



Government of India
Ministry of Environment, Forest and Climate Change
(IA Division)

Indira Paryavaran Bhawan
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Dated: 28th March, 2017

To,

The General Manager
(Head Environment)
M/s Oil and Natural Gas Corporation Ltd.
Corporate HSE, 8th Floor Core IV
Scope Minar, Delhi

Sub: Additional Exploratory Drilling of 15 wells in NELP - 1 Offshore Block KG-DWN-98/2, KG Basin, Andhra Pradesh by M/s ONGC - Environmental Clearance - reg.

Ref.: Your online proposal no. IA/AP/IND2/34992/2015; dated 18th January, 2017.

Sir,

This has reference to your online proposal no. IA/AP/IND2/34992/2015; dated 18th January, 2017. along with project documents including Form I, Terms of References, Pre-feasibility Report, EIA/EMP Report along with Public Hearing Report regarding above mentioned project.

2.0 The Ministry of Environment, Forests and Climate Change has examined the application. It is noted that proposal is for Additional Exploratory Drilling of 15 wells in NELP - 1 Offshore Block KG-DWN-98/2, KG Basin, Andhra Pradesh by M/s ONGC. The offshore block KG-DWN-98/2 with an area of 7294.6 sq. km. was initially awarded to Cairn Energy India Limited (CEIL) with 100 % PI in the 1st round of NELP bidding in April, 2000. Subsequently, south-eastern part of the block with an area of 2462 sq.km was relinquished in 2004. In March' 2005, ONGC has acquired 90 % of PI and operatorship. From 28.08.2014 onwards ONGC has become 100% PI holder of the block. Total cost of the project will be Rs. 5750 crore. Total capital cost for environmental pollution control measures will be 2-3 crores. It is reported that the project location is offshore and no coral reef and bio reserves has been indicated as per Form-1. Proposed Drilling Locations area as follows:

Block Name : KG-DWN-98/2							
S. No.	Location Name	LATITUDE (N)			LONGITUDE (E)		
		DEG	MIN	SEC	DEG	MIN	SEC

1	NL-1	16	30	32.38558	82	29	05.52770
2	NL-2	16	29	02.97346	82	26	29.93295
3	NL-3	16	27	14.51786	82	25	42.99103
4	NL-4	16	26	06.59689	82	29	04.12510
5	NL-5	16	23	29.16276	82	26	49.17617
6	NL-6	16	20	39.10709	82	23	56.91012
7	NL-7	16	18	56.16032	82	19	53.16866
8	NL-8	16	18	38.53651	82	27	24.93832
9	NL-9	16	16	25.92776	82	19	12.99422
10	NL-10	16	06	45.51680	82	09	57.95780
11	NL-11	16	08	21.36101	82	14	00.90386
12	NL-12	16	12	58.65660	82	28	32.92137
13	NL-13	15	56	50.15941	82	10	44.14081
14	NL-14	15	45	10.85196	82	07	25.09721
15	NL-15	15	45	21.65834	82	18	07.49849

3.0 The power requirement of the drilling rig will be met by using 4 nos. of Diesel Generator sets of 1430 kVA capacity with a diesel consumption of about 8-12 Kl/day. The exhaust stacks of the DG sets are likely to vent off the emissions at the height of approximately 30 m above mean sea level.

The daily water consumption will be 30 m³/d will be used and will be supplied through Offshore Supply Vessels. Sanitary water is passed through sewage treatment plant on board and discharged to sea after treatment and meeting the requirement of standards i.e Residual chlorine 1 ppm.

During drilling, approximately 300-500 m³ of wet drill cuttings are expected to be generated for one well depending on the target depth of the well. The rock cuttings and fragments of shale, sand and silt associated with the return drilling fluid during well drilling will be separated using shale shakers and other solids removal equipment like de-sander and de-silter. The recovered mud will be reused while the separated solids will be discharged to sea after proper washing and dilution as per GSR 546(E) 2005.

4.0 Public hearing is exempted due to off-shore site location.

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 central level.




6.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its 19th EAC meeting held during 6-7th February, 2017. Project Proponent and the EIA Consultant namely M/s ONGC Ltd., have presented EIA/EMP report as per the TOR. EAC has found the EIA/EMP Report is satisfactory and in full consonance with the presented TORs. The Committee recommended the proposal for environmental clearance.

7.0 Based on the information submitted by the project proponent, the Ministry of Environment and Forests hereby accords environmental clearance to above project under the provisions of EIA Notification dated 14th September 2006, subject to the compliance of the following Specific and General Conditions:

A. SPECIFIC CONDITIONS:

- i) 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.
- 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 from Offshore Supply Vessels shall not exceed 30 m³/well and prior permission shall be obtained from the concerned authority.
- vi) Water based mud shall be used in drilling.
- vii) Washed drill cuttings shall be discharged to sea with proper dilution @ 50 bbls/hr intermittently as per GSR.546 (E) dated 30th August, 2005 guidelines. Unused SOBM mud will be collected and reused/ sent to base.
- viii) Sanitary water shall be passed through sewage treatment plant on board and discharged to sea after treatment and meeting the requirement of standards i.e Residual chlorine 1 ppm.
- ix) The rock cuttings and fragments of shale, sand and silt associated with the return drilling fluid during well drilling will be separated using shale shakers and other solids removal equipment like de-sander and de-silter. The recovered mud will be reused while the separated solids will be discharged to sea after proper washing and dilution as per the rule. Residual waste mud if remained will be discharged into sea after proper dilution as per guidelines.



- x) 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.
- 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) Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- xiv) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured accordingly in a time bound manner.
- xv) Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- xvi) Company shall have own Environment Management Cell having qualified persons with proper background.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), 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 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 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 followed.
- 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 harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.
 - 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 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, risk mitigation measures and public hearing relating to the project shall be implemented.
 - ix. The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.
 - x. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
 - xi. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
 - xii. The company shall earmark sufficient funds 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.
 - xiii. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad/Municipal Corporation, Urban local body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
 - xiv. 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 concerned SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
 - xv. 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 by e-mail.
 - xvi. 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.

- xvii. 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. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of 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.


20.3.2017
(Yogendra Pal Singh)
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Copy to:-

1. The Principal Secretary, Department of Environment, Forest, Science & Technology, Government of Andhra Pradesh, Hyderabad, A.P.
2. The Chief Conservator of Forests, Regional Office (SEZ), 1st and 2nd Floor, Handloom Export Promotion Council, 34 Cathedral Garden Road, Nungambakkam, Chennai - 34.
3. The Chairman, Central Pollution Control Board Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Andhra Pradesh Pollution Control Board, Paryavaran Bhawan, A-III, Industrial Estate, Sanath Nagar, Hyderabad - A.P.
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi.
6. Guard File/Monitoring File/Record File.


20.3.2017
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