

F.No.11-20/2015-IA.III
Government of India
Ministry of Environment, Forest and Climate Change
(IA-III Section)

Indira Prayavaran Bhawan,
Jor Bagh Road, New Delhi-110003
Dated: May 25, 2017

To,

M/s Cairn India Limited
DLF Atria, Phase 2, Jacaranda Marg
DLF City, Gurgaon – 122002
Haryana

Sub: CRZ clearance for expansion of Oil & Gas Development facilities in existing Ravva Offshore Field, PKGM-1 Block, off Surasaniyanam in Bay of Bengal, East Godavari District, Andhra Pradesh – reg.

Sir,

This has reference to your proposal forwarded by the Member Secretary, Andhra Pradesh Coastal Zone Management Authority (APCZMA) vide their letter 4751/ENV/CZMA/2014 dated 06.08.2014, to this Ministry for grant of CRZ Clearance in terms of the provisions of the Coastal Regulation Zone (CRZ) Notification, 2011 issued under the Environment (Protection) Act, 1986.

2. The proposal was considered by the Expert Appraisal Committee (EAC) for Infrastructure Development, Coastal Regulation Zone, Building/ Construction and Miscellaneous projects, in its 168th meeting held on 17.03.2017. The details of the project, as per the documents submitted by you and as informed during the above said EAC meeting are noted as under:-

- (i) The proposal is for expansion of Oil & Gas development facilities in the existing Ravva Offshore Field, PKGM-1 Block, off Surasaniyanam, in the Bay of Bengal, East Godavari District, Andhra Pradesh.
- (ii) TOR for the project 'Oil and Gas Development in PKGM-1 Block of Ravva Offshore Field' was issued on 29th August, 2013, based on the recommendations of the EAC for Industry-II sector.
- (iii) Public hearing was conducted on 5th December, 2013 by the APPCB.
- (iv) The project falls under CRZ-IV in accordance with the provisions of the CRZ Notification, 2011.
- (v) The Andhra Pradesh Coastal Zone Management Authority has recommended the project for CRZ Clearance vide letter No.4751/ENV/CZMA/2014 dated 06.08.2014.
- (vi) The Ravva Oil and Gas Field is located in the Bay of Bengal adjoining the coast of Andhra Pradesh, in the Krishna-Godavari Basin near Surasaniyanam Village, Uppalaguptam Mandalam of East Godavari District. The Block lies mainly in the offshore region covering an area of 331.26 km² between Latitudes: 16° 20' 44.8" N to 16° 33' 26.6" N and Longitudes: 82° 04' 17.3" E to 82° 19' 04.3".



- (vii) Over the years due to ageing of the field, production of oil and gas has declined. The onshore processing facility though has approved capacity to produce 50,000 BOPD crude oil and 2.32 MMSMD of gas and is presently producing approximately 22,000 BOPD of crude oil and 1.44 MMSCMD of natural gas.
- (viii) In order to enhance the hydrocarbon production within the already approved capacities, CIL on behalf of Ravva JV proposes the following oil and gas developments to produce contingent hydrocarbon resources available in Ravva Field:
 - (1) Installation of one new RI Platform;
 - (2) Drilling of 20 developmental wells: 6 from new RI Platform and 14 from existing platforms (i.e. 3 nos. from RC Platform, 4 nos. from RE Platform, 4 nos. from RF Platform and 3 nos. from RG Platform);
 - (3) Drilling of 6 nos. of exploratory/appraisal wells to assess presence of hydrocarbons in identified pockets;
 - (4) Laying of 3 new interconnecting pipelines of total 14 km length in offshore region connecting the proposed new RI Platform with the existing RB and RG Platforms as per the following arrangement:
 - a). 8" sub sea oil pipeline of 4 km length from new RI Platform to existing RB Platform for oil production;
 - b). 4" subsea gas lift pipeline of 4 km length from new RI Platform to existing offshore RB Platform;
 - c). 8" subsea gas pipeline of 6 km length from new RI Platform to existing offshore RG Platform.
- (ix) The cost of the above proposed oil and gas development is estimated to be approximately INR 3,240 Crores.
- (x) Water requirement for drilling of a well will be 85 m³/day. Fresh water of 40 m³/day will be sourced from nearby Kakinada Port through supply boats while remaining 45 m³/day of water requirement will be met through seawater, which will be lifted from the rig location.
- (xi) Power requirement for drilling will be met through on board through 3 of the 4 main diesel generator sets (each of 2,000 KVA i.e. approximately 1600 kW) typically installed on board jack up rig. There will also be one diesel generator of 500 kVA capacity catering to the emergency auxiliary power supply. For power generation on board the rig, approximately 26 m³/day of High Speed Diesel will be used. Supply vessels will transport the required fuel from the nearest Kakinada Port.
- (xii) There will be an On-board Sewage Treatment Plant (STP) to treat sewage as per MARPOL requirements and the treated sewage will be discharged to sea. The on-board STP will typically consist of solids / oil separation and chemical oxidation to remove the organic load.
- (xiii) During drilling, approximately 20-25 kg per day of kitchen wastes will be generated from offshore rig. The food residues generated on board will be ground to pass through 25-mm mesh size screen. The comminute food waste will be discharged offshore as per MARPOL requirements.

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3. It is noted that environmental clearance for the PKGM-1 Block has been issued by this Ministry on 23.02.2015, in acceptance of the recommendation made by the EAC (Industry-II) with a condition that CRZ clearance shall be obtained. That the offshore oil and gas development in the existing Ravva field is an operating entity and the present proposal is an expansion by addition of one new platform.

4. Based on the information submitted by you as at para no. 2 and 3 above and others and information made during the presentation before the Expert Appraisal Committee, the Ministry of Environment, Forest and Climate Change hereby accords CRZ Clearance to the above project viz '*Expansion of Oil & Gas Development facilities in existing Ravva Offshore Field, PKGM-1 Block, off Surasaniyanam, in the Bay of Bengal, East Godavari District, Andhra Pradesh*', under the provisions of the CRZ Notification, 2011 and amendments thereto and circulars issued thereon, and subject to the compliance of the following specific and general conditions as under:

A. SPECIFIC CONDITIONS:

- (i) All the terms and conditions stipulated by the APCZMA in their letter No. 4751/ENV/CZMA/2014 dated 06.08.2014, shall be strictly complied with and the status of implementation shall be submitted to all concerned agencies including regional office of the Ministry of Environment, Forest and Climate Change.
- (ii) The project/activity shall be carried out strictly be in accordance with the provisions of CRZ Notification, 2011, and shall endeavour to render the coastal ecology of the area including flora and fauna to its original state after completion of the project.
- (iii) The project proponent shall ensure that no piling work is undertaken during migratory season of turtles; Project proponent shall develop Sea Turtle Conservation Plan and implementation strategy with special focus on Sacramento Island in consultation with Wildlife Institute of India and Andhra Pradesh Forest Department.
- (iv) The project proponent shall ensure compliance to the National Oil Spill Disaster Contingency Plan (NOSDCP) and fulfil the responsibilities as vested therein. A local plan based on NOSDCP shall be prepared by the proponent to mitigate and manage the risk of oil spillage.
- (v) The project proponent shall deposit 2% of the cost of the project (proportional to construction of platform and cost of oil and gas producing wells found after exploratory work) for conservation of coastal and marine biodiversity in the states of Andhra Pradesh. Government of Andhra Pradesh shall establish an independent Marine and Coastal Biodiversity Foundation where this 2% contribution is to be deposited as a corpus fund and its interest shall be used to undertake activities specific to marine and coastal biodiversity conservation. Guidelines to establishment of the Marine and Coastal Biodiversity Foundation can be followed based on the guidelines of Mangrove Foundation of

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Maharashtra. The project proponent shall follow up with the State Government in this regard and ensure that the Foundation is established during the development of the project itself.

- (vi) There shall be no disposal of solid or liquid wastes on the coastal area. Solid waste management shall be as per Solid Wastes Management Rules, 2016. A team comprising of members of the EAC and others with expertise in the subject may visit the project site periodically during the construction phase to supervise and suggest additional measures if desired.
- (vii) The project proponent shall ensure that monitoring of hydrocarbons & temperature is regularly carried out through an independent institute like IIT, Chennai, Andhra University or other accredited institutes in addition to in-house monitoring. The monitoring reports shall be submitted to the concerned department in the State Government and the regional office of the Ministry.
- (viii) The project proponent shall ensure that marker buoy and light indicators are established close to the route of the pipeline to avoid damage to the fishing nets (if any) and shall ensure that round the clock surveillance around the RC Platform is carried out to avoid any damage to the local fishing vessels.
- (ix) The project proponent shall undertake post-project monitoring of estuarine and coastal waters at regular intervals and follow internationally acceptable protocols while dealing with marine biological aspects. The monitoring reports shall be submitted to the concerned department in the State Government and the regional office of the Ministry.
- (x) The guidelines issued by the CPCB for extraction of oil and gas shall be strictly followed. The drill cuttings and drilling fluids for offshore installations should confine to the guidelines issued by CPCB/APPCB.

B. GENERAL CONDITIONS:

- (i) Adequate provision for infrastructure facilities including water supply, fuel and sanitation must be ensured for construction workers during the construction phase of the project to avoid any damage to the environment.
- (ii) Full support shall be extended by the project proponent to the officers of this Ministry/Regional Office of the Ministry, during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.
- (iii) A six-monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry regarding the implementation of the stipulated conditions.

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- (iv) The Ministry of Environment, Forest & Climate Change or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.
- (v) The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with to the satisfaction of the Ministry.
- (vi) In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry.
- (vii) The project proponents shall inform the Regional Office of the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.
- (viii) A copy of the CRZ Clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The Clearance letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/Tehsildar's Office for 30 days.

5. The above stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 1994, including the amendments and rules made thereafter.

6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, and clearances under the Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

7. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest & Climate Change at <http://www.envfor.nic.in>. The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Chennai.

8. This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004, as may be applicable to this project.

9. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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10. Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent on its website.

11. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

12. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry, the respective Zonal Office of CPCB and the SPCB.


13. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEFCC, the respective Zonal Office of CPCB and the SPCB.

14. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent 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 EC conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.


(Arvind Kumar Nautiyal)
Director

Copy to:

1. The Secretary, Department of Environment Forests, Science and Technology, Government of Andhra Pradesh, Secretariat, Hyderabad - 500 022, Andhra Pradesh
2. The Chairman, Andhra Pradesh Coastal Zone Management Authority, Government of Andhra Pradesh Secretariat, Hyderabad - 500 022
3. The Chairman, CPCB, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110032.
4. The Member Secretary, Andhra Pradesh Pollution Control Board, Paryavarana Bhavan, A-III, Industrial Estate, Sanathnagar, Hyderabad - 500 018
5. The APCCF (C), MoEF&CC Regional Office (SEZ), Ist and IInd Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai - 34
6. Guard File/Monitoring Cell.


(Arvind Kumar Nautiyal)
Director