



Petronet LNG Limited

Survey No. 347, Puthuvypu P.O.
Kochi - 682 508, India.

Tel: +91-484-2502259 Fax: +91-484-2502264

www.petronetltd.com

CIN L74899DL1998PLC093073

PAN: AAACP8148D. GST: 32AAACP8148D1ZP

PLL/KOCHI/MOEF&CC/2021-22/08

30th November 2021

Additional Principal Chief Conservator of Forests (C)

Ministry of Environment, Forest and Climate Change,

Regional Office (SZ),

Kendriya Sadan, 4th Floor, E&F Wings, 17th Main Road,

Koramangala II Block,

Bangalore – 560034.

Sub: Compliance report to Environment Clearance accorded to the LNG Terminal at Puthuvypu, Kochi.

Ref: Environment Clearance No. J-16011/26/2001-IA-III vide your letters dated 31st January 2013.

Sir,

The Six-monthly compliance report for the period ending 30th September 2021 for the above clearance is attached.

Thanking You,



With Regards

Yogendra Reddy
30.11.21

Yogananda Reddy

Chief General Manager & Vice President (Plant Head)

CC:

- 1) The Chief Environmental Engineer,
Kerala State Pollution Control Board,
Gandhinagar, Kochi – 682 020.



Registered & Corporate Office:

World Trade Centre, First Floor, Babar Road, Barakhamba Lane, New Delhi - 110 001 (INDIA)
Tel: +91-11-23411411 / 23472525 Fax: +91-11-23472550

Dahej LNG Terminal:

GIDC Industrial Estate, Plot No. 7/A, Dahej Taluka: Vagra, Dist. Bharuch - 392130 (Gujarat)
Tel: +91-2641-257249 Fax: +91-2641-257252

Compliance report of EC&CRZ Clearance vide No. J-16011/26/2001-IA-III dated 31.01.2013 for enhancing the re-gasification capacity from 2.5 to 5 MMTPA at Puthuvypeen Island, Kochi, Kerala by M/s Petronet LNG Ltd.

Period: April to September 2021

SI_No	Condition Type	Condition Description	Compliance Status
1	Specific	"Consent for Establishment" shall be obtained from State Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.	"Consent to Establish" vide Consent No. PCB/HO/EKM/ICE-R/03/2013 obtained from KSPCB and a copy of the same has already submitted to MoEF&CC along with the six-monthly compliance report dated 30 th September-2013.
2	Specific	NOC/Clearance shall be obtained confirming that all the firefighting provisions are as per standards specified by the Chief Controller of Explosives/Petroleum & Explosives Safety Organization (PESO) for the additional storage tanks.	No additional LNG storage tank is envisaged for this enhancement. We have got Approval from PESO for the existing LNG Storage Tanks and a copy of the same has already been submitted to MoEF&CC along with the six-monthly compliance reports dated 05 th April-2013.
3	Specific	Leak detection/warning system shall be provided at strategic locations. Necessary control measures capable of remote operation to shut down the leakage, if any, should be provided.	Complied. State of the art automated FGS & shutdown system is installed to mitigate any such incidents.
4	Specific	Appropriate safety devices such as masks should be provided for use by the workers handling the products at the site and their usage by them should be ensured.	Complied. Safety Helmets, Safety Shoes, Safety Goggles, SCBAs, Cryogenic suits, Cryo-hand gloves are provided to employees & workers and Dust mask are provided to the workers involved in activities which has potential to generate dust.
5	Specific	Project proponent should implement all the recommendations stipulated in the EIA, EMP and Risk Assessment reports pertaining to the project.	PLL is complying with all the recommendation stipulated in the EIA, EMP and Risk Assessment reports pertaining to our project.
6	Specific	The commitments made during the Public Hearing and as recorded in the Minutes shall be complied with letter and spirit.	Noted. Public Hearing commitments are incorporated in the final EIA Report for further necessary implementation. Public hearing commitments are fulfilled, and the details has already been submitted along

			with the six-monthly compliance report dated 02 nd June-2016.
7	Specific	All the conditions stipulated in the earlier Clearance including the recommendations of Environment Management Plan, Disaster Management Plan shall be strictly complied with.	All the conditions stipulated in the earlier clearances including the recommendations of EMP and DMP are strictly complied with.
8	Specific	The Committee noted the proponent's statement that augmentation of the capacity from 2.5 MMTPA to 5.0 MMTPA will not induct additional environmental issues and that the planned system will take care of the overall requirements of the facility. However, impacts if any arising out of increased activities to meet the additional capacity shall be brought to the notice of the Ministry with appropriate mitigation measures that will be put in place, to ensure that the given commitment of 'no additional impact' is maintained in letter and spirit.	Noted. However, Augmentation of the capacity from 2.5 MMPTA to 5.0 MMTPA will not induct additional environmental issues.
9	Specific	At least 5% of the total cost of the project shall be earmarked towards the Corporate Social Responsibility (CSR) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry prior to the commencement of the project. Implementation of such program shall be ensured accordingly in a time bound manner.	5% of the total cost of augmentation of the capacity from 2.5 MMTPA to 5.0 MMTPA project, i.e., Rs. 16,83,45000/- (Rupees Sixteen Crore Eighty Three lakh forty five thousand only) is earmarked towards community development and other infrastructure related as well as CSR projects. PII had submitted a letter vide No: PLL/KOCHI/MOEF/2012-13/C-06 dated 22.03.2013 containing CSR Expenditure plan. CSR projects are being undertaken by PLL for community development and welfare. A brief description about the CSR activities carried out by PLL for the period, April - September 2021 is enclosed here with the photographs as Annexure #7 . Petronet had spent a total amount of Rs. 159918599/- (Rupees Fifteen Crore Ninety Nine Lakhs Eighteen Thousand Five

			Hundred & Ninety-Nine only) for CSR projects till date, out of which Rs. 15540464/- (Rupees One Crore Fifty-Five lakh Forty thousand Four hundred & sixty four only) had spent in the FY 2021-22. Detailed expense report is attached here as Annexure #8.
10	Specific	It shall be ensured that the proposed activity shall not cause any disturbance to the Fishing activity.	The proposed augmentation/enhancement of plant capacity do not involve any modification in current marine facilities. Hence will not cause disturbance to fishing activity.
11	Specific	The smooth and safe operation of the system will be ensured by incorporating a computerized SCADA (Supervisor Control and Data Acquisition) system. Any leakage in the pipeline shall be immediately detected by the computer system and product pumping shall be immediately cut off.	Complied. Computerized SCADA (Supervisor Control and Data Acquisition) system, FGS (Flame, Gas and Spill) detection system and ESD (Emergency Shutdown system) system has already been installed to ensure smooth and safe operation, for early detection of any leak and for safe shutdown in case of any emergency respectively. Regasified LNG pipeline is belongs to GAIL and cut off the gas supply is ensured by them and on intimation to PLL, we may stop the gas supply.
12	Specific	Regular patrolling of the pipelines needs to be done. This will help in identifying any activity that have the potential to cause pipeline damage or to identify small leaks whose effects are too small to be detected by instrument.	Complied. Regasified NG pipeline belong to GAIL and PLL has no role related to these pipelines. However, the pipelines within the terminals are equipped with temperature and pressure sensors designed to raise alarm in case of abnormalities, in additions to this all pipelines are provided with detectors capable of activating ESD if situation demands.
13	Specific	The project shall be carried out as per international standards in vogue and duly certified by competent authorities before commissioning.	Complied. The project was carried out in accordance with relevant international and national standards. All equipment's have been inspected and certified by competent third party or by competent authorities as per requirements.

14	Specific	<p>Oil Spill Contingency Management Plan shall be put in place along with the dedicated staff to deal with Oil spill in and around the port area shall be provided in the port. No oily wastes shall be discharged into the water bodies/mangrove areas.</p>	<p>Oil spill contingency plan is formulated to take care of the eventualities; a copy of the same has already been submitted with six monthly compliance reports dated 05th April-2013.</p> <p>PLL jetty falls under the Cochin Port Trust (CPT), and the Oil Spill Contingency Management Plan is prepared by CPT. PLL has provided the information required from the terminal to be incorporated in the Oil Spill Contingency Management Plan. Coast guard is also part of the Oil spill contingency plan.</p> <p>We have entered in an agreement with KEIL (Kerala Enviro Infrastructure Ltd) & APJ Refineries for disposing hazardous wastes generated in our terminal and the latest agreement copy has already been submitted along with six monthly compliance report for the period ending March -2018.</p>
15	Specific	<p>Regular mock drills shall 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 Environment Impact Assessment and Risk Analysis reports of the project, should be effectively implemented.</p>	<p>Mock drills are conducted in every quarter for different emergency scenarios listed out in the risk assessment report. Mock drills are being conducted as per PLL ERDMP plan. An effective Mutual aid arrangement is in place with neighbouring industries, which will ensure active participation of mutual aid organizations in Mock drills. PLL has a Mutual Aid agreement with FACT-UD, ICT Terminal & BPCL-STF to support & provide resources during an emergency. All recommendations made in the Environmental Management Plan and Disaster Management Plan, as contained in the Environment Impact Assessment and Risk Analysis reports of the project were covered during the preparation of ERDMP (Emergency Response and Disaster Management Plan) and which is effectively implemented.</p>
16	Specific	<p>No construction works other than those permitted in Coastal Regulation Zone Notification shall</p>	<p>Noted. No other construction work will be done in CRZ area.</p>

		be carried out in Coastal Regulation Zone area.	
17	Specific	The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.	PLL has set up an Environment Management Cell (EMC) under Chief General Manager & Vice President (Plant Head). Other members of the team include Head of; Operations department, C&P (Contracts & Procurement) department, Technical department, HSE department, Civil Department, Lab operation & a representative from HR department for effectively implementing the stipulated environment safeguards.
18	Specific	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.	The funds earmarked for environment management plan is included in the budget and will not be diverted for other purposes. Environment budget for FY 2020-21 was submitted along with half yearly compliance report for the period October 2020- March 2021.
19	General	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.	Noted. PLL have taken appropriate measure while undertaking digging activities. We conduct ground water analysis periodically on half yearly basis and latest report is enclosed as Annexure#4.
20	General	Full support shall be extended to the officers of this Ministry/Regional Office at Bengaluru 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.	PLL will extend full support to the officers of this ministry's Regional Office, Bangalore and the officers of the Central and State Pollution Control Board during the inspection for monitoring purpose by furnishing full details of analysis reports and action plans for environmental protection.
21	General	A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bengaluru regarding the implementation of the stipulated conditions.	Noted. Six monthly reports regarding the implementation of the stipulated conditions have regularly been submitted to regional MoEF&CC office for all EC & CRZ Clearance obtained for the Kochi LNG Terminal project

22	General	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.	PLL will comply with additional conditions, if any suggested by the ministry or any other competent authority in writing.
23	General	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. PLL will abide by all Environment clearance conditions.
24	General	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.
25	General	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.	Site appraisal clearance obtained on 28 th Feb 2011. No separate land developmental work was required, as this involved only augmentation of equipment in the same land.
26	General	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.	PLL has written letter to concerned Gram Panchayat vide letter no. PLL/Kochi/MoEF/GP/2013/001 dated 07 th March-2013; A copy of the letter has already been submitted with six monthly compliance reports dated 05 th April-2013.
27	General	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's Office/Tahsildar's office for 30 days.	Action to be taken by State Pollution control board.
28	General	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	Noted.

		Notification 1994, including the amendments and rules made thereafter.	
29	General	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. Copies of all relevant approvals/NOCs have already been submitted along with the six-monthly compliance reports dated 05 th April-2013.
30	General	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 Kerala Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in . 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 Bengaluru.	PLL had advertised regarding environmental clearance accorded by the Ministry of Environment & Forest in two local newspapers widely circulated in the region around the project. Copy of the advertisement given in the two local newspapers has already been submitted along with the six-monthly compliance report dated 30 th September-2013.
31	General	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.
32	General	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.	Status of the compliance, of various stipulated environmental conditions and environmental safeguards are uploaded in PLL's website.

33	General	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.
34	General	A copy of the clearance letter shall be sent by the proponent to concern Panchayat, Zilla Parisad/ 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.	PLL has written letter to concerned Gram Panchayat vide letter no. PLL/Kochi/MoEF/GP/2013/001 dated 7th March-2013, we have already submitted a copy of the letter with six monthly compliance report dated 5th April 2013. Clearance letters are uploaded on to petronet website.
35	General	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.	Status of compliance reports are being regularly updated by Petronet on its website, www.petronetlng.in
36	General	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	Noted.

37	General	<p>The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of Clearance conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.</p>	<p>We have uploaded Form-V (Environment Statement) along with the status of compliance of clearance conditions in our company's website. Compliance of the clearance conditions is regularly sent to MoEF&CC's regional office by e-mail. The latest Form-V (Environment Statement) for the period of FY 2020-21 is enclosed here as Annexure#09</p>
----	---------	---	---

Thanking You,

With Regards



Reddy
30-11-21

Yogananda Reddy

Chief General Manager & Vice President (Plant Head)

TEST REPORT

ULR No: TC540221000003483F	Date: 15-06-2021	Page 1 of 2
----------------------------	------------------	-------------

CUSTOMER DETAILS	
Customer Name & Address	M/s Petronet LNG Limited Survey No.347, Puthuvypu P.O Kochi , Ernakulam District
Customer Reference	Test Request dt 08-06-2021


SAMPLE DETAILS			
Product Category	Water	Sample Code	WT21060010
Sample Name	Ground Water	Sample Received on	09-06-2021
Sample Conditions at Receipt	Fit for Analysis	Temperature @ Receipt	4 °C
Sample Quantity & Packing	2 litre & 100ml Plastic Bottle	Test Commenced on	09-06-2021
Sampled by	Lab Authorized Sampler	Test Completed on	15-06-2021
Information Provided by Customer	---		

DETAILS OF SAMPLING			
Sample Source	Piezometer Pump	Date of Sampling	07-06-2021
Sampling Procedure	SEAAL/ENL/GEN/SOP/01& SEAAL/MBL/SOP/06	Sample Temperature	32 °C

TEST RESULTS - CHEMICAL PARAMETERS				
Sl.No.	PARAMETERS	TEST METHOD	UNIT	RESULT
1	pH	IS 3025 Part 11:1983 RA 2017	---	72.6
2	Total Dissolved Solids	IS 3025 Part 16:1984 RA 2017	mg/L	510
3	Turbidity	IS 3025 Part 10: 1984 RA 2017	NTU	146
4	Chloride (as Cl)	IS 3025 Part 32:1988 RA 2014	mg/L	29.9
5	Iron (as Fe)	IS 3025 Part 53:2003 RA 2014	mg/L	8.20
6	Fluoride(as F)	APHA 23 rd Edition 4500-F- B D: 2017	mg/L	0.12
7	Sulphate (as SO ₄)	IS 3025 Part 24:1986 RA 2014	mg/L	34.0
8	Electrical Conductivity	IS 3025 Part 14:1984 RA 2013	µS/cm	786
9	Mercury (as Hg)	APHA (23 rd Edition)3112-B: 2017	mg/L	< 0.002


Rija Joseph
Technical Manager




Laiju P. N.
Laboratory Head
Authorized Signatory

The results are related only to the samples submitted for analysis and this test report shall not be reproduced except in full, without the written approval of the laboratory.

Standard^S Environmental & Analytical Laboratories

Accreditation & Approval: NABL accredited Testing Laboratory as per ISO/IEC 17025:2017
vide Certificate No. TC - 5402 & "A" Grade Laboratory approved by KSPCB.

K.J. Tower, Pathalam, Udyogamandal P.O., Ernakulam-683 501, Tel. 0484-2546660, 93 87 27 24 02, 90 74 34 14 43
Web: www.sealabs.in, E-mail: seaalab@gmail.com

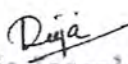
TEST REPORT


ULR No: TC540221000003483F	Date: 15-06-2021	Page 2 of 2
----------------------------	------------------	-------------

TEST RESULTS - CHEMICAL PARAMETERS				
Sl.No.	PARAMETERS	TEST METHOD	UNIT	RESULT
10	Lead (as Pb)	APHA (23rd Edition)3111-B: 2017	mg/L	0.30
11	Copper (as Cu)	IS 3025 Part 42:1992 RA 2014	mg/L	0.30
12	Total Chromium (as Cr)	IS 3025(Part 52):2003	mg/L	<0.40
13	Zinc (as Zn)	APHA 3111B 23rd Edn, 2017	mg/L	1.20
14	Temperature	IS 3025 Part 9:1984 RA 2006	°C	30.0
15	Salinity	SEAAL/SOP/06	---	0.04
16	Oil & Grease	IS 3025 Part 39:1991 RA 2014	mg/L	48.0
17	Dissolved Oxygen	IS 3025 Part 38:1989 RA 2014	mg/L	4.10
18	Biochemical Oxygen Demand (3 days at 27 °C)	IS 3025 Part 44:1993 RA 2014	mg/L	62.5
19	Chemical Oxygen Demand	IS 3025 Part 58:2006 RA 2012	mg/L	2625
20	Cyanide (as CN)	IS 3025 (Part-27):1986 (Reaff.2003)	mg/L	< 0.01
21	Cadmium (as Cd)	APHA (23rd Edition) 3111-B: 2017	mg/L	< 0.03
22	Pesticide	SEAAL/INS/RWM/SOP/01	---	Absent

Note: Values given for test parameters Mercury, Lead, Copper, Chromium, Zinc, Cyanide and Cadmium are our MDL values (Minimum Detectable Values) as per NABL scope..

End of Report


Rija Joseph
Technical Manager


Laiju P. N.
Laboratory Head

The results are related only to the samples submitted for analysis and this test report shall not be reproduced except in full, without the written approval of the laboratory.

Standard^S Environmental & Analytical Laboratories

Accreditation & Approval: NABL accredited Testing Laboratory as per ISO/IEC 17025:2017
vide Certificate No. TC - 5402 & "A" Grade Laboratory approved by KSPCB.

K I. Tower, Pathalam, Udyogamandal P.O., Ernakulam-683 501, Tel. 0484-2546660, 93 87 27 24 02, 90 74 34 14 43
Web: www.sealabs.in, E-mail: seaalab@gmail.com

TEST REPORT

Test Report No: WT21060010	Date: 15-06-2021	Page 1 of 2
----------------------------	------------------	-------------

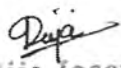
CUSTOMER DETAILS	
Customer Name & Address	M/s Petronet LNG Limited Survey No.347, Puthuvypu P.O Kochi , Ernakulam District
Customer Reference	Test Request dt 07-06-2021

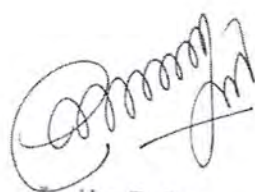
SAMPLE DETAILS			
Product Category	Water	Sample Code	WT21060010
Sample Name	Ground Water	Sample Received on	09-06-2021
Sample Conditions at Receipt	Fit for Analysis	Temperature @ Receipt	4 °C
Sample Quantity & Packing	2 litre & 100ml Plastic Bottle	Test Commenced on	09-06-2021
Sampled by	Lab Authorized Sampler	Test Completed on	15-06-2021
Information Provided by Customer	---		

DETAILS OF SAMPLING			
Sample Source	Piezometer Pump	Date of Sampling	07-06-2021
Sampling Procedure	SEAAL/ENL/GEN/SOP/01	Sample Temperature	32 °C

TEST RESULTS - CHEMICAL PARAMETERS				
Sl.No.	PARAMETERS	TEST METHOD	UNIT	RESULT
1	Insecticide	USEPA 508 : 1995	---	Absent

End of Report


Daji
Technical Manager
Checked by:


Laiju P. N.
Laboratory Head
Authorized Signatory

The results are related only to the samples submitted for analysis and this test report shall not be reproduced except in full, without the written approval of the laboratory.

Standard^S Environmental & Analytical Laboratories

Approval & Recognition: "A" Grade Laboratory approved by Kerala State Pollution Control Board.

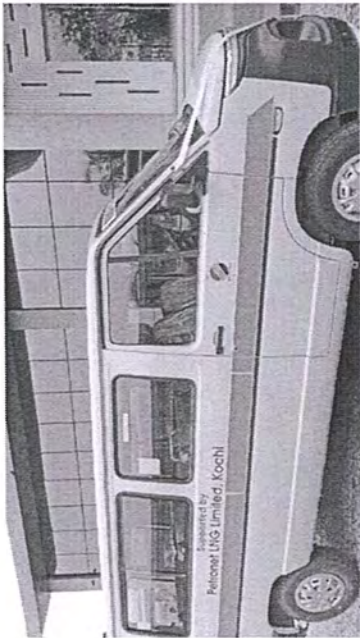
K.J. Tower, Pathalam, Udyogamandal P.O., Ernakulam-683 501, Tel. 0484-2546660, 93 87 27 24 02, 90 74 34 14 43.
Web: www.sealabs.in, E-mail: seaalab@gmail.com



CSR Updates

Major Highlights
Apr-Sept' 21
FY 2021-22

EDUCATION



Safe Transportation for PWDs of Mahatma BUDs School, Elankunnappuzha

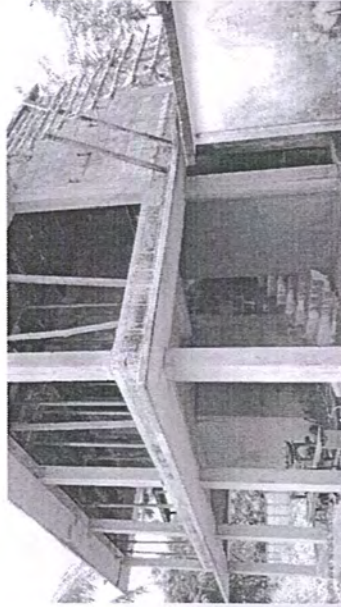


Naipunyam' skill development program in association with CIPET Kochi for 120 underprivileged students for 2019-20

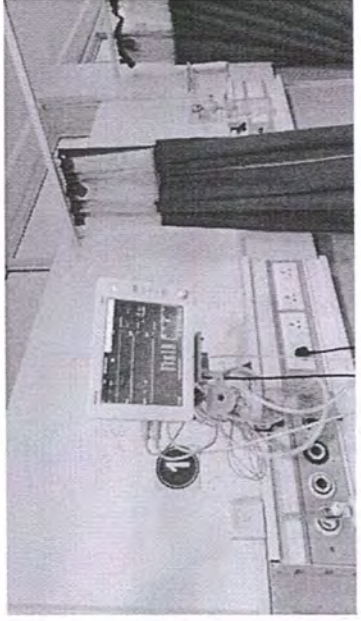
HEALTHCARE & SANITATION



COVID Vaccination drive in Puthuvype and Nearby Areas



Toilet complex for SDPY school Edavanakad, Vypin

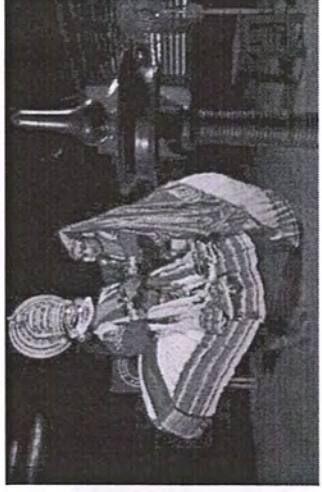


ICU facilities for 14 beds (Multipara Monitor, Bi Level ventilator, Humidifier) at General Hospital, Ernakulam in association with National Health Mission.



Free Mobile Medical Unit in panchayats in Vypin area in association with M/s Wockhardt foundation

PROMOTION OF ARTS AND SPORTS



Promotion of Kathakali through Thripunithura Kathakali Kendram



PUBLIC SAFETY



CCTV cameras at Goshree Junction & Vypin Jungar Jetty ensuring women safety & welfare of the people of Vypin area

ENVIRONMENT



Support towards the introduction of Beach Cleaning Surf Rake in Kerala Beaches

T H A N K S



PETRONET
LING
LIMITED

If you can't feed a hundred people, then feed just one – Mother Theresa

CSR Expenditure - Petronet LNG Limited, Kochi Terminal (FY 2021-22)

Sl.No	Project details	Category	Project Location	Approved / Committed (INR Lakh)	Payment done (INR lakh)	Project Status
1	Installation of centralized oxygen supply system in 7 GH Ernakulam District	Health care	Ernakulam	45,11,494.00		Project completed. Waiting bills for payment
2	Providing medical equipment for 14 ICU beds in Ernakulam General Hospital	Health care	General Hospital, Ernakulam	52,50,000.00		Project completed. Waiting bills for payment
3	Construction of New pay ward block for Govt. Ayur hospital, Nayarambalam	Health care	Nayarambalam	26,00,000.00		Project ongoing
3	Urgent Financial Support for Providing Free COVID Vaccine for BPL Card Holders in Puthuvype and Nearby Areas	Healthcare	Vypin , Ernakulam	5,24,790.00		Project completed. Waiting bills for payment
4	Elevator and Allied Works at 'Sukarma Vikas Kendra' - SEVABHARATHI a project of	Education	Angamaly, Ernakulam	22,68,180.00		Project ongoing
5	Support for NMMS Scholarship Guidance Program for Beneficiaries in Ernakulam District, with focus on SC/ST and PWDs	Special Education	Ernakulam District	3,86,000.00	1,54,400.00	Project ongoing
	Total			1,55,40,464.00		

CSR EXPENSES - Till Sep 2021		
Sl. No	FY	Total CSR Expenditure (Lakhs)
1	2013-14	25457793
2	2014-15	16008694
3	2015-16	22301262
4	2016-17	16826007
5	2017-18	7824860
6	2018-19	19145429
7	2019-20	15344487
8	2020-21	21469603
9	2021-22	15540464
	TOTAL	159918599

Annexure-9



**PETRONET
LIMITED**

Petronet LNG Limited

Survey No. 347, Puthuvypu P.O.
Kochi - 682 508, India.
Tel: +91-484-2502259 Fax: +91-484-2502264
www.petronetlng.com
CIN L74899DL1998PLC093073
PAN: AAACP8148D. GST: 32AAACP8148D1ZP

PLL/KOCHI/KSPCB/FORM-V/2020-21

24.09.2021

To,

The Chief Environmental Engineer,
Kerala State Pollution Control Board,
Gandhinagar, Kochi - 682020.

Dear Sir/Madam,

Subject: Submission of Environment Statement (Form-V) for FY 2020-21.

Kindly find Form-V (Environment Statement) of Petronet LNG Ltd, Kochi Terminal for the financial year 2020-21, as per Environment (Protection) Rules, 1986.

Thanking you,

For, Petronet LNG Ltd., Kochi Terminal

Reddy

Yogananda Reddy,
CGM & VP (Plant Head).



Enclose: Environment Statement (Form-V) for FY 2020-21.

CC:

1. The Environment Engineer, District Office, KSPCB, Ernakulam, 682020.
2. The Member Secretary, KSPCB, Pattom, Thiruvananthauram -695004.



Registered & Corporate Office:

World Trade Centre, First Floor, Babar Road, Barakhamba Lane, New Delhi - 110 001 (INDIA)
Tel: +91-11-23411411 / 23472525 Fax: +91-11-23472550

Dahej LNG Terminal:

GIDC Industrial Estate, Plot No. 7/A, Dahej Taluka: Vagra, Dist. Bharuch - 392130 (Gujarat)
Tel: +91-2641-257249 Fax: +91-2641-257252

ENVIRONMENTAL STATEMENT FORM-V
(See rule 14)

Environmental Statement for the financial year ending with 31st March 2021

PART-A

1	Name and address of the owner/ Occupier of the industry, operation or process.	:	Mr. Pramod Narang, Director (Technical) Kochi Address: Petronet LNG Limited, Puthuvypu P.O., Ernakulam - 682508 Corporate Office: Petronet LNG Limited, World Trade Center, First Floor, Babar Road, Barakamba Lane, New Delhi-110001
2	Industry category	:	Red
3	Production category. Units.	:	5 MMTPA (Million Metric Tonnes per Annum)
4	Year of establishment	:	20 th August 2013
5	Date of the last environmental statement submitted.	:	22-09-2020

PART -B

Water and Raw Material Consumption:

- I. Water Consumption (M³/Day)
- Process : 1.2 M³/day
- Cooling : Nil
- Domestic : 31.5 M³/day

Name of Products	Process water consumption per unit of products	
	During the previous financial year	During the current financial year
1. RLNG	0.0008 M ³ /MT	0.0005 M ³ /MT

- II. Raw material consumption

Name of raw materials	Name of Products	Consumption of raw material per unit of output	
		During the previous financial year	During the current financial year
LNG	RLNG	0.012*	0.012*

*Converted LNG consumed & RLNG produced in energy units (MMBTU).

PART-C

Pollution discharged to environment/unit of output
(Parameter as specified in the consent issued)

Pollutants		Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed standards with reasons.	
(a) Water		NIL	NIL	NIL	
(b) Air	Equipment	Parameters	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed standards with reasons.
	GTG-A	PM CO ₂ CO SO ₂ NO _x	--	--	GTG A was not in operational in the year 2020-21
	GTG-B	PM CO ₂ CO SO ₂ NO _x	1196.64 Kg/d 33.57 T/d 00.00 Kg/d 00.00 Kg/d 2545.64 Kg/d	40.3 mg/Nm ³ 0.06% 0.00 ppm 00.00 mg/Nm ³ 85.6 mg/Nm ³	No variation from prescribed standard
	GTG-C	PM CO ₂ CO SO ₂ NO _x	754.69 Kg/d 48.31 T/d 00.00 Kg/d 0.0 Kg/d 2488.56 Kg/d	27.6 mg/Nm ³ 0.09 % 0.00 ppm 0.0 mg/Nm ³ 91 mg/Nm ³	No variation from prescribed standard
	Emergency DG set (EDG)	PM CO ₂ CO SO ₂ NO _x	0.44 Kg/d 0.03 T/d 3.63 Kg/d 0.2 Kg/d 0.5 Kg/d	17.6 mg/Nm ³ 0.06 % 115.3 ppm 8.1 mg/Nm ³ 20 mg/Nm ³	No variation from prescribed standard

b) Air	Fire Pumps-C (Diesel Operated)	PM	0.06 Kg/d	18.9 mg/Nm ³	No variation from prescribed standard
		CO ₂	0.00 T/d	0.06 %	
		CO	0.52 Kg/d	122.5 ppm	
		SO ₂	0.04 Kg/d	11.2 mg/Nm ³	
		NO _x	0.07 Kg/d	20.2 mg/Nm ³	
	Fire Pumps-D (Diesel Operated)	PM	0.07Kg/d	20.1 mg/Nm ³	No variation from prescribed standard
		CO ₂	0.00 T/d	0.06 %	
		CO	0.49 Kg/d	112 ppm	
		SO ₂	0.03 Kg/d	8.8 mg/Nm ³	
		NO _x	0.07 Kg/d	19.5 mg/Nm ³	
	Fire Pumps-E (Diesel Operated)	PM	0.07 Kg/d	19.5 mg/Nm ³	No variation from prescribed standard
		CO ₂	0.00 T/d	0.06 %	
		CO	0.5 Kg/d	116.8 ppm	
		SO ₂	0.03 Kg/d	10.2 mg/Nm ³	
		NO _x	0.08 Kg/d	22.7 mg/Nm ³	
	Fire Pumps-F (Diesel Operated)	PM	0.06 Kg/d	18.3 mg/Nm ³	No variation from prescribed standard
		CO ₂	0.00 T/d	0.06 %	
		CO	0.51 Kg/d	120 ppm	
		SO ₂	0.03 Kg/d	8.4 mg/Nm ³	
		NO _x	0.07 Kg/d	19.4 mg/Nm ³	
Fire Pumps-G (Diesel Operated)	PM	0.27 Kg/d	23.5 mg/Nm ³	No variation from prescribed standard	
	CO ₂	0.00 T/d	0.01 %		
	CO	1.56 Kg/d	108 ppm		
	SO ₂	0.11 Kg/d	9.4 mg/Nm ³		
	NO _x	0.27 Kg/d	23.6 mg/Nm ³		

Note: Environmental monitoring in FY 2020-21 was carried out by M/s. Standard Environment & Analytical Laboratories, a KSPCB approved agency.

PART-D
HAZARDOUS WASTES
(As specified under Hazardous Wastes (Management & Handling Rules, 1989)

<i>Hazardous Wastes</i>	<i>Total Quantity (Kg / Nos.)</i>	
	<i>During the previous financial year</i>	<i>During the current financial year</i>
1. Used Oil (Schedule 1, Category: 5.1)	1636.3 Kg	1874.25 Kg
2. Waste residue containing oil (Schedule 1, Category: 5.2)	1165 Kg	263 Kg
3. Discarded containers or barrels used for handling of hazardous wastes or chemicals (Schedule 1, Category 33.3). (used for storing dosing chemicals and used oil)	212 Nos.	613 kg
4. Industrial use of paint, plastic and Ink wastes (Schedule 1, Category 21.1)	55 Kg	548 Kg
(b) From pollution control facilities	None	None

Note:

- (1) We have received approval from KSPCB for storage of Hazardous waste up to 1 year, vide consent No. PCB/HO/EKM/ICO-R/12/2016 dated 28.02.2016.
- (2) For converting used oil from KL to Kg, the density of used oil is taken as 850 Kg/m³

PART -E
SOLID WASTES:

<i>Solid Wastes</i>	<i>Total Quantity (Kg)</i>	
	<i>During the previous financial year</i>	<i>During the current financial year</i>
a. From process	NIL	NIL
b. From Pollution Control Facility	NIL	NIL
c. Quantity recycled or re-Utilised within the unit.	NIL	NIL

PART -F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

SL: No	Hazardous wastes	:	Composition
1	Used oil (Cat 5.1)	:	Organic Matter – 98 – 99 %, Inorganic Matter – 1 – 2 %.
2	Waste residue containing oil (Schedule 1, Category: 5.2)	:	Hydrocarbon
3	Discarded containers / barrels and Plastic/Ink/paint wastes (Cat 33.3)	:	Plastic or metallic barrels containing chemical / oil residue.
4	Industrial use of paint, plastic and Ink wastes (Schedule 1, Category 21.1)	:	Paint pigment, Solvents etc.

Storage and disposal practice:

Hazardous wastes generated inside the terminal are being disposed through the agencies authorized by Kerala state pollution control board (KSPCB). Petronet LNG Limited has an agreement with M/s. APJ Refineries Pvt. Ltd., Palakkad and KEIL (Kerala Enviro Infrastructure Limited, Kochi) for disposing hazardous wastes generated in the terminal. Hazardous wastes are stored in a dedicated hazardous wastes storage shed inside the terminal till its disposal. Hazardous waste storage was constructed and maintained as per the requirement of consent issued by KSPCB. Storage shed is provided with impervious flooring and proper roofing as specified in the consent.

Used oil is being disposed through M/s. APJ Refineries. Used oil generated is collected in MS barrels or other suitable containers at the generation point and then shifted to storage shed by concerned department.

Waste residues containing oil such as oil soaked cotton wastes generated at various locations are collected and stored in designated storage bin located inside hazardous waste storage shed. These wastes are disposed through KEIL.

Discarded containers / barrels and Plastic/Ink/paint wastes are collected & stored in hazardous waste storage area and is disposed through KEIL.

Signboards are installed at hazardous waste storage for displaying each category of wastes. Records of hazardous wastes generation are maintained in Form 3 as per Hazardous Wastes (Management & Transboundary movement) rules, 2016.

PART-G

Impact of the pollution control measures taken on conservation of natural Resources and consequently on the cost of production.

An environment management cell (EMC) has been constituted and maintained inside the terminal as required by the environment clearance issued by MoEF&CC to PLL, Kochi Terminal. EMC is headed by Chief General Manager & Vice President (Plant head) and other members are from the departments like Laboratory Operations, Civil, Materials, Technical and HSE. Sufficient man-hours are allocated for functioning of EMC. Environment management cell meets once in a month, take review of the situation and propose new environment initiatives.

A rain water harvesting system has installed inside the terminal. Rain water collected from LNG storage tanks are being collected and stored in raw water storage tanks. This water is being used for domestic purpose. Condensate water from air heater is directed to fire water storage reservoir. Treated water from Sewage Treatment Plant is being used for gardening purpose inside the terminal. STP water quality is being regularly monitored by plant laboratory and also with the help of an external KSPCB grade 'A' environment laboratory. The waste slurry generated from STP has been used as manure for plants inside the plant.

Green belt is developed across the terminal with different plant species appropriate to the environment. Green belt is being maintained by the plant horticulture department.

Gas Turbine Generator (GTG) installed at PLL terminal is fitted with the Dry low emission burner (DLEB). DLE burners are designed to meet stringent emission standards.

A Continuous Ambient Air Quality Monitoring Station (CAAQMS) is installed at our terminal. Ambient air quality data from CAAQMS has been linked to CPCB server. Ambient air quality data is being continuously monitored and updating to CPCB server.

Food waste converter placed in kitchen for converting all food wastes generated in canteen into manure and this manure has been used as fertilizer inside the plant.

PART -H

Additional measures/investment proposal for environmental protection including abatement of pollution.

PLL has been certified for Environment Management system, ISO 14001. All the aspects and impacts associated with the terminal operations are identified and control measures are implemented. Objectives are established and periodical monitoring done for the continual improvement of management system.

Ambient air quality data from CAAQMS, stack emission & hazardous waste generation details are being displayed at plant gate using a LED screen.

PART-I

MISCELLANEOUS:

Any other particulars in respect of environmental protection and abatement of pollution.

Nil

For and on behalf of Petronet LNG Limited

Sign : *Reddy*

Date : *24.9.21*



Approved By : Yogananda Reddy

Designation : Chief General Manager & Vice President (Plant Head)