



Petronet LNG Limited

GIDC Industrial Estate, Plot No. 7/A, Dahej,
Taluka : Vagra, Dist. Bharuch (Gujarat) - 392130 (India)
Tel. : 02641 - 670200 / 257
www.petronetlng.com
CIN: L74899DL 1998PLCO93073
GST No. : 24AAACP8148D1ZM

REF: PLL/DHJ/HSE/MoEF/2022/03

Date: 22nd January, 2022

To,

The Director (Environment)
Forests & Environment Department,
Government of Gujarat,
Block No. 14, 8th Floor, Sachivalaya,
Gandhinagar – 382 010

Sub : Half-yearly Compliance Report with respect to conditions stipulated by Ministry of Environment & Forests, Govt. of India and Department of Forests, Govt. of Gujarat for Expansion of LNG Terminal (Phase-II) at Dahej, Gujarat by M/s Petronet LNG Ltd. as on 31st Dec 2021

Ref : (a) J-17011/11/2000-IA-III dated 23rd Nov, 2005
(b) ENV-10-2004-117-P dated 28th Dec, 2005

Dear Sir,

The half yearly compliance report as on 31st Dec 2021 with respect to conditions stipulated by Ministry of Environment & Forests, Govt. of India and Department of Forests, Govt. of Gujarat for Expansion of LNG Terminal (Phase-II) at Dahej, Gujarat by M/s Petronet LNG Ltd. is enclosed.

Thanking you,
Yours faithfully,
For Petronet LNG Limited

S B Singh
ED(Plant Head)

Encl.: As above

Copy to:-
Director,
Ministry of Env., Forest and Climate Change
Indira Paryavaran Bhawan,
Jorbagh Road,
New Delhi – 110 003

Deputy Director General of Forests (C),
Ministry of Env., Forest and Climate Change
Regional Office, Western Region,
E-5, Kendriya Paryavaran Bhavan,
Link Road No. 3,
Bhopal – 462 016

Unit Head - Bharuch Division
Gujarat Pollution Control Board
Paryavaran Bhavan, Sector-10 A
GANDHINAGAR – 382 010 (Gujarat)

Regional Officer
Gujarat Pollution Control Board
C-1\119\3, GIDC, Phase – 2 , Narmadanagar
Bharuch – 392015 (Gujarat)

MoEF& CC
Integrated Regional office
Room No 407& 409
Sector 10A
A Wing Aranya Bhawan
Gandhinagar-382010

Regd. Off.:

World Trade Centre, First Floor, Babar Road,
Barakhamba Lane, New Delhi-110 011 (INDIA)
Tel.: 011 - 23472525, 23411411 Fax : 23472550

Kochi Site :

Survey No. 347, Puthuvypu
P.O. 682508, Kochi (INDIA)
Tel.: 0484-2502268

**HALF YEARLY COMPLIANCE REPORT (FOR THE PERIOD JULY 21 TO DECEMBER 21) TO THE
CONDITION MENTIONED IN MOE&F LETTER NO. J-17011/11/2000-IA-III DATED 23rd
NOVEMBER 2005
(For PHASE II EXPANSION)
AS ON 31.12.2021**

Point-wise compliance statement for the subject environmental clearance is as below:

(A)	<u>CONDITIONS</u>	<u>STATUS</u>
	<u>Special Conditions:</u>	
i	All the conditions stipulated by the Ministry vide Ministry's letter of even number dated 27.12.2000 and also Forest and Environment department, Government of Gujarat vide their letter No.ENV-10-2004-117-P dated 28.07.2005 should be effectively implemented.	Complied.
ii	All the conditions stipulated by GPCB in their NOC No. PC/BRCH_CCA_611/28337 dated Nil should be effectively implemented.	Complied The construction work was completed for expanding the facilities at Dahej (i.e. Phase II) and necessary approvals obtained. Phase-II was commissioned in April 2009. The Phase I is operational since April 2004.
iii	Quantitative risk analysis of the LNG terminal and associated facilities should be carried out taking into account the worst case scenario and based on formed up engineering design. The report should be submitted within 6 months. The central control room should be located well outside the risk zone	Complied. The Quantitative Risk Analysis (QRA) report for Phase I Project was submitted vide our letter no. PLL/ND/D-7/2K2 dated 18 th January 2002. The Coarse Quantitative Risk Analysis (QRA) report for the entire terminal including the Expansion Facilities submitted vide letter no. PLL/ND/D-7/2K7 dated 8 th June 2007. The control room is located outside the risk zone.
iv	Based on the risk analysis, Disaster Management Plan should be prepared and submitted to this Ministry within 6 months.	Complied Disaster Management Plan was prepared and Submitted. Disaster Management plan/ERDMP plan periodically updated. Existing ERDMP is approved from DMI, Bhopal and valid till 29.12.2022. Please Refer Annexure – IV for valid ERDMP certificate

Smashu

v	The details of the facilities to be provided by the company to the local population may be furnished within one month.	Complied The details have been provided vide our letter no. PLL/ND/D-7/2K2 dated 18 th January 2002.
vi	The construction material shall be obtained from the approved quarries. In case new quarries need to be opened up, specific approval for the same should be obtained.	Complied Complied during Project Phase. The construction work was completed for expanding the facilities at Dahej (i.e. Phase II). Phase-II was commissioned in April 2009. The Phase I is operational since April 2004.
vii	No change in scope of work should be made without prior approval of this Ministry.	Complied Construction work completed without any change in the scope of work.
viii	It should be ensured that no project activities including pipeline shall fall within CRZ-I (i).	Complied No project activities fall within CRZ-I (i)
ix	Expansion of existing service road into Coastal Regulation Zone – I(i) areas is strictly prohibited.	Complied No road service road expansion in road into Coastal Regulation Zone – I(i) areas
x	The construction design relating to the project should be reviewed to ensure their safety keeping in view the seismic potential of the area.	Complied during design stage.
xi	No ground water should be used for the project.	Complied No ground water was used during construction stage.
xii	The projects proponents should make specific arrangement for rain water harvesting in the project design and the rain water so harvested should be optimally utilized.	The LNG terminal has been set up very near to the coast line at Dahej where water table is very high. Moreover the sea water is brackish in that area. Preliminary investigation indicates that it might not be feasible to carry out rain water harvesting in this area. The process water requirement in LNG terminal at Dahej is NIL.

xiii	The project proponent will undertake mangrove a forestation in consultation with Forest department, Government of Gujarat in the adjacent area abutting the site. A detailed plan should be worked out in this regard and submitted to this Ministry within 3 months.	Complied Following Mangrove Plantation Completed along the Gujarat Coast in consultation with GEC & Forest Dept.: Completed : 1150 Hectares (2009-10, 2010-11, 2011-12, 2012-13, 2013-14, 2014-15 & 2016-17)
xiv	The budget allocated for environment safeguarding measures shall not be diverted for any other purposes.	Complied Separate Environment budget is allotted and monitor regularly.
(B)	GENERAL CONDITION	
i	Construction of the proposed structures should be undertaken meticulously conforming to the existing central / local rules and regulations including CRZ notification, 1991 & its amendments. All the construction designs / drawings relating to the proposed construction activities must have approvals of the concerned State Government Departments/ Agencies.	Complied. All the required statutory approval were obtained The construction work was completed for expanding the facilities at Dahej (i.e. Phase II) and necessary approvals obtained. Phase-II was commissioned in April 2009. The Phase I is operational since April 2004.
ii	The proponent shall ensure that a result of the proposed construction, ingress of the saline water in to the ground water does not take place. Piezometer for this purpose at appropriate locations on the project site.	Complied. During construction no water was drawn from ground & no ingress of saline water took place. Piezometers are installed and regular ground water analysis done from GPCB approved agency. Please Refer Annexure – II for Environment monitoring data.
iii	Handling, manufacturing, storage and transportation of all hazardous chemicals should be carried out in accordance with MSIHC rule 1989 and subsequent amendments. All the approvals from state & central nodal agencies including OISD chief controller of explosives, chief inspectorate 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.	Complied. All relevant approvals of state and central nodal agencies, DISH, CCOE, CIF for construction and operation of the facilities are in place. Emergency response plan is in place and updated periodically. Please Refer Annexure – IV for valid ERDMP certificate The said expansion project was commissioned in April, 2009.

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 prescribed standards. They will also equipped with qualified manpower including a marine biologist so that 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 seasons and the results should be properly maintain and for the inspection of the concerned pollution agencies. The periodic monitoring reports at least once in 6 months must be sent to this ministry (Regional office at Bhopal) and SPCB.	Complied Environment monitoring is being carried out through GPCB approved outsourcing agencies as per GPCB guidelines. Analytical report is enclosed as Annexure- II. Dahej, Sea water is not being used for vaporizers or any other purpose. Instead, air heaters using atmospheric air is being used for vaporizing the LNG. Since there is no intake of sea water and out flow of water into the sea, hence it is felt that a marine biologist may not be required.
v	Adequate provisions for instrumentation facilities such as water supply, fuel for cooking, sanitation etc. must be provided for the laborer during the construction period to avoid the damage to the environment. Colonies for the laborers 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.	Complied All welfare facilities were given to labors during project stage. The construction work was completed for expanding the facilities at Dahej (i.e. Phase II) and necessary approvals obtained. Phase-II was commissioned in April 2009. The Phase I is operational since April 2004.
vi	To prevent discharge of sewage and other liquid wastes into the water bodies, adequate system for collection and treatment of wastes must be provided. No sewage and other liquid wastes without treatment should be allowed to enter in to water bodies.	Complied. Domestic waste are treated in soak pits and STP. 100 KLD STP plant is commissioned to treat domestic waste water.
vii	Appropriate facility should be created for the collection of solid & liquid wastes generated the barges/ vessels and their safe treatment and disposal should be ensured to avoid possible contamination of the water bodies.	Complied Contracts for engaging the vessel stipulate that the vessels comply with these requirements including MARPOL. Besides LNG vessel is berthed for 24 hours only and it is equipped with incinerator and sewage treatment.
viii	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.	Complied Compliance report is attached as Annexure III



ix	The quarrying material required for the construction purposes shall be obtained only from the approved quarries/borrow areas. Adequate safeguard measures shall be taken to ensure that the overburden and rocks at quarry site do not find their way into water bodies.	Complied. The construction work was completed for expanding the facilities at Dahej (i.e. Phase II) and necessary approvals obtained. Phase-II was commissioned in April 2009. The Phase I is operational since April 2004.
x	For employing unskilled, semiskilled and skilled workers for the project, preferences shall be given to local people.	Complied PLL has recruited fair number of local people. For ancillary and support functions as security services, firefighting, and green belt maintenance etc. PLL is giving preference to local people.
xi	The recommendation 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.	Complied. All the recommendation of risk analysis and EIA are complied. Emergency response plan is in place and updated periodically. Please Refer Annexure – IV for valid ERDMP certificate
xii	A separate environment management cell with suitably qualified staff to carry out various environment related functions should be set up under the charge of senior executive who will report directly to the chief executive of the company.	Complied. Health safety and environment management cell exists at site. Total three HSE persons are employed headed by Sr. Manager in HSE dept. Head HSE is directly report to plant head and occupier of company.
xiii	The project affected people, if any should be properly compensated and rehabilitated	Complied
xiv	The funds earmarked for environment protection measures should be maintained in the 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 the ministry.	Complied Rs. 33.22 Lac spent for development of Green Belt and Mangrove Plantation during the year 2009-10. Rs. 50 Lac spent for development of Green Belt and Mangrove Plantation during the year 2010-11. Rs 93.31 Lacs spent for development of Green Belt and Mangrove plantation during the year 2011-2012 Rs. 109.57 Lac spent for development of Green Belt and Mangrove Plantation

Forwards

		<p>during the year 2012-13.</p> <p>Rs. 95.20 Lac spent for development of Green Belt and Mangrove Plantation during the year 2013-14.</p> <p>Rs 81.68 Lacs spent for development of Green Belt and Mangrove plantation during the year 2014-15.</p> <p>Rs 42.20 Lacs spent for development of Green belt and Mangrove plantation during the year 2015-16.</p> <p>Rs. 77.96 Lacs spent for development of Green Belt and Mangrove Plantation during the year 2016-17.</p> <p>Rs. 71.08 Lacs spent for development of Green Belt and Mangrove Plantation during the year 2017-18.</p> <p>Rs. 60.93 Lacs spent for development of Green Belt and Mangrove Plantation during the year 2018-19.</p> <p>Rs. 51.10 Lacs spent for development & maintenance of Green Belt during the year 2019-20.</p> <p>Rs. 78.96 Lacs spent for development & maintenance of Green Belt during the year 2020-21.</p> <p>Rs. 58.39 Lacs spent for development & maintenance of Green Belt during the year 2021-22 (For period April 21 to December 21).</p>
xv	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.	<p>Complied</p> <p>PLL is committed to provide full support during site inspection of statutory agency and required data are provided.</p>
xvi	In case of deviation or alteration in the project including the implementing agency, a fresh reference should be made to the ministry or modification in the clearance conditions or impositions of new ones for ensuring environmental protection. The project pronouncements should be responsible for	<p>No deviation or alternation during the project</p> <p>The construction work was completed for expanding the facilities at Dahej (i.e. Phase II) and necessary approvals obtained. Phase-II was commissioned</p>

	implementing the suggested safeguard measures.	in April 2009. The Phase I is operational since April 2004.
xvii	The ministry reserves the right to revoke this clearance, if any of re condition stipulated or not complied with to the satisfaction of this ministry.	Agree No Such case till date
xviii	The ministry or any other competent authority may stipulate any other additional conditions subsequently if deemed necessary for environmental protection which shall be complied with	Agree
xix	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 been at web site of the ministry of environment & forest at http://www.envfor.nic.in . The advertisement should be made within 7 days from the date of issue of clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bhopal.	Complied. The construction work was completed for expanding the facilities at Dahej (i.e. Phase II) and necessary approvals obtained. Phase-II was commissioned in April 2009. The Phase I is operational since April 2004
xx	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 the land development work.	Complied. Expansion project is completed and Phase-II was commissioned in April 2009. The Phase I is operational since April 2004.

ANNEXURE-I

Compliance to conditions as conveyed by Department of Forests & Environment, Govt. of Gujarat, Letter No. ENV-10-2004-117-P dated 28th December, 2005

As on 31.12.2021

Point-wise compliance statement for the subject environmental clearance is as below:

<u>SR. NO.</u>	<u>CONDITIONS</u>	<u>STATUS</u>
1	The provisions of CRZ notification of 1991 and subsequent amendments issued from time to time.	Complied
2	The PLL shall obtain necessary permissions from different Government Departments / Agencies before commencing the expansion activities.	Complied All the required statutory approval were obtained The construction work was completed for expanding the facilities at Dahej (i.e. Phase II) and necessary approvals obtained. Phase-II was commissioned in April 2009. The Phase I is operational since April 2004.
3	No effluent or sewage shall be discharged into the sea / creek or in the CRZ area and shall be treated to confirm the norms prescribed by the Gujarat Pollution Control Board and would be reused / recycled within the plant premises.	Complied Domestic waste water threated through sock pit and STP and no process effluent generated. Treated water from STP is reused for gardening and horticulture purpose.
4	All the recommendations and suggestion given by the NIOT and WAPCOS in their Environment Impact Assessment reports shall be implemented strictly.	Complied
5	The PLL shall be paid the cost of the external agency that may be appointed by this department for supervision / monitoring of the project activities during construction / operational phases.	Complied PLL agree to born cost of external agency appointed by this department
6	The PLL shall contribute financially for any common study or project that may be proposed by this Department for environmental management / conservation / improvement for the Gulf of Khambhat or for Dahej region.	Complied PLL agree to contribute financially for any common study proposed by this department

Tomalkh.

7	The construction debris and any other type of waste shall not be discharged into the sea / creek or in CRZ areas. The debris shall be removed from construction site immediately after construction is over.	Complied The construction work was completed for expanding the facilities at Dahej (i.e. Phase II) and necessary approvals obtained. Phase-II was commissioned in April 2009. The Phase I is operational since April 2004.
8	The PLL shall prepare and regularly update their Local Oil Spill Contingency and Disaster Management Plan in consonance with the National Oil Spill and Disaster Contingency Plan.	Complied. Oil spill contingency and Disaster management plan updated periodically. Disaster Management plan/ERDMP plan periodically updated. Existing ERDMP is approved from DMI, Bhopal and valid till 29.12.2022. Please Refer Annexure – IV for valid ERDMP certificate
9	The Gujarat Maritime Board shall initiate for the Vessel Traffic Management system for the Gulf of Khambhat and would work out the modus operandi for cost sharing by the different players in the Gulf including the PLL. The PLL shall contribute for the same as may be decided by the Gujarat Maritime Board.	Complied Gujarat Maritime Board has established VTS System and PLL is complying all norms as per Gujarat Maritime Board.
10	The PLL shall bear the cost of the external agency that may be appointed by this Department for supervision / monitoring of proposed activities and the environmental impacts of the proposed activities.	Complied PLL agree to born cost of external agency appointed by this department
11	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 grease spillage from construction equipment into the sea or the CRZ area.	Complied There were no waste disposal into sea or the CRZ area during project stage.

	General Conditions:	
12	The ground water shall not be tapped to meet with the water requirements in any case.	Complied Ground Water was not used in construction.
13	The PLL shall take up massive mangrove plantation activities as well as greenbelt development activities in consultation with the Gujarat Institute of Desert Ecology / Forest department.	Complied Following Mangrove Plantation Completed along the Gujarat Coast in consultation with GEC & Forest Dept.: Completed : 1150 Hectares (2009-10, 2010-11, 2011-12, 2012-13, 2013-14, 2014-15 & 2016-17) Please Refer Annexure – V for Mangrove plantation
14	The PLL shall have to contribute financially for taking up the socio-economic upliftment activities in this region in consultation with the Forest and Environment Department and the District Collector / District Development Officer.	Complied Compliance report is attached as Annexure III
15	Environmental Audit report indicating the changes, if any with respect to the baseline quality, in the coastal and marine environmental shall be submitted every year.	Complied
16	The PLL shall have to contribute financially to support the National Green Corps Scheme being implemented in Gujarat by the GEER Foundation, Gandhinagar, in consultation with Forests and Environment Department	Agreed. PLL agree to contribute financially to support the National Green Corps Scheme being implemented in Gujarat by the GEER Foundation, Gandhinagar, in consultation with Forests and Environment Department
17	A six monthly report on compliance of the conditions mentioned in this letter shall have to be furnished by the PLL on regular basis to this Department.	Complied Half yearly compliance report submitted regularly.
18	Any other condition that may be stipulated by this Department from time to time for environmental protection / management purpose shall also have to be complied with by the PLL.	Agree and Complied

Amal

ANNEXURE - II - ENVIROMENT DATA

AMBIENT AIR QUALITY STATUS REPORT

All units are in $\mu\text{g}/\text{m}^3$.

Sr.no.	Month	PM10		PM2.5		SOx		NOx		HC as Methane CH ₄	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
	NAAQ norms	100 $\mu\text{g}/\text{m}^3$		60 $\mu\text{g}/\text{m}^3$		80 $\mu\text{g}/\text{m}^3$		80 $\mu\text{g}/\text{m}^3$		Absent	
1	Jan-21	64.00	94.00	21.00	36.00	9.60	18.60	11.60	21.30	BDL	BDL
2	Feb-21	62.00	96.00	18.00	34.00	9.80	18.60	11.60	22.80	BDL	BDL
3	Mar-21	72.00	97.00	22.00	48.00	9.80	18.40	12.40	22.40	BDL	BDL
4	Apr-21	74.00	96.00	22.00	34.00	10.20	18.70	12.30	21.40	BDL	BDL
5	May-21	72.00	96.00	21.00	36.00	10.60	21.10	13.10	24.10	BDL	BDL
6	Jun-21	66.00	88.00	18.00	33.00	10.60	18.40	14.60	22.60	BDL	BDL
7	Jul-21	62.00	88.00	16.00	28.00	11.60	18.40	12.10	21.60	BDL	BDL
8	Aug-21	60.00	79.00	18.00	28.00	11.40	19.20	14.10	21.60	BDL	BDL
9	Sep-21	62.00	78.00	14.00	26.00	10.10	18.50	11.60	19.60	BDL	BDL
10	Oct-21	62.00	81.00	16.00	28.00	11.10	21.40	14.50	22.80	BDL	BDL
11	Nov-21	62.00	86.00	20.00	28.00	11.80	21.10	14.60	25.60	BDL	BDL
12	Dec-21	64.00	88.00	21.00	34.00	10.30	17.80	13.10	21.10	BDL	BDL
	Range (Jan-21 to Dec 21)	60-97		14-48		9.6-21.4		11.6-25.6		BDL	

Komal

STACK EMISSION AIR QUALITY STATUS REPORT

Sr.no.	Month	GTG		
		SPM	SO _x	NO _x
GPCB norms		150 mg/NM ³	100 ppm	50 ppm
1	Jan-21	BDL	BDL	27.20
2	Feb-21	BDL	BDL	19.60
3	Mar-21	BDL	BDL	16.40
4	Apr-21	BDL	BDL	17.60
5	May-21	BDL	BDL	21.40
6	Jun-21	Not monitored due to non operational GTGs		
7	Jul-21	Not monitored due to non operational GTGs		
8	Aug-21	Not monitored due to non operational GTGs		
9	Sep-21	Not monitored due to non operational GTGs		
10	Oct-21	Not monitored due to non operational GTGs		
11	Nov-21	Not monitored due to non operational GTGs		
12	Dec-21	Not monitored due to non operational GTGs		
	Range (Jan-21 to Dec-21)	BDL	BDL	16.4-27.2

BDL: Below Detection Level.

Handwritten signature

NOISE LEVEL REPORT

Sr.no.	Location	Unit	Limit	Jan-21		Feb-21		Mar-21		Apr-21		May-21		Jun-21		Jul-21		Aug-21		Sep-21		Oct-21		Nov-21		Dec-21	
				L _{day}	L _{night}	L _{day}	L _{night}	L _{day}	L _{night}	L _{day}	L _{night}	L _{day}	L _{night}	L _{day}	L _{night}	L _{day}	L _{night}	L _{day}	L _{night}	L _{day}	L _{night}	L _{day}	L _{night}	L _{day}	L _{night}	L _{day}	L _{night}
1	North	decibel	Day-75 db Night-70db	66	56	64	54	66	58	68	56	64	54	68	56	67	55	65	54	68	56	65	58	68	52	71	55
2	East	decibel	Day-75 db Night-70db	64	54	66	52	63	56	66	54	68	52	64	54	68	52	70	56	64	54	68	55	67	54	67	56
3	West	decibel	Day-75 db Night-70db	71	55	68	58	64	55	62	58	66	55	62	58	66	56	68	53	62	58	66	56	62	55	69	58
4	South	decibel	Day-75 db Night-70db	68	52	62	56	62	54	64	55	62	56	66	55	64	54	63	50	66	52	62	54	64	56	68	54

Small

GROUND WATER QUALITY STATUS REPORT

Sr.no.	Parameter	Unit	Mar-21		Jun-21		Sep-21		Dec-21	
			GW1	GW2	GW1	GW2	GW1	GW2	GW1	GW2
1	Temperature	*C	30	30	32	32	29	29	29	29
2	PH	-	8.7	8.74	8.11	8.23	8.22	8.26	8.57	8.52
3	Total Dissolved Solids (TDS)	mg/L	2780	2910	2910	2640	1840	860	2360	2490
4	Chlorides as CL	mg/L	614.8	595	629.8	419.8	289.9	131.9	469.8	459.8
5	Sulphate as SO4	mg/L	112	555	222	463	227	109.6	392	430.5
6	BOD (5 days @ 20°C)	mg/L	BDL	BDL	4	4	7	3	8	7
7	COD	mg/L	BDL	4.1	20.5	20.5	28.6	16.3	32.3	28.3
8	Oil & Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	Phenolic Compound	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Zinc as Zn	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	Total Chromium as Cr+3	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	Lead as Pb	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Cyanide as CN	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
14	Flouride as F	mg/L	3	3.45	2.1	2.35	1.02	0.77	1.32	1.54
15	Copper as Cu	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
16	Insecticide	mg/L	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
17	Pesticide	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
18	Mercury as Hg	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	ND*: Not detected									

Handwritten signature

MARINE WATER QUALITY STATUS REPORT

Sr.no.	Parameter	Unit	Mar-21	Jun-21	Sep-21	Dec-21
			MW	MW	MW	MW
1	Temperature	*C	30	32	28	28
2	PH	-	7.81	7.58	7.8	7.53
3	Color	Co-pt	120	80	80	60
4	Total Suspended Solids	mg/L	720	1500	880	2324
5	Total Dissolved Solids (TDS)	mg/L	31240	28410	29796	27944
6	Chlorides as CL	mg/L	18744.1	14392.7	15236.4	18494.2
7	Sulphate as SO4	mg/L	2640	3613	2738	2213
8	BOD (5 days @ 20°C)	mg/L	12	42	52	25
9	COD	mg/L	42.5	145.2	164	81.6
10	Oil & Grease	mg/L	BDL	BDL	BDL	BDL
11	Phenolic Compound	mg/L	BDL	BDL	BDL	BDL
12	Zinc as Zn	mg/L	0.067	0.074	0.089	0.082
13	Total Chromium as Cr+3	mg/L	0.051	0.063	0.075	0.069
14	Lead as Pb	mg/L	BDL	BDL	BDL	BDL
15	Cyanide as CN	mg/L	BDL	BDL	BDL	BDL
16	Flouride as F	mg/L	2.1	2.16	1.2	2.6
17	Copper as Cu	mg/L	BDL	BDL	BDL	BDL
18	Insecticide	mg/L	N.D.	N.D.	N.D.	N.D.
19	Pesticide	mg/L	Absent	Absent	Absent	Absent
20	Mercury as Hg	mg/L	BDL	BDL	BDL	BDL
21	Hexavalent Chromium as Cr+6	mg/L	BDL	BDL	BDL	BDL
22	Nickel as Ni	mg/L	0.091	0.084	0.093	0.075
ND*: Not detected						

Komal

ANNEXURE -III

CSR DETAILS

PLL has constructed a temple at the site for the local people and has contributed towards infrastructure in the area for roads and drinking water.

Community development and welfare measures are taken. Village Luwara has been jointly adopted along with another nearby industry, as directed by PCPIR Welfare Society. Separate fund allocated for CSR.

Some of the schemes completed/under progress are Health Center (construction & operation), drainage and provision of street lights at Village Luwara. Rupees 75 lakh contributed to PCPIR Welfare Society. Two ladies from Luwara village sponsored for nursing course at Vidhyadeep Community college, Bharuch. Sponsored construction of Sanitation scheme at village Muller. Active participation in other Government initiated community development programs.

Installed 10 nos. Emergency solar lighting at prominent places in village Luwara. Donated Rs.1 lac for Bharuch District Civic centre development. Participated in Govt. scheme on KanyaKelvani. Installation of drainage crossings to remove accumulated water at 4 locations within the village Luwara at a cost of Rs. 0.8 lacs. Construction of approach road in village Lakhigaon, Dahej.

PLL has sponsored 'Mataria Talav drinking water project' of the Bharuch Municipality Corporation. This project is for the supply of sweet drinking water from the Narmada River to the residents of Bharuch city. MD&CEO handed over cheque for Rs. 25 Lacs to the Collector, Bharuch on 13/06/2011 and further, PLL added Rs. 20 Lacs for the 'Mataria Talav drinking water project'

PLL installed 50 nos. Emergency solar lighting at prominent places in village Luwara & 10 nos. Emergency solar lighting at prominent places in village Lakhigam of Vagra Taluka in Bharuch District. Provided School Bus to Primary School at Lakhigam Village and also running Primary Health Center at Luwara Village. PLL constructed Bus-stand and extended Gram Panchayat Bhavan building at Luwara Village.

PLL installed 25 Nos. of Solar lights at prominent places in village Lakhigam and Luwara. Contributed Rs. 20 Lakhs in Akshay Patra mid-day meal scheme at villages in and around Dahej location. Also, contributed Rs. 10.00 Lakhs in Gujarat Lion Conservation Society towards procurement of Vehicle.

Primary health services to Luvara village, Gynec health and Pulse Polio campaign (Pakhajan PHC). PLL supported noble cause of Construction of Storm water drainage at Shraavan Chokdi to Jambusar by pass (over bridge) in Bharuch. This project is executed under District Collector office.

Request from CDHO (Chief District Health Officer) was received to participate in various health initiatives. PLL agreed during meeting with DM to provide the ambulance for PHC, Pakhajan Village of Vagra Taluka. PLL is supporting Luvara School for reference books, uniform, school picnic and creating awareness on environment, health, safety and security aspects through various programs regularly, rewarding bright students etc. PLL celebrated Shala Pravesh Utsav at Luvara School and distributed tool box to children.

Bharuch has problem of solid waste management and garbage disposal. To improve on cleanliness of the town, PLL is supporting initiative of GREEN BHARUCH CLEAN BHARUCH by donating two dumper placer worth Rs. 23.94 Lakh.

Due to delay in recruitment of teachers, primary schools in and around Dahej has 40% teaching staff. To support education by deploying young educated teachers, PLL sponsored 14 teachers in 4 schools of villages of Dahej, Lakhigam and Luvara.

PLL constructed 11hosues of homeless tribes in Luvara village at a cost of 25 Lakh. PLL initiated drive to make Luvara open defecation free by sponsoring toilets for 172 houses at a cost of Rs. 17.2 Lakh.

As a part of initiate for Swachh Bharat Abhiyan, PLL constructed five toilet blocks for school at Lakhigam, Luvara, Ambetha, Jageshwar & Dahej. Also, PLL has constructed 91 Toilet blocks at an estimated expenditure of Rs. 172 Lakhs for various schools in fifteen district of Assam in co-ordination with Rashtriya Madhiyamik Siksha Abhiyan (RMSA).

Cancer screening done (Pep and Breast) for female above 18 years at Luvara village. Establishment of equipment for Ultra Sonography Ward done at General/Civil Hospital, Bharuch. Motivational Awards (Academics and punctuality), School kit and reference books given for Luvara School students. Nutrition and clothing kit (105 nos.) was given to under nourished baby and mother.

PLL has sponsored Drawing competition, Educational tour and uniform distribution at Primary School Luvara. PLL sponsored Medical Equipment such as Eye sight testing, ECG Machine, Spirometer, Pulse Oxymeter etc. to Luvara Primary Health Centre. PLL also celebrated Swatch Bharat Pakhwada during 16th June, 2016 to 30th June, 2016 in co-ordination and consultation with neighboring villages, communities, schools etc.

Bharuch

The launch of Project Vidhyagam was organized in Luwara Primary School wherein a classroom library for std. 7 & 8 students is setup. About 130 books (syllabus and general reading including comics, biographies, story books, general knowledge, science fiction in Gujarati, Hindi and English language) has been kept in the library. The idea behind this project is that students develop interest in reading and thus studying. The PLL Disha Ladies Club organized for food and distribution of educational kits for 65 girls in the Orphanage in Bharuch on 11th Sept 2016. A focused group discussion on importance of hygiene and cleanliness was organized by Ladies club members as well.

Roofing item worth Rs. 2 Lacs was provided to the Gram Panchayat Office of Luwara Village for construction of house for 10 tribal families living below the poverty line. This material consisted of cement roof, channel, and hooks. It is expected that the construction of houses will be done by mid-January 2017.

Petronet LNG Limited celebrated the World Sight Day on 13th October 2016 by organizing the Eye Screening Camp for contractual labor at the company premises. The camp was organized in association with Wockhardt Foundation and about 200 labor and 60 employees participated in the same. During the camp; 125 specs and 60 unit of drops were distributed to beneficiaries based on assessment by Doctors.

On the occasion of 147th birth anniversary of Father of Nation Shri Mahatma Gandhi Health and Hygiene talk, Swachhta Selfie Campaign, Drawing Competition at Govt. High School, Lakhigam and other activities were organized as part of Swachh Bharat Abhiyaan.

It is observed that there is a shortage of regular teachers in local schools and severely hampering the quality of education of poor children in schools. To mitigate this problem, PLL has started supporting para teachers in local school and ensuring improvement in quality of education in local schools.

PLL CSR team participated in world school day celebration on 23 March, 2017. As a part of celebration PLL has distributed Uniforms to Std. 8th Students. It was decided to provide two pair of uniforms to all students in school. The uniforms were prepared by Sardar Mahila Vikas Mandal a group of tribal women for employment generation and livelihood opportunity. PLL provided work order worth of Rs. 2,23,980/-

As the students studying in primary schools are coming from BPL and poor families, most of the families are not able to afford educational tours for their children. Every year school is organizing such tour sponsored by PLL. Students will get exposures to various places and gain experience. About 150 students get benefit of this tour and

Amal

places covered like Dwarka, Somnath, Porbandar, Smruti Mandir, Naheru Planetorium, Sasan Gir etc.

PLL had sponsored community mass marriage of weaker community, participated in Shala Pravesh Utsav 2017, planted 150 of trees in nearby villages, distributed food packages during water logging observed at nearby villages, supported empowerment of Special children, engaged contractor for repair and maintenance of Toilets in nearby School, arranged sessions for awareness on solid waste management at school.

PLL supported 10th Special Olympics, Bharuch in January, 2018, sponsored project “Kaushal Setu” Skill Development Program with CIPET, Ahmedabad and trained 100 underprivileged youth, supported educational tour for Primary School of Luvara Village, provided para-teachers at school of nearby villages, sponsored community mass marriage of weaker community, supported “Startup Village” project towards Rural Youth Entrepreneurship Development Program, Supporting Swachh Bharat Abhiyan by District Administration Bharuch (Heritage Walk).

PLL signed MoA with Samagra Shiksha Abhiyan, Department of Education, Govt. of Gujarat on 23rd Jan. 2019 at Govt. Primary School, Luvara village for the Development of Primary School at Luvara Village. PLL supported District Level Special Olympics Games which was organized on 23rd February 2019. Around 250 special children, 150 volunteers including PLL volunteers and coaches participated during the event.

(July, 2019 to Dec. 2019)

PLL has signed MoU with ALIMCO to provide Aids and Equipment to disables of Bharuch District. PLL has signed MoU with Wockhardt Foundation to run Mobile Medical Unit (MMU) in nearby villages of PLL plant area. PLL has signed MoU with NHFDC to provide skill training to disable youth of Bharuch District. PLL has supported relief camp for affected community near Lakhigam during monsoon season.

(Jan.2020 to June 2020)

PLL has conducted assessment camps at Jambusar and Vagra Taluka of Bharuch Distrcit to Aids and Equipment to disables. Kaushal Setu Skill Training with CIPET Ahmedabad 78 candidates have complated the training and 90% of them got job with the salary range of Rs. 9000 to Rs. 12000. PLL has conducted District Level Special Olympics in parnership with Kalrav Trusy Bharuch and Special Olympics, Gujarat. As a part of COVID-19 pendemic response, PLL has contributed Rs. 34.00 lakhs to

Distrcit Health Office, Bharuch to proquire PPE Kits, Masks and Senitise materils for COVID-19 worriers. PLL has provides 4300 nos. of Ration kits worth of Rs. 25.00 lakhs to Migrant Labours, and Poor Families of nearby villages. Petronet LNG Limited (PLL) under its CSR initiatives aims at distributing 1,00,000 face masks to the migrant labor communities, slum dwellers, nearby hospitals, local police authorities & Government Offices to combat COVID-19 in the Bhaurch District of Gujarat.

(July 2020 to December 2020)

PLL has supported Construction of Priamry School, at Luvara village worth of Rs. 1,71 Crore. Construction is about to complete by March, 2021. PLL has distributed aids and equipment to about 250 disable beneficiaries at Jambusar and Vagra Taluka of Bharuch District. As a part of COVID-19 pandemic response, in addition to supporting District Health Office (CDHO) and Distributing Rations Kits to to Migrant Labours, and Poor Families of nearby villages, PLL has prepared 1,00,000 cotton masks through Women SHGs of Bharuch Distrcit. About 80 women got indirect employment during pandemic through this initiative. These masks were distributed among local communities of nearby villages, health workers, labour community, Nagarpalika Sawachhta Karmchari, Special Children and their families, Vegetable vendors, Local Police authorities, Government Offices, Security Guards, PLL employees also participated in mask distribution initiative. These masks were made of Cotton considering it environment aspect for reusable and bio-degradable properties.

(January, 2021 to June, 2021)

PLL/PLF has signed agreement with Wockhardt Foundation to run Mobile Medical Unit (MMU) in nearby villages of PLL plant area. This MMU is providing its services to nearby villages like Lakhigam, Navi Nagari, Luvara, Jageshwar, Ambetha. More than 5500 patients have been benefited during last six months. PLL/PLF has signed agreement with NHFDC to provide skill training to disable youth of Bharuch District. First batch of 30 candidate started from April, 2021. . PLL/PLF has signed agreement with MOKSHDA to install environment friendly green crematorium system to reduce excessive use of wood. The works are under progress, Construction of Govt. Primary School at Luvara village with 12 classrooms and modern amenities worth of Rs .1.71 Crs. and Construction of 24 Nos. of widow quarters for BSF worth of Rs. 5.87 Crs. are going to completed by end of July, 2021. PLL/PLF skill training partner CIPET, Ahmedabad has completed skill training of 75 candidates and remaining 25 candidates are under progress. Candidate have secured job of Rs. 10,000 per month to Rs. 15,000 per month post completion of training programme. Most of the CSR projects got delayed due COVID-19 restrictions.



(July, 2021 to December, 2021)

PLL/PLF has signed agreement with Wockhardt Foundation to run Mobile Medical Unit (MMU) in nearby villages of PLL plant area. This MMU is providing its services to nearby villages like Lakhigam, Navi Nagari, Luvara, Jageshwar, Ambetha. More than 8500 patients have been benefited during last six months. PLL/PLF has signed agreement with NHFDC to provide skill training to disable youth of Bharuch District. First batch of 30 candidate started from April, 2021 and second batch of 20 candidates started in August, 2021 and both batches have been completed during December, 2021. PLL/PLF has signed agreement with MOKSHDA to install environment friendly green crematorium system to reduce excessive use of wood. The works are under progress, Construction of Govt. Primary School at Luvara village with 12 classrooms and modern amenities worth of Rs .1.71 Crs. and Construction of 24 Nos. of widow quarters for BSF widow's worth of Rs. 5.87 Crs. are completed. PLL/PLF skill training partner CIPET, Ahmedabad has completed skill training of 93/100 candidates. Candidate have secured job of Rs. 10,000 per month to Rs. 15,000 per month post completion of training programme. PLL has signed agreement with Bharuch Nagarpalika to provide support for Disaster Management and Swachh Bharat Abhiyan, Bharuch Nagarpalika would procure one fire tender and Road sweeping machine with the financial support of Rs. 1.93 Cr. under PLL CSR Initiatives. PLL has signed an agreement with Gujarat CSR Authority (GCSRA) for construction of Panchayat Bhavan at Lakhigam village. PLL has supported Development of Green Zone beneath newly constructed flyover bridge at Bharuch City.

Bharuch



DISASTER MANAGEMENT INSTITUTE (DMI), BHOPAL

(An ISO 17020:2012 Accredited Institute)

ERDMP CERTIFICATE

This certificate has been awarded to

M/s Petronet LNG Limited

GIDC Industrial Estate, Plot No. 7/A,
Dahej Dist. Bharuch (Gujrat) 392130 (India)

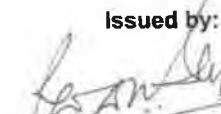
In recognition of the entity's "*Emergency Response & Disaster Management Plan*" which complies with the requirements of

PNGRB Notification G.S.R. 39(E) PNGRB "Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP) Regulations, 2010"

Certificate Number:
1615/ERDMP-126/Petronet LNG Limited/
Gujrat/2018-19

Date of Issue
30.12.2019

Expiry Date:
29.12.2022

Issued by:

Dr. Rakesh Dubey
Director



ANNEXURE IV

Small

ANNEXURE V

Mangroves planted in 50 ha. area at NADA Coast during 2009-10



Small

Mangroves planted in 100 ha. area at Ankalva Coast during 2010-11



Amal

Mangroves planted in 200 ha. area at Ankalva Coast during 2011-12



Parthiv

Mangroves planted in 200 ha. area at Ankalva Coast during 2012-13



Ankalva

Mangroves planted in 100 ha. area at Bhavnagar Coast during 2012-13



Somesh

Mangroves planted in 200 ha. area at Bhavnagar Coast during 2013-14



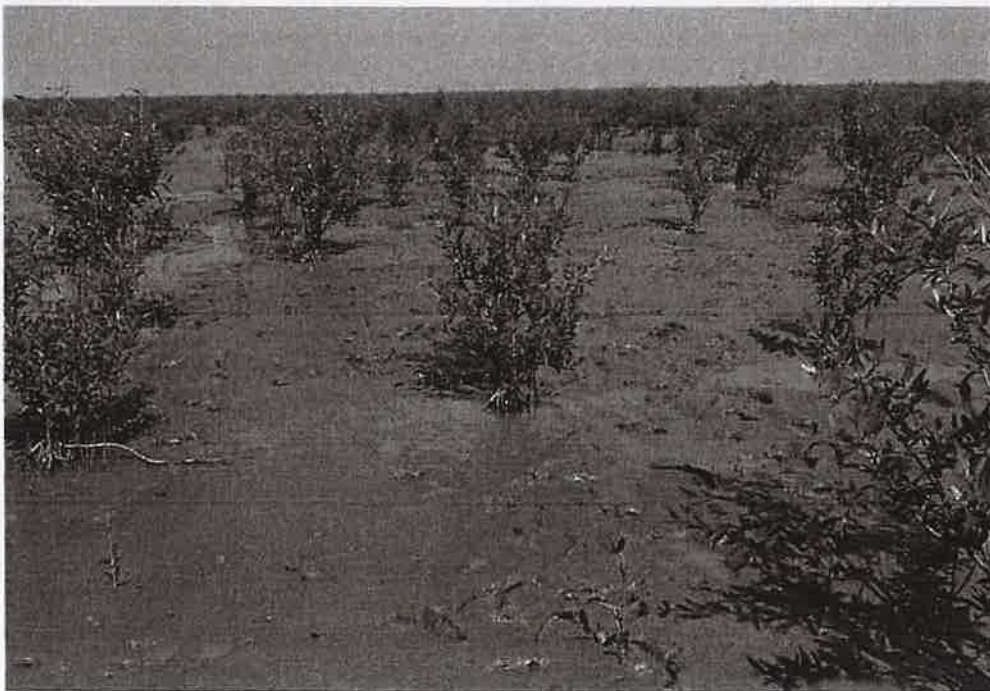
Amal

Mangroves planted in 200 ha. area at Bhavnagar Coast during 2014-15



Amal

Mangroves planted in 50 ha. area at at Kentiyajal Coast during 2014-15



Sanchez

Mangroves planted in 50 ha. area at Gadhula, Talaja Coast during 2016-17



Fomali