

No J-11011/84/2000-IA II
Government of India
Ministry of Environment & Forests
I.A.Division

Paryavaran Bhavan, CGO Complex,
Lodi Road, New Delhi-110003

Tele No 4363964

Dated 30th January, 2001

To,
The Chairman & Managing Director,
M/s Cairn Energy India Pvt. Ltd.
Willington Plaza, 1st Floor,
90 Anna Salai,
Chennai-600002.

Subject :- Ravva Gas Development Project in the bay of Bengal, Andhra Pradesh Coast by M/s Cairn Energy India Pvt. Ltd.- Environmental Clearance req.

Sir,

This has reference to your letter No. Nil dated 31st October, 2000 along with project documents including EIA/IM, Public Hearing Report, NOC from Andhra Pradesh, SPCB and subsequent clarifications furnished vide your letter dated 20th December, 2000, 28th December, 2000 and 29th December, 2000 regarding the above project.

Ministry of Environment and Forests has carefully examined your application. It is noted that the proposal is for development of additional gas exploitation (expected yield 0.9 MMSCMD). Additional facilities proposed under the "Ravva Satellite Gas Development" project involve the following activities:-

Offshore Facilities:-

1. one offshore well platform in shallow water depths (5-10m) & about 6.5 km away from existing on-shore terminal.
2. Drilling of a new gas well upto a depth of 1300 m from sea bed
3. Laying of 2 inter platform pipeline segments and one pipeline from new platform to onshore terminal and
4. Hook up of two already completed wells as well as tie in and completion of one gas well which was drilled in the earlier phases of exploitation.

Onshore Facilities:

1. Gas handling and compression facilities.
2. Gas dehydration facilities.
3. Gas metering and control.

Pipelines:

1. one subsea flowline between RF and RG platforms.
2. One subsea flowline between RD and RH platforms and
3. One subsea pipeline from RH platform to the onshore terminal.

It is also noted that the Andhra Pradesh SPCB has issued NOC for the project on 27th October, 2000 and the Public Hearing Panel has recommended the case in the meeting held on 28th July, 2000.

The Ministry of Environment and Forests hereby accords environmental clearance under EIA Notification dated 27th January, 1994 subject to strict compliance of the following conditions:-

SPECIFIC CONDITIONS:

1. The Schedule for commencement of the drilling operation should be intimated at least one month in advance to the Wildlife Warden having jurisdiction over the nearest coastal area so as to enable him to monitor its impact, if any, on the wild life.
2. Approval from DG Shipping under the Merchant Shipping Act prior to commencement of the drilling operations should be obtained. At least 30 days prior to the commencement of drilling, the exact location should be intimated to the Director General of Shipping, Mumbai and the Company should advise by any direction he may issue with respect to ensuring the safety of navigation in the area.
3. As reflected in the EMP the drilling fluid should be reused/recycled. As per the norms stipulated under EPA, efforts should be made not to discharge drilling fluid/mud/cuttings into sea. The drill cuttings/mud should be disposed off onshore in a secured landfill site approved by the Andhra Pradesh SPCB. In case disposal on land is not feasible, Ministry hereby grants provisional permission for one year for disposal of the residual water based drilling fluids and drill cuttings after proper washing into sea subject to following conditions:
 - The project authority should ensure that only low toxicity chemical additives shall be used for preparation of drilling fluids.
 - The disposal point should be located at least 5 KM away from the shoreline and ecologically sensitive areas.
 - At the disposal point, the seabed currents should have a minimum velocity of 60cm/sec and sea depth of 10 meter minimum must be available for proper dilution and dispersion.
 - The drill cuttings should be discharged intermittently to avoid turbidity and reduction in transmittance.
 - Company should submit water-wise data on the quantity of water based mud / cuttings used/generated along with slurry volume and properties (particle size distribution etc.).

- Company should monitor the sea surface water quality in terms of oil content around the well and submit reports to the Ministry on a monthly basis during the period of drilling operations
4. The company should monitor the heavy metal concentration in the marine fish species before taking up the drilling activities and subsequently thereafter on a yearly basis.
 5. Even though the proposed site is not part of National Park or wild life sanctuary, it is seen that degraded mangrove forests exists in the region. The company should submit a plan/scheme for mangrove regeneration/compensatory development in consultation with the local Forest/Wildlife of India. About 25% of the land acquired for the onshore terminal should be developed as green belt.
 6. Adequate infrastructural facilities should be provided in offshore installations so that booms skimmers chemical dispersants could be deployed immediately in case of oil leakage from the installations such that the oil slick, if any, is contained within 500 meters of the installation and accordingly, action plan and facilities to track the oil slick beyond 500 meters should be provided.
 7. 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.

GENERAL CONDITIONS:

1. The project authority must strictly adhere to the stipulations made by the Central Government as part of any International Convention(s) or Merchant Shipping Act.
2. The project authorities must strictly adhere to the stipulations made by the Andhra Pradesh State Pollution Control Board and the State Government.
3. No further expansion or modifications in the proposal should 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 should be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
4. The project must strictly adhere to the regulations made by MARPOL convention 1973/1978 for setting limits, for discharges from offshore oil/gas exploration and production activities.
5. The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous chemicals Rules, 1989 as amended on 3rd October, 1994. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. must be obtained wherever applicable.
6. The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous

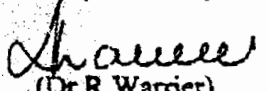
Wastes (Management & Handling) Rules, 1989 wherever applicable. Authorization from the State Pollution Control Board must be obtained for collections/treatment/storage/disposal of hazardous wastes.

7. The overall noise levels in and around the rig area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
8. A separate environmental management cell equipped with full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.
9. The project authorities will provide adequate funds both recurring and non recurring 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 provided should not be diverted for any other purpose.
10. The implementation of the project vis-a-vis environmental action plans will be monitored by Ministry's Regional Office at Bangalore State Pollution Control Board/Central Pollution Control Board. A six monthly compliance status report should be submitted to the monitoring agencies.
11. The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry and Forests at <http://WWW.envfor.nic.in>. This should be advertised in at least two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned.

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

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

The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1987, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.


(Dr. R. Warriar)
Additional Director

Copy to:-

1. Chairman, Central Pollution Control Board, Parivesh Bhavar, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.