

F. No. J-11011/188/2013- IA II (I)
Government of India
Ministry of Environment and Forests

(I.A. Division)
Indira Paryavaran Bhawan
Jor Baugh, Lodhi road
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Dated: 4th September, 2015

To,

Basin Manager
M/s Oil & Natural Gas Corporation Ltd. (ONGCL)
Cauvery Basin, ONGC,
11th Floor, East Wing, CMDA Tower-I,
No.1, Gandhi-Irwin Road, Egmore,
Chennai-600 008, Tamil Nadu.

Subject: Exploratory Drilling of 10 appraisal wells in NELP-VI Onshore Block CY-ONN-2004/2, at Ariyalur District, Tamil Nadu by M/s ONGC Limited by M/s Oil & Natural Gas Corporation Ltd. (ONGCL) – Environmental Clearance reg.

Ref.: Your letter no. ONGC/CHSE/EC/15 dated 8th Jan 2015.

Sir,

This has reference to your letter dated 4th Jan, 2013 along with Form-1, Prefeasibility report and EIA/EMP report regarding above mentioned subject.

2.0 The Ministry of Environment & Forests has examined your application. It is noted that proposal is for the Exploratory Drilling of 10 appraisal wells in NELP-VI Onshore Block CY-ONN-2004/2, at Ariyalur District, Tamil Nadu. The block was awarded to ONGC (80%) and BPRL (20%) with ONGC as 'Operator' under NELP-IV round in 2004. The Production Sharing Contract (PSC) between ONGC and BPRL was signed on 6th February, 2004. The Petroleum Exploratory License (PEL) was granted w.e.f. 31st August, 2004 for 7 years. Block area is 375 Sq. km. No wildlife sanctuaries or National Parks or ecosensitive areas are located within 10 Km from proposed wells. No forest land is involved. The well will be drilled upto 3000-4500m depth. Total cost of the project is Rs.200.00 Crores. Total capital cost and recurring cost for environmental protection measures will be Rs. 1.03 Crore. Location and co-ordinates of the blocks are as follows:

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TARGET DEPTHS

WELL NO	LOCATION NAME	TARGET DEPTH	Taluk	DISTRICT
1	A1, A2/NPAI, B2,B3,B4,B5,B6,B7	3000- 4500/Basement	UDAYARPALAYAM	ARIYALUR
2	NPAE,BH1/NPAF	3000- 4500/Basement	SENDURAI	

3.0 Air emissions from D.G. sets will be dispersed by providing adequate stack height. Fresh water requirement will be 25 m³/day, which will be procured from tanker supply. Water based mud (WBM) and Synthetic based mud will be used. Wastewater generation during drilling operation will be 5 m³/day. Effluent will be treated in effluent treatment plant (ETP) comprising equalization, chemical coagulation, flocculation and clarification by settling and residual unusable mud will be collected in lined pits and solar evaporated. 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. 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 authorize recyclers.

4.0 The proposal was considered by the reconstituted Expert Appraisal Committee (Industry-2) in its 32nd meeting held during 20th -21st Jan 2015 and on 42nd meeting held during 16th -17th June, 2015 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 meeting was Public Hearing was conducted on 20.10.14 at Jaynkondam of Ariyalur District.

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. This environmental clearance is only for exploratory drilling. In case development drilling is to be done in future, prior clearance must be obtained from concerned authorities.
- ii. No additional wells shall be drilled without prior permission from this Ministry.
- iii. Gas produced during testing shall be flared with appropriate flaring booms. 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.
- iv. 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, PM2.5, SO2, NOX, CO, CH4, HC, Non-methane HC etc.

- v. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.
- vi. Approach road shall be made pucca to minimize generation of suspended dust.
- vii. 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.
- viii. Total water requirement shall not exceed 25 m³/day/well and prior permission shall be obtained from the concerned agency.
- ix. 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.
- x. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.
- xi. 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 onshore disposal. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured landfill 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 Chennai.
- xii. 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.
- xiii. 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.
- xiv. 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.
- 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. On completion of drilling, the company have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.
- xvii. The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and its Regional Office at Chennai.

- xviii. Blow Out 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.
- xix. Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- xx. 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. Remote monitoring of site shall be done.
- xxi. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- xxii. 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.
- xxiii. Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Chennai.
- xxiv. 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 Chennai.
- xxv. Under Corporate Social Responsibility (CSR), sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project.
- xxvi. 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.
- xxvii. All personnel including those of contractors shall be trained and made fully aware of the hazards, risks and controls in place.
- xxviii. Company shall have own Environment Management Cell having qualified persons with proper background.
- xxix. 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 Tamil Nadu Pollution Control Board (TNPCB), 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 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 TNPCB. The criteria pollutant levels namely; SPM, RSPM, 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 TNPCB. The Regional Office of this Ministry / CPCB / TNPCB shall monitor the stipulated conditions.
 - 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 TNPCB 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.

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- 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.

(L K Bokolia)
Additional Director

Copy to :

1. The Principal Secretary, Department of Environment, Ground Floor, Panagal Buildings 1, Jeenis Road, Saidapet, Chennai - 600 015.
2. The Chief Conservator of Forests, Regional Office (Southern Zone, Bangalore) Kendriya Sadan, 4th Floor, E&F Wing, II Block Koramangala, Bangalore-560034.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Tamil Nadu Pollution Control Board, Corporate Office, 76, Anna Salai, Guindy, Chennai - 600 032.
5. Joint Secretary, IA II(I), Ministry of Environment and Forests, Paryavaran Bhavan, Indira Praryavarn Bhawan New Delhi.
6. Monitoring Cell, Ministry of Environment and Forests, Indira Paryavaran Bhavan, Jor Baugh, New Delhi.
7. Guard File/Monitoring File/Record File.

(L K Bokolia)
Additional Director