



सत्यमेव जयते

भारत सरकार  
GOVERNMENT OF INDIA

पर्यावरण, वन एवं जलवायु परिवर्तन  
मंत्रालय

MINISTRY OF ENVIRONMENT, FOREST &  
CLIMATE CHANGE

SPEED POST

क्षेत्रीय कार्यालय, पश्चिम क्षेत्र,  
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दिनांक: 6.7.2015

क्रमांक: 5-50/2011(ENV)/ 323

प्रति,  
डॉ. ललित बोकोलिया,  
वैज्ञानिक 'ई',  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय,  
इंदिरा पर्यावरण भवन,  
जोर बाग रोड, अलीगंज,  
नई दिल्ली - 110003

विषय: 1. Exploratory drilling for oil and gas in CB-ONN/2000/01 block in Ahemdabad, Gujarat by M/s Gujarat State Petroleum Corp. Ltd. - reg.  
2. Drilling of 5 wells (onshore) in the onshore Block CB-ONN-2000/1, Dist. Ahmedabad by M/s Gujarat State Petroleum Corp. Ltd. - reg.

संदर्भ: 1. Ministry's letter no. J-11011/178/2007-IA.II (I) dated 3.8.2007.  
2. Ministry's letter no. J-11011/497/2009-IA.II (I) dated 16.8.2011.

महोदय,

मंत्रालय के उपरोक्त संदर्भित पत्रांकों के संदर्भ में उक्त परियोजना को पर्यावरणीय दृष्टिकोण से अनुमति देते समय अनुबद्ध शर्तों के अनुपालन एवं certification of compliance की अनुवीक्षण प्रतिवेदन (मॉनिटरिंग रिपोर्ट) एतद् द्वारा संलग्न कर प्रेषित है। अनुवीक्षण प्रतिवेदन मंत्रालय की वेबसाइट पर भी अपलोड की जा रही है।

भवदीय

संलग्न: उपरोक्तानुसार

वैज्ञानिक 'एफ'

प्रतिलिपि: Shri Niladri Kumar Mitra, Chief Operating Officer, M/s Gujarat State Petroleum Corp. Ltd.,  
GSPC Bhavan, Behind Udyog Bhavan, Sec - 11, Gandhinagar - 382010 - for information.

o/c

वैज्ञानिक 'एफ'

**Monitoring the Implementation of Environmental Safeguards**  
**Ministry of Environment, Forest & Climate Change**  
**Western Region, Regional Office, Bhopal**

**MONITORING REPORT**

**PART – I**

**DATA SHEET**

1	Project type: River- valley/ Mining/ Industry / Thermal / Nuclear/Other (specify)	:	Industry
2	Name of the project	:	1. Exploratory drilling for oil and gas in CB-ONN/2000/01 block in Ahemdabad, Gujarat by M/s Gujarat State Petroleum Corp. Ltd. 2. Drilling of 5 wells (onshore) in the onshore Block CB-ONN-2000/1, Dist. Ahmedabad by M/s Gujarat State Petroleum Corp. Ltd.
3	Clearance letter (s)/OM No. & date	:	1. J-11011/178/2007-IA.II (I) dated 3.8.2007 2. J-11011/497/2009-IA.II (I) dated 16.8.2011
	Location: a) District (s) b) State (s) c) Location Latitude/Longitude	:	Ahmedabad Gujarat <b>EC 2007:</b> PK-Dev#1: 22 <sup>o</sup> 38'2.6" N / 72 <sup>o</sup> 28'17" E PK-Dev#2: 22 <sup>o</sup> 37'59.4" N / 72 <sup>o</sup> 29'1.1" E PK-Dev#3: 22 <sup>o</sup> 38'37.9" N / 72 <sup>o</sup> 28'24" E GSAH#5: 22 <sup>o</sup> 44'32.31" N / 72 <sup>o</sup> 25'2.5" E GSAH#4: 22 <sup>o</sup> 51'30.3" N / 72 <sup>o</sup> 27'31.2" E <b>EC 2011:</b> GSAH#5: 22 <sup>o</sup> 44'32.1" N/ 72 <sup>o</sup> 25'2.5" E GSAH5#A1: 22 <sup>o</sup> 44'14.1" N/ 72 <sup>o</sup> 25'22.8" E PL-1: 22 <sup>o</sup> 38'14.71" N/ 72 <sup>o</sup> 28'49.37" E PL-2: 22 <sup>o</sup> 38'47.813" N/ 72 <sup>o</sup> 28'59.462" E SE#Dev1: 23 <sup>o</sup> 01'25.39" N/ 72 <sup>o</sup> 26'17.91" E
5	Address for correspondence a) Address of the Concerned Project Chief Engineer (with Pin Code & telephone/ telex/ fax numbers) b) Address of Executive Project Engineer / Manager (with Pin Code/fax numbers)	:	Mr. Shailesh Chauhan, Sr. Manager (Drilling), M/s Gujarat State Petroleum Corporation Ltd., GSPC Bhavan, Sec – 11, Gandhinagar – 382010 Shri Niladri Kumar Mitra, Chief Operating Officer, M/s Gujarat State Petroleum Corporation Ltd., GSPC Bhavan, Behind Udyog Bhavan, Sec – 11, Gandhinagar – 382010
6	Salient features a) Of the project b) Of the EMP	:	Project envisaged drilling of five wells in the onshore block covering an area of 1424 km <sup>2</sup> to explore oil. EIA/EMP was submitted to the Ministry.
7	Break up of the project area a) Submergence area: forest & non-Forest	:	Block area 1424 km <sup>2</sup>

	b) Others	:															
8	Break up of the project affected population with enumeration of those losing houses/dwelling units only agricultural land only, both dwelling units & agricultural land & landless laborers/artisans: a) SC, ST/Adivasi b) Others (Please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures, if a survey is carried out give details & year of survey)	:	NA														
9	Financial details: a) Project cost as originally planned and subsequent revised estimates and the year of price reference b) Allocation made for EMP with item wise and year wise break-up c) BC ratio/IRR and the year of assessment d) Whether © includes the cost of EM as shown in the above e) Actual expenditure incurred on project so far f) Actual expenditure incurred on EMP so far	:	<table border="1"> <thead> <tr> <th>EC 2007</th> <th>EC 2011</th> </tr> </thead> <tbody> <tr> <td>Rs. 50 Cr.</td> <td>Rs. 10 Cr./well</td> </tr> <tr> <td>Rs. 21 Cr.</td> <td>Rs. 0165 Cr./well</td> </tr> <tr> <td>-</td> <td>NA</td> </tr> <tr> <td>-</td> <td>-</td> </tr> <tr> <td>Rs. 50 Cr.</td> <td>Rs. 57.56 Cr.</td> </tr> <tr> <td>Rs. 0.19 Cr.</td> <td>Rs. 0.0419 Cr.</td> </tr> </tbody> </table>	EC 2007	EC 2011	Rs. 50 Cr.	Rs. 10 Cr./well	Rs. 21 Cr.	Rs. 0165 Cr./well	-	NA	-	-	Rs. 50 Cr.	Rs. 57.56 Cr.	Rs. 0.19 Cr.	Rs. 0.0419 Cr.
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10	Forest land requirement a) The status of approval for diversion of forest land for non-forestry use b) The status of clearing felling. c) The status of CA, if any d) Comments on the viability & sustainability of CA program in the light of actual field experience so far	:	NA														
11	The status of clear felling in non-forest areas (Such as submergence area or reservoir, approach Roads.), if any with quantitative information required.	:	NA														
12	Status of construction (Actual &/or planned) a) Date of commencement b) Date of completion	:	Well wised details were not submitted. October 2009 March 2013														
13	Reasons for the delay if the project is yet to start	:	NA														
14	Dates of site visits a) The dates on which project was monitored by RO on previous occasions, if any b) Date of site visits for this monitoring report	:	- 11.4.2015 (EC 2007 & 2011)														
15	Details of correspondence with PA for obtaining act on plans/information on status of compliance to safeguards other than the routine letters for logistic support for site visits. (The first monitoring report may contain the details of all	:	As below														

	the letters issued so far, but the later reports may cover only the letter issued subsequently).	
<b>Date</b>	<b>Letter from R.O.</b>	<b>Date</b> <b>Reply from P.A.</b>
<b>As per EC no. J-11011/178/2007-IA.II (I) dated 3.8.2007</b>		
-	-	1.2.10 Compliance & analytical report sub.
12.4.10	Present status, EIA/EMP, CTE/CTO, data sheet req	17.5.10 Req. information sub.
		2.7.10 Compliance & analytical report sub.
		3.7.15 Addl. information sub. through email
<b>As per EC no. J-11011/497/2009-IA.II (I) dated 16.8.2011</b>		
-	-	25.8.11 Copy of advertisement sub.
11.1.12	Present status, point wise compliance, CTE/CTO, data sheet, EC req.	2.5.12 Compliance and analytical report sub.
-	-	12.2.14 Compliance certification req.
16.4.14	CTO/CTE, EIA/EMP, show cause notices/ closures, details of court cases, Form V, Env. Audit 2013, expenditure incurred on EMP, status of uploading, copy of FC, data sheet, chronology of events, coordinates of wells req.	2.5.14 Req. information sub.
-	-	7.5.14 Form 1, pre feasibility report. TOR sub.
-	-	19.11.14 Minutes of public hearing sub.
-	-	21.4.15 Addl information raised during the visit sub.

**PART – II & III**  
**DESCRIPTIVE REPORT ON STATUS OF COMPLIANCE TO CONDITIONS OF ENVIRONMENTAL CLEARANCE AND ENVIRONMENTAL MANAGEMENT**

As per EC no. J-11011/178/2007-IA.II (I) dated 3.8.2007		
SPECIFIC CONDITIONS		
1.	The company shall comply with the guidelines for disposal of solid wastes, drill cuttings and drilling fluids for on-shore drilling operation notified vide GSR 546 (E) dated 30.8.2005.	<b>Complied. EC 2007 &amp; 2011:</b> PA has obtained CTE for various sites. The provisions of HWMH rules were followed as claimed.
2.	If commercial viability of hydrocarbons is established in these wells, the same shall be tapped for production purposes or else they shall be abandoned as per Petroleum Industry Standards. The company shall submit a detailed plan for development and obtain fresh EC in case commercial viability is established.	<b>Agreed to Comply. EC 2007 &amp; 2011:</b> PA has submitted that the condition is "Noted" and assured to abide by the condition.
3.	Top soil shall be stacked separately and used for restoration.	<b>Complied.</b> Top soil was used at certain places for raising bund along the site & for leveling after the completion of works.
4.	Land involved for short term lease from private land owners shall not exceed 40.10 sq.m. Appropriate compensation shall be provided for loss of standing crop during lease period.	<b>Complied.</b> It was observed that 10000 to 14000 sq.m. area was involved at various drilling sites ( <b>Photos 1 – 2</b> ). The condition is considered as complied in view of size of each well site which was approx. 110 m x 110 m.
5.	Only water based mud system (Potassium Sulphate) shall be used for the Drilling. The drilling mud shall be recycled. In case of use of synthetic oil based mud, prior permission from the MOEF shall be obtained.	<b>Complied.</b> It was submitted during visit that water based mud was being used and wherever possible mud was reused in the system.
6.	Quantities of storage of chemicals and additives required for drilling mud preparation shall be below the specified thresholds for storage permitted under the MSIHC Rules.	<b>Complied.</b> The chemicals at drill sites were stored in quantities below regulatory quantities.
7.	Drilling shall be carried out strictly as per the prevailing petroleum industry norms in E&P industry and the prescribed environmental standards and guidelines shall be followed.	<b>Complied.</b> It was submitted that drilling has been carried out as per oil mines regulations 1984 and OISD guidelines.
8.	Stack height attached to DG sets shall be in conformance with the Environment Protection Act & Rules.	<b>Complied.</b> Adequate stack height was provided to DG sets as per norms as submitted. Further, verification could not be done as the drilling was already completed.
9.	A temporary flare stack shall be provided as per the Oil Mines Regulations, 1984 & the flare-line shall terminate with a vertical rise of at least 9 m or greater.	<b>Complied.</b> It was submitted that temporary flare was provided as per norms which was removed after the completion of work. Permanent flares were provided at the well site having prospects of evacuation of oil ( <b>Photos 3 – 4</b> )

10.	No long terms housing facility shall be provided. Only a camp site shall be constructed for workers.	<b>Complied.</b> Since drilling operation was being carried out within short duration (21 – 40 days in this case), a temporary camp site was provided along with security cabin.
11.	Waste water generation during drilling operation will be around 20 KLD per well for period of 1-2 month which shall be confined to HDP Lined Pit for further treatment.	<b>Complied. EC 2007 &amp; 2011:</b> It was observed & learnt during the visit that water requirement varied from 800 KLPD to 2300 KLPD at different wells. Majority of wells consumed water within limits.
12.	Sewage shall be discharged into septic tank through soak pit specially constructed at drilling site.	<b>Complied.</b> Sewage was disposed of through soak pit system during drilling phase.
13.	Solid waste generated as drill cuttings, 450-500 m <sup>3</sup> of drill cuttings comprising of natural earth materials like clay, shale, silt and sand etc. and drilling mud from spent drilling fluid, generated will be separated in the solid control system & stored in HDPE lined pit which will be covered with an impervious liner after the pit is filled. Drilling mud will be recycled & reused to the extent possible. Oily sludge will be disposed at TSDF having an authorized incineration facility. Adequate arrangement for management & handling of solid & HW shall be done.	<b>Complied. EC 2007 &amp; 2011:</b> Generated drill cuttings were separated from mud & further washed and collected in HDPE lined pit as submitted. It was disposed in HDPE lined waste pit at the site as submitted. The copy of membership of TSDF was submitted along with the details of disposal of oily waste. The status of various pits at different locations have been shown in <b>Photos 5 – 8.</b>
14.	A well abandonment plan will be implemented for the drilling sites in accordance with the applicable Indian Petroleum Regulations.	<b>Complied.</b> It was submitted that abandonment of wells wherever applicable have been carried out as per oil mines regulations 1984 and OISD guidelines ( <b>Photos 9 – 11</b> ).
15.	Occupational Health Surveillance of the workers shall be carried out as per the prevailing Acts and Rules.	<b>Complied. EC 2007 &amp; 2011:</b> PA has submitted that health surveillance was undertaken as per OISD norms.
16.	Pre-hire rig inspection, safety meetings, toolbox meetings, job safety analysis and audits will be carried out to identify hidden /potential hazards.	<b>Complied.</b> It was submitted that spud in meetings was held before drilling any well wherein all significant health safety an environmental aspects were covered.
17.	The Company shall implement the recommendations made in final EIA /EMP report.	<b>Partly Complied.</b> Although PA has claimed that all the recommendations made in EIA, have been implemented but details of monitoring of air & water quality & noise quality and generation & disposal of hazardous waste & solid waste etc. were not submitted.
<b>GENERAL CONDITIONS</b>		
1.	At no time, the emissions should go beyond the prescribed standards. In the event of failure of any pollution control system, the respective well site should be immediately put out of operation and should not be restarted until the desired efficiency has been achieved. Provision of adequate height of stack attached to DG sets &	<b>Complied.</b> It was submitted that the period of drilling of wells varies from 21 – 40 days. During the period the monitoring of air quality was being carried out and adequate stack height was provided to DG set and temporary flare system. The monitoring reports of stack and AAQ were submitted for only one station i.e.

	flare is to be done. The emissions of (RSPM, SPM, SO <sub>2</sub> , NO <sub>x</sub> , HC and VOC) from DG set and from flare stack shall conform to the standards prescribed by the concerned CPCB. All the measures detailed in the EMP shall be taken to control the point/stack and fugitive gaseous emissions and other discharges from the proposed activity. Regular monitoring of ambient air for HC and VOC shall be carried out as per CPCB guidelines.	GSAH – 3 which do not show any anomaly.
2.	Wastewater shall be properly collected and treated so as to conform to the standards prescribed under EP Act & Rules and mentioned in the consents provided by the relevant SPCB.	<b>Complied.</b> It was submitted that wash water generated was analyzed by MOEF recognized laboratory which do not show any anomaly.
3.	The overall noise levels in and around the premises shall be limited within the prescribed standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	<b>Complied. EC 2007 &amp; 2011:</b> Hierarchy of control was followed to avoid and eliminate noise source as intimated during visit. Moreover, wherever noise source could not be avoided, acoustic enclosures & required PPE's were being provided to bring down the noise levels. Noise levels were monitored during drilling period & reports do not show anomaly.
4.	The PA must strictly comply with the provisions made in MSIHC Rules 1989 as amended in 2000 for handling of hazardous chemicals etc. Necessary approvals from Chief Controller of Explosives must be obtained before commission of the expansion project, if required. Requisite On-site and Off-site DMP shall be prepared and implemented.	<b>Complied. EC 2007 &amp; 2011:</b> PA has submitted that provisions of MSIHC Rules, 2000 and OISD norms were followed with regard to safety and handling of chemicals.
5.	Authorization from the SPCB must be obtained for collections/ treatment/storage/disposal of hazardous wastes.	<b>Complied.</b> PA has obtained CTE for various sites along with authorization under HWMH Rules.
6.	The PA will provide Rs 20 Lakh as non-recurring funds and adequate recurring funds to implement the conditions stipulated by the MOEF as well as the State Govt. along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes.	<b>Partly Complied.</b> PA has submitted that Rs. 0.19 Cr. incurred on EMP but details were not provided.
7.	The stipulated conditions will be monitored by the concerned RO of this Ministry / CPCB/ SPCB. A six monthly compliance report and the monitored data should be submitted to them regularly. It will also be displayed on the website of the company.	<b>Partly Complied. EC 2007 &amp; 2011:</b> Six monthly reports along with monitoring data were not submitted during drilling period (2013) regularly as evident from point no. 15 of data sheet. RO Bhopal has monitored the project as per the condition.
8.	The PP should inform the public that the project has been accorded EC by the Ministry and copies of the clearance letter are available with	<b>Partly Complied. EC 2007:</b> PA has published regarding grant of EC but further details were not submitted.

	the CPCB/ Committee and may also be seen at website of the MOEF at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a> . This should 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 should be forwarded to the concerned RO of this Ministry.	<b>EC 2011:</b> PA has published regarding grant of EC in two local newspapers namely, Times of India & Gujarat Samachar on 25.8.2011 i.e. within nine days.
9.	Proper housekeeping and adequate occupational health programs shall be taken up. Sufficient preventive measures shall be adopted to avoid direct exposure to emission.	<b>Complied.</b> PA has submitted that health surveillance was undertaken as per OISD norms. Since the drilling operation was completed, the site was reclaimed. Thus maintenance of housekeeping was not required.
10.	A separate EMC with full fledged laboratory facilities to carry out various management and monitoring functions shall be set up under the control of a Senior Executive.	<b>Partly Complied. EC 2007 &amp; 2011:</b> Separate EMC was set up but no organogram was submitted. PA has submitted that environment monitoring for each location was carried out by MOEF recognized laboratory and thus laboratory was not set.
11.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	<b>Agreed to Comply. EC 2007 &amp; 2011:</b> PA has submitted that the condition is "Noted" and assured to abide by the condition.
12.	The Ministry reserves the right to stipulate additional conditions if found necessary. The company will implement these conditions in a time bound manner.	<b>Agreed to Comply. EC 2007 &amp; 2011:</b> PA has submitted that the condition is "Noted" and assured to abide by the condition.
13.	The above conditions will be enforced, inter-alia under the provisions of the Water (P & CP) Act, 1974, the Air (P & CP) Act, 1981, the EP Act, 1986, the PLI Act, 1991, HWMH Rules, 1989 and MSIHC Rules, 1989 along with their amendments and rules.	<b>Partly Complied. EC 2007 &amp; 2011:</b> It is inferred from the above that PA has obtained CTE for different drilling sites from GPCB. It was submitted that CTO shall be required at the time of operation of wells. The monitoring of emissions from DG sets and AAQ & waste water was being carried out during the drilling and report was submitted to the concerned authorities as submitted by PA. A copy of manifest of disposal of oily sludge was also submitted. No show cause notice was issued by GPCB. PA has not submitted drilling status, compliance & analytical reports regularly to the Ministry and thus condition is considered as partly complied. PA was directed to submit the reports regularly in future. PA has been submitted copy of PLI.
<b>As per EC no. J-11011/497/2009-IA.II (I) dated 16.8.2011</b>		
<b>SPECIFIC CONDITIONS</b>		
1.	All the specific conditions and general conditions specified in the earlier EC accorded vide Ministry's letter no. 11011/178/2007-IA.II	<b>Partly Complied.</b> It is evident from the above mentioned review of the compliance that majority of the conditions have been complied.

	dated 3.8.2007 shall be implemented.	However, submission of monitoring reports of air & water quality and quantitative details of generation and disposal of hazardous waste and other solid waste needs attention along with submission of six monthly compliance reports. PA was directed to do so in near future.
2.	Gas produced during testing shall be flared with appropriate flaring booms. The flare system shall be designed as per good oil field practices and OISD guidelines. The stack height shall be provided as per the regulatory requirements and emissions from stacks will meet the MOEF/CPCB guidelines.	<b>Complied.</b> Gas produced during testing was flared using elevated flares of 9 m as per OMR guidelines.
3.	AAQ shall be monitored near the closest human settlements as per the National AAQ emission standards issued by the Ministry vide GSR no. 826(E) dated 16.11.2009 for PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, methane & non-methane HC etc.	<b>Complied.</b> PA has submitted two reports of January & March 2013 of two drilling sites which do not show any anomaly.
4.	Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.	<b>Complied.</b> Mercury was analyzed in wash water and drill cutting generated during drilling period. Analytical reports, as submitted, show mercury level within limits.
5.	Approach road shall be made pucca to minimize generation of suspended dust.	<b>Complied.</b> Since the activity is for short duration (21 – 40 days in this case), roads were hardened and water sprinkling was done to avoid dust pollution. Thus, condition is considered as complied.
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.	<b>Complied.</b> Hierarchy of control was followed to avoid and eliminate noise source. However, wherever noise source could not be avoided, acoustic enclosures & required PPE's were provided to bring down the noise levels. Noise levels were monitored during drilling period which shows noise level within limits. Stack height of DG set was as per CPCB guidelines.
7.	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 waste water shall conform to CPCB standards.	<b>Complied.</b> Garland drain was not observed during the visit all around the drilling sites to prevent runoff of any oil containing waste into the nearby water bodies. However, it was submitted that all possible precautions were taken to avoid oil spill on ground & further its runoff to nearby water bodies. Wash water generated was analyzed by MOEF recognized laboratory & further disposed to HDPE lined pit for evaporation. Analytical data, as submitted, do not show any anomaly. Since drilling activity was completed, condition was considered as complied. However, PA was directed to abide by the condition in expansion

		project.
8.	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 onshore 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 RO at Bhopal.	<b>Complied. EC 2007 &amp; 2011:</b> Generated drill cuttings were separated from mud & further washed and collected in HDPE lined pit as submitted. Drill cuttings generated were analyzed for hazardous constituents, (heavy metals/oil and grease) by MOEF recognized laboratory. Since their concentration was detected below limit (<10 mg.kg), it was disposed in HDPE lined waste pit. The copy of membership of TSDF was submitted along with monitoring of stack emissions & air quality.
9.	Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/soak pit.	<b>Complied.</b> Generated domestic sewage was disposed to well design soak pit.
10.	Oil spillage prevention and mitigation 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.	<b>Complied. EC 2007 &amp; 2011:</b> All possible precautions were taken to avoid oil spill on ground as claimed. Oily sludge/spent oil generated were disposed to authorized recyclers. Quantitative details, as per ES V 2012-13, were submitted.
11.	The company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.	<b>Complied.</b> It was submitted that works have been carried out as per the standards and petroleum industry practices; all OISD and relevant standards/procedures were followed to prevent fire hazards & containing oil spill. Fire fighting facilities were provided at site as per OISD 189.
12.	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.	<b>Complied.</b> During drilling operations, two H <sub>2</sub> S detectors and one mobile detector were made available at site for regular monitoring but did not notice presence of H <sub>2</sub> S as submitted during visit.
13.	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 RO at Bhopal.	<b>Complied.</b> PA has submitted that exploratory drilling activity (drilling of 5 wells) was carried out for a short duration to identify the Hydrocarbon reserves in subsurface. Since, no subsidence was observed during visit, condition was considered as complied.
14.	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 & drilling fluid logging etc.	<b>Complied. EC 2007 &amp; 2011:</b> Drilling operations was carried out by installing the Blow Out Preventer (BOP) which was tested regularly as per norms as submitted.

15.	ERP shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.	<b>Complied.</b> PA has submitted that ERP was prepared as per rules and implemented during drilling activity.
16.	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.	<b>Complied.</b> It was submitted during the visit that well defined drilling and well abandonment procedures has been laid down in GSPC which was being implemented as per requirement at site. All wells were found plugged during the visit which shall be tested later as submitted.
17.	Restoration of the project site shall be carried out satisfactory and report shall be sent to the Ministry's RO at Bhopal.	<b>Complied. EC 2007 &amp; 2011:</b> It was observed during the visit that sites were restored ( <b>Photos 12 – 13</b> ).
18.	Oil content in the drill cuttings shall be monitored by some authorized agency and sent to the Ministry's RO at Bhopal.	<b>Complied.</b> PA has hired the services of MOEF recognized laboratory to analyze the oil content in the drill cuttings and the reports have been submitted for the duration of drilling.
19.	Company shall ensure good housekeeping at the drilling site.	<b>Agreed to Comply.</b> PA has submitted that the condition is "Noted" and assured to abide by the condition.
20.	Company shall prepare project specific environmental manual and a copy shall be made available at the drilling site for the compliance.	<b>Partly Complied.</b> PA has claimed that Environment Management & Waste Management was carried out as per best E&P practices. However, no such copy was made available at the time of inspection for verification.
21.	Company shall adopt Corporate Environment Policy as per the Ministry's O.M. No. J-11013/41/2006-IA.II (1) dated 26.4.2011 and implemented.	<b>Complied.</b> PA has submitted that QHSE policy was implemented.
22.	Under CSR sufficient budgetary provision shall be made for health improvement, education, water and electricity supply etc. in and around the project.	<b>EC 2007 &amp; 2011: Not Complied.</b> PA has argued that it was an exploratory drilling activity for short duration. However, GSPC has been associated with various CSR activities within Gujarat but details were not submitted.
<b>GENERAL CONDITIONS</b>		
1.	The PA must strictly adhere to the stipulations made by the GPCB, State Govt. and any other statutory authority.	<b>Complied. EC 2007 &amp; 2011:</b> PA has obtained CTE for different drilling sites from GPCB. It was submitted that CTO shall be required at the time of operation of wells. The monitoring of emissions from DG sets and AAQ & waste water was being carried out during the drilling and report was submitted to the concerned authorities as submitted by PA. A copy of manifest of disposal of oily sludge was also submitted. No show cause notice was issued by

		GPCB.
2.	No further expansion or modification in the project shall be carried out without prior approval of the MOEF. In case of deviations or alterations in 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 & to add additional environmental protection measures required, if any.	<b>Agreed to Comply. EC 2007 &amp; 2011:</b> PA has submitted that the condition is "Noted" and assured to abide by the condition.
3.	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 clearance letter shall also be put on the website of the company by the proponent.	<b>Partly Complied.</b> It was verified from the website of the company that EC was uploaded ( <a href="http://www.gspcgroup.com/content.php?SecType=1&amp;CID=1&amp;CATID=93">http://www.gspcgroup.com/content.php?SecType=1&amp;CID=1&amp;CATID=93</a> ) but no documentary evidence was submitted indicating that copy has been market to Panchayat, Zila Parishad /Municipal Corporation, Urban Local Body and the local NGO.
4.	The PP 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 RO of the MOEF, the respective Zonal Office of CPCB and GPCB. The criteria pollutant levels namely; PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , CO, HC (Methane & Non-methane), VOCs (ambient levels) 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.	<b>Not Complied.</b> It was verified from the website of the company neither compliance nor analytical data were uploaded on the website of the company.
5.	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 SPCB as prescribed under the EP Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of environmental conditions and shall also be sent to the respective RO of the MOEF by e-mail.	<b>Partly Complied.</b> Although copy of environmental statement form – V 2012-13 has been submitted but not uploaded on the website of the company as per the condition.
6.	PA shall inform the RO as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	<b>Not Complied.</b> Details of dates of financial closure and final approval were not submitted.

#### **END NOTE:**

Implementation of all the conditions stipulated in the ECs has been reviewed for certification. All the common conditions have been dealt in first EC of 2007. Subsequently, conditions have been reviewed in the respective ECs. Repetition of conditions has been avoided.

1. **Chronology of events:** PA has intimated that TOR application was submitted to MOEF vide letter dated 26.4.2012 & proposed TOR was considered on 29-31.10.2012. Subsequently TOR was issued vide letter dated January 2012. PA has requested Regional Office of the Ministry for issuance of certification vide letter dated 12.2.2014. The Regional Office had requested for information w.r.t. issuance of certification vide letter dated 16.4.2014. Requisite information was submitted by PA vide letter dated 2.5.2014, 19.11.2014, 21.4.2015 & 3.7.2015 (through email).
2. **Status of wells:** Drilling of all the wells has been completed. Out of five wells three have been proposed for Early Production System (EPS). One site has been restored other details are as below:

Sr. No	Well	Depth	Status	Area (Total m <sup>2</sup> )
1	PL#1 (two wells)	1984m MD/ 1869 m TVD	SRP one & another closed	16300
2	PL#2	2278m MD/ 2212m TVD	Well abandoned & site reclaimed	21259
3	GSAH#5	1588 m	Under consideration for development	13963
4	GSAH#5-A1	1133 m	SRP installed	12773
5	SE-Dev1 (two wells)	1853m MD / 1812m TVD	-	11018
6	SE1-Bhopal area (two wells)	1100 average	Ready for oil evacuation	13000
7	PK1	-	SRP ready	10000
8	PK-DEV#2	-	Shut in	-
9	PK-DEV#1	-	Shut in	-
10	PK-DEV#3	-	Not drilled	-
11	GSAH#4	-	Restored	-

3. **Implementation of Conditions:** It is inferred from the above that PA has obtained CTE for different drilling sites from GPCB. It was submitted that CTO shall be required at the time of operation of wells. The monitoring of emissions from DG sets and AAQ & waste water was being carried out during the drilling and report was submitted to the concerned authorities as submitted by PA. A copy of manifest of disposal of oily sludge was also submitted. No show cause notice was issued by GPCB. PA has not submitted drilling status, compliance & analytical reports regularly to the Ministry and thus condition is considered as partly complied. PA was directed to submit the reports regularly in future. PA has been submitted copy of PLI.
4. **Housekeeping:** It was found satisfactory.
5. **Review w.r.f to MOEFs letter dated 30.5.2012:** The above mentioned report was prepared after site visit on 11.4.2015 for the proposed expansion.
6. **Court Cases:** PA has submitted that there is no court case against them.
7. **Uploading of compliance on web site:** It was verified that PA uploaded EC but compliance status, analytical report, consent were not uploaded on the website of the company. Ministry may like to take up with PA during appraisal.
8. **Public Hearing:** It was held on 30.8.2014 which is conducted by RO, GPCB, Ahmedabad and chaired by Addl. Collector & Add. District Magistrate, Ahmedabad.
9. **With regards to issuance of show cause/closure notices:** PA has submitted that no show cause/closure notices issued over last three years.

  
 Director (S)

Photos 1 – 2: Panoramic view of Ahmedabad well sites (SE1 & SE Dev 1- Bhopal)



Photos 3 – 4: Showing installation of permanent flare system at different locations



Photos 5 – 6: Showing status of HW & waste water storage ponds at various sites



Photos 7 – 8: Showing status of HW & waste water storage ponds at various sites



Photos 9 – 11: Showing status of abandoned drilling site showing well, storage tanks & land



Photos 12 – 13: Showing restoration of site after completion of exploration

