

**F. No. J-11011/98/2007- IA II (I)**  
**Government of India**  
**Ministry of Environment and Forests**  
**(I.A. Division)**

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**Dated July 6, 2007**

To,

✓  
Shri Manish Maheshwari  
Jt. Managing Director  
M/s Hindustan Oil Exploration Company Limited  
'Lakshmi Chambers' 192,  
St.Mary's Road, Alwarpet,  
Chennai – 600 018

**Email: [contact@hoec.com](mailto:contact@hoec.com)**

**Sub: PY-1 Block Development Project for production at Onshore Processing Plant (Gas Processing 90 MMSCMD and Oil/Condensate 1600 BPD located at Village Pillaiperumalnaullur Tehsil Tharangambadi in District Nagapattinam Tamilnadu by M/s Hindustan Oil Exploration Company Limited – Environmental Clearance reg.**

Sir,

This has reference to your letter no. HSE/PY-1F/MoEF/Env/2007-01/026 dated 25<sup>th</sup> January 2007 and subsequent communication dated 20<sup>th</sup> June 2007 on the above mentioned subject.

2. The Ministry of Environment and Forests has examined your application. It is noted that it is proposed to develop and produce hydrocarbon (Gas & Oil/Condensate) in the PY-1 Offshore field to meet the energy demand of the state of Tamilnadu. The project envisages PY-1 offshore platform, hook-up of development wells, laying of the 14 " sub sea pipeline from PY-1 platform to land fall point and onshore pipeline to gas processing plant. Development will be phased. During phase-I, two of three development wells will be drilled using a sub-sea template and the wells will be suspended for future re-entry. In phase-2, the offshore jackets/top sides will be installed over the sub sea template followed by the drilling of the third development well, if necessary. The stabilized condensate will be stored and delivered to government nominee/potential customers. The land area required for onshore facility is 40.47 ha. There will not be any issues of rehabilitation and resettlement. However, provision has been made for green cover of 11.18 ha of area in the on shore terminal. The proposed onshore gas processing facility has following capacities:

- Gas processing : 90 MMSCFD
- Oil and Condensate processing : 1600 BPD

3. It is noted that water requirement of 22 m<sup>3</sup>/d which will be met from the private suppliers through water tanker. Power requirement of 1100 KW will be met from the gas power station, diesel power generator etc. Solid waste would be generated in the form of Oil contaminated waste (200 Kg/m), Tank Bottom Sludge (20 MT/Annum), Scrap Metal (0.5 MTPM), Wood Waste (50 Kg/month), Plastic Waste (10 kg/month), General Waste (50 kg/month). It is noted that the gas processing plant does not attract the provisions of CRZ Notification. However, the pipeline which is 2.5 km long from land fall point to gas processing plant of which 1.6 km length falls under CRZ. Public hearing of the project was held on 03.5.2007. Cost of the project is Rs. 354.5 Crores.

4. The project has been considered in accordance with the para 2.2 {2.2.1(i) (a)} interim operational guidelines of the Ministry issued on 13<sup>th</sup> October 2006 issued by the Ministry of Environment and Forests under Para 12 of the EIA Notification 2006.

5. The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification, 2006 subject to strict compliance of the following Specific and General Conditions.

**A. SPECIFIC CONDITIONS:**

- i. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30<sup>th</sup> August, 2005.
- ii. The company shall not use Synthetic Based Mud (SBM) without prior approval of the Ministry.
- iii. The company shall undertake conservation measures to protect the marine animals/biota in the region.
- iv. The International 'Good Practices' adopted by the petroleum industry viz international norms to safeguard the Coastal and Marine biodiversity would be implemented by M/s HOEC.
- v. The drill cutting (DC) wash water shall be treated to conform to limits notified under the Environment (Protection) Act, 1986, before disposal into sea. The treated effluent shall be monitored regularly.
- vi. The company shall monitor the petroleum hydrocarbons and heavy metals concentration in the marine fish species regularly and submit report to the Ministry.
- vii. Treated waste water (produced water or formation water or sanitary sewage) shall comply with the marine disposal standards (for Oil & Gas at <40mg/l) notified under the Environment (Protection) Act, 1986 .
- viii. Requisite infrastructure facilities shall be provided near the offshore installations so that booms and skimmers/chemical dispersants could be deployed immediately in case of oil leakage from the installations. Efforts should be made to curtail the oil slick within 500 meters of the installation and accordingly, action plan and facilities to check the oil slick beyond 500 meters shall be provided.

- ix. Approval from DG Shipping under the Merchant Shipping Act prior to commencement of the drilling operations shall be obtained. At least 30 days prior to the commencement of drilling, the exact location should be intimated to the Director General of Shipping and the Company shall abide by any direction he may issue regarding ensuring the safety of navigation in the area.
- x. The surface facilities shall be installed as per applicable codes and standards, international practices and applicable local regulations.
- xi. The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during flaring.
- xii. The Company shall take necessary measures to reduce noise levels at the droll site by providing mitigation measures such as proper acoustic enclosures to the DG set and meet the norms notified by the MoEF. Height of all the stacks/vents shall be provided as per the CPCB guidelines.
- xiii. Air quality monitoring shall be monitored for Methanated and non methanated hydrocarbons besides routine parameters for Ambient air quality.
- xiv. The adequate stack height as per the CPCB standards shall be provided for stack emissions from the heaters, flare and power generating units at onshore facility.
- xv. Measures shall be taken for control of fugitive emissions during the designed stage itself. Green belt shall be raised in an area of 11.18 ha. In an around the plant and selection of plant species shall be as per the CPCB guidelines. All the internal roads shall be asphalted to reduce fugitive dust due to transportation of trucks.
- xvi. Waste water from the platform deck cleaning and storm water shall be collected through and treated. Treated produced water shall be disposed through marine out fall into the sea. Domestic waster water shall be utilized for green belt development after treatment.
- xvii.** The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed.
- xviii. The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the oil shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141.
- xix. 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 operation and maintenance.
- xx. 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).

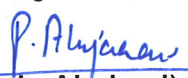
- xxi. The project authorities should install SCADA system with dedicated optical fibre based telecommunication link for safe operation of pipeline and Leak Detection System. Additional sectionalizing valves in the residential areas and sensitive installations should be provided to prevent the amount of gas going to the atmosphere in the event of pipeline failure. Intelligent pigging facility should be provided for the entire pipeline system for internal corrosion monitoring. Coating and impressed current cathodic protection system should be provided to prevent external corrosion.
- 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 fire water facilities at the onshore gas processing plant must be designed as per OISD-117 guidelines. However, for fighting prolonged fires, the company should firm up a plan for assured water supply from near by ground water source/ surface water source. This must be complied before commissioning the project.
- xxiv. Proper infrastructure and sanitation facilities shall be provided for the construction workers during construction. All the construction wastes shall be managed so that there is no impact on the surrounding environment.
- xxv. The project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA /EMP report as well as the recommendations of the public hearing panel.
- xxvi. The company shall comply with the provisions of CRZ notification 1991.

**B. GENERAL CONDITIONS:**

- i. The project authorities must strictly adhere to the stipulations made by the Tamilnadu State Pollution Control Board and the State Government.
- ii. No further expansion or modification in the project shall be carried out without prior approval of the Ministry of Environment & Forests. 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 project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous chemicals Rules, 1989 as amended subsequently. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. must be obtained, wherever applicable.
- iv. The project authorities must strictly comply with the rules and regulation with regarding to handling and disposal of Hazardous Wastes (Management and Handling) Rules, 1989/ 2003 wherever applicable. Authorization form the State Pollution Control Board must be obtained for collections/treatment/storage/disposal of hazardous wastes.



- v. The overall noise levels in and around the plant area shall be kept well within the standards (75 dBA) 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 EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
  - vi. A separate Environmental Management Cell equipped with full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.
  - 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 shall not be diverted for any other purposes.
  - viii. The Regional Office of this Ministry at Bangalore/Central Pollution Control Board/State Pollution Control Board will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.
  - ix. 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 State Pollution Control Board/ Committee and may also be seen at Website of the Ministry and Forests at <http://www.envfor.nic.in>. This shall be advertised within seven days of the issue of this letter in at least two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned.
  - x. 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 commencing the land development work.
- 3.0. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- 4.0. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner will implement these conditions.
- 5.0. The above conditions will 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 & Handling) Rules, 1989, 2003, manufacture , storage and import of hazardous chemical Rules, 1989 along with their amendments and Rules and the Public Liability Insurance Act, 1991 along with their amendments and Rules.

  
(Dr. P. L. Ahujara)  
Director

**Copy to:**

1. The Secretary (Environment), Govt. of Tamil Nadu, Fort. St. George, Chennai- 560560.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
3. The Chairman, Tamil Nadu Pollution Control Board, 100, Anna Salai, Guindy, Chennai – 600032.
4. The Chief Conservator of Forests (Central), Regional Office (SZ), Kendriya Sadan, IV<sup>th</sup> Floor, E&F Wings, 7<sup>th</sup> Main Road, II<sup>nd</sup> Block, Koramangala, Bangalore-560034.
5. JS (CCI-I), 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. Guard File.
8. Monitoring File.
9. Record File.

(Dr. P. L. Ahujarai)  
Director