

F. No. J-11011/100/2007-IA II (I)
Government of India
Ministry of Environment, Forest & Climate Change
(I.A. Division)

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Dated 27th October, 2015

To,

Dr D. N. Singh
General Manager-Basin Manager
Frontier Basin, ONGC Ltd.,
Himalaya IDT Complex
Kaulagarh Road, Dehradun-248195

E-mail: bm_fb@ongc.co.in Fax.: 0135-2753639

Subject: Exploratory Drilling of 4 wells at NELP-VIII Block, VN-ONN-2009/3, Son Valley, Vindhyan, Frontier Basin, District Damoh, Madhya Pradesh by M/s ONGC Ltd.- Environmental Clearance reg.

Ref. : Your online proposal no. IA/MP/IND2/29786/2014 dated 4th August, 2015.

Sir,

This has reference to your online proposal no. IA/MP/IND2/29786/2014 dated 4th August, 2015 alongwith project documents including Form I, Terms of References, Pre-feasibility Report, EIA/EMP Report alongwith Public Hearing Report regarding above mentioned project.

2.0 The Ministry of Environment, Forest and Climate Change has examined your application. It is noted that proposal is for Exploratory Drilling of 4 wells at NELP-VIII Block, VN-ONN-2009/3, Son Valley, Vindhyan, Frontier Basin, District Damoh, Madhya Pradesh by M/s ONGC Ltd. is awarded by Govt. of India an exploration block VN-ONN-2009/3 Son Valley, Vindhyan Basin in Damoh district of Madhya Pradesh. ONGC Ltd. has signed production sharing contract with Govt. of India on 30th June, 2010. For the proposed block, Petroleum Exploration License (PEL) was granted on 12.10.2011 for a total period of 7 years. The VN/ONN/2009/3 of Block area of 1250 Km² is located in the two districts of Madhya Pradesh, Namely Damoh and Chhatarpur. But proposed drilling activity will be carried out in one district namely Damoh. It is reported that no forest land and any protected notified ecological sensitive area is located within 10 km distance of drilling site. However, the Panna National Park is located at 17 km distance from the proposed drilling site and Nauradehi Wildlife Sanctuary is located at 42 km distance from the proposed drilling. Depth of well will be 2800 m. Cost of project is Rs. 160 Crore. Estimated land required per drill site is approximately 3 ha including site required for construction of approach road. Coordinates of all the four wells are given below and the locations of the wells at within block:

Well Name	Coordinate	Village	Tehsil	District	Nature of Location
R- HAT-A	24°05'12.85"N 79°33'43.07"E	Luhari	PAtera	Damoh	Final
R- HAT-B	24°07'42.52"N 79°37'09.11"E	Hatta	Hatta	Damoh	Tentative
R- HAT-C	24°01'46.54"N 79°28'35.77"E	Mankora	Patharia	Damoh	Tentative
R- Hat-D	24°01'43.12"N 79°38'50.00"E	Majhguwan Patol	Patera	Damoh	Tentative

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3.0 Air emissions from D.G. sets will be dispersed by providing adequate stack height. Fresh water requirement from surface water source will be 25m³/day. Water based mud (WBM) will be used. Total wastewater generation will be around 8m³/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. 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 the Authorised recyclers. HSD (6 KLPD) will be used as fuel in rig and D.G. sets during drilling period. Blow out prevention techniques will be part of drilling rig unit. 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. All fuels, lubricants and chemicals will be kept in a well-designed storage facility with regular inventory checking. Used and unused chemicals will be stored in a lined & bounded area. Waste oil/spent oil/waste batteries will be sold to registered recyclers/re-processors. DG set (2 x 1250 KVA) will be installed.

4.0 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 was conducted on 30th May, 2015.

6.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its meetings held during 28th – 30th April, 2014 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 adequate and in full consonance with the presented TORs. The Committee recommended the proposal for environmental clearance.

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. 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.
- i. 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.
- ii. Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.
- iii. Approach road shall be made pucca to minimize generation of suspended dust.
- iv. 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.
- v. Total water requirement shall not exceed 25 m³/day and prior permission shall be obtained from the concerned agency.
- vi. 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.

- vii. 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 Bhubaneswar.
- viii. Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.
- ix. 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 of to the authorized recyclers.
- x. 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.
- xi. 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.
- xii. 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.
- xiii. On completion of drilling, the company have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.
- xiv. 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.
- 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.
- 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. Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Bhopal.
- xxi. 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.



- xxii. Under Enterprise Social Commitment (ESC), sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project.
- 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 the commitments made to the public during public hearing/public consultation meeting held on 30th May, 2015 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xxv. All personnel including those of contractors shall be trained and made fully aware of the hazards, risks and controls in place.
- xxvi. Company shall have own Environment Management Cell having qualified persons with proper background.
- xxvii. 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 MP Pollution Control Board (MPPCB), State Government and any other statutory authority.
- ii. No further expansion or modifications in the plant shall 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 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 National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- iv. The locations of ambient air quality monitoring stations shall be decided in consultation with the MP State Pollution Control Board (MPPCB) and it shall be ensured that at least one station is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- v. 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 Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- vi. The Company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and its amendment time to time and prior permission from MPPCB shall be obtained for disposal of solid / hazardous waste including boiler ash.
- vii. During transfer of materials, spillages shall be avoided and garland drains be constructed to avoid mixing of accidental spillages with domestic wastewater and storm water drains.
- viii. Usage of Personnel Protection Equipments by all employees/ workers shall be ensured.



- ix. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- x. The company shall also comply with all the environmental protection measures and safeguards proposed in the project report submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.
- xi. The company shall undertake CSR activities and all relevant measures for improving the socio-economic conditions of the surrounding area.
- xii. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- xiii. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- xiv. As proposed, the company shall earmark Rs. 6.8 Crore and Rs. 19.22 Lakh towards capital cost and recurring cost per annum 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 earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- xv. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from who suggestions/ representations, if any, were received while processing the proposal.
- xvi. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the MP Pollution Control Board. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- xvii. The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the Haryana 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 along with the status of compliance of environmental clearance conditions and shall also be sent to the Bhopal Regional Offices of MoEF by e-mail.
- xviii. 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 SPCB/Committee and may also be seen at Website of the Ministry at <http://moef.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 concerned Regional Office of the Ministry.
- xix. The 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 start of the project.

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 will 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.



(Lalit Bokolia)
Additional Director

Copy to:-

1. The Secretary (Environment), Govt. of Madhya Pradesh, Mantralaya, Ballabh Bhavan, Bhopal, MP.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110032.
3. The Chairman, Madhya Pradesh Pollution Control Board, Paryavaran Parishar , E-5, Arera Colony, Bhopal - 462016
4. The Chief Conservator of Forests (Central), Ministry of Environment, and Forests, Western Regional Office, Kendriya Paryavaran Bhavan, Link Road No. 3, Ravi Shankar Nagar, Bhopal - 462016
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, New Delhi.
6. Guard file / Record file/ Notice Board.



(Lalit Bokolia)
Additional Director