



No. EOGEP/CEM-SP (NE)/EC/18-19

31<sup>st</sup> May 2018

To  
The Director  
Ministry of Environment and Forests & Climate Change  
Western Regional Office, Kendriya Parayavaran Bhavan  
Link Road No. 3, Ravi Shankar Nagar,  
Bhopal 462016 (MP)

Essar Oil and Gas Exploration and Production Ltd.  
Sohagpur CBM Block,  
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Sub. – Submission of half yearly Compliance Report of Environmental Clearance (EC) of SP (NE)-CBM-2008/IV Sohagpur CBM Block, Madhya Pradesh & Chhattisgarh for the period October 2017 to March 2018

Dear Sir

We are enclosing herewith the 'Half-Yearly Compliance Report (October, 2017- March, 2018)' for the Sohagpur 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.

Thanking you,

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

Vinod Kumar Gupta

Block Manager, Sohagpur CBM Block,

Encl. - a/a

- Copy - 1. Member Secretary (Industry), MoEF, CGO Complex, Parayavan Bhavan, New Delhi-110003
2. The Member Secretary, MP Pollution Control Board, Parayavaran Parisar, E-5, Arera Hills, Bhopal (MP)
  3. The Chairman, Chhattisgarh Environmental Conservation Board, Parayavas-Bhawan, North Block, Sector-19, Near GMR Chowak, Behind Police Head Quarter, New Raipur (CG)

**Essar Oil and Gas Exploration and Productive Limited, Sohagpur**

**Environment Clearance Compliance Report**

**SP (NE)-CBM-2008/IV Sohagpur CBM Block, Madhya Pradesh & Chhattisgarh**

**Ref: Environmental Clearance F.No.J-11011/105/2011-IA II (I), Govt. of India, MoEF (I.A.Division)**

**Dated 30.12. 2016, transfer of EC from EOL to EOGEP L dated 31.07.2017**

<b>S. No</b>	<b>Condition</b>	<b>Compliance Status</b>
<b>A</b>	<b>Specific Conditions</b>	
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.	The land acquisition is under progress. Land identified for core hole drilling will be taken on lease basis & compensation paid accordingly.
ii.	Adequate stack height will be provided to gas fired boiler to disperse waste gases.	The Gas fired boiler will be provided adequate stack height at CBM production Operational Phase
iii.	The surface facilities shall be installed as per the applicable codes and standards, international practices and applicable local regulations.	The surface facilities will be installed in pilot Assessment phase of CBM operation.
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 <sup>th</sup> 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.	Ambient Air Quality Monitoring will be carried out in surrounding villages during operation phase through MOEF/SPCB accredited laboratory.
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.	The flaring stack with adequate height will be constructed at Gas Gathering Station (GGS) for overhead flaring in Pilot Assessment phase.  No Ground flaring carried out.
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.	The adequate stack with acoustic enclosed Green DG/GG set will be used in operational phase.
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 <sup>th</sup> August, 2005	The water based drilling mud will be used for Drilling. The drill cutting and drilling fluid generation during drilling will be disposed as per the statutory requirement.
viii.	Total fresh water requirement should not exceed (25m <sup>3</sup> /core hole) and test/pilot drilling (75m <sup>3</sup> /day) for each well during drilling phase	The water will be supplied through tanker for drilling. The water will be reused in drilling

S. No	Condition	Compliance Status
	and prior permission shall be obtained from the Competent Authority and a copy submitted to the Ministry's Regional Office at Bhopal.	operation to minimise the consumption.
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.	The HDEP lined waste pit will be constructed at site for storing or Drill cutting and drilling fluid. The drilling fluid will be treated before discharge to comply with the CPCB standard.
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.	The Produced water generated in pilot Assessment phase will be treated through RO if TDS is more than 2000 mg/l. The treated water will be reused in Drilling, workover, Hydro frac and utility.
xi.	Ground water quality monitoring should be done to assess if produced water storage or disposal has any effect.	The Ground water quality analysis will be carried out in drinking water wells of surrounding area during operation.
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.	The toxicological analysis of the Drill cutting will be carried out in operational phase through accredited laboratory.
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.	The hazardous waste generated during operation will be disposed off as per Hazardous waste rules and through Authorized recycler.
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.	The knockout drums will be installed at flaring stack in GGS.
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 <sub>4</sub> and H <sub>2</sub> S shall be provided.	The gas detector will be install at GGS and potable gas detector will be available at all major facilities of the Project Site.
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.	The CBM gas transport pipeline will be constructed as per the OISD standard in Pilot Assessment phase.
xvii.	The company shall develop a contingency plan for H <sub>2</sub> S release including all necessary aspects from evacuation to resumption of	The CBM Gas Composition analysis will be carried out.

<b>S. No</b>	<b>Condition</b>	<b>Compliance Status</b>
	normal operations. The workers shall be provided with personal H2S detectors in locations of high risk of exposure along with self-containing breathing apparatus.	Adequate Protection will be taken for H2S (if found).
xviii.	Adequate well protection system shall be provided like Blow Out Preventer (BOP) or diverter systems as required based on the geological formation of the blocks.	The BOP will be install in the drilling Rigs for CBM well drilling.
xix.	The top soil removed shall be stacked separately for reuse during restoration process.	The Top soil will be store and preserved within the site will be reuse in site restoration at Core well drilling.
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.	The Emergency Response Plan will be prepared prior the operational phase and Risk Assessment & Consequence Analysis and Disaster Management Plan will be followed during Operation.
xxi.	Project proponent shall comply with the environment protection measures and safeguards recommended in the EIA/EMP/risk analysis report/disaster management plan.	All environmental protection measure as suggested in EIA/EMP/RA will be complied during operation.
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.	The restoration of the site near to original condition will be carried out if the CBM well is not found commercially viable.
xxiii.	Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.	The annual Occupation health surveillance is carried out as per the FORM "O" of Oil Mine Regulation for all workers.
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.	In the project will commercially viable in Pilot Assessment Phase
xxv.	All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 14 <sup>th</sup> March, 2013 for Shadole District and on 3 <sup>rd</sup> July, 2013 for Koriya District shall be satisfactorily implemented.	The commitment made in public hearing will be complied in Pilot Assessment Phase
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 Bhopal. Implementation of such program should be ensured in a time bound manner.	The Corporate Social responsibility will be carried out in Pilot Phase.
<b>B</b>	<b>General Conditions</b>	

S. No	Condition	Compliance Status
i.	The project authorities must strictly adhere to the stipulations made by the Jharkhand State Pollution Control Board (MPPCB & CECB), State Government and any other statutory authority.	Obtain CTE for 5 nos of Core hole in Forest area vide consent no 47958 dated 26.02.2018 valid upto 30/11//2022 from MPPCB. A copy of the same is enclosed as <b>Annexure I</b> .
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 assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	The fresh Environmental Clearance application will be submitted for Development cum Production phase if Pilot assessment is found commercially viable.
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.	The air quality monitoring stations in Pilot Assessment Phase will be decided in consultation with SPCB
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).	The Ambient noise monitoring will be carried out in operational phase in surrounding area.
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.	The Safety Department will be set up for regular training and awareness of the employees in Pilot assessment Phase.
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.	All environmental protection measure as suggested in EIA/EMP/RA will be complied during operation.
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.	The Corporate Social responsibility will be carried out in Pilot Phase.
viii.	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	The eco-developmental measures will be taken at surrounding area during Pilot Phase.
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.	A separated Environmental Management Cell will be set up in Pilot Assessment phase. The Environmental Monitoring will be carried out through

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		MOEF/SPCB accredited Laboratory.
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.	The funds environment management control (for RO, Waste Management etc ) will be allocated in the budget of Pilot Assessment Phase.
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.	The copy of the letter was already submitted to concerned Panchayat, Zila Parishad.
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 copies as well as by e-mail) to the Regional Office of MoEF, the respective Zonal Office of CPCB and the MPPCB & CECB. A copy of Environmental Clearance and six monthly compliance status reports shall be posted on the website of the company.	Compliance. More details report will be submitted after start of the operations.
xiii.	The environmental statement for each financial year ending 31 <sup>st</sup> 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.	The CTE was applied to SPCB. The Form V will be submitted after receiving the CTO approval from SPCB.
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 <a href="http://envfor.nic.in">http://envfor.nic.in</a> . 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 & Hari Bhum on 23.01.2017. The copies of the same was 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.	The financial closure will be informed to Project Authorities.