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HPL/IMS/HSEF/R/4.3.2/08/ENV/E-06/MoEF&CC

December 31, 2025

Dr. Shahida Parvin Quazi
Scientist-E
Ministry of Environment, Forest and Climate Change
Regional Office, Bhubaneswar
Sub-Office, Kolkata
IB – 198, Sector-III, Salt Lake City,
Kolkata – 700 106

Sub: Half Yearly Report on the Status of Compliance against Conditions of Environmental Clearance for 700 KTA Ethylene Capacity

Madam,

With reference to the above subject, please find enclosed herewith the following documents for your kind perusal.

- A. Compliance Status against conditions stipulated in “Environmental Clearance” for the period of April 2025 to September 2025.

Reference letter no. J-11011/176/2007-IA II (I) dated 24.08.07 and 28.06.07 for 7,00,000 TPA Ethylene capacity.

- B. Half Yearly Environmental Data Generation Report (April 2025 to September 2025) as Annexure-I.

Trust the above will meet your requirement. In case you need to have further information pertaining to these reports, please do write to us.

Thanking you,

Yours very truly,

Sawhney
02/01/26

Parminder Singh Sawhney
CGM & Head HSEF

CC: The Regional Directorate
CPCB, Kolkata

CC: The Member Secretary
WBPCB, Kolkata

**HALF YEARLY COMPLIANCE
REPORT OF THE CONDITIONS OF THE
ENVIRONMENTAL CLEARANCE FOR
700 KTA ETHYLENE CAPACITY**

PERIOD: April 2025 to September 2025

J-11011/176/2007-IA II (I)



**HALDIA PETROCHEMICALS LTD
P.B.NO. - 12
P.O - DURGACHAK, HALDIA
DIST - PURBA MEDINIPUR
PIN - 721602
WEST BENGAL**

SOL No.4.	MoEF CONDITIONS	Compliance Status as on 30.09.2025
Name of the Project: Expansion of proposed increase in Ethylene Production Capacities from 5,20,000 TPA to 7,00,000 TPA at Haldia Petrochemicals Limited, Haldia, District Purba Medinipur, West Bengal by M/s. Haldia Petrochemicals Limited (HPL) - Environmental Clearance reg. Clearance Letter No.: J-11011/176/2007-IA II (I) dated 24/08/07 and 28/06/07 Period of Compliance Report: April '25 to September '25 Specific Conditions:		
I	The gaseous emissions (SO₂, NO_x, HC, NMHC and Benzene) from the various process units shall conform to the standards prescribed under Environment (Protection) Rules, 1986 or norms stipulated by the SPCB whichever is more stringent. At no time, the emission level should go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.	HPL has been monitoring the gaseous emissions from stacks as well as vent emissions from various process units. The emission level is well within the prescribed standard (Refer Chapter 3 of Half Yearly Environmental Data Generation Report as Annexure – I). There is no point source emission of Non-Methane Hydrocarbon (NMHC) and Benzene from any of the stacks. Presence of NMHC in ambient air is being monitored continuously by on-line Hydrocarbon analyser. HPL re-affirms its commitment to take immediate corrective action whenever the emission level goes beyond set limit. Complied
li	Requisite numbers of ambient air quality monitoring stations, [SPM, SO₂, NO_x, HC, NMHC and Benzene] shall be set up in the Petrochemicals in consultation with SPCB, based on occurrence of maximum ground level concentration and down-wind direction of wind i.e. maximum impact zone. The monitoring network must be decided based on modeling exercise to represent short-term GLCs. Continuous on-line stack monitoring equipment shall be installed for measurement of SO₂ and NO_x. Data on VOC shall be monitored and submitted to the SPCB / Ministry.	- HPL has been monitoring PM₁₀, PM_{2.5}, SO₂, NO_x, and C₆H₆ at 11 nos. of ambient air monitoring stations identified in consultation with WBPCB. In addition, an on-line Ambient Air Quality Monitoring Station (AAQMS) was installed in February 2008 at South Control Room for continuous monitoring of the ambient air quality. The system has been upgraded with new analyzers (PM_{2.5}, Ozone, Ammonia, CO & Benzene) in 2018. - For Benzene monitoring in ambient air, the locations were decided in consultation with WBPCB, and periodic monitoring was started in all On-site & Off-site locations. - VOC (Methane, Non-Methane & Total Hydrocarbon) were monitored in ambient air by online HC Analysers and data submitted to SPCB/MoEF &CC periodically. - The old online stack monitoring systems installed in Auxiliary Boilers & HRSGs were replaced with new

SOI No.4.	MoEF CONDITIONS	Compliance Status as on 30.09.2025
		systems in March, 2017. M/s. Environnement S.A installed the online SO_x, NO_x & CO monitoring system and M/s ICE installed the PM monitoring system in both the Auxiliary Boilers and HRSGs. The integrated system was commissioned and since then the real-time emission data was being sent to the servers of CPCB/ WBPCB. In the heaters of our Naphtha Cracker Unit (NCU) & Pyrolysis Gasoline Hydrogenation Unit (PGHU) sulfur-free fuel gas (RFG-mixture of methane and hydrogen) generated in the plant itself is used as fuel using low-NO_x burners. The NCU heater stacks have on-line analyzers for continuous monitoring of excess oxygen and the calorific value of the fuel. The VOC (Benzene, Butadine& Hexane) analysis was conducted in BEU, BDEU & HDPE plant. Complied
iii	Measures for fugitive emissions control shall be taken by installation of internal floating tanks for storage of light liquid HCs and provision of double mechanical seals to all pumps handling high vapour pressure materials, sensors for detecting HC/toxic gas leakages at strategic locations, regular inspection of floating roof seals, maintenance of valves and other equipments and regular skimming of separators/equalization basin.	Various design and engineering control measures were installed in the design stage itself for the said expansion project in order to ensure that – - Internal & External floating roofs were provided for various liquid hydrocarbons to minimize fugitive emissions. - Pumps handling hydrocarbons were provided with double mechanical seals. - Canned pumps were used in PGHU & BDEU. - Gas detecting sensors were provided at strategic locations, as per requirement, to detect any hydrocarbon leak. - Tanks are periodically inspected to ensure that roof seals are in healthy conditions. - Various types of valves are regularly inspected and maintained periodically. Inspection schedule for various types of valves is in place followed by proper maintenance schedule. FULL COMPLIANCE

S01 No.4.	MoEF CONDITIONS	Compliance Status as on 30.09.2025
iv	The Company shall install vapor collection system for all pressurized hydrocarbon loading and benzene recovery unit for collection of benzene vapor during loading and extraction of benzene. Further, company shall lay dedicated pipeline for ship loading of benzene and butadiene.	Vapor collection system was already provided for loading of all pressurized hydrocarbons. Also, Benzene Recovery Unit (BRU) was provided for safe loading of Benzene into tankers. We also provided dedicated pipeline for ship loading of Benzene and Butadiene. Complied
v	All new standards/norms that are being proposed by the CPCB for petrochemical plants shall be applicable for the proposed naphtha cracker and downstream polymer units. The company shall conform to the proposed process vent standards for organic chemicals including non-VOCs and all possible VOCs i.e. TOCs standard and process vent standards for top priority chemicals. The company shall install online monitors for VOC measurements. Action on the above should be taken during the detailed design stage of the NCU. The project authorities shall take necessary measures to comply with the above proposed emission norms including monitoring facilities and intimate the same to this Ministry.	As per the proposed guidelines vent monitoring was already in place for high priority chemicals like Benzene in Benzene Extraction Unit. The monitoring reports have been enclosed in the Half Yearly Reports submitted to MoEF& CC. The company is committed to fulfill all applicable requirements vis-à-vis CPCB guidelines for Petrochemical Industry. On-line Hydrocarbon Analyzer was set up in our Central Laboratory and AAQMS at SCR for monitoring THC, CH₄ & NMHC in ambient air and the same is being continuously monitored since 2007. Complied
vi	M/s. HPL shall adopt Leak Detection And Repair (LDAR) programme for quantification and control of fugitive emissions.	The LDAR is in practice since it was adopted under CREP for petrochemical industry. We were using Photo Ionization Detector (PID) based analyzers for conducting this exercise in the plant periodically. Report of the same is also available in Half Yearly Data Generation Report (Chapter-8). Complied
vii	To mitigate NO _x emissions, the company shall install low NO _x burners.	The NCU, PGHU furnaces & Boilers in Captive Power Plant (CPP) were equipped with low NO_x burners. Complied
viii	The wastewater effluent shall not exceed 3070 m ³ /d. The wastewater shall be segregated in different streams at the source. The treated effluent after primary, secondary and tertiary treatment shall comply with the standards	The wastewater generated during Apr-Sep 2025 was 2,963 m³/d as against permitted quantity of 3,070 m³/d. Domestic effluent generation was 90 m³/d as against permitted quantity of 300 m³/d.

SOI No.4.	MoEF CONDITIONS	Compliance Status as on 30.09.2025
	stipulated by WBPCB/Central Pollution Control Board. The plant regenerate, cooling tower blow tower and DM plant regenerate shall also be treated in ETP. The treated effluent shall be discharged into the river Hooghly after conforming effluents to the prescribed standards. Domestic effluent shall not exceed 300 m3/d. Which shall be treated in integrated waste water treatment plant.	The effluent were treated in Integrated Wastewater Treatment and quality of discharge were within permitted norms specified by WBPCB. Cooling Tower Blowdown and DM Neutralization Waste were also handled in Wastewater Treatment Plant before being disposed. Since issuance of this EC, there has been further changes in the overall configuration of the plant and total effluent quantity. Compliance is being submitted separately against the new ECs. Complied
ix	The company shall install incinerator for incineration of ETP sludge, Oily sludge and Waste Oil. The gaseous pollutants in the flue gas from the incinerator shall be scrubbed with caustic scrubber. The spent effluent from the scrubber shall be routed through wastewater treatment plant for further treatment.	The incinerator was installed and commissioned in Aug, 2004. It was designed to incinerate mainly the ETP sludge along with provision of small quantity of oily sludge and waste oil. The incinerator was provided with droplet catcher and caustic scrubber to wash the acidic gases from the flue gas. The spent caustic effluent was sent to Wastewater Treatment Plant for subsequent treatment and disposal. The incinerator was not in operation since July 2021 as WBPCB instructed to dispose all the Hazardous Wastes to WBWML. Complied
x	Green belt shall be provided to mitigate the effects of fugitive emissions all around the plant in an area of 103 ha in consultation with DFO as per CPCB guidelines.	Greenbelt of 103 hectare have been developed within the property boundary surrounding the process plants and along the boundary of the property. Action for densification of existing tree plantation areas to meet 2500 trees / hectare is under progress. The work order has been awarded to Wbfdcl (Green Project Wing) vide an MoU signed on 26.05.2025 (Copy enclosed as Annexure II). Additional greenbelt is being developed over 17.8 hectare within the property following CPCB guidelines and contract has been awarded (Ref. Annexure – II). Complied

SOI No.4.	MoEF CONDITIONS	Compliance Status as on 30.09.2025
xi	Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	A full equipped OHC(Occupational Health Centre) is established in the factory premises for undertaking periodic health check of permanent and contractual employees in compliance to the Factories Act. Photographs of the Occupational Health Centre (OHC) and the equipment are enclosed in Annexure III. Every permanent and contract employee undergo mandatory joining premedical health check-up and periodic occupational health check-ups. The periodic medical examination (PME) was conducted for 2003 nos own and contractual employees from April '25 to September '25 as per the Factories Act. The records are maintained in our Occupational Health Center (OHC). Complied
GENERAL CONDITIONS:		
I.	No further expansion or modernization in the plant should be carried out without prior approval of the Ministry of Environment & Forests.	Environment Clearance was obtained for "Expansion of Naphtha cracking facility and Petrochemical products" vide Clearance Letter No.: F. No. J-11011/194/2016-IA-11(1) dated 20.03.2018 Complied
II.	At no time, the emissions should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the units, the respective unit should be immediately put out of operation and should not be restarted until the desired efficiency has been achieved.	HPL always ensures that the emission level is maintained below the prescribed standards all the times. In case of any failure or abnormalities in plant, we always inform to the concerned authorities and shutdown the plant if required unless the corrective actions are taken suitably at our end. Complied
III.	All the recommendations made in the EIA / EMP report and risk assessment report should be implemented.	HPL has complied with all necessary recommendations made in EIA/EMP report and risk assessment report. (Annexure –IV & V). Complied
IV.	The overall noise levels in and around the plant area should be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all	The noise level is measured at various work locations. Various noise control measures are in place to ensure that noise level is maintained in the work zone within the prescribed standards of OSHA (90 dBA for 8 hrs. exposure). The workers'

S01 No.4.	MoEF CONDITIONS	Compliance Status as on 30.09.2025
	sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz 75 dBA (day time) and 70 dBA (night time).	porta cabins were provided at locations where the noise level impact is minimum. The ambient noise level was also measured periodically, and the level was well below the stipulated standards (75 dBA – Daytime and 70 dBA – Night time). Complied
V.	The project authorities must strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989 as amended in 2000 for handling of hazardous chemicals etc. Necessary approvals from Chief Controller of Explosives must be obtained before commission of the project.	Necessary commissioning approval was obtained from CCoE. Complied
VI.	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management and Handling) Rules, 2003. Authorization from the State Pollution Control Board must be obtained for collections/treatment/storage/disposal of hazardous wastes.	HPL had complied with the applicable rules and regulations regarding handling, storage and disposal of hazardous wastes. Complied
VII.	The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes.	The budgeted funds for environmental activities are solely utilized for implementing the conditions stipulated by MoEF&CC/WBPCB. These funds are not diverted to any other job or activities. (Annexure VI). Complied
VIII.	The stipulated conditions will be monitored by the Regional of this Ministry at Bhubaneswar /Central Pollution Control Board/State Pollution Control Board. A six monthly compliance report	The six monthly compliance report along with monitoring data (soft copy) is mailed to MoEF & CC at Kolkata as well as CPCB & WBPCB at Kolkata respectively. Complied

SOL No.4.	MoEF CONDITIONS	Compliance Status as on 30.09.2025
	and the monitored data should be submitted to them regularly.	
IX.	The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at http // www envfor in . This should 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 should be forwarded to the Regional Office.	Advertisement published in two local newspapers in English and vernacular language (Bengali). A copy of the same was sent earlier as a proof of compliance. Complied
X.	The Project Authorities should 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 commencing the land development work.	Not Applicable. The Capacity enhancement didn't require any land development work.