## 3<sup>rd</sup> Compliance Report as on 30.9.2012 on the status of the compliance of the stipulated environmental conditions of

## Environmental Clearance (EC) on Drilling Activities for On-shore Oil and Gas Exploration in NELP-VII Block CB-ONN-2005/2 at Cambay Basin, Mehsana & Patan, Gujarat by M/s Indian Oil Corporation

## **SPECIFIC CONDITIONS:**

SI. No.	Items	Remarks
1.	Gas produced during testing shall be flared with appropriate flaring booms.	Noted and would be complied with.
2.	The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The stack height shall be provided as per the regulatory requirements and emissions from stacks will meet the MOEF/CPCB guidelines.	Flare system design and stack height will meet the OISD guidelines. Flare stack emission monitoring will also be carried out as per Environment (Protection) Rules, 1986 for oil drilling industry during flaring of gases during drilling phase.
3.	Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 <sup>th</sup> November, 2009 for PM <sub>10</sub> , PM <sub>2·5</sub> ,SO <sub>2</sub> , NO <sub>X</sub> , CO, CH <sub>4</sub> , HC, Nonmethane HC etc.	Drilling activities are schedule to start in 4 <sup>th</sup> quarter of 2012-13, These conditions would be adhered to.
4.	Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.	Drilling activities are schedule to start in 4 <sup>th</sup> quarter of 2012-13, These conditions would be adhered to.
5.	Approach road shall be made pucca to minimize generation of suspended dust.	To be taken up during construction phase based on evaluation of the condition of approach road to drill sites. Additionally, dust generation will be minimized by water sprinkling (if required)
6.	The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.	The DG Sets would be provided with appropriate acoustic enclosures and adequate stack height as required under the guidelines for stack height for DG sets

		published by CPCB in Emission Regulations, Part-IV, COINDS/26/1986-87.
7.	Total water requirement shall not exceed 40 m <sup>3</sup> /day and prior permission shall be obtained from the concerned agency.	Noted and would be complied with.
8.	The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.	Condition will be fulfilled during drilling activities.
9.	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. The membership of common TSDF shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Bhopal.	HDPE Lined disposal pit will be constructed for disposal of drilling waste water as per guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005. Authorization of TSDF should also be obtained for disposing drill cuttings and other hazardous wastes.
10.	Good sanitation facility should be provided at the drilling site. As proposed, domestic sewage shall be disposed off through modular STP.	Sufficient number of portable toilet will be provided at drill site and waste water will be treated through septic tank-soak pit or modular STP (whichever is appropriate to site conditions)
11.	Oil spillage scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.	Proper oil spill response scheme will be developed and implemented onsite. Onsite spill kits will be provided to avoid minor spills. Additionally, proper measures will be taken care to fulfill the condition.
12.	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.	Noted. Adequate measures will be taken to comply the guidelines during drilling activities. Drilling activities are schedule to start in 4 <sup>th</sup> quarter of 2012-13
13.	The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the	do

	overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.	
14.	The company shall develop a contingency plan for H <sub>2</sub> S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H <sub>2</sub> S detectors in locations of high risk of exposure along with self containing breathing apparatus.	do
15.	The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and its Regional Office at Bhopal.	do
16.	Blow Out Preventor (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.	do
17.	Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.	do
18.	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 the area in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.	do
19.	Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.	do
20.	In case the commercial viability of the project is established, the Company shall prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.	do
21.	Restoration of the project site after completion of drilling shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Bhopal.	do
22.	Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at	do

	Bhopal.	
23.	Company shall ensure good housekeeping at the drilling site.	do
24.	Company shall prepare project specific environmental manual and a	do
	copy shall be made available at the drilling site for the compliance.	
25.	Company shall adopt Corporate Environment Policy as per the	do
	Ministry's O.M. No. J- 11013/41/2006-IA.II(I) dated 26 <sup>th</sup> April, 2011 and	
	implemented.	

## **GENERAL CONDITIONS:**

SI. No.	Items	Remarks
1.	The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB), State Government and any other statutory authority.	Needful will be done as per the guidelines provided by the Gujarat Pollution Control Board (GPCB), State Government and any other statutory authority.
2.	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.	Ministry of Environment & Forests will be informed and prior approval regarding any modification in the project will be taken.
3.	The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 2000 as amended subsequently. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. must be obtained, wherever applicable.	Proper measures will be taken care to fulfill the condition.
4.	The overall noise levels in and around the plant area shall be kept well 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. 75 dBA (daytime) and 70 dBA	DG sets with acoustic enclosures will be installed at site. Location of DG set installation will be selected so as to be away from nearest habitation. Further, vehicular movement will be minimize

	(nighttime).	through optimum use of them.
5.	A separate Environmental Management Cell equipped with full fledged	Monitoring from MOEF approved lab will
	laboratory facilities must be set up to carry out the environmental	be carried out as per site requirement.
	management and monitoring functions.	
6.	A copy of clearance letter shall be sent by the proponent to concerned	A copy of clearance letter has been sent to
	Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body	concerned Municipal Corporation, Urban
	and the local NGO, if any, from whom suggestions / representations, if	Local Body and the local NGO.
	any, were received while processing the proposal. The clearance letter	
	shall also be put on the web site of the company by the proponent.	D
7.	The project proponent shall upload the status of compliance of the	Proper measures will be taken care to fulfill
	stipulated environment clearance conditions, including results of	the condition.
	monitored data on their website and shall update the same periodically.	
	It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the GPCB. The criteria pollutant	
	levels namely; PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>X</sub> , HC (Methane & Non-methane), VOCs	
	(ambient levels as well as stack emissions) or critical sectoral	
	parameters, indicated for the projects shall be monitored and displayed	
	at a convenient location near the main gate of the company in the	
	public domain.	
8.	The project proponent shall also submit six monthly reports on the	1 <sup>st</sup> and 2 <sup>nd</sup> reports on status of the
	status of the compliance of the stipulated environmental conditions	compliance of the Environmental
	including results of monitored data (both in hard copies as well as by e-	Clearance conditions have been submitted
	mail) to the Regional Office of MOEF, the respective Zonal Office of	to the Regional Office of the MOEF, the
	CPCB and the GPCB. The Regional Office of this Ministry /CPCB /	respective Zonal Office of CPCB and the
	GPCB shall monitor the stipulated conditions.	GPCB on 5.1.2012 and 13.4.2012
		respectively. Further, proper measures will
		be taken care to fulfill the condition.
9.	The environmental statement for each financial year ending 31 <sup>st</sup> March	The environmental statement for the
	in Form-V as is mandated to be submitted by the project proponent to	financial year ending 31/3/2012 in Form-V
	the concerned State Pollution Control Board as prescribed under the	was submitted along with 2 <sup>nd</sup> Compliance
	Environment (Protection) Rules, 1986, as amended subsequently, shall	Report.
	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.	
10.	The Project Proponent shall inform the public that the project has been	Information regarding EC accorded for the
10.	The Freguet Freguet Chair inform the pashe that the project has been	i mematen regarding Le decerded for the

	accorded environmental clearance by the Ministry and copies of the	project was published in newspapers in
	clearance letter are available with the GPCB and may also be seen at	English as well as vernacular languages.
	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.	
11.	Project authorities shall inform the Regional Office as well as the	Petroleum Exploration Licence (PEL) for
	Ministry, the date of financial closure and final approval of the project	the project granted on 22.9.2009 for the
	by the concerned authorities and the date of commencing the land	period of four years. Civil work is planned
	development work.	to start in November 2012.