



Petronet LNG Limited

Survey No. 347, Puthuvypu P.O.

Kochi - 682 508, India.

Tel: +91- 484 - 2757302 Fax: +91- 484-2502264

www.petronetlmg.in

CIN L74899DL1998PLC093073

PAN: AAACP8148D. GST: 32AAACP8148D1ZP

PLL/KOCHI/KSPCB/FORM-V/2021-22

30.09.2022

To,

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

Dear Sir,

Subject: Submission of Environment Statement (Form-V) for FY 2021-22.

Kindly find Form-V (Environment Statement) of Petronet LNG Ltd, Kochi Terminal for the financial year 2021-22, as per Environment (Protection) Rules, 1986.

Thanking you,

For, Petronet LNG Ltd., Kochi Terminal

Y Reddy
30.9.22

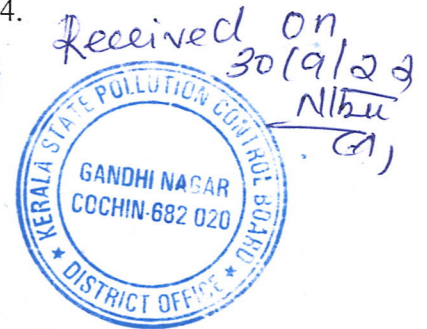
Yogananda Reddy,
CGM & VP (Plant Head).



Enclose: Environment Statement (Form-V) for FY 2021-22.

Copy to:

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



Registered & Corporate Office:

World Trade Centre, First Floor, Babar Road, Barakhamba La

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, Dis
Bharuch - 392130 (Gujarat)

Tel: +91-2641-257249 Fax: +91-2641-257252



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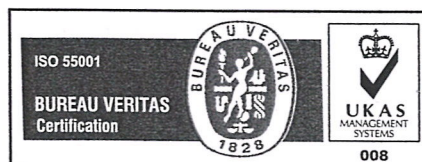
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ENVIRONMENTAL STATEMENT FORM-V
(See rule 14)

Environmental Statement for the financial year ending with 31st March 2022

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.	:	24-09-2021

PART -B

Water and Raw Material Consumption:

- I. Water Consumption (M³/Day)
- Process : 4.5 M³/day
- Cooling : Nil
- Domestic : 29.5 M³/day

Name of Products	Process water consumption per unit of product output	
	During the previous financial year	During the current financial year
1. RLNG	0.0005 M ³ /MT	0.0016 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*	0.01*

*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	NO _x	--	--	GTG A was not operational in the year 2021-22
	GTG-B	NO _x	0.13 T/day	77.8 mg/Nm ³	No variation from prescribed standard
	GTG-C	NO _x	0.11 T/day	68.7 mg/Nm ³	No variation from prescribed standard
	Emergency DG set (EDG)	PM	3.06 Kg/day	23.8 mg/Nm ³	No variation from prescribed standard
		CO ₂	0.00 T/day	0.00 %	
		CO	18.08 Kg/day	112 ppm	
		SO ₂	1.56 Kg/day	12 mg/Nm ³	
		NO _x	2.9 Kg/day	22.7 mg/Nm ³	
	b) Air	Fire Pumps-C (Diesel Operated)	PM	0.82 Kg/day	25.3 mg/Nm ³
CO ₂			0.00 T/day	0.00 %	
CO			5.2 Kg/day	129.3 ppm	
SO ₂			0.41 Kg/day	12.5 mg/Nm ³	
NO _x			0.9 Kg/day	27.9 mg/Nm ³	
Fire Pumps-D (Diesel Operated)		PM	0.9 Kg/day	27.1 mg/Nm ³	No variation from prescribed standard
		CO ₂	0.00 T/day	0.00 %	
		CO	5.34 Kg/day	129.5 ppm	
		SO ₂	0.41 Kg/day	12.5 mg/Nm ³	
		NO _x	0.82 Kg/day	25.2 mg/Nm ³	

Fire Pumps-E (Diesel Operated)	PM	0.9 Kg/day	27.6 mg/Nm ³	No variation from prescribed standard
	CO ₂	0.00 T/day	0.00 %	
	CO	5.2 Kg/day	128.8 ppm	
	SO ₂	0.49 Kg/day	15.2 mg/Nm ³	
	NO _x	0.88 Kg/day	26.9 mg/Nm ³	
Fire Pumps-F (Diesel Operated)	PM	0.79 Kg/day	24.1 mg/Nm ³	No variation from prescribed standard
	CO ₂	0.00 T/day	0.00 %	
	CO	5.1 Kg/day	123.3 ppm	
	SO ₂	0.41 Kg/day	12.2 mg/Nm ³	
	NO _x	0.85 Kg/day	25.6 mg/Nm ³	
Fire Pumps-G (Diesel Operated)	PM	0.77 Kg/day	24.7 mg/Nm ³	No variation from prescribed standard
	CO ₂	0.00 T/day	0.00 %	
	CO	4.8 Kg/day	123 ppm	
	SO ₂	0.33 Kg/day	10.7 mg/Nm ³	
	NO _x	0.77 Kg/day	24.5 mg/Nm ³	

Note: Environmental monitoring in FY 2021-22 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)

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial year (2020-21)	During the current financial year (2021-22)
(a) Form Process		
1. Used Oil (Schedule 1, Category: 5.1)	1874.25 Kg	1351.5 Kg
2. Waste residue containing oil (Schedule 1, Category: 5.2)	263 Kg	458.6 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)	613 kg	1818.3 Kg

4. Industrial use of paint, plastic and Ink wastes (Schedule 1, Category 21.1)	548 Kg	14 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:

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

Note:570 Kg of kitchen organic wastes converted to manure in the year 2021-22.

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 /recycled 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 recycled 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 waste storages. 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 being 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 different plant departments. Environment management cell meets once in a quarter, 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 by 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 in PLL terminal is fitted with a 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 being updated 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.

A solar power plant of 250 KW is installed in the terminal for sharing the power requirements for operating the terminal.

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

:

Y Reddy



Date

:

30.9.22

Approved By : Yogananda Reddy

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