

F.No.J-11011/368/2005-IA II(I)
Government of India
Ministry of Environment and Forests
(IA Division)

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Paryavaran Bhavan, CGO complex,

Lodi Road, New Delhi-110003
May 29, 2006

To

The Managing Director
M/s Hindustan Oil Exploration Co. Ltd.
Lakshmi Chambers, 192, St. Mary's Road,
R. A. Puram, Chennai -600 028
Tamil Nadu.

**Sub: Offshore drilling for oil and gas exploration in PY-1 block, Cauvery Basin by
M/s Hindustan Oil Exploration Co. Ltd.- Environmental clearance reg.**

Sir,

This has reference to your letter No. PY-1/ENV/MOEF/2005-10-25 dated 23rd October, 2005 and subsequent letter dated 17th November, 2005 on the above subject. The Ministry of Environment & Forests has examined your application. It is noted that as per the development plan, it is proposed to drill 3 development wells and 2 exploratory wells in the PY-1 Offshore Block in Cauvery Basin off the Coast of Tamil Nadu in the Bay of Bengal. The PY-1 Block is 75 sq. km. in Bay of Bengal where water depth ranges from 40 m - 250 m and will be located 18 km from Porto Novo and 25 km from Cuddalore, T.N. It is also noted that no nesting and breeding grounds for fishes, turtles, endangered species and rare species within 10 km radius have been reported. No drilling activity will be carried out in the Coastal Regulation Zone (CRZ). Total water requirement for drilling mud preparation will be about 30-35 m³/d & 45 m³/d for domestic purpose. Desalination plant will be installed on the rig to treat the Sea water and additional water requirement will be procured from the town through supply vessels. Water Based Mud (WBM) for top and reservoir sections and Synthetic Based Mud (SBM) for other sections will be used. The non-hazardous WBM will be discharged into the sea as per norms intermittently to ensure proper distillation and dispersion. SBM used will comply with toxicity limits prescribed by the Ministry and shall be brought to the shore for storage and proper disposal. Solid waste generated will be in the form of drilling mud and drill cuttings and will be disposed off into sea water after washing. The waste oil will be sold to the authorized recyclers. If no hydrocarbons are found, the wells will be abandoned properly as per standard norms. No Public hearing is required as per the EIA Notification, 1994 vide S.O.1087 (E) dated 22.09.2003 since the drilling will be carried out beyond 10 km from the coast line in the offshore. Total cost of the project is Rs. 261.00 Crores.

20 The Ministry of Environment and Forests hereby accords environmental clearance under EIA Notification dated 27th January, 1994 subject to strict compliance of the following conditions:

A. SPECIFIC CONDITIONS :

- (i) The company shall follow the international 'Good Practices' adopted by the petroleum industry, viz. International Norms to safeguard marine biodiversity would be implemented by M/s. HOECL.

- (ii) Provision of adequate emergency response equipment and materials shall be ensured by HOECL offshore on board vessels engaged. HOECL shall prepare a contingency plan to meet any accidental oil spill for protecting the marine eco-system. A copy of such a plan shall be submitted to the Ministry before taking up exploratory work.
- (iii) In case oil and gas reserves are found after the exploratory drilling activity, no developmental activity shall be undertaken without prior environmental clearance. A detailed study on the possible socio-economic impacts needs to be undertaken before allowing drilling for a longer period.
- (iv) M/s. HOECL shall ensure that no oil spill take place during drilling and there shall not be any damage to mangrove/coastal ecosystem while carrying the equipment and also during the period of operations. The schedule for commencement of the drilling operation shall be intimated at least one month in advance to the Wildlife Warden having jurisdiction over the nearest coastal area so as to enable him to monitor its impact, if any, on the wild life.
- (v) The company shall take measures to regulate noise and noise levels and bright illuminations to mitigate impacts if any on the marine wildlife.
- (vi) Approval from DG, Shipping/Ministry of Defence 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, Mumbai and the Company shall abide by any direction he may issue regarding ensuring the safety of navigation in the area.
- (vii) The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore and offshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.
- (viii) Discharge of drill cuttings (DC) from the installation located within 5 km. away from shore shall ensure that there is no adverse impact on marine eco-system and on the shore. If, adverse impact is observed, then the company have to bring the DC on-shore for disposal in an impervious waste disposal pit.
- (ix) The Company shall get analyzed the drill cuttings generated from each well from any recognized laboratory for its characteristics and results be submitted to MoEF/ CPCB/TNPCB periodically.
- (x) M/s. HOECL are required to record daily discharge of DC and DF to off-shore and also to monitor daily the effluent quality, and submit the compliance report once in every six months to MoEF
- (xi) Company shall monitor the sea surface water quality in terms of oil content around the well and submit reports to the Ministry on a monthly basis during the period of drilling operations.
- (xii) The Company shall monitor the petroleum hydrocarbons and heavy metals concentration in the marine fish species regularly and submit report to the Ministry

- (xiii) The drilling rig vessels will be provided with on board Sewage treatment Plant (STP) to meet the discharge of effluent quality to International MARPOL Convention (IMD) regulation. Treated waste water (produced water or formation water or sanitary sewage) should comply with the marine disposal standards (for Oil & Gas at <40 mg/l) notified under the Environment (Protection) Act, 1986.
- (xiv) Requisite infrastructure facilities shall be provided near the off shore 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 should be provided.
- (xv) The project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA/EMP/risk analysis report as well as the recommendations of the public hearing panel.

B. GENERAL CONDITIONS :

- (i) The project authority must strictly adhere to the stipulations made by the Central Government as part of any International Convention(s) or Merchant Shipping Act.
- (ii) No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference should 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 on 3rd October, 1994 and 6th January, 2000. 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 regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management & Handling) Rules, 2003, wherever applicable. Authorization from 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 rig area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- (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 shall provide separate funds 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 should not be diverted for any other purpose.

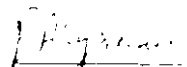
- (viii) The implementation of the project vis-a-vis environmental action plans will be monitored by Ministry's Regional Office at Bangalore / Tamil Nadu Pollution Control Board / Central Pollution Control Board. A six monthly compliance status report shall be submitted to the monitoring agencies.
- (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 Tamil Nadu State Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This should 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 should be forwarded to the Regional office.

3.0 The Ministry or any competent authority may stipulate any further condition(s) on receiving reports from the project authorities. The above conditions will be monitored by the Regional Office of this Ministry located at Bangalore.

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

5.0 Any other conditions or alteration in the above conditions will have to be implemented by the project authorities in a time bound manner.

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


(Dr. P.L. Ahujarai)
Director

Copy to :

1. The Secretary, Ministry of Petroleum and Natural Gas, Shastri Bhawan, New Delhi - 110 001.
2. Director General, Directorate General of Hydrocarbons (DGH), 4th floor, Hindustan Times House, 18-20, Kasturba Gandhi Marg, New Delhi - 110 001.
3. Additional Director General (Wild Life), Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodi Road, New Delhi - 110 003.
4. The Secretary (Environment) Govt, of Tamil Nadu, Fort St. George, Chennai - 560 560, Tamil Nadu.
5. The Chief Conservator of Forests (Central), Regional Office (SZ), Kendriya Sadan, 4th Floor, E&F Wings, 7th Main Road, 2nd Block, Koramangala, Bangalore - 560034, Karnataka
6. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar New Delhi - 110 032.
7. The Chairman, Tamil Nadu Pollution Control Board, 100, Anna Salai, Guindy, Chennai-600 032, Tamil Nadu.
8. JS (CCI-I), Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
9. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
10. Guard File
11. Monitoring File
12. Record File

(Dr. P.L. Ahujarai)
Director