

No. EOL/CBM-RME/EC/20181129

29nd November 2018

To
The Director
Ministry of Environment and Forests & Climate Change
Eastern- Central Zone Regional Office
Bungalow No A-2, Shyamali Colony,
Ranchi-834 002
JHARKHAND

Essar Oil and Gas Exploration and Production Limited
AN 81 B Sector 2B
Martin Luther King Road
Bidhan Nagar
Durgapur-713 212
West Bengal
India

Corporate Identity Number
U11203GJ2016PLC091903

T +91 343 2532202
F +91 343 2532201
E eogepl@essar.com
www.essar.com

Sub. – Submission of half yearly Compliance Report of Environmental Clearance (EC) of RM (E)-CBM-2008/IV, Rajmahal CBM for the period April 2018 to September 2018

Dear Sir

We are enclosing herewith the 'Half-Yearly Compliance Report (April, 2018- September, 2018)' for the Rajmahal CBM Block, as per stipulations laid in Terms and Conditions of exiting EC.

It may be noted here that the CBM Project Operation activities for the block are yet to start. We are currently in the process of negotiation and acquisition of suitable land for drilling of coreholes.

Thanking you,
Yours sincerely,
For Essar Oil & Gas Exploration and Production Limited



(PRAKASH SINGH)
DGM (Geology),
Bank Colony, Pakur

Authorized Signatory

Encl. - a/a

Copy - 1. Member Secretary (Industry), MoEF, CGO Complex, Paryavan Bhavan, New Delhi-110003
2. The Member Secy., Township Administrative Building, HFC Complex, Dhurwa, Ranchi 834 004

Essar Oil and Gas Exploration and Production Limited

Environment Clearance compliance Report

Block - RM (E)-CBM-2008/IV (Rajmahal CBM Block), Jharkhand

Ref: EC F.No.J-11011/491/2011-IA II (I), Govt. of India, MoEF (I.A. Division) dated - 4th February, 2015,
transfer of EC from EOL to EOGEPD dated 25th April 2018

(April'18 – September '18)

S. No	Condition	Compliance Status
A	Specific Conditions	
i.	Compensation for the land acquisition to the land ousters, if any, and also for standing crop shall be paid as per the National Resettlement and Rehabilitation Policy (NRRP) 2007 or State Government norms. It may be ensured that compensation provided shall not be less than the norms of the NRRP, 2007.	Land acquisition is under progress for drilling of Core holes.
ii.	Adequate stack height will be provided to gas fired boiler to disperse waste gases.	Operation has not started yet.
iii.	The surface facilities shall be installed as per the applicable codes and standards, international practices and applicable local regulations.	Operation has not started yet.
iv.	Ambient Air Quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards (NAAQES) issued by the Ministry vide G.S.R No. 826(E) dated 16 th November, 2009 for PM10, PM2.5, SO2, NOx, CO, CH4, VOCs, HC, Non-Methane HC etc. Efforts shall be made to improve the ambient air quality of the area.	Operation has not started yet.
v.	The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The company shall take necessary measures to prevent fire hazards and soil remediation as needed. At the place of ground flaring, the flare pit shall be lined with refractory bricks and efficient burning system. In case of overhead flare stacks, the stack height shall be provided as per the regulatory requirements and emission from stacks shall meet the MoEF/CPCB guidelines.	Operation has not started yet.
vi.	The company shall make the arrangement for control of noise from the drilling activity set compressor station and DG/GG sets by providing necessary mitigation measures such as proper acoustic enclosures to DG/GG sets and meets the norms notified by the MoEF. Height of all the stacks/vents shall be as per the CPCB guidelines.	Operation has not started yet.
vii.	The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30 th August, 2005	Operation has not started yet.
viii.	Total fresh water requirement should not exceed (25m3/core hole) and test/pilot drilling (75m3/day) for each well during drilling phase and prior permission shall be obtained from the	Operation has not started yet.

S. No	Condition	Compliance Status
	Competent Authority and a copy submitted to the Ministry's Regional Office at Bhubaneswar.	
ix.	During well drilling, wastewater should be segregated into waste drilling fluid and drill cuttings. Drill cutting should be stored onsite impervious HDPE lined pit for solar evaporation and drying. Effluent should be properly treated and treated effluent should conform to CPCB standards.	Operation has not started yet.
x.	As proposed, produced water shall be treated by RO and RO rejects shall be concentrated/ evaporated in MEE. Treated water shall be reused in drilling of other core/ test wells as well as other beneficial purposes.	Operation has not started yet.
xi.	Ground water quality monitoring should be done to assess if produced water storage or disposal has any effect.	Operation has not started yet.
xii.	Drilling wastewater 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 on land. Proper toxicological analysis shall be done to ensure there is no hazardous material. Copy of toxicological analysis shall be submitted to Ministry's Regional Office at Bhubaneswar.	Operation has not started yet.
xiii.	Only water based drilling mud shall be used. The drilling mud shall be recycled. Hazardous waste shall be disposed of as per Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers/ re-processors.	Operation has not started yet.
xiv.	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 operation.	Operation has not started yet.
xv.	To prevent underground coal fire, preventive measures shall be taken for ingress of ambient air during withdrawal inside the coal seams by adopting technologies including vacuum suction. Gas detectors for the detection of CH ₄ and H ₂ S shall be provided.	Operation has not started yet.
xvi.	The design, material of construction, assembly, inspection, testing and safety aspects of operations and maintenance of pipeline and transporting the natural gas/oil shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141. Pipeline wall thickness and minimum depth of burial at river crossing and casings at rails, major road crossings should be in conformity with ANSI/ASME requirements.	Operation has not started yet.
xvii.	The company shall develop a contingency plan for H ₂ S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H ₂ S detectors in locations of high risk of exposure along with self-containing breathing apparatus.	Operation has not started yet.

S. No	Condition	Compliance Status
xviii.	Adequate well protection system shall be provided like Blow Out Preventor (BOP) or diverter systems as required based on the geological formation of the blocks.	Operation has not started yet.
xix.	The top soil removed shall be stacked separately for reuse during restoration process.	Operation has not started yet.
xx.	Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India. Recommendations mentioned in the Risk Assessment & Consequence Analysis and Disaster Management Plan shall be strictly followed.	Operation has not started yet.
xxi.	Project proponent shall comply with the environment protection measures and safeguards recommended in the EIA/EMP/risk analysis report/disaster management plan.	Operation has not started yet.
xxii.	The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.	Operation has not started yet.
xxiii.	Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.	Operation has not started yet.
xxiv.	In case the commercial viability of the project is established, the Company shall prepare a detailed plan for development of gas fields and obtain fresh environmental clearance from the Ministry.	Operation has not started yet.
xxv.	All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 24 th November, 2012 shall be satisfactorily implemented.	Operation has not started yet.
xxvi.	At least 5% of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program should be ensured in a time bound manner.	Operation has not started yet.
B	General Conditions	
i.	The project authorities must strictly adhere to the stipulations made by the Jharkhand State Pollution Control Board (JSPCB), State Government and any other statutory authority.	The CTE will be applied immediately after acquisition of Land
ii.	No further expansion or modification in the project shall be carried out without prior approval of the Ministry of Environment & 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	Operation has not started yet.

S. No	Condition	Compliance Status
	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.	Operation has not started yet.
iv.	The overall noise levels in and around the plant area shall be kept 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 EPA Rules, 1989 viz. 75dBA (daytime) and 70 dBA (night time).	Operation has not started yet.
v.	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.	Operation has not started yet.
vi.	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.	Operation has not started yet.
vii.	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.	Operation has not started yet.
viii.	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Operation has not started yet.
ix.	A separate Environmental Management Cell equipped with full-fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.	Operation has not started yet. Operation has not started yet.
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.	Operation has not started yet.
xi.	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/ Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.	Complied
xii.	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard	Complied <u>Note-</u>

S. No	Condition	Compliance Status
	copies as well as by e-mail) to the Regional Office of MoEF, the respective Zonal Office of CPCB and the JSPCB. A copy of Environmental Clearance and six monthly compliance status reports shall be posted on the website of the company.	A more detailed report will be submitted after start of the operations.
xiii.	The environmental statement for each financial year ending 31 st 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 environmental conditions and shall also be sent to the respective Regional Offices of the MoEF by e-mail.	Operation has not started yet.
xiv.	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 of Environment and Forests at http://envfor.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 Regional Office of the Ministry.	Complied. (Advertisement was published in The Times of India & Dainik Jagaran. The copies of the same were submitted with previous compliance report.)
xv.	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.	Not applicable