

**F. No. J-11011/25/1998-IA.II (I) Pt.**  
**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**(Impact Assessment Division)**

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Dated: 19<sup>th</sup> June, 2017

To,

**The Assistant General Manager –Pipeline**  
**(Shri Prodip Kumar Biswas)**  
**M/s HPCL-Mittal Pipelines Limited (HMPL)**  
**INOX Towers, Plot No. 17, Sector -16A,**  
**Noida - 201301, Uttar Pradesh**

**Sub: Expansion of Single Point Mooring (SPM), Crude Oil Terminal (COT), the pipeline connecting SPM to COT at Mundra Port and Crude Oil Pipeline from Mundra Coast in Gujarat to Bathinda in Punjab from 9 MMTPA to 11.25 MMTPA by upgrading 2 nos. intermediate pigging stations into pumping stations by M/s HPCL-Mittal Pipelines Limited (HMPL) - Environmental Clearance – reg.**

**Ref: Online Proposal No. IA/GJ/IND2/62610/2015 dated 17<sup>th</sup> February, 2017.**

Sir,

This has reference to your online proposal no. IA/GJ/IND2/62610/2015 dated 17<sup>th</sup> February, 2017, along with project documents including Form I, Terms of References, Pre-feasibility Report and EIA/EMP Report regarding the above mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the application. It is noted that the proposal is for Expansion of Single Point Mooring (SPM), Crude Oil Terminal (COT), the pipeline connecting SPM to COT at Mundra Port and Crude Oil Pipeline from Mundra Coast in Gujarat to Bathinda in Punjab from 9 MMTPA to 11.25 MMTPA by upgrading 2 nos. intermediate pigging stations into pumping stations by M/s HPCL-Mittal Pipelines Limited (HMPL). As informed and as per the documents submitted by the Project Proponent (PP), existing land area is sufficient for the proposed project and no additional land will be used for proposed expansion. Industry will develop greenbelt in an area of 25% i.e, 2.5Ha out of 10 Ha of area of the project. The estimated Project cost is ₹ 2541 Crores including existing investment of ₹ 2389 crores. Total capital cost earmarked towards environmental pollution control measures is ₹ 19.5 Crores (₹ 12 Crores existing + proposed ₹ 7.5 Crores) and the recurring cost (operation and maintenance) will be about ₹ 56 Lakhs per annum. Total employment will be 100-200 persons as contract (indirect construction phase) and 26 – 28 persons direct after expansion. Industry proposes to allocate ₹ 7.5 crores@ of 5% towards Corporate Social Responsibility. It is reported that no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10Km distance. Banas River is flowing at a distance of 13 km in east direction of IPS-2. No river/water body is located near/within 10 Km of IPS-4.



3. All Oil & gas transportation pipe line (crude and refinery/petrochemical products), passing through national parks/sanctuaries/coral reefs/ecologically sensitive areas including LNG Terminal are listed at S. N. 6(a) of Schedule of Environmental Impact Assessment (EIA) Notification under Category 'A' and is appraised at Central Level by Expert Appraisal Committee (EAC).

4. Ministry has issued EC vide letter no. J-11011/25/98-IA.II (I) dated 31.07.2008 for Crude Oil Pipeline from Mundra Coast to Bathinda in Punjab unit and 10-5/08-IA.III dated 23.12.2008 for Single Point Mooring (SPM), Crude Oil Terminal (COT), the Pipeline connecting SPM to COT at Mundra Port to M/s HMPL. The proposed project is expansion of the existing projects and hence the EC is mandatory.

5. The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 8<sup>th</sup> EAC meeting held during 26<sup>th</sup> - 27<sup>th</sup> May, 2016 and recommended Terms of References (TORs) for the Project. The TOR has been issued by the Ministry vide Letter no. J-11011/25/1998/2015-IA.II (I) dated 11.07.2016.

6. The EAC (Industry-2) in its 21<sup>st</sup> meeting held during 27<sup>th</sup> - 29<sup>th</sup> March, 2017 has considered the proposal for Environmental Clearance (EC). The Project Proponent and the accredited consultant M/s Engineers India Limited, New Delhi gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken, as per the Terms of References (TORs).

7. The Mundra -Bathinda pipeline presently transports imported crude oil blends from Mundra Port to Guru Gobind Singh Refinery of HMEL at an installed capacity of 9 MMTPA with its head pumping station (also called dispatch terminal or DT) at Khasra no. 141/P, Village Mundra, Taluka Mundra, District Kutch in Gujarat and an intermediate pumping station (also called IPS - 3) at Survey Nos. 152, 156, 157, 172, 173, Village Dhansa, Tehsil Jaswantpura, District Jalore in Rajasthan with provisions to expand its capacity to 18 MMTPA by converting its four intermediate pigging stations into pumping stations. The four intermediate pigging stations are located as under along the pipeline and have sufficient land for conversion into pumping stations.

- a) IPS-1: Survey Nos. 103/2- P1&P2, 104, 105, Village Dedarva, Taluka Rapar, District Kutch in Gujarat.
- b) IPS -2: Survey Nos. 90/1P, 91, 92P1, Village Juna Raviyana, Taluka Kankrej, District Banaskantha in Gujarat
- c) IPS -4: Survey No. 219, Village Jud, Tehsil Osiyan, District Jodhpur in Rajasthan
- d) IPS - 5: Survey No. 67, Town Shri Dungargarh, Tehsil Shri Dungargarh, District Bikaner in Rajasthan

8. In the proposed project, the two of the four intermediate pigging stations of MBPL are proposed to be converted into pumping stations as under:

- a) One among IPS-1 & IPS-2 will be selected for conversion based on engineering studies.
- b) One among IPS-4 & IPS-5 will be selected for conversion based on engineering studies.



9. In these pumping stations, the crude oil will flow from pig receiver bypass line, will be filtered by the basket filters, monitored by ultrasonic flow meter, its pressure will be boosted by the mainline pumps and will flow back into the pipeline. Drained oil from pig receiver, main line pumps and basket filters shall be routed to existing licensed underground sump tanks from where it shall be pumped back into the pipeline. In case of any accidental spillage/leakage, oil will be recovered manually as far as practicable for suitable recovery. In emergency, the pumping shall be stopped bypassing the crude oil flow in Mundra -Bathinda pipeline. The project involves setting up of the following major facilities at each of these selected intermediate pigging stations:

- (i). Pumps, DG sets, metering unit, filtering unit, fire water network with pumps, pump sheds, control room, warehouse, canteen, parking sheds etc.
- (ii). Alternative sites for the proposed project have not been considered as these intermediate pigging stations have sufficient land for conversion into pumping stations.

10. It is reported that, there is practically no requirement of constructing any additional facility at COT or the SPM or the pipeline connecting the SPM to COT or the Mundra -Bathinda Pipeline itself for their capacity expansion from present 9 MMTPA to 11.25 MMTPA. The capacity expansion of the SPM will be achieved by increasing the berth occupancy at the SPM from present approx. 19% to approx. 24% i.e. by unloading more crude oil tankers at the SPM to fill the storage tanks at COT at a higher frequency. Similarly capacity expansion of the COT from present 9 MMTPA to 11.25 MMTPA can be achieved by receiving crude oil from the SPM at a higher frequency commensurate to its berth occupancy of approx. 24% and pumping out the crude oil into the Mundra -Bathinda pipeline at a higher flow rate than present.

11. The Public hearing has been exempted under section 7 (ii) of EIA Notification, 2006.

12. The PP has submitted the copy of certified compliance report submitted by RO, MoEF&CC (letter no. 6-1/2009(ENV)/109 dated 17/03/2017 and 5-41/2000-RO (NZ)/89-91/91 dated 21.03.2017). The EAC has deliberated on the compliance report and found it to be satisfactory.

13. Ambient air quality monitoring was carried out at 12 locations during November 2016 to January 2017 and submitted baseline data indicates that ranges of concentrations as: PM<sub>10</sub> (68-88ug/m<sup>3</sup>), PM<sub>2.5</sub> (37-56ug/m<sup>3</sup>), SO<sub>2</sub> (6-11ug/m<sup>3</sup>) and NO<sub>2</sub> (16-26ug/m<sup>3</sup>). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

14. Total fresh water requirement is 48.4m<sup>3</sup>/day and will be met from ground water. Treated effluent of 4.6KLD (sewage) will be treated through soak pit plant will be based on zero liquid discharge system.

15. Power requirement after expansion will be 24MW including existing 12000 KVA and will be met from Gujarat/Rajasthan state power distribution corporation limited. Existing unit has 1 DG set of 165 KW capacity. Stack (height building height +1.5m) will be provided as per CPCB norms to the proposed DG sets of one per station in addition to the existing DG sets of one per station which will be used as standby during power failure.



16. The Solid waste/Hazardous waste generation (per station) and its management (member of TSDF) are as follows:

No.	Items	Category as per HW Rules	Unit	Quantity	Treatment / Disposal Method
1	Pigging Waste	3.3	MT/month	0.5	TSDF
2	Sludge from Tank Cleaning, used Filter Elements	3.3	Tons/5 Years	2	TSDF
3	Used Lube Oil	5.1	MT/year	2	Authorized Recyclers
4	Used Pig Cups/Discarded Containers/Barrels	33.3	Nos./year	16 pig cups 5 Discarded Containers/Barrels	TSDF

17. The EAC, in its 21<sup>st</sup> meeting held during 27<sup>th</sup> – 29<sup>th</sup> March, 2017, has found that the final EIA/EMP report submitted by the PP is adequate. The EAC after detailed deliberations, on the basis of the information and presentation made by the PP, has recommended the project for environmental clearance with certain conditions.

18. Based on the proposal and information submitted by the Project Proponent, and considering the recommendation of the Expert Appraisal Committee (Industry-2), the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the above project under the provisions of EIA Notification dated 14<sup>th</sup> September 2006, subject to the compliance of the following Specific and General Conditions:

#### A. Specific Conditions:

- 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.
- The project authority i.e. M/s HPCL-Mittal Pipelines Ltd (HMPL) shall ensure restoration of the Right of Way to preconstruction level as soon as construction activity completed. To ensure prevention of soil erosion, backfilled areas should be properly compacted.
- The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the natural gas shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141.
- Annual safety audit shall be carried out for the initial three years by an independent agency and report submitted to this Ministry for ensuring the strict compliance of safety regulations on operation and maintenance.
- The construction of pipeline particularly at the river and stream crossing shall be done during dry seasons to avoid disturbance of breeding seasons and soil erosion. The riverbed, embankments and/dykes shall be restored adequately after installation of crossings.
- Pipeline wall thickness and minimum depth of burial at river crossings and casings at rails, major road crossings shall be in conformity with ANSI/ASME requirements.

- vii. The company shall follow horizontal drilling technique for laying of pipeline while passing through major rivers.
- viii. The project authorities shall install SCADA system with dedicated optical fiber based telecommunication link for safe operation of pipeline and Leak Detection System. Additional sectionalizing valves in the residential areas and sensitive location shall be provided to prevent the leaking of gas going to the atmosphere in the event of pipeline failure. Intelligent pigging facility shall be provided for the entire pipeline system for internal corrosion monitoring. Coating and impressed current cathodic protection system shall be provided to prevent external corrosion.
- ix. The project authorities shall patrol and inspect the pipeline regularly for detection of faults as per OISD guidelines and continuous monitoring of pipeline operation by adopting non-destructive method(s) of testing as envisaged in the EMP. Pearson survey and continuous potential survey shall be carried out at regular intervals to ensure the adequacy of cathodic protection system.
- x. Necessary approvals from Chief Controller of Explosives must be obtained before commission of project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented. It is necessary that integrated DMP should be in place as the pipeline is passing through four Districts.
- xi. The acoustic chambers/barriers should be provided for individual units wherever feasible in the compressor stations.
- xii. The workers camp should have arrangement for safe drinking water, hygienic kitchen and sanitation facilities. The wastewater should be properly treated before disposal.
- xiii. The company shall obtain all requisite clearances for fire safety and explosives and shall comply with the stipulation made by the respective authorities.
- xiv. PP shall spend 5 % of project cost under ESR activities for Drinking water (RO) to schools, computer facility to Schools/colleges and solar panel to school/college/health centres, in the villages where the pipeline is passing. PP shall also maintain the facilities.

#### **B. General Conditions:**

- i. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Boards, State Governments and any other statutory authority.
- ii. No further expansion or modifications in the pipeline 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.
- iii. 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 that at least one stations is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- iv. 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.
- v. 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).
- vi. 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.
  - vii. The company shall also 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.
  - viii. 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.
  - ix. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
  - x. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
  - xi. The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the 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.
  - xii. 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.
  - xiii. 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.
  - xiv. The environmental 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 shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
  - xv. 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://moef.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.




xvi. 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.

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


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

21. The above conditions will be enforced, *inter alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

  
19.6.2017  
(Yogendra Pal Singh)  
Scientist 'D'

**Copy to:-**

1. The Secretary, Forests and Environment Department, Government of Gujarat, Block 14, 8<sup>th</sup> floor, Sachivalaya, Gandhinagar - 382 010, Gujarat.
2. The Secretary, Environment Department, Government of Rajasthan.
3. The Secretary, Environment Protection Department, Government of Punjab, Gate No. 8, National Hockey Stadium, Qaddafi Stadium, Ferozepur Road, Lahore.
4. The Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road - 3, Ravishankar Nagar, Bhopal - 462 016
5. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110 032.
6. The Chairman, Gujarat Pollution Control Board, Paryavaran Bhawan, Sector-10A, Gandhinagar - 382 010, Gujarat.
7. The Chairman, Rajasthan State Pollution Control Board, 4, Institutional Area, Jhalana Doongri, Jaipur.
8. The Chairman, Punjab Pollution Control Board, Vatavaran Bhawan, Nabha Road, Patiala
9. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh, New Delhi - 110 003.
10. Guard File/Monitoring File/Website/Record File.

  
19.6.2017  
(Yogendra Pal Singh)  
Scientist 'D'

