

Drilling of Development Well (4 Nos.) and Exploratory Well (3 Nos.) at
Jorajan Area, District Tinsukia, Assam by M/s Oil India Limited –
Environmental Clearance reg.

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F. No. J-11011/1252/2007 - IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

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Dated 1st November, 2011

To,

Shri S. M. Kaluti, General Manager
M/s Oil India Limited,
Duliajan District Dibrugarh, Assam - 768 602

E-mail: drilling@oilindia.in tridipkatakya@oilindia.in;

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**Subject: Drilling of Development Well (4 Nos.) and Exploratory Well (3 Nos.)
at Jorajan Area, District Tinsukia, Assam by M/s Oil India Limited –
Environmental Clearance reg.**

Ref. : Your letter no. DRLG/DS/A.19-197/10 dated 28th December, 2010

Sir,

Kindly refer your letter dated 28th December, 2010 alongwith project
documents including Form I, Terms of References, Pre-feasibility Report,
EIA/EMP Report and subsequent communications vide your letter dated 25th
June, 2011 on the above mentioned subject.

2.0 The Ministry of Environment & Forests has examined your application. It is
noted that proposal is for drilling of development well (4 Nos.) and exploratory
well (3 Nos.) at Jorajan Area, District Tinsukia, Assam by M/s Oil India Limited.
Block Coordinate is between Longitude 95^o 11' -- 95^o 30' E and Latitude 27^o 06'
-- 27^o 22' N. Block area is 927 sq. km. Project cost is Rs. 15.00 Crores for each
well. Jaipur RF and Upper Dihin (W/B) RF under the Dibrugarh and Digboi Forest
Division of Assam as well as Namsang RF and Borduria RF under Deomali
Forest Division of Arunachal Pradesh are located within 10 Km. Wildlife
sanctuary (Dihing Patkai) is located within 10 km.

3.0 Stack of adequate height will be provided to DG set. Flaring will be done in a controlled manner through scientifically designed flaring system. Water requirement will be 40 m³ per well/day for drilling purpose and 2 m³ per well/day for domestic use. Effluent generation will be 20 m³ (approx) per well/day during drilling phase. Effluent will be stored in HDPE lined pit and treated as per CPCB/SPCB norms and recycled. Water based mud will be used in drilling. Drill cuttings generation will be 200 m³/well. Drill cuttings will be stored in HDPE lined pit for safe disposal.

4.0 The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 77th, 21st and 26th meetings held during 21st-24th January, 2008, 23rd-24th March, 2011 and 17th-18th August, 2011 respectively.

5.0 All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at centre level.

6.0 Public hearing was exempted as per Para 7 (II) 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. As proposed, only development well (4 Nos.) and exploratory well (3 Nos.) shall be drilled. No additional wells shall be drilled without prior permission from this Ministry.
- ii. As proposed, no drilling of well and any construction work shall be carried out in forest land.
- iii. Permission shall be obtained from the State Forest Department regarding the impact of the proposed drilling on the surrounding reserve forest viz. Jaipur RF and Upper Dihin (W/B) RF under the Dibrugarh and Digboi Forest Division as well as Namsang RF and Borduria RF under Deomali Forest Division of Arunachal Pradesh.
- iv. Prior clearance shall be from the Standing Committee of the National Board for Wildlife regarding Wildlife Sanctuary (Dihing Patkai).
- v. Drilling site shall not be close to villages, schools etc.

- vi. Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM₁₀, PM_{2.5}, SO₂, NO_x, CO, CH₄, HC, Non-methane HC etc.
- vii. The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The stack height shall be provided as per the regulatory requirements and emissions from stacks will meet the MOEF/CPCB guidelines.
- viii. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.
- ix. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.
- x. Approach road shall be made pucca to minimize generation of suspended dust.
- xi. Total fresh water requirement shall not exceed 42 m³/day/well and prior permission shall be obtained from the concerned agency.
- xii. The company shall construct the garland drain all around the drilling 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. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.
- xiii. Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF should be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Shillong.
- xiv. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.
- xv. Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.

- xvi. 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 30th August, 2005.
- xvii. The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.
- xviii. The company shall develop a contingency plan for H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S detectors in locations of high risk of exposure along with self containing breathing apparatus.
- xix. The Company should carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected should be submitted six monthly to the Ministry and its Regional Office at Shillong.
- xx. Blow Out Preventor (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.
- xxi. Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- xxii. The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored the area in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- xxiii. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- xxiv. In case the commercial viability of the project is established, the Company shall prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.
- xxv. Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Shillong.

- xxvi. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Shilong.
- xxvii. Company shall prepare and circulate the environmental policy.
- xxviii. Company shall prepare operating manual in respect of all activities. It shall cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.
- xxix. Base and side of Drill cutting storage pits and supernatant storage pit shall be provided with HDPE lining. Overflow channel and oil grease trap facility shall be provided.
- xxx. Chemical characteristics and toxicity in respect of amine and all other chemicals should be found out and monitoring arrangement should be made. A copy of report should be sent to the Ministry's Regional Office at Shilong.
- xxxi. Company shall ensure good housekeeping at the drilling site.
- xxxii. Company shall have own Environment Management Cell having qualified persons with proper background. Full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the Assam Pollution Control Board (APCB), State Government and any other statutory authority.
- 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, 2000 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 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 EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- v. 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.
- vi. 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 APCB. The criteria pollutant levels namely; PM₁₀, 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.
- vii. 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 APCB. The Regional Office of this Ministry / CPCB / APCB shall monitor the stipulated conditions.
- viii. 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.
- 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 APCB 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.

- x. 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. Principal Secretary, Department of Environment & Forest, Govt. of Assam, Guwahati, Assam.
2. The Chief Conservator of Forests, Regional Office (North-East Zone, Shillong) Upland Road, Laitumhran Shillong-793003.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Assam Pollution Control Board, Bamunimaidam, Guwahati – 21 Assam.
5. Adviser, IA II(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/Monitoring File/Record File.

(Dr. P. B. Rastogi)

Director

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