



F.No. J-11011/563/2011- IA II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

By Speed Post/Online

Indira Paryavaran Bhawan
Jorbagh Road, New Delhi - 3

Dated: 8th December, 2020

To

M/s Oil and Natural Gas Corporation Ltd
Nambar-I, Jorhat Asset
Jorhat, Assam - 785 704

Email: head_env@ongc.co.in

Sub: Conversion of Exploratory well KSAB to Development well located at Kasomarigaon, District Golaghat, Assam by M/s Oil and Natural Gas Corporation Ltd - Environmental Clearance - reg.

Sir,

This has reference to your proposal No. IA/AS/IND2/27521/2012 dated 6th August, 2015 for environmental clearance to the project for Conversion of Exploratory well KSAB to Development well by M/s Oil and Natural Gas Corporation Ltd in an area of 1.80 ha located at Kasomarigaon, District Golaghat, Assam. The initial proposal was for Development/Exploratory Wells (KSAB, KSDA, KSDB, KSAG, KSAD, KSAE), Group Gathering Station and pipeline laying from KSAC to Borholla GGS at Kasomarigaon, Assam.

2. The total land area estimated initially for the complete project was 43500 sqm. The initial estimated project cost was Rs 50 Crores. Accordingly, total capital cost earmarked towards environmental pollution control measures is Rs 44.82 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 10 lakhs per annum. The project will provide employment for 10-12 persons indirectly.

3. There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km from the project site. Ghiladhari river flows at a distance of 1 km in SW direction.

4. Total water requirement is estimated to be 25 cum/day/well of which fresh water requirement of 21 cum/day/well will be met from Ground Water. Effluent of 6 cum/day will be treated through Mobile ETP at Drilling Rig. The plant will be based on Zero Liquid discharge system. Power requirement shall be fulfilled by DG sets of 750 KW (2 operable and 1 standby). Stack (7 m) will be provided as per CPCB norms to the proposed DG sets.

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

EC for M/s Oil and Natural Gas Corporation Ltd

Page 1 of 9

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

6. The Terms of Reference (ToR) has been issued by the Ministry vide letter dated 28th May, 2012. Public hearing for the project has been conducted by the State Pollution Control Board on 20th September, 2014 at District Golaghat. The main issues raised during the public hearing are related to Road infrastructure, Mitigation measures for environmental pollution, Land acquisition and compensation, Job opportunities and Funds for development of schools, church, namghor, etc. It was informed by the project proponent that there is no litigation pending against the proposal.

7. The proposal was considered by the Expert Appraisal Committee (Industry-2) in its meetings held on 18th -19th January, 2016, 8-9 December, 2016, 17th -18th April, 2017 and 11-13 May, 2020 in the Ministry, wherein the project proponent and their accredited consultant presented the EIA/EMP report as per the ToR. The Committee found the EIA/EMP report complying with the ToR and recommended the project for grant of environmental clearance.

8. The project proponent informed the EAC that the Block is located in the South of River Brahmaputra in the Dhansiri watershed, close to Nagaland Hills. It was reported that the proposed activities are located at Dayang reserve Forest where the forest lands are presently used for agricultural practices. It was informed to the EAC that the forest clearance is available for development of wells at KSAC location and the wells located at KSDA, KSDB, and KSAG will be drilled from KSAC horizontally. The project proponent has submitted a copy of the forest clearance issued by the Ministry's North Eastern Regional Office at Shillong vide letter no. 3-AS B 035/2011-SHI/1609-11 dated 21st August, 2012. Forest clearance for the location KSAB has been received vide Ministry's North Eastern Regional Office at Shillong letter no. 3-AS B 061/2007-SHI/209-11 dated 12th June, 2008. The project proponent has requested for issuing the Environmental Clearance for the locations namely KSAB, KSAC, KSDA, KSDB, and KSAG.

The project proponent has informed that proposal for grant of Environmental Clearance for the locations KSAD, KSAE and Group Gathering Station and Pipeline from KSAC to Boroholla GGS are dropped due to non-availability of Forests Clearance.

9. Based on the recommendations of the EAC in its meeting held on 17th -18th April, 2017, the proposal was examined in the Ministry. The Ministry vide letter No. J-11011/30/2012-IA II (I) pt dated 7th November, 2017 has informed the project proponent that Forest clearance is required for the wells KSDA, KSDB, and KSAG proposed to drilled horizontally from KSAC, and accordingly delisted the proposal for want of the requisite information.

10. Thereafter, based on the request of the project proponent, subsequent to the Ministry's "Guidelines specific to hydrocarbon sector for undertaking seismic surveys and exploratory drilling in forest areas" issued vide letter F. No. 11-423/2011-FC dated 30th September, 2019, the proposal was relisted and placed in the EAC in its meeting held on 11-13 May, 2020. The project proponent informed the EAC that, as per the Ministry guidelines dated 30th September, 2019, forest area once diverted for exploratory drilling shall enable the User Agency to use the area fully. Therefore, FC granted earlier for

exploratory drilling is applicable for development wells and taking production, and accordingly requested to issue environmental clearance for operations.

11. 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. 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. The Committee has found the baseline data, and additional data collected and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and found to be addressing the issues in the study area and the issues raised during the public hearing.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Committee was of the opinion that the project is of national importance and the Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

12. Based on recommendations of the EAC, the proposal was again examined in the Ministry. Considering the forest clearance issues involved and the Ministry guidelines dated 30th September, 2019, the proposal has been deliberated in the Ministry with the FC section and the Regional Office of the Ministry (Shillong).

The Ministry has convened a meeting on 16th October, 2020 through video conferencing to discuss the project under the Chairmanship of the Secretary (EF&CC). It was noted that M/s ONGC has proposed to drop drilling at location KSAG, and as forest clearance for KSAB has been received vide letter dated 12th June, 2008, it was decided to grant EC for KSAB. Drilling of wells KSDA & KSDB horizontally from KSAC shall be considered after submission of report of Committee constituted by MoPNG to clarify the possibility of adopting new technologies such as Extended Reach Drilling (ERD)/ Horizontal Directional Drilling (HDD) with surface facilities including drilling rigs etc.

Based on the decisions taken in the meeting, M/s ONGC vide letter dated 17th November, 2020 has informed that the location KSAG is dropped from the proposal and has requested for grant of environmental clearance to the project.

It was noted that the Ministry's Regional Office at Shillong vide letter no. 3-AS B 061/2007-SHI/209-11 dated 12th June, 2008 has approved diversion of 1.80 ha of forest

land for exploratory drilling location KSAB under Doyand Reserve Forest under Golaghat Division of Golaghat District Assam.

13. The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain 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, from the State Pollution Control Board, prior to construction & operation of the project.

14. Based on the proposal submitted by the project proponent, recommendations of the EAC (Industry-2), and subsequent deliberations, Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for **Conversion of Exploratory well KSAB (having approval for diversion of 1.80 ha of forest land for exploratory drilling) to Development well by M/s Oil and Natural Gas Corporation Ltd at Kasomarigaon, District Golaghat, Assam**, under the provisions of the EIA Notification, 2006, subject to the compliance of terms and conditions as under:-

- (i). No drilling shall be conducted in forest areas without obtaining prior permission under the Forest (Conservation) Act, 1980. No pipelines or its part shall be laid in the Forest land without prior permission/approval from the Competent Authority.
- (ii). 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 and/or on land. Mobile ETP along with RO plant shall be installed to treat the waste water.
- (iii). 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.
- (iv). 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.
- (v). During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored using appropriate technology.
- (vi). The project proponent also to ensure trapping/storing of the CO₂ generated, if any, during the process and handling.
- (vii). Approach road shall be made pucca to minimize generation of suspended dust.
- (viii). 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.
- (ix). Total fresh water requirement shall not exceed 25 cum/day/well. Prior permission shall be obtained from the concerned regulatory authority. Mobile ETP coupled with

RO shall be installed to reuse the treated water in drilling system. 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.

- (x). 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.
- (xi). 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.
- (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 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.
- (xiv). 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.
- (xv). 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 Regional Office.
- (xvi). Blow Out Preventer 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.
- (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). The activities and the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented.
- (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). Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office.
- (xxiv). 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.

14.1: The grant of environmental clearance is further subject to compliance of other general conditions as under:-

- (i) The Project Proponent shall obtain all other statutory/necessary permissions/recommendations/NOCs prior to start of construction/operation of the project, which *inter alia* include, permission/approvals under the Forest (Conservation) Act, 1980; the Wildlife (Protection) Act, 1972; the Coastal Regulation Zone Notification, 2019, as amended from time to time, and other Office Memoranda/Circular issued by the Ministry of Environment, Forest and Climate Change from time to time, as applicable to the project.
- (ii) The project proponent shall ensure compliance of 'National Emission Standards', as applicable to the project, issued by the Ministry from time to time. The project proponent shall also abide by the rules/regulations issued by the CPCB/SPCB for control/abatement of pollution.
- (iii) The project authorities shall adhere to the stipulations made by the State Pollution Control Board/Committee, Central Pollution Control Board, State Government and any other statutory authority.
- (iv) The project proponent shall prepare a site specific conservation plan and wildlife management plan in case of the presence of Schedule-1 species in the study area, as applicable to the project, and submit to Chief Wildlife Warden for approval. The recommendations shall be implemented in consultation with the State Forest/Wildlife Department in a time bound manner.
- (v) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. 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.

- (vi) The energy source for lighting purpose shall be preferably LED based, or advance having preference in energy conservation and environment betterment.
- (vii) The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- (viii) 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.
- (ix) 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).
- (x) The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and to utilize the same for process requirements.
- (xi) 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.
- (xii) The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (xiii) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration.
- (xiv) The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- (xv) A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- (xvi) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change 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.

- (xvii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- (xviii) 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&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- (xix) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted 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 along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
- (xx) 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 and at <https://parivesh.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.
- (xxi) 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.
- (xxii) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

15. 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.

16. 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 the Environment (Protection) Act, 1986.

17. 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.

18. 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 and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

19. This issues with approval of the competent authority.

20/08/2020
(Dr. R. B. Lal)

Scientist 'E'/Additional Director

Tele-fax: 011-24695362

Email-rb.lal@nic.in

(डा. आर. बी. लाल)

(Dr. R. B. Lal)

वैज्ञानिक 'ई'/Scientist 'E'

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय

Min. of Environment, Forest and Climate Change

भारत सरकार, नई दिल्ली

Govt. of India, New Delhi

Copy to: -

1. The Deputy DGF (C), MoEF&CC Regional Office (NEZ), Law-U-Sib, Lumbatngen, Near MTC Workshop, Shillong
2. The Secretary, Department of Environment and Forest, Government of Assam, H-Block, 2nd Floor, Janata Bhawan, Disupr, Guwahati (Assam) - 6
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Pollution Control Board Assam, Bamunimaidam, Guwahati - 21
5. The District Collector, District Golaghat (Assam)
6. Guard File/Monitoring File/Website/Record File/Parivesh Portal

(Dr. R. B. Lal)

Scientist 'E'/Additional Director