



F. No.J-11011/485/2017-IA-II (I)
Government of India
Ministry of Environment, Forest & Climate Change
Impact Assessment Division

Indira Paryavaran Bhavan,
Vayu Wing, 3rd Floor, Aliganj,
JorBagh Road, New Delhi-110 003

Dated: 27th December, 2019

To,

M/s Oil and Natural Gas Corporation Ltd,
3rd Floor, Tower- A, PanditDeenDayalUpadhyayUrja Bhawan,
5A &5B, Nelson Mandela Marg,
Vasant Kunj, **New Delhi-70**

Sub: Exploratory Drilling of 134 locations (Onshore) in 32 ML Blocks of Western Onshore Basin at Vadodara, Gujarat by M/s ONGC Limited - Environmental Clearance - reg.

Sir,

This has reference to your online proposal No.IA/GJ/IND2/69699/2017dated 6th September, 2019 along with the EIA/EMP report for the above mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for exploratory drilling of 134 locations (Onshore) in 32 ML Blocks of Western Onshore Basin at Vadodara (Gujarat).

3. The estimated project cost is Rs.1447 crore. Total capital cost earmarked towards environmental pollution control measures is Rs.95.10Crores. Total employment generation will be 40 persons/shift.

4. The Thol lake bird Sanctuary lies within the one of the block i.e. Sanand ML Block, Eco Sensitive Zone of Thol wildlife Sanctuary is declared vide MOEF&CC Notification S.O 421 (E.) dated 9thFebruary 2015, as per the notification the extent of Eco sensitive Zone ranges from 0.308 km to 2.244 km from boundary of the sanctuary, ONGC do not plan to drill any well within Eco sensitive Zone of the Thol Wildlife Sanctuary, so National Board of Wildlife Clearance is not required. Sabramati, Khari, Meshwo, Vatrak, Seri, Shedi, Mahi and Vishwamitriare flowing through the block area.In this regard, M/s ONGC has submitted an undertaking dated 21.11.2019 stating that they will not undertake any exploratory drilling activities in Forest areas and Eco-sensitive zones.

5. Total water requirement is estimated to be 25 cum/day/well proposed to be met from nearby ONGC installation through tanker. Wastewater (drill cutting washing + rig washing+ cooling etc) shall be generated at an average rate of around 3 cum/day during the drillingoperations from a single well. Waste water shall be discharged in HDPE lined evaporation pit for solar evaporation in addition to that effluent of 1 cum/day generated from domestic operations shall be discharged in soak pit.

6. The project/activity is covered under category A of item 1(b) 'Offshore and onshore oil and gas exploration, development & production' of schedule to the Environment Impact

Assessment (EIA) Notification, 2006, and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC).

7. The standard ToR for the project was granted by the Ministry on 6th November, 2017. Public hearing was conducted by the State Pollution Control Board on 13th June, 2019, 2019.

8. The proposal was considered by the Expert Appraisal Committee (Industry-2) in its meeting held on 20-22 November, 2019, wherein the project proponent and their accredited consultant presented the EIA/EMP Report. The Committee found the EIA/EMP report to be satisfactory, complying with the ToR, and recommended the project for grant of environmental clearance.

9. The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing process. If any part of data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report.

10. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), Ministry of Environment, Forest and Climate Change hereby accords ***environmental clearance to the project for Exploratory Drilling of 134 locations (Onshore) in 32 ML Blocks of Western Onshore Basin at Vadodara (Gujarat)***, under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the terms and conditions as under:-

A. Specific conditions:-

- (i). *No drilling shall be carried out in Protected Areas.*
- (ii). *Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.*
- (iii). *As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land. Mobile ETP shall be installed to treat the waste water and efforts shall be made for gradual reduction in daily intake of water (to reduce fresh water foot print) by suitable mechanism or by putting RO facility in place coupled with onsite mobile ETP. Size of the waste shall be equal to the hole volume+ volume of drill cutting and volume of discarded mud if any. Two feet free board may be left to accommodate rain*

water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.

- (iv). To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (v). Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (vi). Ambient air quality shall be monitored at the nearest 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). During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored by CPCB approved method or by appropriate technology.
- (viii). Approach road shall be made pucca to minimize generation of suspended dust.
- (ix). The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.
- (x). Total fresh water requirement shall not exceed 25 cum/day. Prior permission shall be obtained from the concerned regulatory authority.
- (xi). 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.
- (xii). Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies. 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.
- (xiii). 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.
- (xiv). The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed.
- (xv). 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.
- (xvi). Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.

- (xvii). *Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.*
- (xviii). *On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment safety angle. In case of hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.*
- (xix). *All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.*
- (xx). *As proposed Rs. 11.47 crores shall be allocated for Corporate Environment Responsibility (CER). The CER funds shall be utilized for greenbelt development, skill development and check dam construction, as suggested during public hearing. The CER plan shall be completed within a period of two years or before commissioning of the project.*
- (xxi). *No lead acid batteries shall be utilized in the project/site.*
- (xxii). *Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.*
- (xxiii). *Company shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and 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. Remote monitoring of site should be done.*

11. The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9th August, 2018. The said OM is available at the Ministry's website (PARIVESH portal i.e. www.parivesh.nic.in). The grant of Environmental Clearance is further subject to compliance of generic conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9th August, 2018.

12. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

13. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

14. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

15. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

16. 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, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Odisha and any other Court of Law relating to the subject matter.

17. This issues with the approval of the competent authority.

(डा. आर. बी. लाल)
(Dr. R. B. LAL)
वेज्ञानिक 'ई' / Scientist 'E'
पर्यावरण, वन एवं जलवायु परिवर्तन विभाग
Ministry of Environment & Forests
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Copy to: -

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2. The Secretary, Forests & Environment department, Government of Gujarat, Sachivalaya, 8th Floor, Gandhinagar (Gujarat)
3. The Member Secretary, Central Pollution Control Board Parivesh Bhavan, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10 A, Gandhinagar-382010 (Gujarat)
5. The District Collector, District Vadodara (Gujarat)
6. Guard File/ Record File/ Monitoring File/ Website of MoEF&CC

(Dr. R. B. Lal)
Scientist 'E'/Additional Director

