

F. No. J-11011/320/2010-IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi – 110 003

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Dated 14th January, 2011

To,

✓ Shri R.R. Prajapati, Chief Manager (Engg.)
 M/s Indian Oil Corporation Ltd.
 Indian Oil Bhawan, G-9, Ali Yavar Jung Marg
 Bandra (East), Mumbai-400051, Maharashtra

E-mail : dhootuk@iocl.co.in ; Fax No.:0120-2448031.

Subject: Pipeline Terminal (POL) for storage and marketing of Petroleum Products (37,590 KL) including branch line facilities from Haldia-Barauni Pipeline at Jasidih, District Deoghar, Jharkhand by M/s Indian Oil Corporation Ltd. – Environmental clearance reg.

Ref. : Your letter no. HO/PJ/JSD/MoEF dated 24th June, 2010.

Sir,

This has reference to your letter no. HO/PJ/JSD/MoEF dated 24th June, 2010 on the above mentioned subject alongwith project documents including Prefeasibility Report, Draft Terms of References, EIA/EMP report on the above mentioned subject.

2.0 The Ministry of Environment & Forests has examined your application. It is noted that the proposal is for the Pipeline Terminal (POL) for storage and marketing of Petroleum Products (37,590 KL) including branch line facilities from Haldia-Barauni Pipeline at Jasidih, District Deoghar, Jharkhand by M/s Indian Oil Corporation Ltd. Proposed oil terminal will be located in notified industrial area. Total project area is 70 acre out of which 26 acres is earmarked for the terminal and 5 acres for the pipeline. Proposed oil terminal will be at 1.5 km from Jasidih town and 1.2 km from Jasidih Railway Station. Total cost of the project will be Rs. 83.3 Crores. Following are the details of the facilities to be installed:

S.N.	Product-Nos. of Tanks	Type of Tank	Capacity in KLS
1.	MS-3 Nos.	FRVT	10694 Kls (2x4241 KL, 1x2212 KL)
2.	HSD-4 Nos.	CRVT	15814 Kls (2x5303 KL, 2x2604 KL)
3.	SKO-3 Nos	CRVT	4882 KI (1x3006 KL, 2x938 KL)
4.	Ethanol – 3 Nos.	Horizontal tank	210 KI (3x 70 KL)
5	Transmix Tank-01		1 x 500

3.0 No chemical or physical processing is involved. Petroleum products such as MS, HSD & SKO will be received through Haldia-Barauni product pipeline to the proposed site and stored in 12 steel tanks (31,590 KL petrol diesel, kerosene oil and ethanol).

4.0 Stacks of adequate height will be provided to D.G. set (250 KVA) to control emissions. Vapor recovery system will be installed to control leakage of vapors from MS loading system. Carbon Vacuum Adsorption System will be installed to control vapors and volatile organic compound (VOC) due to storage of petroleum products. Total ground water requirement will be 6 m³/day. Industrial wastewater will be treated in the oil wastewater separator with effluent water and used for irrigation, green belt development, fire water make-up etc. No effluent will be discharged outside the premises and 'Zero' discharge will be adopted. The oil collected in the oil water separator will be returned to the refinery for reprocessing. Oil Industry Safety Directorate (OISD) guidelines regarding safety against fire, spillage, pollution control etc. will be followed. Fire fighting facilities will be as per OISD-117.

5.0 The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 4th Meeting of the Expert Appraisal Committee (Industry) held during 23rd-24th October, 2009 for the award of 'Terms of References'.

6.0 Public hearing/consultation is exempted as per Section 7 (i), (iii) Stage (3), Para (i)(b) of EIA Notification 2006.

7.0 The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14th September, 2006 subject to strict compliance of the following specific and general conditions:

A. SPECIFIC CONDITIONS :

- i. All the tanks of Motor Spirit should be installed in such a way so as to get maximum distance for them from boundary wall. Additional safety measures like water sprinklers all around the tank farm or other suitable location to prevent any accidental vapour release from spreading outside should be installed to control vapour leakage.
- ii. Regular ambient air quality monitoring of PM₁₀, SO₂, NO_x, VOCs and HC (Methane and Non-methane) shall be monitored and displayed at a convenient location near the main gate of the company and at important public places. The location and results of existing monitoring stations shall be reviewed in consultation with the concerned State Pollution Control Board based on the occurrence of maximum ground level concentration and downwind direction of wind. If required, additional stations shall be set up. At least one monitoring station shall be set up in up-wind & down-wind direction alongwith those in other directions.
- iii. Regularly monitoring of VOC and HC in the work zone area in the plant premises shall be carried and data be submitted to Ministry's Regional Office at Bhopal, CPCB and Jharkhand Pollution Control Board. Quarterly monitoring for fugitive emissions shall be carried out as per the guidelines of CPCB and reports submitted to Ministry's Regional Office at Bhopal.
- iv. The tanks for the storage of Motor Spirit should be provided with floating roof and liquid mounted shoe type double seal as per the Gazette Notification (Extra Ordinary) dated 18th March, 2008.

- v. Total ground water requirement shall not exceed 6 m³/day and prior permission shall be obtained from the SGWB/CGWB. Oil industrial waste water (2.25 m³/day) from washing of the facilities etc. shall be treated in the oil waster separator with effluent water having oil content less than 10 ppm and used for green belt development, fire water make-up etc. The oil collected in the oil water separator shall be collected in storage containers and returned to the refinery for reprocessing. No effluent shall be discharged outside the premises and 'Zero' discharge shall be adopted. During upset conditions and rainy season, treated wastewater will be discharged to the nearby nallah only after ensuring all the parameters within permissible limit. Domestic effluent shall be treated in septic tank followed by soak pit.
- vi. The company shall construct the garland drain all around the project site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated streams. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards. No effluent shall be discharged outside the premises.
- vii. Oil Industry Safety Directorate guidelines regarding safety against fire, spillage, pollution control etc. shall be followed. Company shall ensure no oil spillage occur during loading / unloading of petroleum products.
- viii. The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. All the hazardous waste shall be properly treated and disposed of in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2008.
- ix. Necessary approvals from Chief Controller of Explosives must be obtained before commission of project. Requisite On-site and Off-site Disaster Management Plans will be prepared and implemented.
- x. The company shall obtain all requisite clearances for fire safety and explosives and shall comply with the stipulation made by the respective authorities.
- xi. MS shall be stored in floating roof tank with liquid mounted seal, foam and water spray system. HSD tanks shall be provided with foam and spray system. Fire fighting system shall be as per the OISD-117 Norms
- xii. No change in the storage capacity and other facilities shall be made without getting proper approval from the Ministry.
- xiii. Tankers shall be as per IS 803 and OISD 117 & 118 for safety aspect. Buffer zone of 250 m shall be maintained.
- xiv. Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill shall be conducted once in a month. ✓

- xv. Bottom oil sludge shall be handled, stored and disposed as per CPCB/MoEF guidelines. An action plan in this regard including bioremediation shall be submitted to the Ministry and its Regional Office at Bhopal within 3 months of issue of the letter.
- xvi. The company shall install automatic leak detection system supported with hooters or alarm system.
- xvii. The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the natural gas/oil shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141. Pipeline wall thickness and minimum depth of burial at river crossing and casings at rails, major road crossings should be in conformity with ANSI/ASME requirements.
- xviii. Annual safety audit should 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 operations and maintenance.
- xix. The construction of pipeline particularly at the river and stream crossing should 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 should be in conformity with ANSI/ASME requirements.
- xx. The company should follow horizontal directional drilling technique for laying of pipeline while passing through major irrigation canal and perennial rivers.
- xxi. The project authorities should plant a minimum of 10 trees for every tree cut along the pipeline route in consultation with the local DFO (s). This will be in addition to compensatory afforestation. The company should develop a social forestry programme to benefit the project affected local people in consultation with the local DFO/village panchayat/NGO. Approval under Forest (Conservation) Act, 1980 should also be obtained for forest area falling under the pipeline route before initiating construction of the pipeline in the forest area.
- xxii. 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 should be carried out at regular intervals to ensure the adequacy of cathodic protection system.
- xxiii. 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 area and sensitive installations shall be provided to prevent the amount 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.
- xxiv. Occupational health surveillance of worker shall be done on a regular basis and records maintained as per the Factory Act. ✓

- xxv. Green belt shall be developed in 33% plant area to mitigate the effect of fugitive emission all around the plant in consultation with DFO as per CPCB guidelines.
- xxvi. Noise level shall be within the approved limits of 80 dB(A). The practice of acoustic plant design shall be adopted to limit noise exposure for personnel to an 8 hr time weighted average of 90 db(A).
- xxvii. The Company shall harvest surface as well as rainwater from the rooftops of the buildings proposed in the project and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.
- xxviii. All the recommendations mentioned in the EMP/DMP shall be implemented.
- xxix. 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, mobile STP, 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.

B. GENERAL CONDITIONS :

- i. The project authority must adhere to the stipulations made by State Pollution Control Board (SPCB) and State Government.
- ii. There will be no change in the pipeline route, design, capacity without the prior approval of this Ministry. While paying the pipeline, OISD standards with regard to distance etc. from private buildings, industrial buildings or placed of habilitation etc. should be followed.
- iii. During the project construction phase, adequate care must be exercised for protection to public life, wildlife, forest power line, buildings etc. in the vicinity of pipeline and in consonance with local Government regulations.
- iv. The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 2000. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosive, Fire Safety Inspectorate etc. must be obtained.
- v. Detailed risk analysis of the pipeline and associated facilities must be done once the engineering design and layout is frozen. Based on this, on-site and off-site emergency preparedness plan must be prepared. Approval from the nodal agency must be obtained before commissioning the project.
- vi. Adequate provisions for infrastructural facilities such as water supply, fuel, sanitation etc. should be ensured for construction workers during the construction phase so as to avoid felling of trees and pollution of water and the surroundings.
- vii. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EMP and risk analysis reports. ✓

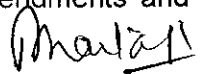
- viii. The project proponents should have a scheme for social upliftment in the surroundings village with reference to contribution in road construction, education of health centers, sanitation facilities, drinking water supply, community awareness and employment to local people whenever and wherever possible both for technical and non- technical jobs.
- ix. A separate Environmental Management Cell equipped with full fledged laboratory facilities must be set up to carry out the Environmental Management and Monitoring functions.
- x. The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment & Forests as well as the State Government alongwith the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purpose.
- xi. The implementation of the project vis-à-vis environmental action plans shall be monitored by the Ministry's Regional Office at Bhopal/SPCB/CPCB. A six monthly compliance status report shall be submitted to the monitoring agencies.
- xii. A separate environmental management cell with full fledged laboratory facilities to carry out various management and monitoring functions shall be set up under the control of Senior Executive.
- xiii. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.
- xiv. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x, HC (Methane & Non-methane), VOCs (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- xv. The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry / CPCB / SPCB shall monitor the stipulated conditions.
- xvi. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent 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 alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail. ✓

- xvii. 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 WBPCB and may also be seen at Website of the Ministry of Environment and Forests 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 Regional office.
- xviii. 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 commencing the land development work.

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

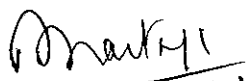
9.0 The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

10.0 The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules


(Dr. P. B. Rastogi)
Director

Copy to:

1. The Secretary, Department of Environment, Govt. of Jharkhand, Jharkhand.
2. Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -- 110 032.
3. Chairman, Jharkhand Pollution Control Board, Jharkhand, Town Administrative Building, H.E.C., Dhruwa, Raanchi - 824004, Jharkhand.
4. The Chief Conservator of Forests (Eastern), Regional Office (EZ), A/3, Chandrasekharapur, Bhubaneswar - 751 023, Orissa.
5. Adviser (IA-II), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Monitoring Cell
8. Guard File.
9. Record File.


(Dr. P. B. Rastogi) 24/1/11
Director