

F. No. J-11011/233/2013- IA II (I)
Government of India
Ministry of Environment, Forest & Climate Change
(I.A. Division)

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Dated 27th October, 2015

To,
Shri K.Anbazhagan, Sr. Manager (E&P)
M/s GAIL (India) Ltd.
A-14, PDIL Building,
First Floor, Sector 1,
Noida-201 301

Email.: k.anbazhagan@gail.co.in

Subject : Drilling Operations for On-shore Oil & Gas Exploration of 8 wells at Cambay Basin, Block CB-ONN-2010/11 In Ahmedabad & Anand Districts, Gujarat by M/s Gail (India) Ltd. -Environmental Clearance req.

Ref.: Your online proposal no. IA/GJ/IND/19639/2013 dated 18th March, 2015.

Sir,

This has reference to your online proposal no. IA/GJ/IND/19639/2013 dated 18th March, 2015 alongwith project documents including Form I, Terms of References, Pre-feasibility Report, EIA/EMP Report alongwith Public Hearing Report regarding above mentioned project and subsequent submission of additional information vide letter dated 17th July, 2015.

2.0 The Ministry of Environment, Forest and Climate Change has examined the application. It is noted that proposal is for drilling operations for On-shore Oil & Gas Exploration of 8 wells at Cambay Basin, Block CB-ONN-2010/11 In Ahmedabad & Anand Districts, Gujarat. Ministry of Petroleum and Natural Gas (MoPNG), Govt. of India, awarded the oil and gas exploration block CB-ONN-2010/11 jointly to M/s. GAIL India Limited (PI-25%), M/s Bharat Petro Resources Limited (BPRL) (PI-25%), M/s Engineers India Limited (EIL) (PI-20%), BF Infrastructure Limited (BFIL) (15%) and Monnet Ispat and Energy Limited (MIEL) under the New Exploration Licensing Policy (NELP). The CB-ONN-2010/11 block covers an area of 131 sq. km and is located in Ahmedabad and Anand Districts of Gujarat. The Production Sharing Contract (PSC) for the Block was signed on 28th March, 2012 and the Petroleum Exploration License (PEL) was made effective from 15th March, 2013. Sabarmati River passes through the block and drilling site is located at a distance of 0.4 km and 0.3 km from river and flood plain. It is reported that no forest land is involved within the block boundary. It is reported that no ecological sensitive area is located in the vicinity of the project area. The only nearest bird sanctuary is Nal Sarovar Birds Sanctuary, which is 30km away from the block area. Cost of project is Rs. 160 Crores. The block coordinates are as given below:

| Point | Longitude | Latitude |
|-------|--------------|-----------|
| A | 72°20'54.00" | 22°34'60" |
| B | 72°29'1" | 22°35'60" |
| C | 72°28'58.00" | 22°33'29" |
| D | 72°26'50.00" | 22°31'26" |
| E | 72°27'8.00" | 22°23'35" |
| F | 72°21'40.00" | 22°28'41" |

Depth of drilling will be between 2000 m to 2500m. Estimated drilling period of each well will be 120-150 days.

3.0 Air emissions from D.G. sets will be dispersed by providing adequate stack height. Water based mud will be used. Total water requirement from ground water source will be 40 m³/day. Wastewater generation will be 20 m³/day. Drill cutting (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying or treated in the effluent treatment plant (ETP). No effluent will be discharged outside the premises and 'Zero' effluent discharge concept will be followed. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30th August, 2005. Used oil will be sent to authorized recyclers/re-processor. D.G. sets (2x370 KVA) will be installed to meet the emergency requirement of exploratory drilling operations. Blow out preventers (BOP) will be installed to control fluid from the formation gushing to the surface. In the event the well is unsuccessful, the well bore will be cement plugged.

4.0 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 central level.

5.0 Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 30th January, 2015 for Ahmedabad District and 21st January, 2015 for Anand District as per EIA Notification, 2006.

6.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its meetings held during 30th September, 2013-1st October, 2013, 16th -17th June, 2015 and 20th -21st August, 2015 respectively. Project Proponent and the EIA Consultant namely M/s Senes Consultants India Pvt. Ltd., have presented EIA / EMP report as per the TOR. EAC has found the EIA / EMP Report and additional information to be satisfactory and in full consonance with the presented TORs. The Committee recommended the proposal for environmental clearance.

7.0 Based on information submitted by you, 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. The present EC is for Exploratory Drilling only. In case Development drilling to be done in future, prior environmental clearance must be obtained from the Ministry.
- ii. 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, methane & Non-methane HC etc.

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- iii. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.
- iv. Approach road shall be made pucca to minimize generation of suspended dust.
- v. 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.
- vi. Total water requirement from ground water source shall not exceed 40 m³/day and prior permission shall be obtained from the CGWA/SGWA.
- vii. 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.
- viii. 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 shall 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 Bhopal.
- ix. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.
- x. Oil spillage prevention 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 off to the authorized recyclers.
- xi. 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.
- xii. 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.
- xiii. 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.
- xiv. Blowout Preventer (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.
- xv. Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- xvi. 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 to the 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.

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- xvii. Abandoned well inventory and remediation plan shall be submitted within six months from the date of issue of letter.
- xviii. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- xix. 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.
- xx. 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 Bhopal.
- xxi. All the commitment made regarding issues raised during the Public Hearing/consultation meeting held on 30th January, 2015 for Ahmedabad District and 21st January, 2015 for Anand District shall be satisfactorily implemented.
- xxii. At least 2.5 % of the total cost of the project should be earmarked towards the Enterprise social Commitment and item wise sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project during drilling period.
- xxiii. An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.
- xxiv. All personnel including those of contractors shall be trained and made fully aware of the hazards, risks and controls in place.
- xxv. Company shall have own Environment Management Cell having qualified persons with proper background.
- xxvi. 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.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB), 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 (day time) and 70 dBA (night time).

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- v. A separate Environmental Management Cell equipped with full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.
- vi. 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.
- vii. 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 GPCB. 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.
- viii. 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 GPCB. The Regional Office of this Ministry / CPCB / GPCB shall monitor the stipulated conditions. Environmental Clearance and six monthly compliance status reports shall be posted on the website of the company.
- ix. 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.
- x. 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 GPCB 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.
- xi. 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 will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

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(Lalit Bokolia)
Additional Director

Copy to:

1. The Principal Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, 8th Floor, Gandhi Nagar - 382 010, Gujarat.
2. The Chief Conservator of Forests (Western Zone), Ministry of Environment & Forests, Regional Office, E-5, Arera Colony, Link Road -3, Bhopal -462 016, M.P.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Gujarat State Pollution Control Board, Paryavaran Bhawan, Sector 10 A, Gandhi Nagar-382 043, Gujarat.
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indra Paryavaran Bhavan, Jorbagh Road, New Delhi.
6. Guard File/Monitoring File/Record File.

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(Lalit Bokolia)
Additional Director