

No. J-11011/20/2005 – IA II (I)  
Government of India  
Ministry of Environment & Forests

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Paryavaran Bhawan,  
C.G.O. Complex, Lodi Road,  
New Delhi – 110 003  
Dated the April 3, 2006

To

The Head of assets-West  
M/s Cairn Energy India Limited,  
Wellington Plaza, 2<sup>nd</sup> Floor,  
90, Anna Salai, Chennai- 600 002

**Sub: Oil and gas development in transition zone of CB/OS-2 Block in the Gulf of Khambhat, West Coast of India Gujarat by M/s Cairn Energy India Private Limited reg- Environmental clearance**

Sir,

This has reference to your letter no. HSE01/HPBL/23 dated 20.1.2005 on the above mentioned subject along with project documents including questionnaire EIA/EMP report, NOC and subsequent communication dated 5.5.2005, 6.7.2005 and communication no.WLP/13/32/A/2915/17/2005-06 dated 10.2.2006 from Addl. PCCF, Wildlife, Government of Gujarat on the above mentioned subject.

2.0. The Ministry of Environment and Forests has examined your application. It is noted that the project is envisaged to carry out oil and gas development in transition zone of CB-OS/2 block in the Gulf of Khambhat, West Coast of India in phased manner. The area of the block is 2642km<sup>2</sup> of which about 650km<sup>2</sup> forms the onshore area. Distance of block from the coast is about 15 to 25km. It is noted that the company proposes to undertake oil and gas development in the on shore area (transition zone) covering an area of 650km<sup>2</sup> within the CB/OS-2 block at village Suvali in district Surat. M/s CEIPL propose following activities as part of their proposed project of oil and gas development in the transition zone:

- i. Drilling of 20 production wells and 5 injection wells in 7 identified clusters and a maximum of 2 to 6 wells will be drilled in each cluster of 500 mts radius.
- ii. Development of oil and gas processing facilities in a phased manner i.e in phase 1, 4000 BoPD oil and 30MMSFD of gas in phase-II, 8000 BOPD of oil and 75 MMSFD of gas along with setting up of two Gas Gathering Stations (GGS), one in north and another in South (cluster no.7) of Suvali Terminal during Phase-1 and oil development followed by new oil processing facilities at existing Suvali terminal in Phase-II. The entire gas will be processed and compressed at existing Suvali terminal. During phase II, an additional gas processing in compression stream of 75 MMSFD.
- iii. Laying of four pipelines of various sizes of 4 to 10". Total length of the pipeline will be about 35kms (main pipeline corridor- 22.5km, in fill pipeline-12.5km) for transportation of oil and gas from well heads to GGS and Suvali terminal and water and gas for injection and gas lifting respectively.

3.0. It is also noted that the pipeline connecting cluster-7 (well centre 23) to cluster -6 (well centre 50) passes through Hazira Reserve forest area for length of 2.8 km. considering ROW of 10m, about 2.8 ha. of forest land is required. However, the development of cluster-7 will depend upon the success of drilling and potential of recoverable hydrocarbons. The company shall obtain prior approval from Forest Department before considering this part of the project. Department of Environment and Forests, Government of Gujarat has considered the proposal and recommended for development of six clusters and associated pipelines. The company shall approach the Ministry for development of cluster -7 and its associated pipeline corridor after obtaining forest clearance before commencement of any work in this area. Thus, the proposal is for environmental clearance of clusters 1-6.

4.0. The transition zone consists of inter tidal and terrestrial area with several creeks and the estuary of Tapi river. The Forest and Environment Department, Government of Gujarat has recommended the proposal for CRZ clearance vide its letter no. ENV-10-2004-85-P dated 23<sup>rd</sup> February, 2005. The Ministry of Environment and Forests has granted clearance under Coastal Regulation Zone Notification, 1991 vide letter no.11-32/2005-IA-III dated 4<sup>th</sup> August, 2005. It is also noted that Public hearing panel has considered the project in the meeting held on 09.03.2004. Gujarat Pollution Control Board has granted NOC on 3<sup>rd</sup> June 2004. Total cost of the project is Rs.550 crores.

5.0. The Ministry of Environment and Forests hereby accords environmental clearance for clusters 1-6 for oil and gas development in transition zone of CB-OS/2 block in Surat district , Gujarat under EIA Notification dated 27<sup>th</sup> January, 1994 subject to strict compliance of the following conditions:

**A. SPECIFIC CONDITIONS:**

- i. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore and offshore drilling operation notified vide GSR.546(E) dated 30<sup>th</sup> August, 2005.
- ii. Drilling waste water 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. Drill cuttings and drill muds shall be stored within the plant premises and finally disposed of in the TSDF at Surat of M/s Gujarat Enviro Infrastructure Limited.
- iii. Effluent generated from Group Gathering Station (GGS) and other sources shall be treated to conform to standards under Environment (Protection) Act, 1986 and subsequent amendments.
- iv. The company shall not draw ground water to meet the water requirement.
- v. The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during flaring.
- vi. 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.

- vii. After well testing at each drilling site, all installations, equipment and debris shall be removed and site shall be restored to the near original condition by re-vegetation with appropriate plant species.
- viii. The company shall ensure that natural drainage channels are avoided or drainage channels rerouted to ensure unhindered flow of rain/flood water, wherever necessary adequate erosion control measures will be provided.
- ix. The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transportation of oil, and gas shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141.
- x. Annual safety audit should be carried out for the initial three years by an independent agency and report submitted to this Ministry for ensuring the strict compliance of safety regulations on operation and maintenance.
- xi. The project authorities shall provide 3 layer polythene coating to prevent contamination of sub soil.
- xii. The project authorities shall patrol and inspect the pipeline regularly for detection of faults as per OISD guidelines and continuous monitoring of pipeline operation by adopting non-destructive method(s) of testing as envisaged in the EMP.
- xiii. The project authorities shall plant a minimum of 10 trees for every tree cut along the pipeline route in consultation with the local DFO (s). The company shall develop a social forestry programme to benefit the project affected local people in consultation with the local DFO/village panchayat / NGO.
- xiv. The fire water facilities at the terminals must be designed as per OISD-117 guidelines. However, for fighting prolonged fires, the company should firm up a plan for assured water supply from near by ground water source/ surface water source. This must be complied before commissioning the project.
- xv. All the conditions stipulated vide letter no.WLP/13/32/A/2915-17/2005-06 dated 10.2.2006 from the Addl. Principal Chief Conservator of Forest, Wildlife, Gujarat State, Gandhinagar shall be strictly implemented.
- xvi. The International 'Good Practices' adopted by the petroleum industry viz international norms to safeguard the Coastal and Marine biodiversity would be implemented by M/s CEIL.
- xvii. The flare system shall be designed as per good oil field practices and oil industry 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.
- xviii. The project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA /EMP / risk analysis report as well as the recommendations of the public hearing panel.

6.0. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

7.0. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner will implement these conditions.

8.0. The above conditions will 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 Wastes (Management & Handling) Rules, 1989, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

  
(Dr. P. L. Ahujarai)  
Director

**Copy to:-**

1. The Secretary, Department of Environment and Forests, Govt. of Gujarat, Block No. 14, 8<sup>th</sup> floor, Sachivalaya, Gandhinagar- 382010.
2. The Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office, E - 3 / 240 Arera Colony Bhopal - 462 016.
3. The Addl. Principal Chief Conservator of Forests, Wildlife, Block no.14/1, Old Sachivalaya, Gujarat State, Gandhinagar.
4. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar New Delhi - 110 032.
5. The Chairman Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10A, Gandhi Nagar, -382043
6. JS(CCI-I), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
8. Guard File.
9. Monitoring File.
10. Record File.

  
(Dr. P. L. Ahujarai)  
Director