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**F.No. IA-J-11011/206/2018- IA II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(IA-II Section)**

Indira Paryavaran Bhawan
Jorbagh Road, New Delhi - 3

Dated: 6th December, 2019

To

M/s Oil & Natural Gas Corporation Ltd
HSE Division, Assam & Assam Arakan Basin
Cinnamara Complex, Jorhat
Assam – 785 704
Email: *kumar_rajeeva@ongc.co.in*

Sub: Onshore exploration, development and production of oil & gas in 21 onshore PML blocks in Upper Assam North, A & AA Basin at District Sivsagar (Assam) by M/s Oil & Natural Gas Corporation Ltd - Environmental Clearance - reg.

Sir,

This has reference to your proposal No. IA/AS/IND2/75479/2018 dated 31st July 2019, submitting the EIA/EMP report on the above subject matter.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for Onshore exploration, development and production of oil & gas in 21 onshore PML blocks covering an area of 944.39 sq km in Upper Assam North, A & AA Basin at District Sivsagar (Assam) by M/s Oil & Natural Gas Corporation Ltd.
3. The project cost is estimated to be Rs.3500 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.93.60 lakhs and the recurring cost (O&M) will be about Rs.13.5 lakhs per annum. The project will provide employment for 30 persons.
4. The Panidihing Bird Sanctuary is located at 2.3 km in North from the project location. Diroi, Sola, Abayapur, Singhphan, Geleki and Tiruhill reserve forests are present within ML area. Dikhu/Nanga river, Disang river, Jhanji river, Brahmaputra river, BurhiDihing river, Diroinadi and Dimavnadi are flowing in the ML areas.
5. Total fresh water requirement is 25 cum/day proposed to be met from tanker supply. Effluent of 15 cum/day quantity will be treated through mobile ETP system. The project will be based on Zero Liquid discharge system.
Power requirement will be met from three DG sets of 1166 kVA capacity each. One DG set of 1166 kVA will be used as standby during power failure. Stack height will be provided as per CPCB norms.
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 under category 'A' and

EC for M/s Oil & Natural Gas Corporation Ltd

requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

7. Standard terms of reference (ToR) for the project was granted on 27th July, 2018. Public hearing for the project was conducted by the State Pollution Control Board on 30th March, 2019.

8. The proposal was considered by the Expert Appraisal Committee (Industry-2) in its meetings held on 30-31 May, 2019 and 26-27 September, 2019 in the Ministry, wherein the project proponent and their 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.

9. 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 **Onshore exploration, development and production of oil & gas in 21 onshore PML blocks in Upper Assam North, A & AA Basin at District Sivsagar (Assam) by M/s Oil & Natural Gas Corporation Ltd**, under the provisions of the EIA Notification, 2006, subject to the compliance of terms and conditions as under:-

- (i) The environmental clearance is subject to obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, as applicable. Grant of environmental clearance does not necessarily imply that Wildlife Clearance shall be granted to the project and that their proposals for Wildlife Clearance will be considered by the respective authorities on their merits and decision taken.
- (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) Waste water shall be treated by an effective onsite ETP coupled with RO so as to reduce fresh water foot print on daily basis. Size of the waste pit shall be kept minimum in such way so that it can only accommodate volume of discarded mud and volume of drill cuttings. Storm water shall not be allowed to reach waste water pit.
- (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 to ensure conformity with the National Ambient Air Quality Emission Standards issued by the Ministry vide GSRNo.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 emissions of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.
- (viii) The project proponent also to ensure trapping/storing of the CO₂ generated, if any, during the process and handling.
- (ix) Approach road shall be made pucca to minimize generation of suspended dust.
- (x) 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.
- (xi) Total fresh water requirement shall not exceed 25 cum/day/well proposed to be met through tankers. Mobile ETP shall be installed coupled with RO 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.
- (xii) 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.
- (xiii) 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.
- (xiv) 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.
- (xv) 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.
- (xvi) 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.
- (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 Regional Office.
- (xviii) 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.

- (xix) Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- (xx) After completion of drilling process, suitable measures shall be taken for well plugging and secured enclosures, and drilling site shall be restored to the original condition. In case of the hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- (xxi) All the commitments made to the public during public consultation/hearing shall be satisfactorily implemented.
- (xxii) At least 2.5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- (xxiii) Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- (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.
- (xxv) 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.
- (xxvi) Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.

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

- (i) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), State Government and/ or 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, 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.
- (iii) 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 stations each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- (iv) The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be complied with.

- (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 the Environment (Protection) Act, 1986 and the Rules made thereunder.
- (vi) The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.
- (vii) 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.
- (viii) The company shall 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, risk mitigation measures and public hearing shall be implemented.
- (ix) The company shall undertake all measures for improving socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villagers, administration and other stake holders. Also eco-developmental measures shall be undertaken for overall improvement of the environment.
- (x) A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- (xi) 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.
- (xii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parisad/ Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- (xiii) 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.
- (xiv) 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.

- (xv) 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.

10. 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.

11. 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.

12. 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.

13. 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 and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

(डॉ. आर. बी. लाल)
(Dr. R. B. LAL)
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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 Sivsagar (Assam)
6. Guard File/Monitoring File/Website/Record File

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