million .

End of Report




M. Sivaprakasam
Lab Manager
Authorized Signatory

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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Atmospheric Pollution
Sample Name : Stack Emission
Sample Mark : Emergency DG Set
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : ISO 16000


Report No. : HECS/AP/118/050424/N
Sample ID No : 050424320
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 11/05/2024
Report Date : 11/05/2024
Sample quantity : NA

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	Non Methane Hydrocarbons	mg/Nm ³	BLQ(LOQ 0.1)	IS 13270 - 1992
2	Hydrocarbons	µg/Nm ³	BLQ (LOQ: 0.1)	HECS-G/INS/SOP/019 Issue No.:01 Issue Date:01.03.2021
3	Olefins	µg/Nm ³	BLQ (LOQ: 0.1)	Inhouse Method

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, °C- Degree Celsius.

End of Report




M. Sivaprakasam
Lab Manager
Authorized Signatory

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TEST REPORT

Page : 1 of 6

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Pollution & Environment
Sample Name : Waste Water
Sample Mark : Treated Effluent Water
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 17614(Part-10):2021

ULR : TC1231024000016079F
Report No. : HECS/PE/050/050424
Sample ID No : 050424223
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 11/04/2024
Report Date : 11/04/2024
Sample quantity : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	TNPCB Limits *
Discipline : Chemical					
Pesticides					
1	Alachlor	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
2	Aldrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
3	Alpha BHC	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
4	Atrazine	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
5	Beta BHC	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
6	Butachlor	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
7	Chloropyrifos	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
8	Delta BHC	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
9	Dieldrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent



D. Anusuya
Deputy Quality Manager
Authorized Signatory

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TEST REPORT

Page : 2 of 6

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Pollution & Environment
Sample Name : Waste Water
Sample Mark : Treated Effluent Water
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 17614(Part-10):2021

ULR : TC1231024000016079F
Report No. : HECS/PE/050/050424
Sample ID No : 050424223
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 11/04/2024
Report Date : 11/04/2024
Sample quantity : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	TNPCB Limits *
10	Endosulfan alpha	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
11	Endosulfan beta	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
12	Endosulfan sulfate	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
13	Ethion	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
14	Gamma BHC	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
15	Malathion	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
16	o,p-DDD	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
17	o,p-DDE	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
18	o,p-DDT	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent



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TC-12310

Laboratory Services Division

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TEST REPORT

Page : 3 of 6

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Pollution & Environment
Sample Name : Waste Water
Sample Mark : Treated Effluent Water
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 17614(Part-10):2021

ULR : TC1231024000016079F
Report No. : HECS/PE/050/050424
Sample ID No : 050424223
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 11/04/2024
Report Date : 11/04/2024
Sample quantity : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	TNPCB Limits *
19	p,p'-DDD	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
20	p,p'-DDE	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
21	p,p'-DDT	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
22	Parathion-methyl	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
23	Phorate	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
24	2,4-D	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
25	Isoproturon	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
26	Malaoxon	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
27	Methyl Paraoxon	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
28	Methyl Parathion	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent



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TEST REPORT

Page : 4 of 6

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Pollution & Environment
Sample Name : Waste Water
Sample Mark : Treated Effluent Water
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 17614(Part-10):2021

ULR : TC1231024000016079F
Report No. : HECS/PE/050/050424
Sample ID No : 050424223
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 11/04/2024
Report Date : 11/04/2024
Sample quantity : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	TNPCB Limits *
29	Monocrotophos	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
30	Phorate Sulfone	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
31	Phorate Sulfoxide	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
32	Arsenic	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 Revision 5.4: 1994	0.2
33	Cadmium	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 Revision 5.4: 1994	2.0
34	Chromium	mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision 5.4: 1994	2.0
35	Copper	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 Revision 5.4: 1994	3.0
36	Nickel	mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision 5.4: 1994	3.0
37	Selenium	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 Revision 5.4: 1994	0.05
38	Zinc	mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision 5.4: 1994	1.5
39	Ammonia as NH3	mg/l	3.56	IS 3025 (Part 34) Clause 2.3 1988	5
40	Ammonical Nitrogen as NH3-N	mg/l	2.76	IS 3025 (Part 34) Clause 2.5 1988	50
41	Bio-Chemical Oxygen Demand(BOD) 3 days @27 ° C	mg/l	BLQ (LOQ 2.0)	IS 3025 (Part 44) 1993	30



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TEST REPORT

Page : 5 of 6

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Pollution & Environment
Sample Name : Waste Water
Sample Mark : Treated Effluent Water
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 17614(Part-10):2021

ULR : TC1231024000016079F
Report No. : HECS/PE/050/050424
Sample ID No : 050424223
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 11/04/2024
Report Date : 11/04/2024
Sample quantity : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	TNPSB Limits *
42	Boron as B	mg/l	BLQ (LOQ 0.1)	IS 3025 (Part 57) Clause 6 2021	2
43	Sodium as Na	mg/l	848.0	IS: 3025 (Part 45) Clause 5 1993	-
44	Chemical Oxygen Demand (COD)	mg/l	BLQ (LOQ 4.0)	IS 3025 (Part 58) 2006	250
45	Chloride as Cl-	mg/l	1767.8	IS 3025 (Part 32) Clause 2 1988	-
46	Cyanide as CN	mg/l	BLQ (LOQ 0.01)	IS 3025 Part 27 Clause 2 1986	0.2
47	Fluorides as F	mg/l	BLQ (LOQ 0.1)	APHA 23 rd Edn. 4500 D-F Spadns method: 2017	2
48	Free Residual Chlorine	mg/l	BLQ (LOQ 0.1)	IS 3025 (Part 26) Clause 5 2021	-
49	Hexavalent Chromium as Cr6+	mg/l	BLQ (LOQ 0.05)	IS 3025 (Part 52) Clause 6 2003	1
50	Oil and grease	mg/l	BLQ (LOQ 4.0)	IS : 3025 (Part 39) Clause 5 2021	10
51	pH value @ 25 ° C	-	7.31	IS 3025 (Part 11) Clause 2 2022	5.5 to 9.0
52	Phenolic compound	mg/l	BLQ (LOQ: 0.01)	IS 3025 (Part 43) Clause 5 1992	1
53	Dissolved Phosphate as P	mg/l	BLQ (LOQ: 0.1)	APHA 23 rd Edn. 4500 P-B,D 2017	5
54	Residual Sodium Carbonate	mEq/L	BLQ (LOQ 0.1)	IS:11624 1986	NA
55	Sulphate as SO42-	mg/l	386.7	IS:3025 (Part 24) Clause 4 1986	1000
56	Sulphide as S2-	mg/l	BLQ (LOQ 1.0)	IS 3025 (Part 29) Clause 2 1986	2
57	Temperature	°C	27.2	IS:3025 (Part 09) 1984	40°C at the point of discharge



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TEST REPORT

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Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Pollution & Environment
Sample Name : Waste Water
Sample Mark : Treated Effluent Water
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 17614(Part-10):2021

ULR : TC1231024000016079F
Report No. : HECS/PE/050/050424
Sample ID No : 050424223
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 11/04/2024
Report Date : 11/04/2024
Sample quantity : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	TNPSB Limits *
58	Total dissolved solids @ 180° C	mg/l	6702.0	IS 3025 (Part 16) 1984	-
59	Total Kjeldahl Nitrogen as N	mg/l	5.79	IS 3025 (Part 34) Clause 5.3 1988	100
60	Total suspended solids @ 105° C	mg/l	12.0	IS: 3025 (Part 17) 1984	100

Note:- BLQ-Below limit of Quantification, LOQ-Limit of Quantification, mg/l-milligrams per litre ,

* - Marine Coastal Areas.

Remarks:- Treated Effluent Water as above parameters meets TNPSB Standards.

End of Report



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TEST REPORT

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Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Pollution & Environment
Sample Name : Waste Water
Sample Mark : Treated Effluent Water
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 17614(Part-10):2021

Report No. : HECS/PE/050/050424/N
Sample ID No : 050424223
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 11/04/2024
Report Date : 11/04/2024
Sample quantity : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	TNPCB Limits *
Discipline : Chemical					
1	Alphamethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
2	Cypermethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
3	Deltamethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
4	Permethrin	mg/L	BLQ (LOQ: 0.0001)	HECSG/INS/SOP/032 Issue No.:01 Issue Date:01.03.2021	Absent
5	Mercury	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 Revision 5.4: 1994	0.01
6	Lead	mg/l	BLQ (LOQ: 0.1)	USEPA 200.8 Revision 5.4: 1994	0.1
7	Alpha Emitters	microcurie/ml	BLQ(LOQ 0.000000001)	IS 14194 (Part-2)-1994	0.0000001
8	Beta emitters	microcurie/ml	BLQ(LOQ 0.000000001)	IS 14194 (Part -1)-1994	0.000001

Note:- BLQ-Below limit of Quantification, LOQ-Limit of Quantification, mg/l-milligrams per litre, * - Marine Coastal Areas. Remarks:-
Treated Effluent Water as above parameters meets TNPCB Standards.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Water
Sample Name : Bore Well Water
Sample Mark : Test Bore 1
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231024000016086F
Report No. : HECSL/WT/077/050424
Sample ID No : 050424224
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 11/04/2024
Report Date : 11/04/2024
Sample quantity : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method
1	Mercury	mg/l	BLQ (LOQ:0.0005)	USEPA 200.8 : 1994

Note :- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l- Milligrams per litre, NA - Not Applicable.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Water
Sample Name : Bore Well Water
Sample Mark : Test Bore 1
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : HECS-G/Micro/Sop/04

ULR : TC1231024000016098F
Report No. : HECSL/WT/085/050424
Sample ID No : 050424236
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 06/04/2024
Completed On : 08/04/2024
Report Date : 11/04/2024
Sample quantity : 100ml

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
Discipline : Biological						
1	Faecal Coliform	MPN/100ml	<2	IS 1622 : 1981	Absent/100ml	NA
2	Total Coliform	MPN/100ml	<2	IS 1622 : 1981	Absent/100ml	NA

Note:- MPN-Most Probable Number, <2 is Considered as Absent.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Water
Sample Name : Bore Well Water
Sample Mark : Test Bore 2
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231024000016087F
Report No. : HECSL/WT/078/050424
Sample ID No : 050424225
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 11/04/2024
Report Date : 11/04/2024
Sample quantity : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method
1	Mercury	mg/l	BLQ (LOQ:0.0005)	USEPA 200.8 : 1994

Note :- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l- Milligrams per litre, NA - Not Applicable.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Water
Sample Name : Bore Well Water
Sample Mark : Test Bore 2
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : HECS-G/Micro/Sop/04

ULR : TC1231024000016099F
Report No. : HECSL/WT/86/050424
Sample ID No : 050424237
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 06/04/2024
Completed On : 08/04/2024
Report Date : 11/04/2024
Sample quantity : 100ml

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
Discipline : Biological						
1	Faecal Coliform	MPN/100ml	<2	IS 1622 : 1981	Absent/100ml	NA
2	Total Coliform	MPN/100ml	<2	IS 1622 : 1981	Absent/100ml	NA

Note:- MPN-Most Probable Number, <2 is Considered as Absent.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Water
Sample Name : Bore Well Water
Sample Mark : Test Bore 3
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231024000016088F
Report No. : HECSL/WT/079/050424
Sample ID No : 050424226
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 11/04/2024
Report Date : 11/04/2024
Sample quantity : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method
1	Mercury	mg/l	BLQ(LOQ:0.0005)	USEPA 200.8 : 1994

Note :- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l- Milligrams per litre, NA - Not Applicable.

End of Report



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Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Water
Sample Name : Bore Well Water
Sample Mark : Test Bore 3
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : HECS-G/Micro/Sop/04


ULR : TC1231024000016100F
Report No. : HECSL/WT/87/050424
Sample ID No : 050424238
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 06/04/2024
Completed On : 08/04/2024
Report Date : 11/04/2024
Sample quantity : 100ml

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
Discipline : Biological						
1	Faecal Coliform	MPN/100ml	<2	IS 1622 : 1981	Absent/100ml	NA
2	Total Coliform	MPN/100ml	<2	IS 1622 : 1981	Absent/100ml	NA

Note:- MPN-Most Probable Number, <2 is Considered as Absent.

End of Report




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Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Water
Sample Name : Bore Well Water
Sample Mark : Test Bore 4
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231024000016089F
Report No. : HECSL/WT/080/050424
Sample ID No : 050424227
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 11/04/2024
Report Date : 11/04/2024
Sample quantity : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method
1	Mercury	mg/l	BLQ(LOQ:0.0005)	USEPA 200.8 : 1994

Note :- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l- Milligrams per litre, NA - Not Applicable.

End of Report



D. Anusuya
Deputy Quality Manager
Authorized Signatory

Hubert Enviro Care Systems (P) Ltd.

A-21, III Phase, Thiru Vi Ka Industrial Estate,
Guindy, Chennai - 600 032.
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Laboratory Services Division

(Chemical & Biological Testing)
FSSAI Notified Laboratory
ISO 9001, 14001 & 45001 Certified.



TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Water
Sample Name : Bore Well Water
Sample Mark : Test Bore 4
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : HECS-G/Micro/Sop/04


ULR : TC1231024000016101F
Report No. : HECSL/WT/88/050424
Sample ID No : 050424239
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 06/04/2024
Completed On : 08/04/2024
Report Date : 11/04/2024
Sample quantity : 100ml

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
Discipline : Biological						
1	Faecal Coliform	MPN/100ml	<2	IS 1622 : 1981	Absent/100ml	NA
2	Total Coliform	MPN/100ml	<2	IS 1622 : 1981	Absent/100ml	NA

Note:- MPN-Most Probable Number, <2 is Considered as Absent.

End of Report




Dr. Rajkumar Samuel
Director Technical
Authorized Signatory

Hubert Enviro Care Systems (P) Ltd.

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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,
Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.
Group : Water
Sample Name : Bore Well Water
Sample Mark : Test Bore 5
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231024000016090F
Report No. : HECSL/WT/081/050424
Sample ID No : 050424228
Sampling Date : 05/04/2024
Received Date : 05/04/2024
Commenced Date : 05/04/2024
Completed On : 11/04/2024
Report Date : 11/04/2024
Sample quantity : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method
1	Mercury	mg/l	BLQ (LOQ: 0.0005)	USEPA 200.8 : 1994

Note :- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l- Milligrams per litre, NA - Not Applicable.
End of Report




D. Anusuya
Deputy Quality Manager
Authorized Signatory

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TC-12310

Laboratory Services Division

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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. TamilNadu Petro Products Ltd.,

Address of the Client : Heavy Chemicals Division, Manali Express High Way,
Manali, Chennai - 600 068.

Group : Water

Sample Name : Bore Well Water

Sample Mark : Test Bore 5

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : NA

Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0

Sampling Method & Plan : HECS-G/Micro/Sop/04

ULR : TC1231024000016102F

Report No. : HECSL/WT/89/050424

Sample ID No : 050424240

Sampling Date : 05/04/2024

Received Date : 05/04/2024

Commenced Date : 06/04/2024

Completed On : 08/04/2024

Report Date : 11/04/2024

Sample quantity : 100ml

Sampling Method & Plan						
IS 10500 : 2012						
S.No.	Test Parameters	Units	Results	Test Method	Acceptable Limits	Permissible
					(Max)	Limits (Max)
Discipline : Biological						
1	Faecal Coliform	MPN/100ml	<2	IS 1622 : 1981	Absent/100ml	NA
2	Total Coliform	MPN/100ml	<2	IS 1622 : 1981	Absent/100ml	NA

Note:- MPN-Most Probable Number, <2 is Considered as Absent.

End of Report



Dr. Rajkumar Samuel
Director Technical
Authorized Signatory

CORPORATE SOCIAL RESPONSIBILITY

Primary Health Care Centre is provided at Sadayankuppam Village, Kannampalayam & Seemavaram, Manali by AM Foundation on behalf of **Tamilnadu Petroproducts Limited** under its CSR project and Inaugurated.







