F. No. J-11011/218/2012- IA II (I) Government of India Ministry of Environment and Forests (I.A. Division)

Paryavaran Bhawan CGO Complex, Lodhi Road New Delhi - 110 003

E-mail: vp.upadhyay@nic.in Telefax: 011: 2436 2875 Dated: 2nd May, 2013

The Chairman & Managing Director M/s. Oil & Natural Gas Corporation Ltd. Jeevan Bharti Building Tower II, 124, Indira Chowk New Delhl - 110001

Fax No.: 044-28542527

Subject: Exploratory Drilling of additional One Well in Offshore NELP Block KG-OSN-2004/1, KG Basin in AP by M/s ONGC Ltd.-regarding amendment in environmental clearance.

: (I) Ministry's letter no. J-11011/541/2007-IA II(I) dated 3rd June, 2009.

(ii) Your letter no. ONGC/CHSE/EC/12 dated 21st May, 2012.

Sir,

Ref.

Kindly refer to your letter dated 21st May, 2012, wherein you have requested for amendment in the environmental clearance letter J-11011/541/2007-IA II (I) dated 3rd June, 2009 regarding above mentioned subject. It is noted that the proposal is for the expansion of exploratory drilling by adding one exploratory well in Offshore NELP Block KG-OSN-2004/1, KG Basin. EIA report for the existing project was prepared by the NEERI in January, 2009. Area of block is 1131 Km2. Water based mud will be used for drilling. Water requirement will be 30 m3/day. Quantity of drill cuttings will be generated around 300-400 m³ for each well. 8-12 KL/day of diesel will be consumed. DG sets (5x 1500 KVA) will be used.

- The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 2nd meeting held during 29th - 31st October, 2012. The Committee recommended the proposal for amendment in environmental clearance.
- The Ministry accepts the recommendation of the Expert Appraisal Committee (Industry) for amendment of existing environmental clearance by adding one exploratory drilling well, subject to compliance of following specific conditions:
- All the specific conditions and general conditions specified in the environmental clearance accorded vide Ministry's letter no. J-11011/541/2007-IA II(I) dated 3rd June, 2009 shall be implemented.

- ii) 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.
- iii) Total water requirement shall not exceed 30 m³/day.
- iv) Water based mud shall be used.
- Water based drilling mud should be discharged to the sea after proper dilution as per E(P) Rules vide G.S.R 546(E) dated 30th August, 2005.
- vi) The Company shall ensure that there shall be no impact on flora fauna due to drilling of wells in the offshore sea. The company shall monitor the petroleum hydrocarbons and heavy metals concentration in the marine fish species regularly and submit report to the Ministry.
- vii) Only high efficiency DG set with adequate stack height and modern emission control equipment and low sulphur clean diesel shall be used. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
- viii) Treated wastewater (produced water or formation water) shall comply with the marine disposal standards notified under the Environment (Protection) Act, 1986. Sewage treatment on board of the rig as per MARPOL regulation. Residual chlorine shall not exceed 1 mg/l before disposal.
- ix) The drill cutting (DC) wash water shall be treated to conform to limits notified under the Environment (Protection) Act, 1986, before disposal into sea. The treated effluent shall be monitored regularly.
- All the guidelines shall be followed for the disposal of solid waste, drill cutting and drilling fluids for onshore and offshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.
- All the hazardous waste generated at the rig/offshore facility shall be properly treated, transported to on shore and disposed of in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008. No waste oil should be disposed off into sea. Waste/Used oil should be brought on-shore and sold to MoEF/CPCB authorized recyclers/reprocessors only.
- xii) The company shall undertake conservation measures to protect the marine animals/biota in the region.
- xiii) The International 'Good Practices' adopted by the Petroleum Industry viz International norms to safeguard the coastal and marine biodiversity should be implemented by the company.
- xiv) Requisite infrastructure facilities shall be provided near the offshore installations so that booms and skimmers/chemical dispersants could be deployed immediately in case of oil leakage from the installations. Efforts shall be made to curtail the oil slick within 500 meters of the installation and accordingly, action plan and facilities to check the oil slick beyond 500 meters shall be provided.
- xv) Approval from DG Shipping under the Merchant Shipping Act prior to commencement of the drilling operations shall be obtained. At least 30 days prior to the commencement of drilling, the exact location shall be intimated to the

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- Director General of Shipping and the Company shall abide by any direction he may issue regarding ensuring the safety of navigation in the area.
- The Company shall take necessary measures to reduce noise levels such as proper casing at the drill site and meet DG set norms notified by the MoEF. Height of all the stacks/vents shall be provided as per the CPCB guidelines.
- Gas produced during testing shall be flared with appropriate flaring booms. XVII)
- The flare system shall be designed as per good oil field practices and oil industry xviii) 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
- The design, material of construction, assembly, inspection, testing and safety xix) aspects of operation and maintenance of pipeline and transporting the natural gas/oil shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141.
- The project authorities shall install SCADA system with dedicated optical fibre XX) based telecommunication link for safe operation of pipeline and Leak Detection System. Intelligent pigging facility shall be provided for the entire pipeline system for internal corrosion monitoring. Coating and impressed current cathodic protection system shall be provided to prevent external corrosion.
- The project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA /EMP /RA/NIO report.
- xxii) On completion of activities, the well shall be either plugged and suspended (if the well evaluation indicates commercial quantities of hydrocarbon) or killed and permanently abandoned with mechanical plugs and well cap. If well is suspended, it shall be filled with a brine solution containing small quantities of inhibitors to protect the well.
- xxiii) Recommendations mentioned in the Risk Assessment & Consequence Analysis and Disaster Management Plan shall be followed. For any design estimation of rig facility, maximum period for which data is available shall be taken into
- XXIV) Adequate funds both recurring and non-recurring should be earmarked to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government alongwith the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.
- A brief report on environmental status & safety related information in what form it XXV) is generated and measures taken as well as frequency of such reporting to the higher Authority should be submitted to this Ministry and its respective Regional
- Petroleum and Natural Gas (safety in Offshore Operations) Rules 2008 of OISD shall be strictly adhered to.
- xxvii) An independent audit shall be done to ensure that the Environment Management Plan is in place in totality.
- XXVIII) On completion of drilling, the company have to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.

- All other conditions will remain unchanged. 4.0
- 5.0 You are requested to keep this letter with the Environmental Clearance accorded vide letter No. J-11011/541/2007-IA II(I) dated 3rd June, 2009.
- In future, in case of change in the scope of the project, the company shall obtain 6.0 fresh environmental clearance.
- This issues with the prior approval of the Competent Authority. 7.0

(V P Upadhyay) Director

Copy to:

- 1. The Principal Secretary, Department of Environment, Forest, Science & Technology, Government of Andhra Pradesh, Hyderabad, A.P.
- The Chief Conservator of Forests, Regional Office (Southern Zone, Bangalore) Kendriya Sadan, 4th Floor, E&F Wing, II Block Koramangala, Banglore-560034.
- The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
- The Chairman, Andhra Pradesh Pollution Control Board, Paryavaran Bhawan, A-III,
- Industrial Estate, Sanath Nagar, Hyderabad A.P.
 Shri G. Karuppuswamy (GGM-Baisn Manager), M/s Oil & Natural Gas Corporation
 Ltd., Neelam S. Iyer, I/C, HSE, DG-PG, ONGC, 8th Floor, CMDA Tower 1, West No. 1, Gandhi Irwin Road, Egmore, Chennai - 600008
- Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
- Guard File/Monitoring File/Record File.

(V P Upadhyay) Director