



# 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/MOEF&CC/2021-22/07

30<sup>th</sup> November 2021

## Additional Principal Chief Conservator of Forests (C)

Ministry of Environment, Forest and Climate Change,  
Regional Office (SZ),  
Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wings, 17<sup>th</sup> Main Road,  
Koramangala II Block,  
Bangalore – 560034.

**Sub: Compliance report to Environment Clearance for dredging for the purpose of creating an approach channel for LNG Import Terminal at Puhuvypu, Kochi**

**Ref: Environment Clearance No: J-16011/26/2001-IA-III vide your letters dated 16<sup>th</sup> November 2010.**

Sir

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

Thanking You,

With Regards

*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 16.11.2010 for dredging for the purpose of creating an approach channel to LNG terminal at Puthuvyppeen Island, Kochi, Kerala.**

**Period: April to September 2021**

Sl_No	Condition Type	Condition Description	Compliance Status
1	Specific	The total quantity of the dredged material of 35,00,000 cu. m shall be dumped at the specified offshore dumping site of Cochin Port at outer sea, about 15.6 km from the shore.	The dredging work has been completed. Material was dumped as per above direction.
2	Specific	The approach channel shall be properly demarcated with lighted buoys for safe navigation and adequate traffic control guidelines shall be framed. The fishermen shall be suitably educated and informed about the traffic guidelines.	The approach channel has been clearly marked with lighted buoys in association with Cochin Port Trust. Cochin Port Trust provides Vessel Traffic Management Service (VTMS) to all vessels within port area.
3	Specific	The material dredged by cutter suction dredger will be used for land development work and for beach nourishment approved by Cochin Port Trust. Dredged material from Trailer Suction Dredger will be dumped at the specified offshore dumping site of Cochin Port at outer sea, about 15.6 km from the shore.	The materials dredged from Cutter suction Dredger were dumped on the western side of the terminal as per the instruction of Cochin Port Trust. This area has been allocated by Cochin Port Trust for dumping. The Dredged materials from Trailer Suction Dredger were dumped at the designated dumping site of Cochin Port Trust at outer sea, about 15.6 km from the shore.
4	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.



5	Specific	The project proponent shall take up mangrove plantation/green belt in the project area, wherever possible. Adequate budget shall be provided in the Environment Management Plan for such mangrove development.	Petronet LNG Limited had spent Rs.60.00 lakh for the Mangrove Afforestation Project which is entitled as "Project for Mangrove afforestation in Ernakulam district". All the details with regard to this project have already been submitted at MoEF&CC along with earlier six-monthly compliance reports. Latest progress report was submitted along with the compliance report dated March – 2020. PLL has also developed a green belt of 10.48% of total area along the terminal boundary wall.
6	Specific	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purpose.	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.
7	General	Adequate provision for infrastructure facilities including water supply, fuel and sanitation must be ensured for construction workers during the construction phase of the project to avoid damage to the environment.	We have completed the construction and commissioning of our plant. During both the phases, adequate provisions were provided to the workers in order to avoid any damage to the environment.
8	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 extend its full support to the officers of this ministry's Regional Office, Bengaluru and the officers of the Central and State Pollution Control Board during the inspection for monitoring purpose by furnishing full details and action plans including the action taken reports in respect of mitigate measures and other environmental protection activities.
9	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.	PLL has been submitting required six-monthly monitoring reports to the Regional Office of MoEF&CC, Bengaluru

10	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.
11	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.
12	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.	PLL will comply with this requirement and will take approval from the Ministry prior to any deviation, alteration and modification in the project.
13	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.	PLL had already informed the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project vide letter dated 5th Sept-2008, from Director (Technical) addressed to Additional Director, MoEF & CC, Delhi and copy marked to MoEF & CC regional office.
14	General	A copy of the clearance letter shall be marked to concern 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 <sup>th</sup> March-2013; A copy of the letter has already been submitted with six monthly compliance reports dated 05 <sup>th</sup> April-2013.
15	General	Kerala 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 already taken by Kerala State Pollution control board (KSPCB).
16	General	These stipulations would be enforced among others under the provisions of Water Act, 1974, Air act, 1981, Environment protection act, 1986, Public Liability Insurance act, 1991 & EIA Notification, 1994 including the amendments and rules made thereafter.	Noted.



17	General	All other statutory clearances such as the approvals for storage of diesel from CCOE, Fire Dept., Civil Aviation dept, 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 05th April-2013.
18	General	The project proponent shall advertise in at least in 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 clearance and copies of clearance letters are available with the Kerala Pollution Control Board and may also be seen at Website of the Ministry of Environment & Forests at <a href="http://www.envfornc.in">http://www.envfornc.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 Bangalore.	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 30th September-2013.
19	General	Environmental clearance is subject to final order of the Hon'ble supreme court of India in the matter of Goa Foundation vs Unio of India in writ petition (Civil) No 460 of 2004 as may be applicable to this project.	Noted
20	General	An appeal against this clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under section 11 of the National Environment Appellate Act, 1997.	Noted.
21	General	A copy of the clearance letter shall be sent by the proponent to concern 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 of 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.

22	General	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective zonal office of CPCB and SPCB.	Status of compliance reports are being regularly updated by Petronet on its website, www.petronetlng.in
23	General	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC 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 & the SPCB.	Noted. It is being complied.
24	General	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 EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	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 <b>Annexure#09</b>

Thanking You,

With Regards

*Reddy*  
30.11.21



**Yogananda Reddy**

Chief General Manager & Vice President (Plant Head)



Annexure-9



## Petronet LNG Limited

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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

*Yoganda*

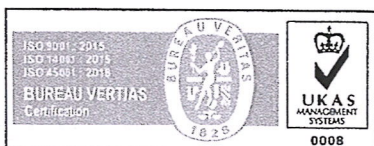
Yogananda Reddy,  
CGM & VP (Plant Head).



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.



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**ENVIRONMENTAL STATEMENT FORM-V**  
(See rule 14)

*Environmental Statement for the financial year ending with 31<sup>st</sup> March 2021*

**PART-A**

1	Name and address of the owner/ Occupier of the industry, operation or process.	:	Mr. Pramod Narang, Director (Technical) <b>Kochi Address:</b> Petronet LNG Limited, Puthuvypu P.O., Ernakulam - 682508  <b>Corporate Office:</b> 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 <sup>th</sup> August 2013
5	Date of the last environmental statement submitted.	:	22-09-2020

**PART -B**

Water and Raw Material Consumption:

- I. Water Consumption (M<sup>3</sup>/Day)
- Process : 1.2 M<sup>3</sup>/day  
Cooling : Nil  
Domestic : 31.5 M<sup>3</sup>/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 <sup>3</sup> /MT	0.0005 M <sup>3</sup> /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 <sub>2</sub> CO SO <sub>2</sub> NO <sub>x</sub>	--	--	GTG A was not in operational in the year 2020-21
	GTG-B	PM CO <sub>2</sub> CO SO <sub>2</sub> NO <sub>x</sub>	1196.64 Kg/d 33.57 T/d 00.00 Kg/d 00.00 Kg/d 2545.64 Kg/d	40.3 mg/Nm <sup>3</sup> 0.06% 0.00 ppm 00.00 mg/Nm <sup>3</sup> 85.6 mg/Nm <sup>3</sup>	No variation from prescribed standard
	GTG-C	PM CO <sub>2</sub> CO SO <sub>2</sub> NO <sub>x</sub>	754.69 Kg/d 48.31 T/d 00.00 Kg/d 0.0 Kg/d 2488.56 Kg/d	27.6 mg/Nm <sup>3</sup> 0.09 % 0.00 ppm 0.0 mg/Nm <sup>3</sup> 91 mg/Nm <sup>3</sup>	No variation from prescribed standard
	Emergency DG set (EDG)	PM CO <sub>2</sub> CO SO <sub>2</sub> NO <sub>x</sub>	0.44 Kg/d 0.03 T/d 3.63 Kg/d 0.2 Kg/d 0.5 Kg/d	17.6 mg/Nm <sup>3</sup> 0.06 % 115.3 ppm 8.1 mg/Nm <sup>3</sup> 20 mg/Nm <sup>3</sup>	No variation from prescribed standard

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

**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/m<sup>3</sup>

**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.

<i>SL: No</i>	<i>Hazardous wastes</i>	<i>:</i>	<i>Composition</i>
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 : *24.9.24*



**Approved By : Yogananda Reddy**

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