

F. No. J-11011/98/2010- IA II (I)  
Government of India  
Ministry of Environment and Forests  
(I.A. Division)

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Dated 16<sup>th</sup> October, 2012

To,

Shri. P Elango, Director Strategy & Business Services  
M/s Cairn Energy India Pty.Ltd.  
4th Floor, Vipul Plaza Suncity, Sector-54,  
Gurgaon-122002, Haryana.

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**Subject:** Augmentation of Crude Oil Production Capacity in the Mangala Processing Terminal (In RJ-ON- 90/1 Block, Rajasthan) (160,000 BOPD to 175,000 BOPD) and Associated Gas Production from 32 MMSCFD to 35 MMSCFD by M/s Cairn Energy India Pty. Ltd.- Environmental Clearance reg.

**Ref. :** (i) Ministry's even no letter dated 23<sup>rd</sup> November, 2010.  
(ii) Your letter dated 12<sup>th</sup> August, 2011.

Sir,

This has reference to your letter no. nil dated 12<sup>th</sup> August, 2011 on the above mentioned subject alongwith project documents including Form1 & Prefeasibility Report and subsequent communications vide letters dated 14<sup>th</sup> October, 2011, 10<sup>th</sup> January, 2012 and 6<sup>th</sup> February, 2012 on the above mentioned subject.

2.0 M/s Cairn Energy India Pty. Ltd. has proposed for augmentation of Crude Oil Production Capacity in the Mangala Processing Terminal (In RJ-ON- 90/1 Block, Rajasthan) (160,000 BOPD to 175,000 BOPD) and Associated Gas Production from 32 MMSCFD to 35 MMSCFD. The block was awarded to CEIL-ONGC joint venture for exploration and production of hydrocarbons by the Govt. of India. The RJ-ON-90/1 block as per current retention of development areas spreads over an area of about 3111 km<sup>2</sup>. The block lies within the Barmer and Jalore District, in the northern development area of the block comprising of Mangla, Aishwarya and Bhagyanm field. No forest land is involved. No ecologically sensitive area is located within 10 km. It was also noted that:

- i. No additional facilities will be installed for the increased production capacity.
- ii. No additional land will be acquired.
- iii. There is no increase in command area/lease area and number of wells to be drilled.
- iv. The no. of wells and well pads required for the proposed production capacity will be within the total permitted numbers.
- v. The permitted fluid handling capacity at MPT is 680,000 bfpd constituting of crude oil and water which is sufficient to cater for a production of up to 175,000 bopd of crude oil operating on early field life of a low water cut profile.

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- vi. The associated gas produced from the well fluid separation is used as fuel for steam boilers and gas engines.
- vii. The power requirement for the Mangla Processing Terminal (MPT) is based on total fluid processing, pumping and heating requirements. Since the total fluid handled is within the existing capacity no additional power is required for the production increase.
- viii. The landfill capacity is based on 20 years waste generation, hence adequate capacity exists for waste produced due to the proposed production increase
- ix. No additional crude oil tanks are proposed, as sufficient storage exists.
- x. No increase in power generation capacity and no increase in ground water abstraction.
- xi. The permitted withdrawal of 32,500 m<sup>3</sup>/day of saline water would be adequate to cater for the production.
- xii. No increase in trade or domestic effluent.
- xiii. No increase in generation of solid/hazardous waste.

3.0 All the Offshore and onshore oil and gas exploration, development & production are listed at S.N. 1(b) under Category 'A' and appraised at the Central level.

4.0 The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 28<sup>th</sup> and 32<sup>nd</sup> meetings held during 20<sup>th</sup>– 21<sup>st</sup> October, 2011 and 16<sup>th</sup>–17<sup>th</sup> February, 2012 respectively.

5.0 Since the proposal involves capacity augmentation of Mangala Processing Terminal without installation of any additional facilities, the Ministry has no objection to the proposal for augmentation of Crude Oil Production (160,000 BOPD to 175,000 BOPD) and Associated Gas Production (32 MMSCFD to 35 MMSCFD) subject to strict compliance of the following specific conditions:

- i) Compliance to all the specific and general conditions mentioned in environmental clearance letters nos. J-11011/382/2005-IAII (I) dated 21<sup>st</sup> March, 2006, J-11011/174/2007-IAII(I) dated 12<sup>th</sup> March, 2008, J-11011/98/2019-IAII(I) dated 23<sup>rd</sup> November, 2010 shall be ensured.
- ii) Monitoring of air pollutants (PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, NMHC) to be conducted as per CPCB protocol. The calibration of all analyzers including flow measuring devices shall be done as per CPCB protocol. The data shall be posted on the Cairn Energy website for public information.
- iii) 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.
- iv) The project authorities shall strictly adhere to the stipulations made by the Rajasthan State Pollution Control Board (RSPCB). All the conditions mentioned in the Consent to Operate and Authorization shall be implemented.
- v) Efforts shall be made to maximize the flare gas recovery.
- vi) Effective use of gas generated shall be made and installation of waste heat recovery system shall be explored.



- vii) In future layout of the crude storage tanks shall be so planned that access for fire fighting is from all side.
- viii) The location of the fire monitor shall be such as to make its manual operation safe. Alternatively remote operation of the monitor shall be implemented.
- ix) Company shall adopt Corporate Environment Policy as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26<sup>th</sup> April, 2011 and implemented. Under Corporate Social Responsibility (CSR), sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project.
- x) 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.
- xi) Green belt shall be developed in 33 % area to mitigate the effects of fugitive emissions all around the plant as per CPCB guidelines in consultation with the local DFO. Thick greenbelt with suitable plant species shall be developed around the proposed expansion.
- xii) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.

6.0 All other conditions also remain the same.


7.0 You are requested to keep this letter with the Environmental Clearance accorded vide letter No. J-11011/98/2010- IA II (I) dated 23<sup>rd</sup> January, 2010.

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 shall implement these conditions.

10.0 The above conditions shall 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 Waste (Management, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

11.0 This issues with the prior approval of Competent Authority.

  
**(A.N. Singh)**  
**Dy. Director (S)**

Copy to :-

1. Secretary, Department of Environment and Forests, Government of Rajasthan, Jaipur, Rajasthan.
2. Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -110032.
3. Chairman, Rajasthan State Pollution Control Board, 4, Institutional area, Jhalana, Doongri, Jaipur, Rajasthan.
4. Chief Conservator of Forests (Central), Ministry of Environment and Forests, Region Office (Central), Kendriya Bhawan, 5<sup>th</sup> Floor, Sector-H, Aliganj, Lucknow – 226 024, U.P.
5. JS, IA-II, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
7. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
8. Guard File/Monitoring File/Record File.

  
**(A.N. Singh)**  
**Dy. Director (S)**