



# Shell Energy India Private Limited

(formerly known as Hazira LNG Private Limited)

## Hazira, District Surat

# Environmental Compliance Report

(Period- November 2018 to April 2019)

Compliance to conditions imposed as part of Environmental Clearance accorded by  
Ministry of Environment & Forests, Government of India

Revision to Environment Clearance from Ministry of Environment and Forests;

Letter No. J-16011 /23/2000-IA.III Dated: 4<sup>th</sup> January 2002

Status Period: November 2018 – April 2019

	Conditions	Compliance Status
i	Trenching technique shall be adopted for the movement of sea water during high and low tides into mangrove area near the project site to ensure that the mangroves are not affected adversely. In addition, program for mangrove afforestation shall be undertaken at appropriate locations to increase the mangrove plantation in the Hazira area. A periodic progress report (six monthly) shall be submitted to this ministry in this regard.	Hazira is planting and monitoring mangroves at various locations as follows: Junagam Smashan, Junagam Sea Site, Rajgari Smashan Site, Rajgari Khada, Rajgari Khada New, Rajgari Sea Site, Vasva Site-1, Vasva Site-2, Tunda Dabhari, Tunda Mor Site-1, Tunda Mor Site-2, Karanj.  A satellite monitoring report is generated by CompuSense Automation and is submitted to the ministry. Please find latest satellite imagery report in Annexure I.
ii	Compensatory afforestation shall be undertaken in lieu of the forest land to be used for widening of the road for the project.	Compensatory afforestation has been undertaken from project phase till date. Plantation of total 9122 Horticulture grafts and 8685 terrestrial saplings carried out in Hazira Peninsula during the year 2019 (till date).
iii	The road widening shall be restricted to 20 meters and the pipeline corridor shall also be accommodated within this width.	The road is abandoned, and new road constructed by NHAI in use.
iv	It shall be ensured that no project activities except pipeline and approach road fall within CRZ I (i).	It is ensured that no project activities except pipeline and approach fall within CRZ (i) scope.
v	The specific conditions no. (v), (vi) and (vii) contained in this Ministry's earlier clearance of even no. dated 2 <sup>nd</sup> March 2001 shall stand deleted.	Noted. The specific conditions no. (v), (vi) and (vii) contained in this Ministry's earlier clearance of even no. dated 2 <sup>nd</sup> March 2001 shall stand deleted.
vi	A comprehensive EIA study shall be carried out to assess the impact of the proposed activities and based on the same the detailed Environmental Management Plan will be prepared and submitted within six months.	The EIAs conducted for Hazira facility have been attached to this report. These have been submitted to the ministry. Please refer Annexure II. Provided on CD
vii	NOC for Gujarat Pollution Control Board for the revised scope of the project shall be obtained and submitted within 30 days.	Revised NOC has been obtained Amendment to consent from GPCB dated 22 March 2002, submitted vide letter No 2 <sup>nd</sup> Feb 2004.

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### Section I

#### Environment Clearance, MoEF letter Dated 2<sup>nd</sup> March 2001, OM No J-16011/23/2000-IA.III

#### Status Period: November 2018 – April 2019

	Specific Conditions	Compliance Status
i.	All the conditions stipulated by the Forests and Environment Department, Government of Gujarat vide their letter no. ENV-10-2000-1883-P.I dated 29.09.2000 should be effectively implemented.	Status of compliance is presented in Section II.
ii.	All the conditions stipulated by Gujarat Pollution Control Board in their NOC No. NOC/P/HAZ/CHEM/S-67/31803 dated 25.07.2000 should be effectively implemented.	Environmental Compliance Report for LNG Terminal and Port, Hazira, District Surat, submitted vide letter dated 2 <sup>nd</sup> Feb 2004. The conditions are being complied. Covering letter & ECR is attached as Annexure XI Provided on CD.
iii.	No change in scope of work shall be made without prior approval of this Ministry.	Noted. In order to enhance capacity to 10MMTPA: (1) MoEF approval for amendment in environment clearance for construction of storage tank of LNG having capacity of 200000 cubic meters vide letter dated 09-04-2013 obtained. (2) EC& CRZ Clearance vide letter No. F.NO 11-88/2011 dated 30 <sup>th</sup> September 2013 obtained.
iv.	The necessary approval for diversion of forest land involved in the project shall be obtained prior to commencement of construction at site and a copy furnished to this Ministry.	The forest clearance has been obtained from the Forest Department vide letter no. 8B/27/2001-FCW/3511 dated November 22, 2001.
v.	It shall be ensured that no project activities fall within CRZ I (i).	Deleted by MoEF letter No. J-16011/23/2000-IA.III of 04.01.2002.
vi.	The pipeline alignment should be reworked so as to avoid CRZ I (i).	Deleted by MoEF letter No. J-16011/23/2000-IA.III of 04.01.2002.
vii.	Expansion of existing service road into CRZ I (i) areas would not be permissible.	Deleted by MoEF letter No. J-16011/23/2000-IA.III of 04.01.2002.
viii.	The Horizontal Directional Drilling technique shall be adopted for laying of the pipeline along the existing road.	Noted.
ix.	A location map showing the various project activities with respect to the low and high tide lines (duly demarcated and authenticated by one of the authorized agencies) and the corresponding CRZ classification of the area (duly authenticated by State Environment Department) shall be furnished within one month.	The location map with respect to high tide and low tide lines has been attached in Annexure III.
x.	The construction designs relating to the project shall be reviewed to ensure their safety keeping in view the seismic potential of the area.	The construction design of the Jetty & Terminal has taken into account the seismic classification of the area. This requirement is complied.
xi.	No ground water shall be used for the project.	No groundwater is being utilized.
xii.	The project proponents should make specific arrangement for rainwater harvesting in the project design and the rain water so harvested should be optimally utilized.	A rainwater harvesting is planned for implementation during the LNG terminal expansion project.
xiii.	A detailed study on the shore line/accretion as a result of the project activities should be undertaken. Based on the results obtained from the study, the necessary shore erosion protection measures as may be required should be put in place by the proponent.	Detailed studies and results submitted to the Ministry vide our responses dated 30/10/2000. No negative impacts envisaged. Study report attached as Annexure X Provided on CD

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	General conditions	Compliance Status
i.	Construction of the proposed structures should be undertaken meticulously conforming to the existing Central/ local rules and regulations including CRZ Notification 1991 and its amendments. All the construction designs/ drawings relating to the proposed construction activities must have approvals of the concerned State Government Departments/ Agencies.	Construction activities are in line with applicable legislation. Approvals have been received on the proposed construction activities and designs from the relevant State government departments/ agencies. Approval is taken as per the processes of CRZ Notification 2011 for 10 MMTPA capacity expansions.
ii.	The proponent shall ensure that as a result of the proposed constructions, ingress of the saline water into the ground water does not take place. Piezometers shall be installed for regular monitoring for this purpose at appropriate locations on the project site.	This requirement has been complied with during the project phase. Soil and risk assessment of the site is done to verify any contamination for ground water. EIA done by NEERI has GW analysis which is attached with this report.
iii.	Handling, manufacturing, storage and transportation of all hazardous chemicals should be carried out in accordance with MSIHC Rules, 1989 and subsequent amendments. All approvals from State & Central nodal agencies including OISD, Chief Controller of Explosives, Chief Inspector of Factories must be obtained. A comprehensive contingency plan in collaboration with the concerned authorities must be formulated before commissioning of the project to meet any eventuality in case of an accident.	Compliances of MSIHC rules are submitted along with Jan-June 2012 Environmental compliance report. License under factories act is renewed till up to 31-12-2019. CCOE-PESO approval of renewal of license-for storage of diesel (1023.5kl) in tank-T-2101 & V-1501: application forwarded to renewed up to 31-12-2021. Third Party safety audit (under Gujarat Factories Rules) conducted on 10th October 2018. Observations have been compiled and 5 out of 6 are closed. Accreditation certificate for Hazira emergency response and disaster management plan from CEIL-Bureau Veritas-PNGRB approved agency obtained upto-12-08-2023.
iv.	A well-equipped laboratory with suitable instruments to monitor the quality of air and water shall be set up so as to ensure that the quality of ambient air and water conforms to the prescribed standards. The laboratory will also be equipped with qualified manpower including a marine biologist so that the marine water quality is regularly monitored in order to ensure that the marine life is not adversely affected as a result of implementation of the said project. The quality of ambient air and water shall be monitored periodically in all the seasons and the results should be properly maintained for inspection of the concerned pollution control agencies. The periodic monitoring reports at least once in 6 months must be sent to this Ministry (Regional Office at Bhopal) and SPCB.	The site laboratory has been established for important environmental parameters monitoring with respect to prescribed standards. Regular monitoring of water quality is being carried out by the MoEF and NABL accredited Laboratory. Quality of ambient air and water monitored has been submitted as part of compliance to consent conditions. The same being submitted through compliance reports. Kindly refer to Annexure IV for the monitoring reports of last six months.
v.	Adequate provisions for infrastructure facilities such as water supply, fuel for cooking, sanitation etc., must be provided for the laborer during the construction period in order to avoid damage to the environment. Colonies for the laborer should not be located in the CRZ area. It should also be ensured that the construction workers do not cut trees including mangroves for fuel wood purpose.	Noted. These requirements have been considered during project construction phase.
vi.	To prevent discharge of sewage and other liquid wastes into the water bodies, adequate system for collection and treatment of the wastes must be provided. No sewage and other liquid wastes without treatment should be allowed to enter into the water bodies.	A dedicated combined effluent treatment package plant is fully operational. The waste water after being treated is being discharged into the garden cum plantation area or discharge point as suggested by NEERI/NIO with the standards stipulated by Gujarat Pollution Control Board while granting the Consent To Operate. Kindly refer to Annexure V for the analysis reports of the treated waste water stream.
vii.	Appropriate facility should be created for the collection of solid and liquid wastes generated by the barges/ vessels and their safe treatment and disposal should be ensured to avoid possible contamination of the water bodies.	The barely Solid and liquid (mainly oil) waste generated from ships are being collected at Hazira port with prior intimation from ship authority. Waste is being handled and disposed as per the national and international laws.

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viii.	Necessary navigational aids such as channel markers should be provided to prevent accidents. Internationally recognized safety standards shall be applied in case of barge/vessel movements.	The Hazira port is complying with the National Port Safety Standards.
ix.	The project authorities should take appropriate community development and welfare measures for the villagers in the vicinity of the project site, including drinking water facilities. A separate fund should be allocated for this purpose.	The project authorities are actively involved in the community development and welfare measures. Several community development and welfare measures have already been initiated and completed – programs for improvement of health and education are being implemented on an ongoing basis. The status of the same is being reported through compliance reports. 9 RO plants have already been established in various locations. Please refer Annexure VI for Social Performance Highlights.
x.	The quarrying material required for the construction purpose shall be obtained only from the approved quarries / borrows areas. Adequate safeguard measures shall be taken to ensure that the overburden and rocks at the quarry site do not find their way into water bodies.	This requirement was during project phase. The quarrying material during construction phase was obtained from approved quarry site with proper environmental controls.
xi.	The dredging operations to be undertaken with the prior approval of this Ministry shall be executed with appropriate safeguard measures to prevent turbidity conditions in consultation with the expert agencies such as CWPRS/ NIO.	This condition was also included in the environmental clearance granted for the future expansion of the Multi-Cargo Port project as general condition (xi) (Annexure V i) and subsequently deleted as per communication from Ministry of Environment & Forests dated 12 November 2003. (Annexure V ii) A presentation on the proposed dredging plan, turbidity control measures and a monitoring plan was made to the National Institute of Oceanography (NIO) on 15 September 2003 at Hazira. Comments from NIO were incorporated and a note on the proposed turbidity control measures and monitoring plan was submitted to NIO (dated 30 September 2003), which was subsequently endorsed by NIO (1 October 2003). Presently, as a part of maintenance of depth, dredging via water flushing mode is being done where no dredging material is generated, thus it is not required to be disposed.
xii.	For employing unskilled, semi-skilled and skilled workers for the project, preference shall be given to local people.	Skill assessment of the locals has been undertaken. Agreements with various contractors ensure that local people will be given priority for deployment based on the appropriateness of their skills. Various capacity building initiatives taken under CSR activities.
xiii.	The recommendations made in the Environment Management Plan and Disaster Management Plan, as contained in the EIA and Risk Analysis Reports of the project shall be effectively implemented.	The recommendations made in EMP and ERDMP are implemented in project and operational phase.
xiv.	A separate Environment Management Cell with suitably qualified staff to carry out various environment related functions should be set up under the charge of a Senior Executive who will report directly to the Chief Executive of the Company.	The Environment Management Cell has been set up as part of the Operation and Maintenance team. A qualified Health, Safety and Environment (HSE) Manager is currently present on the site reporting directly to Terminal Manager & also the Managing Director and supported by Environmental Engineer, Laboratory Manager, HSE Advisors, Occupational Health Physician. Kindly refer to the Annexure-VII.
xv.	The project affected people, if any should be properly compensated and rehabilitated.	The project is on reclaimed land in the sea and hence entails no land acquisition.
xvi.	The funds earmarked for environment protection measures should be maintained in a separate account and there should be no diversion of these funds for any other purpose. A year-wise	Separate accounts are being maintained for environmental protection fund allocation and expenditure Being submitted every year.

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	expenditure on environmental safeguards should be reported to this Ministry.	Expenditure for year November 2018 to April 2019 is being submitted as Annexure VIII.
xvii.	Full support should be extended to the officers of this Ministry's Regional Office at Bhopal and the officers of the Central and State Pollution Control Boards by the project proponents during their inspection for monitoring purposes, by furnishing full details and action plans including the action taken reports in respect of mitigative measures and other environmental protection activities.	The site extends full support to all the officials visiting the premises for monitoring and furnish all the relevant details and action plans in the right spirit.
xviii.	In case of deviation or alteration in the project including the implementing agency, a fresh reference should be made to this Ministry for modification in the clearance conditions or imposition of new ones for ensuring environmental protection. The project proponents should be responsible for implementing the suggested safeguard measures.	Environmental Clearance for Augmented capacity up to 10 MMTPA is granted by MoEF. Compliance of conditions in matrix format submitted on 26 <sup>th</sup> November 2013. Front End Engineering has been completed to augment capacity to 10 MMTPA. Work to develop Truck Loading facility is under progress to augment capacity of terminal to 5.28MMTPA.
xix.	This Ministry reserves the right to revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of this Ministry.	Noted and agreed.
xx.	This Ministry or any other competent authority may stipulate any other additional conditions subsequently, if deemed necessary, for environmental protection, which shall be complied with.	Noted.
xxi.	The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen at Website of the Ministry of Environment & Forests at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a> The advertisement should be made within 7 days from the date of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Bhopal.	The site has published public hearing and EC clearance advertisement in two newspapers. Published in "Indian Express" and "Sandesh" newspapers. Please refer Annexure IX Provided on CD
xxii.	The Project proponents should 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 Land Development Work.	Informed for initial project phase. Noted for any such future developments.

Section II

Compliance to conditions imposed as part of approval under CRZ Notification, 1991, accorded by Forest and Environment Department, Government of Gujarat

CRZ Clearance from Department of Forests & Environment, Government of Gujarat

Letter No. ENV-10.2000-1883-P1 Dated 29<sup>th</sup> March 2001

Status Period: November 2018 – April 2019

No	Condition	Compliance Status
1.	No activity shall be commenced on site before obtaining the necessary permissions under the Forest (Conservation) Act.	Approval was obtained under the Forest (Conservation) Act in November 2001 prior to commencement of construction activities.
2.	The ground water shall not be tapped in any case.	The ground water is not tapped.
3.	All suggestions/ recommendations given by the NEERI in their rapid Environment Impact Assessment report shall be implemented by the applicant.	All suggestions/ recommendations given by the NEERI in their rapid Environment Impact Assessment report are implemented. Refer Annexure II Provided on CD.
4.	The Comprehensive EIA report including the study for assessing the long term impacts due to construction of break water, LNG Terminal, and jetty especially on the marine Environment and the coastal morphology, shall be prepared and submitted to this department before commencing the project activities and subsequent actions for better Environment have to be undertaken.	Comprehensive EIA report (for all the components of the project) as prepared by NEERI has been Submitted in July 2004. The same way CEIA submitted for project expansion (up to 10 MMTPA). Refer Annexure II Provided on CD.
5.	The applicant shall implement all the suggestions/ recommendations given by the NEERI in their comprehensive EIA report.	Being complied with suggestions / recommendations of NEERI during operation phase.
6.	A detailed study shall be carried out for identifying the fish breeding and spawning grounds before commencing any project activities and the project activities shall be kept away from it.	The study undertaken by NIO has concluded that no fish breeding and spawning grounds existed in project area.
7.	The applicant shall submit detailed Risk Assessment report containing the worst-case scenario and detailed 'Oil Spill Contingency Plan' before commencing the project and shall implement all the suggestions/ recommendations given in the report.	The Quantitative Risk Assessment for the project has already been submitted to the MoEF. An Oil Spill Contingency Plan for managing any possible oil spill within the port limits has already been prepared and submitted. Oil spill response plan is duly examined and approved by Indian Coast Guard. Last Approval vide letter No 7563, dated 1 <sup>st</sup> Jan 2014 obtained.
8.	The applicant shall adhere to the provisions of the National Oil Spill and Disaster Management Plan and shall install necessary facilities and equipment for controlling and combating the oil spill, before commissioning the operation.	The Oil Spill Control system has been procured and the staff training was conducted in line with the Oil Spill Control Plan.
9.	The applicant shall participate financially for any common study/ facilities for the Gulf of Khambhat that may be initiated by this department.	SEIPL/HPPL shall bear reasonable costs for any common study/ facilities for the Gulf of Khambhat that may be initiated by the department.

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10.	The applicant shall bear the cost of the external agency appointed by this department for carrying out supervision and/or monitoring of the construction and/or operation activities.	Noted
11.	The applicant shall ensure that the construction labors do not cut mangroves for fuel, etc. Necessary amenities, including fuel, water supply and sanitation would be provided to the construction labors.	Company ensured during construction phase that the construction labors do not cut mangroves for fuel, etc. Necessary amenities, including fuel, water supply and sanitation provided to the construction labors.
12.	The camp of the construction labor shall be kept outside the CRZ area.	The camp of the construction labor was kept outside the CRZ area during construction.
13.	The applicant shall ensure that there will be no disposal of sullage and sewage generated from construction camps, surface run-off from construction sites, and oil and grease from construction equipment into the sea or the CRZ area.	Company ensured that no disposal of sullage and sewage generated from construction camps, surface run-off from construction sites, and oil and grease from construction equipment into the sea or the CRZ area.
14.	The applicant shall ensure that free flow of water is not hampered due to any project activities.	Company ensured that free flow of water is not hampered due to any project activities.
15.	The applicant shall carry out mangrove plantation in consultation with the forest department and shall also develop and implement greenbelt development plan.	The mangrove plantation has been undertaken in Hazira area by local communities with support of HPPL/SEIPL. Development of green belt in 2.18 hectare is completed.
16.	The applicant shall carry out the monitoring of the various Environmental parameters in consultation with the Gujarat Pollution Control Board/ Forest & Environment Department.	Company carried out the monitoring of the various Environmental parameters in consultation with the Gujarat Pollution Control Board/ Forest & Environment Department & duly submitted. Refer Annexure IV.
17.	The Gujarat Maritime Board shall prepare the detailed Traffic Control Management Plan for the Hazira Port and Gulf of Khambhat in consultation with respective port user companies including Shell, Reliance, Essar, etc. and would make effective before commissioning of the activities of the Shell.	Hazira Port Private Limited has reached an agreement with Gujarat Maritime Board for the implementation of the hardware required for Vessel Traffic Management system (VTMS) in Gulf of Cambay. With the advancement in shipping technology and introduction of new generation vessels, the proposed expansion activity from 5 MMTPA to 10 MMTPA will involve increased handling capacity with minimal traffic.
18.	The applicant shall actively participate in Vessel Traffic management System (VTMS) to be developed for Gulf of Khambhat.	Company actively participated in Vessel Traffic Management System (VTMS) developed for Gulf of Khambhat.
19.	The applicant shall implement socio-economic upliftment program in consultation with the District Collector/ DDO.	A comprehensive area development program covering health, education, ecology has been implemented. Several NGOs are associated with this program.
20.	No construction activity shall be commenced by the company before obtaining all necessary clearances under various acts/rules from different Govt. departments/agencies.	Noted.
21.	The applicant shall comply with any other condition as may be stipulated by this department from time to time.	Noted



Section III

Amendment to the Environment clearance granted for M/s Shell Energy India Private Limited for construction of storage tank of LNG having capacity of 200 000 cubic meters.

F. No. J-16011/23/2000-IA-III Dated: 9<sup>th</sup> April 2013

Status Period: November 2018 – April 2019

As per the risk assessment report the proponent shall ensure that

	Conditions	Compliance Status
1.	<p>a. Tank is equipped with 3 independent Level transmitters which will be configured to trip the LNG receipt pump to avoid over flow of the tanks.</p> <p>b. In case of the over flow of the primary containment, the secondary containment will hold the total liquid volume.</p> <p>c. The tank shall be equipped with Pressure safety valve, Pressure relief valve and Reserved capacity relief valve – All three barriers will act independently, and each barrier will get the signal from independent pressure sensors, which makes the system more reliable</p> <p>d. The tank shall be protected by Vacuum control valve and vacuum relief valve. Similar to the High-pressure protection system, Vacuum protection also have independent pressure sensing element.</p> <p>e. The Appurtenances and piping are from the top of the tank penetrated thru the tank dome, which eliminates the possible leaks from the tank shell.</p> <p>f. The outer concrete tank is Pre-stressed and can withstand credible fire load due to external fire in the adjacent areas.</p> <p>g. All the piping is Stainless steel (SS304L, 316) and LNG is non-corrosive. The operating pressure of the piping associated with the tanks are less and the piping will have the cryogenic insulation.</p>	All the conditions mentioned are included in front end design which will be implemented during construction of the tank.
i	All the condition of EMP/DMP shall be complied with	Project documents are prepared taking inputs of EMP and DMP.
iii	All condition stipulated by Gujarat Coastal Regulation Zone Management shall be complied with.	Noted and the same will be complied during implementation of the project.
iv	All the condition under MSIHC as submitted by project proponent vide letter 25.07.2012 shall be complied with.	Noted. Will be complied with.
v	All other terms and conditions of the clearance letter no. J-16011/23/200-IA-III dated remain unchanged.	Noted.

Compliance to New Environmental and CRZ Clearance granted for 10 MMTPA capacity along with pipeline of 13.9 Km accorded by Ministry of Environment & Forests, Government of India

F.No. 11-88/2011-IA-III Dated: 30<sup>th</sup> December 2013

Status Period: November 2018 – April 2019

	Specific Conditions	Compliance Status
i	Consent to establish shall be established.	Copy of consent to establish is obtained vide letter no GPCB/CCA/SRT-7A/ID-20783/143/55 dated 06/04/2013. The same is submitted along with compliance report (October 13-March 2014).
ii	The project involves diversion of 4.2 ha of forest land for which the proponent shall obtain the requisite Forest Clearance (FC). The proponent can execute the above project on the entire stretch located in non-forest land, provided the proponent submit an undertaking while making an application to get FC that the execution of work on non-forest land shall not be cited as a reason for grant of FC.	Noted. Forest land will be required for the stretch of 7 km Pipeline. SEIPL submitted kml files to APPCCF & Nodal officer, Land, FED Gujarat as advised from Dy. conservator of forest MoEF Bhopal letter. This is of proposed diversion of forest area at Hazira and compensatory afforestation land at bhachunda regarding SEIPL application for diversion of 4.3 hector reserved forest land for laying of gas pipeline at survey no-434A-1 at suvali dated-15-03-2016
iii	All the recommendation of the EMP shall be complied with letter and spirit. All the mitigation measures submitted in the EIA /EMP and risk assessment and Disaster Management Report shall be prepared in a matrix format and compliance of each mitigation shall be submitted to MoEF along with the half yearly compliance report to regional office of MoEF.	Noted and the same will be taken care of in Front End Engineering and Design.
iv	All the condition stipulated by Gujarat Coastal Zone Management Authority vide letter No. ENV. -10-2012-62-E dated 30.3.2013 shall be strictly complied with.	Already Complied with during project phase. Noted and will be complied.
v	The smooth and safe operation of the system shall be ensured by incorporating a computerized SCADA system. Any leakage in the pipeline shall be immediately detected by the computer system and product pumping shall be immediately cut-off.	SCADA is implemented in the existing system. The same will be integrated with the new installations. Pipeline will be provided with Remotely operated valves, which will cut-off the supply immediately in case of leakage.
vi	The commitment made during the public hearing shall be complied with.	Noted and will be Complied with.
vii	There shall be no disposal of waste into the coastal area. All the solid waste shall be handled as per the solid waste (management and handling) Rules, 2000.	Noted and ensure that there will not be any such disposal in coastal area.
viii	Pipeline should be protected from external corrosion by combination by combination if anti-corrosion coating and cathodic protection.	The same is being taken care of during design phase. The same will be implemented.

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ix	The location of new underground pipeline which is running parallel to an existing underground pipeline should be at minimum clear distance of 5.0 meters	Will be complied with.
x	Ground patrolling of ROW shall be carried out on regular basis	24X7 pipeline monitoring will be done.
xi	Norms of international standard OISD 194 and MB Lal recommendation shall be followed.	Noted.
xii	Onsite emergency plan shall be put in place.	Up to 7 MMTPA regasification capacity onsite emergency plan is prepared. This will be integrated with the existing site plan.
xiii	Mock drill shall be conducted with the state disaster management authority and or national disaster management authority or national disaster management authority.	The same will be done in collaboration. Conducted Level 3 mock drill on 5 <sup>th</sup> Oct 2018 for NG leak and fire from pipeline emergency.
xiv	Tie-up with the specialized hospitals for handling any disaster situation. Earmarking of identified beds and burn to be done.	Tie-up with existing hospitals is in place. MoU with hospitals is made for handling Medical Emergencies related injuries.
xv	The compensation will be paid in accordance with the prevailing state/central rules/regulations/precedence/ for that region.	Noted and will be complied with.
xvi	The project proponent shall set-up separate Environmental Management Plan cell for effective implementation of the stipulated safeguards under the supervision of senior executives.	Separate EMS cell integrated with existing will be made.
xvii	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.	Noted and will be complied with.
<b>GENERAL CONDITIONS:</b>		
<b>General Conditions</b>		<b>Compliance Status</b>
i	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.	Noted.
ii	Full support shall be extended to the officers of this Ministry /Regional Office at Bhopal by the project proponent 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.	Noted.
iii	A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bhopal regarding the implementation of the stipulated conditions.	Noted and being complied with.

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iv	Ministry of Environment & Forests 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.	Noted.
v	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	Noted.
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 of Environment and Forests.	Noted.
vii	The project proponents 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 land development work.	Noted.
viii	A copy of the clearance letter shall be marked to concerned Panchayat/local NGO, if any, from whom any suggestion/representation has been made received while processing the proposal.	The relevant stakeholders have been informed about the project clearance.
ix	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/Tehsildar's office for 30 days.	Noted.
8	These 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.	Noted.
9.	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	Noted.
10	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 Environmental and 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 and Forests at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a> . The advertisement should be made within 10 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 Bhopal.	The site has published public hearing and EC clearance advertisement in two newspapers. Published in "Indian Express" and "Sandesh" newspapers. Please refer Annexure IX Provided on CD.
11	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.	Noted

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12	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.	Noted.
13	Status of compliance to the various stipulated Environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.	Noted and will be complied with for the project.
14	A copy of the clearance letter shall be sent by the proponent to be 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.	The relevant stakeholders have been informed about the project clearance.
15	The proponent shall upload the status of compliance of the stipulated Clearance 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 MoEF, the respective Zonal Office of CPCB and the SPCB.	Noted.
16	The environmental statement for each financial year ending 31st March in Form-Vas 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 Clearance conditions and shall also be sent to the respective Regional Office of MoEF by email	Environmental statement for the FY 2017-18 submitted to GPCB for current operations.

## Hazira Mora Gas Pipeline, Hazira, District Surat

### Environmental Compliance Report for Natural Gas Pipeline

Status Period: November 2018 – April 2019

#### Section I

Environment Clearance from Ministry of Environment and Forests (J-16011/20/2003-IA-III, dated 24<sup>th</sup> October 2003 subsequent amendment vide letter No. 10-69-2009-IA-III Dated 08-12-2009

	Specific Conditions	Compliance Status
i	All the conditions stipulated by Environment Department, Government of Gujarat as contained in their letter No ENV-10.2003-55-P1 dated 15th July 2003 shall be effectively implemented. The project shall be implemented in such a manner that there is no damage whatsoever to the mangroves/ other sensitive coastal ecosystems. Further no portion of the project site should be located in CRZ I (i). If any damage to mangroves is anticipated/ envisages as a result of project activities then the clearance now being accorded shall stand cancelled and the proponents may seek fresh approval from the Ministry.	The conditions have been complied with. Status of specific conditions mentioned in MOEF clearance letter for revised route dated 24 <sup>th</sup> May 2004 is given in part III and V.
ii	All conditions stipulated by Gujarat Pollution Control Board vide letter No PC-NOC-SRT/1240/8997 dated 24th March 2003, shall be effectively implemented.	The conditions have been implemented. Please refer Environment Compliance Report dated 11 <sup>th</sup> Nov 20 Section III.
iii	It should be ensured that no activities are taken up in the forest areas till necessary forest clearance is obtained and furnished to this Ministry.	Forest clearance has been obtained for the pipeline under Operation.
iv	It shall be ensured that there is no displacement of people, houses or fishing activity as a result of the project.	It was ensured no displacement was done as a result of this project.
v	It shall be ensured that due to the project there is no adverse impact on the drainage of the area and recharge of groundwater. No groundwater should be tapped in the project area falling in Coastal Regulation Zone.	It has been ensured that there is no adverse impact on the drainage or ground water due to this project.
vi	The project proponents must make necessary arrangements for disposal of solid wastes and for the treatment of effluents/ liquid wastes. It must be ensured that the effluents/ liquid wastes are not discharged into the backwater.	Waste management plan is in place for all kind of solid waste disposal and treatment of effluents/liquid waste disposal. There is no discharge into backwater.
vii	The camps of labor shall be kept outside the Coastal Regulation Zone area. Proper arrangements for cooking fuel shall be made for the labor during construction phase so as to ensure that mangroves are not cut/ destroyed for this purpose.	Noted and complied with during construction phase.

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viii	Regular drills should be conducted to check the effectiveness of the on-site Disaster Management Plan. The recommendations made in the Environmental Management Plan and Disaster Management Plan, as contained in the Environmental Impact Assessment and Risk Analysis reports of the project, shall be effectively implemented.	Regular drills are conducted to check effectiveness of on-site DMP. Recommendations for the same are noted and implemented as per chalked out action plan.  The compliances of Risk Assessment, EMP and DMP submitted for project expansion vide letter HPL/MoEF/Expansion/2013/1 dated 20th November 2013.  Conducted Level 3 mock drill on 5 <sup>th</sup> Oct 2018 for NG leak and fire from pipeline emergency.
ix	The entire stretch of the pipeline shall be buried except at the booster pumping station, which will be properly fenced, and the station would be manned round the clock. The buried lines will be protected with anti-corrosive coal tar-based coating. The coating will be tested by high voltage detector in accordance with prescribed standards.	The Gas pipeline has been constructed as per international codes and practices on Natural gas pipeline.
x	Markers shall be installed at every 30 m to indicate the position of the line.	Markers installed at 30 m.
xi	The smooth and safe operation of the system will be ensured by incorporating a computerized SCADA system. Any leakage in the pipe shall be immediately detected by the Computer system and product pumping shall be immediately cut off.	Data acquisition and management system has been installed to collect pipeline data and transmit the same data to the computerized Plant Digital Control System (DCS).  We have remote operated isolation valves on pipeline route at 4.2km distance from terminal.  Additionally, Pipeline intrusion detection system is provided to ensure integrity. In case of any excavation, digging alarm will be generated.
xii	Regular patrolling of the pipeline needs to be done. This will help in identifying any activity that have the potential to cause pipeline damage to identify small leaks whose effects are too small to be detected by instrument.	Regular patrolling of the pipeline is being done. The line is 1.5 m below GL. There is round the clock 24 x 7 monitoring of the pipe line by a dedicated pipeline surveillance team. Additionally, Weekly Patrolling of pipeline is undertaken.
xiii	There should be display boards at critical locations along the pipeline, viz., road/rail/river crossings giving emergency instructions as well as contact details of SEIPL. This will ensure prompt information regarding location of accident during any emergency. Emergency information board should contain instructions in addition to contact details.	The emergency information boards are available at critical locations with emergency instructions and contact details of site.
xiv	During operation phase, proper precautions should be taken to avoid any oil spills and no oily wastes shall be discharged into the water bodies.	The Natural Gas pipeline operation is dry gas in nature and therefore, no envisaged chances of oil spillage.

## Environmental Compliance Report- November 2018 to April 2019

	General Conditions	Compliance Status
i	Construction of the proposed structures should be undertaken meticulously confirming to the existing Central/ local rules and regulations. All the construction designs/ drawings relating to the proposed construction activities must have approvals of the concerned State Government/ Agencies.	The necessary information and approvals have been undertaken related to the designs or drawings of proposed construction activities.
ii	The project authorities should take appropriate community development and welfare measures for the villagers in the vicinity of the project site, including drinking water facilities. A separate fund should be allocated for this purpose.	The project authorities are actively involved in community welfare. A Community development plan (Called SOCIAL PLAN) is implemented with adequate resources and budget  Refer Annexure VI for social performance highlights.
iii	To meet any emergency situation, appropriate firefighting system should be installed. Appropriate arrangements for uninterrupted power supply to the environment protection equipment and continuous water supply for the firefighting system should be made.	The appropriate firefighting system is available to meet an emergency. (DCP fire tender & CO2 extinguishing system, mutual aid, emergency response, etc.)
iv	A separate Environment Management Cell with suitably qualified staff to carry out various environment related functions should be set up under the charge of a Senior Executive who will report directly to the Chief Executive of the Company.	The Environment Management Cell has been set up as part of the Operation and Maintenance team. A qualified Health, Safety and Environment (HSE) Manager is currently present on the site reporting directly to Terminal Manager & also the Managing Director, and supported by Environmental Engineer, Laboratory Manager, HSE Advisors, Occupational Health Physician. Kindly refer to the Annexure VII.
v	The funds earmarked for environment protection measures should be maintained in a separate account and there should be no diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards should be reported to this Ministry's Regional Office at Bhopal.	Separate accounts are being maintained for environmental protection fund allocation and expenditure Being submitted every year. Expenditure for year November 2018 to April 2019 is being submitted as Annexure VIII.
vi	Full support should be extended to the officers of this Ministry's regional office at Bhopal and the officers of the central and the state pollution control board by the project proponents during their inspection for monitoring purposes, by furnishing full details and action plans including the action taken reports in respect of mitigative measures and other environmental protection activities.	The site extends full support to all the officials visiting the premises for monitoring and furnish all the relevant details and action plans in the right spirit.
vii	In case of deviation in the project including the implementing agency, a fresh reference should be made to this Ministry for modification in the clearance conditions or imposition of new one for ensuring environmental protection. The project proponents should be responsible for implementing the suggested safeguard measures.	Environmental Clearance for Augmented capacity up to 10 MMTPA is granted by MoEF. Compliance of conditions in matrix format submitted on 26 <sup>th</sup> November 2013. Work to develop Truck Loading facility is under progress to augment capacity of terminal to 5.28MMTPA.



## Environmental Compliance Report- November 2018 to April 2019

viii	The Ministry reserves the right to revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of this Ministry.	Noted and agreed.
ix	The Ministry of any other competent authority may stipulate any other additional conditions subsequently, if deemed necessary, for environmental protection, which shall be complied with.	Noted and agreed.
x	A copy of the clearance letter shall be marked to the concerned Panchayat/ local NGO, if any, from here any suggestion/ representation has been received while processing the proposal.	The relevant stakeholders have been informed about the project clearance.
xi	The State Pollution Control Board/ Committee should display a copy of the clearance letter at the District Industries Centre and Collector's office/ Tehsildar's office for 30 days.	Noted.
xii	The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in vernacular language of the locality concerned informing that the project has been accorded environmental clearance and copies of clearance letters are available with the Gujarat State Pollution Control Board and may also be seen at website of the MoEF.	The project proponent advertised in two local newspapers on 12 <sup>th</sup> Nov 2003.
xiii	The project proponents should inform Regional Office at Bhopal as well as this Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of work.	Project Proponent has informed RO at Bhopal and ministry via letter on April 2004.
xiv	The project proponent will obtain the forest clearance for the land passing through the Reserved Forest area as well as report of the public hearing before commencement of the project activities in forest area.	Forest clearance obtained for pipeline.
xv	So as to maintain ecological features and avoid damage to the ecosystem, movement of vehicles in the inter-tidal Zone shall be restricted to the minimum.	The movement of vehicles is restricted to avoid any damage to ecosystem.
xvi	Since the pipeline passes along mangrove areas and the mudflats of Tapi river, the project proponents will ensure adequate protection to the mangroves.	Adequate measures for protection of mangroves during pipeline construction have been taken.
xvii	650 trees are proposed to be cut along the pipeline corridor. Details regarding the clearances obtained for cutting the 650 trees and compensatory tree plantation at twice the number of trees cut may be provided.	Reference MOEF clearance for change of pipeline route dated 24 <sup>th</sup> May 2004, 450 trees are expected to be removed in the pipeline corridor. Along with 1203 Ha of mangroves over the years, plantation of total 9122 Horticulture grafts and 8685 terrestrial saplings carried out in Hazira Peninsula during the year 2018 (till date).
xviii	Budgetary break-up for Environmental Management Plan for the project to be mentioned.	Yearly expenditure November 18 – April 19 period is enclosed as Annexure VII

## Environmental Compliance Report- November 2018 to April 2019

### Section II

Additional Specific Conditions by MOEF by Letter No. J-16011/20/2003-IA-III Dated 24<sup>th</sup> May 2004, partial amendment to earlier Environmental Clearance dated 24<sup>th</sup> Oct. 2003

#### Status Period: November 2018 – April 2019

	Specific Conditions	Compliance Status
3 (i)	Project proponent shall be solely responsible and shall compensate for any loss or damage to the life of human beings and animal health and property	Third party Liability insurance includes pipeline ration.
3 (ii)	The conditions stipulated by the Forest & environment department, GoG vide letter no. ENV-10.2003-55P dated 17 <sup>th</sup> March 2004 should be implemented strictly.	The conditions have been implemented.
3 (iii)	The new pipeline will not enter in reserved forest area	Re-routing of pipeline was worked out with an intension to avoid reserved forest.
3 (iv)	Conditions stipulated by GPCB vide letter no. PC/NOC/SRT-1240/1318 dated 16 <sup>th</sup> January 2004 should be strictly implemented.	The conditions have been implemented. Please refer Environment Compliance Report dated 11 <sup>th</sup> Nov 2011 Section IV.

Compliance to conditions imposed as part of Environmental Clearance accorded by Ministry of Environment & Forests, Government of India

### Section III

#### Letter Reference No: ENV-10–2003-55-E Dated 24<sup>th</sup> August 2009

Amendment to letter no J-16011/20/2003-IA-III Dated: 24th May 2004 to CRZ clearance for re-routing of a section of the send out and laying of water pipeline along the re-routing send out line vide letter no 8th December 2009.

All conditions are the general condition for which the company is complying with the requirement.

#### Status Period: November 2018 – April 2019

	Specific Conditions	Compliance Status
1	All the land for re-routing of the pipeline for the forest land shall be within the 34 hectares of the forest land already diverted for non-forest uses by MoEF.	The rerouting is within the approved land as per the forest clearance.
2	No-Forest Land shall be used for laying of re-routing of the gas pipeline and the water pipeline, which is not diverted for non-forest uses by the MoEF.	No forest land was used for laying of rerouting of pipelines which is not diverted for non-forest uses by MOEF.
3	The new pipeline will not enter in reserved forest area	Re-routing of pipeline was worked out with an intension to avoid reserved forest.
4	All the recommendation and suggestions given by NEERI in their above mentioned EMP shall be strictly implemented by the SEIPL and the ESSAR Limited for the laying and operation of the said pipeline.	All the recommendations given by NEERI in the EMP are implemented.