

F. No. J-11011/275/2007 IA II (I)
Government of India
Ministry of Environment, Forest and Climate Change
(I.A. Division)

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Dated 22nd June, 2015

To,

Shri Tapash Pramanik,
Vice President – Technical (HQ)
M/s HPCL Mittal Energy Ltd
Inox Towers, Plot No.17,
Sector 16, NOIDA- 201301 (U.P.)

Email.: tapash.pramanik@hmel.in FAX : 911204271938

Subject : Expansion of Refinery from 9MMTPA to 11.25MMTPA at Village Phulo Kheri, Tehsil Talwandi Saboo, District Bhatinda, Punjab by M/s HPCL-Mittal Energy Limited - Environmental Clearance reg.

Ref.: Your proposal no. IA/PB/IND/26087/2013 dated 12th January, 2015.

Sir,

This has reference to your proposal no. IA/PB/IND/26087/2013 dated 12th January, 2015 alongwith project documents including Form 1, Prefeasibility Report, Draft Terms of References, EIA/EMP report, Public Hearing report and subsequent communications vide e-mail dated 16th February 2015 on the above mentioned subject.

2.0 The Ministry of Environment, Forest and Climate Change has examined your application. It is noted that the proposal is for expansion of Refinery from 9MMTPA to 11.25MMTPA of HPCL-Mittal Energy Ltd Village PhuloKheri Tehsil, Bhatinda, Punjab by M/s HPCL-Mittal Energy Limited. Augmentation of refinery capacity from 9 MMTPA to 11.25 MMTPA will be done by debottlenecking. It is reported that no ecological sensitive area/ reserve forest /protected forest is located within 10 km distance. Bakhra canal is flowing at a distance of 3.4 Km. Total plot area is 2000 acres. No additional land is required. Cost of the expansion project is Rs. 2160 Crore. Rs. 70 Crore is earmarked towards capital cost for implementation of EMP. The following are the existing and proposed products:

S.N.	Products	Existing Configuration @ 9 MMTPA	Proposed Configuration @ 11.25 MMTPA
1	LPG (TMTA)	737	963 TMTA
2	Naptha (TMTA)	396	871.7 TMTA
3	Gasoline (TMTA)	Euro IV Reg 750 Euro IV PRE 250	Bharat IV Reg. 1306.4 Bharat IV PRE 25
4	ATF (TMTA)	500	500 TMTA
5	Kerosene (TMTA)	200	200 TMTA
6	Diesel (TMTA)	3692 (Euro IV)	Bharat IV 4842.6 MMTPA
7	Sulphur (TMTA)	198	227 TMTA
8	Coke (TMTA)	904	991.5 TMTA



9	Hexane (TMTPA)	5	5TMTPA
10	Motor Turpentine oil (TMTPA)	25	25TMTPA
11	Polypropylene (TMTPA)	358	500 TMTPA
12	Bitumen	--	520 TMTPA

In addition, some new facilities are being added to improve the profitability of the refinery. The new process units have been proposed to be installed under expansion are New Bitumen Blowing Unit (0.52 MMTPA) and New Sulphur Recovery Unit (1x 300 TPD). Following offsite additional tanks will be created :

Tank	No. of Tanks	Additional Total Capacity (m ³)
Crude	1	60000
VGO HDT Feed	1	34410
DHDT Feed/Product	1	20000
FCC-PC Feed	1	35000
Dry Slop (Light)	1	20000
MS Component Tanks	1	6000
	1	3000
MS-III	1	9000
Naptha	1	9000
HSD-III/IV	2	2x55000=110000
Sweet SKO	1	4500
Bitumen	3	3x17500=52500
Day Storage Tanks		
MS-III	1	1000
MS-IV	1	5000
HSD-III	1	1000
HSD-IV	1	5000
ATF	1	1000
LPG	6	6x2900= 17400

To increase the reliability of current steam generation system and to provide flexibility in use of fuels, 2 new CFBC type coal/petcoke fired steam generators are planned to installed. Each steam generator would be of 300 TPH capacity.

3.0 ESP alongwith in stack of adequate height will be provided to pet coke/coal fired boiler. Limestone will be injected to pet coke/coal fired boiler to control SO₂ emission. SO₂ emissions after expansion from the plant will be 23.64 TPD. New Sulphur recovery unit (1 x300 TPD) will be installed. The overall sulphur recovery efficiency of Sulphur recovery unit with tail gas treating will be 99.9%. Heaters /furnaces will be provided with low NO_x burners to reduce the emissions of Nitrogen Oxides (NO_x). Flare gas recovery system will be installed. Adequate height of flares will be provided. Fresh water requirement from Kotla Canal will be increased from 1902 m³/hr to 2420 m³/hr. after expansion. Industrial effluent generation will be increased from 720 m³/hr to 793 m³/hr after expansion. Out of which, 376 m³/hr of industrial effluent generated from cooling tower blow down and boiler blow down will be treated in Reverse Osmosis (RO) and Demineralize Plant (DM) and the permeate will be recycled for cooling tower make up and boiler blow down. RO rejects will be evaporated in the Multiple effect evaporator (MEE). Process effluent and condensate from MEE will be treated in the ETP comprising API and TPI oil removal units, biological treatment units such as SBR, MBR and tertiary treatment unit. Treated effluent will be recycled for cooling tower make up water and reused for horticulture/gardening. Domestic sewage shall be treated in sewage treatment plant (STP). Treated sewage will be used for horticulture/gardening purpose. No effluent will be discharged outside the plant premises and 'Zero' effluent discharge condition will be followed. Adequate oil catcher shall be provided in the storm water drain to trap floating oil and grease and passed through guard pond. Chemical/inorganic sludge will be sent to treatment storage disposal facility (TSDF) for hazardous waste. Spent catalyst and waste oil will be sent to

- vii. SO₂ emissions after expansion from the plant shall not exceed 23.64 TPD and further efforts shall be made for reduction of SO₂ load through use of low sulphur fuel. Sulphur recovery units shall be installed for control of H₂S emissions. The overall sulphur recovery efficiency of Sulphur recovery unit with tail gas treating shall not be less than 99.9%.
- viii. As proposed, record of sulphur balance shall be maintained at the Refinery as part of the environmental data on regular basis. The basic component of sulphur balance include sulphur input through feed (sulphur content in crude oil), sulphur output from Refinery through products, byproduct (elemental sulphur), atmospheric emissions etc.
- ix. Flare gas recovery system shall be installed.
- x. Ambient air quality monitoring stations, [PM₁₀, PM_{2.5}, SO₂, NO_x, H₂S, mercaptan, non-methane-HC and Benzene] shall be set up in the complex in consultation with State Pollution Control Board, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs. Trend analysis w.r.t past monitoring results shall also be carried out. Adequate measures based on the trend analysis shall be taken to improve the ambient air quality in the project area.
- xi. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Besides, acoustic enclosure /silencer shall be installed wherever noise levels exceed the limit. Acoustic enclosure /silencer should be installed wherever it is possible.
- xii. Total water requirement from Kotla Canal after expansion shall not exceed 2420 m³/hr and prior permission shall be obtained from the competent authority. Industrial effluent generation shall not exceed 720 m³/hr. and treated in the effluent treatment plant. Out of which, 376 m³/hr of industrial effluent generated from cooling tower blow down and boiler blow down shall be treated through Reverse Osmosis (RO) and Demineralize Plant (DM) and the permeate shall be recycled for cooling tower make up and boiler blow down. RO rejects shall be evaporated in the Multiple effect evaporator (MEE). Process effluent and condensate from MEE shall be treated in the ETP comprising API and TPI oil removal units, biological treatment units such as SBR, MBR and tertiary treatment unit. Treated effluent shall be recycled for cooling tower make up water and reused for horticulture/gardening. Domestic sewage shall be treated in sewage treatment plant (STP). Domestic sewage shall be treated in sewage treatment plant (STP).
- xiii. All the effluents after treatment shall be routed to a properly lined guard pond for equalization and final control. In the guard pond, automatic monitoring system for flow rate, pH and TOC shall be provided. Data shall be uploaded on company's website and provide to respective Regional Office of MEF&CC and SPCB.
- xiv. Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.
- xv. Oily sludge shall be disposed off into Coker and balance oily sludge will be treated in the bioremediation facility. Annual Oily sludge generation and disposal data shall be submitted to the Ministry's Regional Office and CPCB.
- xvi. The Company should strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000. Hazardous waste should be disposed of as per Hazardous Waste

authorized recyclers/re-processors. Oily sludge will be processed in delay coker unit (DCU) and balance oily sludge will be treated in the bioremediation facility. Fly ash will be sent to cement plant.

4.0 All the Petroleum Refinery Plants are listed at S.N. 4(a) under Category 'A' and appraised at the Central level.

5.0 Public hearing/consultation was conducted on 14th October, 2014.

6.0 The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 16th, 32nd and 34th meetings held during 20th – 21st February, 2014, 20th – 21st January, 2015 and 17th - 19th February, 2015 respectively. Project Proponent and the EIA Consultant namely M/s Kadam Environmental Consultants, have presented EIA / EMP report as per the TOR. EAC has found the EIA / EMP Report and additional information to be satisfactory and in full consonance with the presented TORs. The Committee recommended the proposal for environmental clearance.

7.0 Based on the information submitted by the project proponent, the Ministry of Environment and Forest hereby accords environmental clearance to above project under the provisions of EIA Notification dated 14th September 2006, subject to the compliance of the following Specific and General Conditions:

A. SPECIFIC CONDITIONS :

- i. Compliance to all the environmental conditions stipulated in the environmental clearance letter nos. J-11011/24/98-IA II dated 6th November, 1998 and J-11011/275/2007-IA.II dated 16th July, 2007 shall be satisfactorily implemented and compliance reports submitted to the Ministry's Regional Office at Chandigarh.
- ii. M/s HPCL-Mittal Energy Limited shall comply with new standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186(E) dated 18th March, 2008.
- iii. Continuous on-line stack monitoring for SO₂, NO_x and CO of all the stacks shall be carried out. Low NO_x burners shall be installed.
- iv. ESP alongwith stack of adequate height shall be provided to pet coke/coal fired boiler. Limestone will be injected to pet coke/coal fired boiler to control SO₂ emission.
- v. The process emissions [SO₂, NO_x, HC (Methane & Non-methane)], VOCs and Benzene from various units shall conform to the standards prescribed under the Environment (Protection) Act. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.
- vi. Leak Detection and Repair programme shall be prepared and implemented to control HC/VOC emissions. Focus shall be given to prevent fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations.

(Management, Handling and Trans-boundary Movement) Rules, 2008 and amended time to time.

- xvii. The membership of common TSDF should be obtained for the disposal of hazardous waste. Copy of authorization or membership of TSDF should be submitted to Ministry's Regional Office at Chandigarh. Chemical/inorganic sludge shall be sent to treatment storage disposal facility (TSDF) for hazardous waste. Spent catalyst shall be sent to authorized recyclers/re-processors.
- xviii. Proper oil spillage prevention management plan shall be prepared to avoid spillage/leakage of oil/petroleum products and ensure regular monitoring.
- xix. The company shall strictly follow all the recommendation mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).
- xx. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xxi. As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xxii. Company shall prepare project specific environmental manual and a copy shall be made available at the project site for the compliance.
- xxiii. All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented. The company should make the arrangement for protection of possible fire and explosion hazards during manufacturing process in material handling.
- xxiv. All the commitment made regarding issues raised during the public hearing/ consultation meeting held on 14th October, 2014 shall be satisfactorily implemented. Accordingly, provision of budget to be kept.
- xxv. At least 2.5 % (Rs. 54 Crore) of the total cost of the project shall be earmarked towards the Enterprise social responsibility based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Chandigarh. Implementation of such program shall be ensured accordingly in a time bound manner.
- xxvi. Company shall adopt Corporate Environment Policy as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26th April, 2011 and implemented
- xxvii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

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B. GENERAL CONDITIONS:

- i. The project authorities shall strictly adhere to the stipulations made by the State Government and Punjab Pollution Control Board.
- ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forest. 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.
- iii. The locations of ambient air quality monitoring stations shall be decided in consultation with the Punjab Pollution Control Board (PPCB) and it shall be ensured that at least one station is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- iv. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- v. 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.
- vi. The Company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and its amendment time to time and prior permission from PPCB shall be obtained for disposal of solid / hazardous waste including boiler ash.
- vii. During transfer of materials, spillages shall be avoided and garland drains be constructed to avoid mixing of accidental spillages with domestic wastewater and storm water drains.
- viii. Usage of Personnel Protection Equipments by all employees/ workers shall be ensured.
- ix. Training shall be imparted to all employees on safety and health aspects of chemicals 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.
- x. The company shall also comply with all the environmental protection measures and safeguards proposed in the project report submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.
- xi. The company shall undertake CSR activities and all relevant measures for improving the socio-economic conditions of the surrounding area.
- xii. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.



- xiii. A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- xiv. As proposed, the company shall earmark sufficient funds toward capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forest 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.
- xv. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad/Municipal Corporation, Urban local Body and the local NGO, if any, from who suggestions/ representations, if any, were received while processing the proposal.
- xvi. 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, the respective Zonal Office of CPCB and the Punjab Pollution Control Board. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- xvii. The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the Punjab 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 Chandigarh Regional Offices of MoEF by e-mail.
- xviii. 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 <http://envfor.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- xix. 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.

8.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

9.0 The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.

10.0 The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

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11.0 Environmental Clearance is issued to M/s HPCL for expansion of refinery from 9 MMTPA to 11.25 MMTPA at Village Phulo Kheri, Tehsil Talwandi Saboo, District Bhatinda, Punjab.


(Lalit Bokolia)
Additional Director

Copy to :-

1. The Principal Secretary, Environment Department, Government of Punjab, Chandigarh.
2. The Chief Conservator of Forest, Regional Office (Northern Zone), Bay No.24-25, Sector 31-A, DakshimMarg, Chandigarh-160030.
3. The Chairman, Central Pollution Control Board PariveshBhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Punjab Pollution Control Board, VatavaranBhawan, Nabha Road, Patiala, 147001, Punjab.
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jorbagh, New Delhi.
6. Guard File/Monitoring File/Record File/ Notice Board.


(Lalit Bokolia)
Additional Director