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जल विभाग  
Min. of Environme  
बेज नं. 24  
Bays No. 25, Sec-31 A  
चण्डीगढ़/Chandigarh

Date: 31<sup>st</sup> Oct 2022

Letter No.: 9112-000-GGSPAP-009-2021-060

Your Ref. No.: Environment Clearance Letter No.: J-1101/266/2017-IA-II (I) dated 12 Dec 2017

To,

The Director,  
Minister of Environment Forests & Climate Change,  
Northern Regional Office,  
Bays No. 24-25, Sector 31-A,  
Dakshin Marg,  
Chandigarh-160030

Subject: Compliance report (April 2022 to September 2022) of Polymer Addition Project at Guru Gobind Singh Refinery Complex in District Bathinda (Punjab) by HPCL – Mittal Energy Ltd (HMEL).

Dear Sir,

Please find enclosed compliance report for the period April 2022 to September 2022, for the conditions stipulated in Environment Clearance of Guru Gobind Singh Polymer Addition Project, at Guru Gobind Singh Refinery Complex.

Best Regards,

*Narendra Verma*

**Narendra Verma**

Dy. General Manager-Petrochemical Process  
**Guru Gobind Singh Refinery**  
(A Unit of HPCL-Mittal Energy Limited)  
Village-Phulokhari, Taluka Talwandi Sabo  
Bathinda-151301, Punjab, India

Narendra Verma  
Deputy General Manager - Petrochemical Project

Enclosure:

Annexure-1: Specific conditions as per EC  
Annexure-2: General conditions as per EC

**HPCL-Mittal Energy Limited**

Corporate Office : INOX Tower, Plot No. 17, Sector 16-A, NOIDA-201301 (U.P.) INDIA Tel: +91 120 4634500 Fax: 91 120 4271940 Website: www.hmel.in  
Regd. Office: Village Phulokhari, Taluka Talwandi Saboo, Bathinda, Punjab - 151301 CIN: U23201PB2000PLC024126

**Half Yearly Compliance Report for the period of Apr'2022 to Sept'2022 for Environmental Clearance F. No. J-11011/266/2017-IA-II(I) dated 12th December 2017**

**Status of the Project: The units such as Dual Feed Cracker Unit, Butene – 1, Linear Low Density Polyethylene / High Density Polyethylene Swing Unit, High Density Polyethylene Unit, Polypropylene Unit and Storage Facilities are under construction.**

**Annexure-1: Specific conditions as per EC**

S.No. (As per E.C. letter)	Specific Conditions	Status
1.	In view of the base line air quality data for PM10 & PM2.5 already exceeding the prescribed standards, one more season data to be collected to confirm the consistency of readings/values, and submitted to Ministry/EAC within six-month period positively, along with mitigating measures.	Complied. The air quality data for PM10 and PM2.5 data was submitted to MoEFCC along with mitigation measures vide letter no.: 9112-000-GGSPAP-009-2018-043 on 11 <sup>th</sup> June 2018.
2	During process/detailed engineering, all emission sources shall be equipped with the latest devices to ensure emissions/values in the present readings/values.	Complied. To ensure emissions under control height of stack is kept 70m, eliminated SOx emission from GGSPAP by integrating amine system with refinery and recovering as Sulfur in existing SRU's and Low NOx burners are being used in DFCU and will be having 4 flare headers (Main, polymer, LLP, oxygen rich acid gas).
3	Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act 1981 and the Water (Prevention and Control of Pollution) Act, 1974.	Complied. The Consent to Operate for the project has been obtained from Punjab Pollution Control Board (PPCB) dated 24/09/2022 which is valid till 31st Mar 2025.
4	As already committed by the project proponent, Zero Liquid Discharge shall be adopted.	Complied. GGSPAP has been designed with the philosophy of Zero Liquid Discharge. The treated effluent that will be generated will recycled / reused in greenbelt development, cooling tower make up etc.
5	Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016. Solid waste Management Rules, 2016 shall be obtained and the provisions contained in the rules shall be strictly adhered to.	Being complied. Necessary authorization required under the Hazardous and Other Waste (Management and Trans-Boundary Movement) Rules, 2016 will be obtained from PPCB prior to commissioning. The solid waste that will be generated, will be disposed as per the Solid Waste Management Rules, 2016.

6	Environment standards for Petroleum Oil Refinery dated 18 <sup>th</sup> March 2008 and Environment Standards for Petrochemical (Basic and intermediates) dates on 9 <sup>th</sup> November, 2012, and its amendments from time to time shall be followed.	Complied. As the proposed project covered under this EC, consists of petrochemical units, the environmental standards for Petrochemicals (Basic and intermediates) dated on 9 <sup>th</sup> November, 2012 has been followed. The existing Refinery project is ensuring that environmental standards dated 18 <sup>th</sup> March 2008, prescribed for Petroleum Oil Refinery are being followed.
7	To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. Multi-cyclone followed by bag filter shall be provided to the DCU coke based CFBC boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.	Complied. To control source and the fugitive emissions, suitable pollution control device e.g. Benzene Vapor recovery unit is proposed to be installed and the installation of the same has been incorporated in the design engineering. No CFBC in GGSPAP.
8	The total fresh water requirements shall not be exceed 3500 m <sup>3</sup> /hr from Kotla Canal. Necessary permission in this regard shall be obtained from concerned regulatory authority. No ground water shall be used without prior permission from the CGWA.	Complied. During the operational phase of the project, the total fresh water requirement for GGSPAP shall not exceed 3500 m <sup>3</sup> /hr. from Kotla Canal. The permission in this regard has been obtained from the irrigation dept.
9	Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	Complied. The pipelines are being laid for carrying the process effluent for treatment in ETP. A separate storm water network has been designed to drain storm water in existing storm water pond. The design planning for the project is such that process effluents will not mix with storm water.
10	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arrestors shall be provided on tank farm, and solvent transfer to be done through pumps.	Being complied. The hazardous chemical will be stored in tanks/tank farms. Flame arrestors will be provided in tanks farms at strategic locations. These aspects have being taken care in detailed engineering of the project.
11	Process organic residue and spent carbon shall be sent to cement industries. E.T.P sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.	Being Complied. The condition is taken into consideration in Solid /Hazardous Waste Summary in Project Phase as per EIL Job No. B018. The hazardous waste generated from the project will be stored, transported and disposed as per the Hazardous and Other Wastes

		(Management and Trans Boundary Movement Rules, 2016). Coke generated by furnace decoke will be as fuel for existing refinery CFBC boiler.
12	The company shall strictly comply with the rules and guidelines under Manufacture, Storage and import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous chemicals shall be as per the Motor Vehicle Act (M.V.A) 1989.	Being complied. The company will comply with the Manufacture, Storage and import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All hazardous chemicals shall be transported as per the Motor Vehicle Act (MVA), 1989.
13	Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.	No CFBC coming in the project.
14	The company shall undertake waste minimization measures as below:- a) Metering and control of quantities of active ingredients to minimize waste b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. c) Use of automated filling to minimize spillage d) Use of Close Feed system into batch reactors e) Venting equipment through vapour recovery system f) Use of high pressure hoses for equipment clearing to reduce wastewater generation	Complied. Waste minimization measures as prescribed by MoEFCC has been Incorporated in the design engineering of the project.
15	The green belt at least 10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along roadside etc. As many as 25000 trees to be planted per year during first five years. Selection of plant species shall be as per the CPCB guidelines in consultation with state Forest Department.	Complied. Green belt has been developed as per the latest amended EC obtained from MoEF&CC dated 07th December 2021.
16	At least 2.5% of the total project cost shall be allocated for enterprise social commitment. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	Implementation under finalization
17	For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.	Complied.
18	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.	Complied Firefighting system in manufacturing process and material handling areas are proposed to be installed as per OISD-116 standards.
19	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online	Being complied. Online SOx, NOx, CO and SPM analyzers installed and the online data will be transmitted to

	continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	CPCB/PPCB servers. Similarly online continuous effluent monitoring systems and flow meters will be installed at the ETP and the online data for the same will be transmitted to CPCB/PPCB.
20	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Complied Occupation health surveillance is done once in six months for workers working in operational areas and yearly for workers working in non-operational area.

**Annexure-2 : General conditions as per EC**

S.No. ( As per EC letter )	General Conditions	Status
1	The project authorities must strictly adhere to the stipulations made by the State Government, Central Pollution Control Board, State Pollution Control Board and any other statutory authority	Complied
2	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Complied
3	The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured the at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	Complied. There are 5 no's of ambient air quality monitoring stations for GGSR and GGSPAP complex. These stations have been installed in consultation with the Punjab Pollution Control Board.
4	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R No 826(E) dated 16 <sup>th</sup> November, 2009 shall be followed.	Complied
5	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, silences, enclosures etc. on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under Environment (Protection) Act, 1986 rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time)	Complied Noise control measures such as acoustic hoods, silencers, enclosures etc. are implemented to ensure that the ambient noise levels confirms to the standards prescribed under EPA , 1986 Rules,1989 viz. 75 dBA (day time) and 70 dBA (night time).
6	The company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.	Complied The rainwater harvesting system is being designed in the petrochemical complex in which rainwater will be harvested from the rooftops of the buildings that will be meant for ground water recharge, and storm water drain that will be collected in existing Storm water pond for utilization in firefighting and horticulture.
7	Training shall be imparted to all employees on safety and health aspects of chemical handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Complied Each employee is imparted safety training before issuing gate pass and refresher training is done after 6 months. Health check is done six monthly for employees working operation area and yearly for workers working in nonoperational area.

8	The company shall also comply with all the environment 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.	Complied The company shall comply with all the environment protection measures and safeguards proposed in the documents submitted to the Ministry. {REPORT NO. B018-1742-EI-1701 August 2017} All the recommendations made in the EIA/EMP in respect of environmental management and risk mitigation measures relating to the project will be Implemented.
9	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. ESC activities shall be undertaken by involving local villages and administration.	Complied
10	The company shall undertake eco-development measures including community welfare measures in the project area for the overall improvement of the environment.	Complied
11	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement conditions stipulated by the Ministry of 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.	Complied The company has earmarked sufficient funds towards capital cost and recurring cost per annum to implement conditions stipulated by the MoEF &CC as well as PPCB and the funds earmarked will not be diverted for any other purpose.
12	A copy of clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Prishad / Municipal Corporation, Urban local Body and the local NGO, If any, from whom suggestions / representations if any, were received while processing the proposal.	Complied The company has not received any suggestions/representations while processing the proposal.
13	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environment 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 Environment Clearance and six-monthly compliance status report shall be posted on the website of the company.	Complied. Last six monthly compliance report (Oct'2021 to Mar'2022) was submitted vide letter no. 9112-000-GGSPAP-009-2021-059. dated 19 <sup>th</sup> Apr 2022 and compliance reports for the same has been uploaded on the website of HMEL with following link.  <a href="#">HMEL - Disclosures and Reports</a>
14	The environment statement for each financial year ending 31 <sup>st</sup> 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	Complied. The environment statement for financial year 2021-22 ending 31st March 2022 in Form-V was submitted to the concerned MoEF &CC, Regional Office, Chandigarh and Punjab Pollution Control

	shall also be send to the respective Regional Offices of MoEF &CC by e-mail.	Board, Regional Office, Bathinda vide letter no: HMEL-TS-40-ENV-966 dated 26 <sup>th</sup> September, 2022.
15	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 at <a href="http://parivesh.nic.in/">http://parivesh.nic.in/</a> . 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 other concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Complied The copy of the advertisement publishing the accordance of Environmental Clearance by MoEF&CC in the two local widely circulated newspaper namely Tribune Bathinda (English) and Ajit (Punjabi) was done on 15th Dec 2017.
16	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.	Date of start of the project : 24 April 2017 Date of financial closure: May 2017 Date of final approval : April 2017