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Petronet LNG Limited

Survey No. 347, Puthuvypu P.O.
Kochi - 682 508, India.
Tel: +91- 484 - 2757302 Fax: +91- 484-2502264
www.petronetlng.in
CIN L74899DL1998PLC093073
PAN: AAACP8148D. GST: 32AAACP8148D1ZP

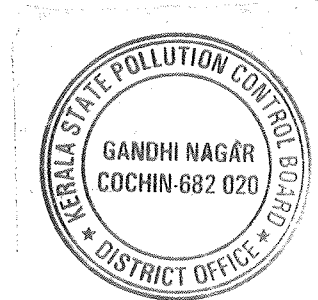
PLL/KOCHI/KSPCB/FORM-V/2022-23



20.09.2023

To,

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



Dear Sir,

Subject: Submission of Environment Statement (Form-V) for FY 2022-23.

Kindly find Form-V (Environment Statement) of Petronet LNG Ltd, Kochi Terminal for the financial year 2022-23, as per Environment (Protection) Rules, 1986.

Thanking you,

For, Petronet LNG Ltd., Kochi Terminal

Y Reddy
20.9.23

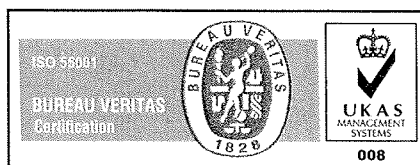
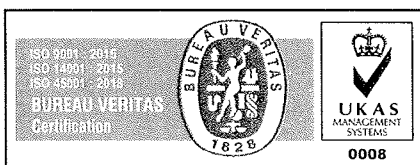
Yogananda Reddy,
CGM & VP (Plant Head).



Enclosed: Environment Statement (Form-V) for FY 2022-23.

Copy to:

The Environment Engineer, District Office, KSPCB, Ernakulam, 682020.



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

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Petronet LNG Limited

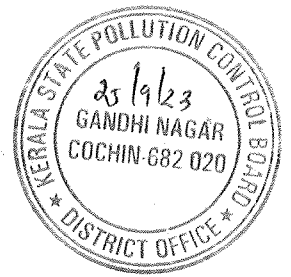
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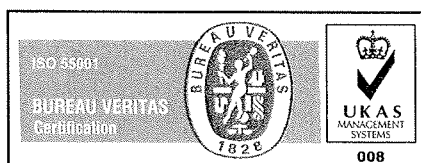
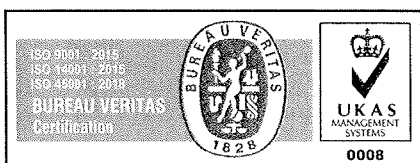
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Handwritten signature

ENVIRONMENTAL STATEMENT FORM-V
(See rule 14)

Environmental Statement for the financial year ending with 31st March 2023

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.	:	30-09-2022

PART-B

Water and Raw Material Consumption:

- I. Water Consumption (M³/Day)
- Process : Nil
- Cooling : Nil
- Domestic : 27.35M³/day

Name of Products	Process water consumption per unit of product output	
	During the previous financial year	During the current financial year
1. RLNG	Nil	Nil

- 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	0.01*	0.005*

*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	3.78 Kg/day	82.5 mg/Nm ³	No variation from prescribed standard
	GTG-B	NO _x	18.58 Kg/day	56.58 mg/Nm ³	No variation from prescribed standard
	GTG-C	NO _x	15.68 Kg/day	65.3 mg/Nm ³	No variation from prescribed standard
	Emergency DG set (EDG)	PM	0.04 Kg/day	22.35mg/Nm ³	No variation from prescribed standard
		CO ₂	0	0.00 %	
		CO	0.18 Kg/day	85.68 ppm	
		SO ₂	0.02 Kg/day	12.98 mg/Nm ³	
		NO _x	0.04 Kg/day	25.05 mg/Nm ³	
	b) Air	Fire Pumps-C (Diesel Operated)	PM	0 Kg/day	18.75 mg/Nm ³
CO ₂			0 Kg/day	0.00 %	
CO			0.01 Kg/day	107.65 ppm	
SO ₂			0 Kg/day	8.78 mg/Nm ³	
NO _x			0 Kg/day	22.42 mg/Nm ³	
Fire Pumps-D (Diesel Operated)		PM	0 Kg/day	31.08 mg/Nm ³	No variation from prescribed standard
		CO ₂	0 Kg/day	0.00 %	
		CO	0.01 Kg/day	110.5 ppm	
		SO ₂	0 Kg/day	11.45 mg/Nm ³	
		NO _x	0 Kg/day	26.18 mg/Nm ³	

Fire Pumps-E (Diesel Operated)	PM	0 Kg/day	30.63 mg/Nm ³	No variation from prescribed standard
	CO ₂	14.33 Kg/day	8.4 %	
	CO	0.01 Kg/day	119.25 ppm	
	SO ₂	0 Kg/day	11.19 mg/Nm ³	
	NO _x	0 Kg/day	27.8 mg/Nm ³	
Fire Pumps-F (Diesel Operated)	PM	0 Kg/day	24.13 mg/Nm ³	No variation from prescribed standard
	CO ₂	0 Kg/day	0.00 %	
	CO	0.01 Kg/day	92.5 ppm	
	SO ₂	0 Kg/day	15.65 mg/Nm ³	
	NO _x	0 Kg/day	28.05 mg/Nm ³	
Fire Pumps-G (Diesel Operated)	PM	0 Kg/day	26.73 mg/Nm ³	No variation from prescribed standard
	CO ₂	10.99 Kg/day	5.7 %	
	CO	0.01 Kg/day	107 ppm	
	SO ₂	0 Kg/day	10.51 mg/Nm ³	
	NO _x	0 Kg/day	24.02 mg/Nm ³	

Note: Environmental monitoring in FY 2022-23 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, 2016))

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial year (2021-22)	During the current financial year (2022-23)
(a) Form Process		
1. Used Oil (Schedule 1, Category: 5.1)	1351.5 Kg	905.3 Kg
2. Waste residue containing oil (Schedule 1, Category: 5.2)	458.6 Kg	353 Kg
3. Empty barrels / containers /liners contaminated with hazardous chemicals /wastes (Schedule 1, Category 33.1). (Used for storing dosing chemicals and used oil)	1818.3 Kg	419.5 Kg

4. Industrial use of paints, and Ink wastes (Schedule 1, Category 21.1)	14 Kg	439 Kg
(b) From pollution control facilities	None	None

Note: 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: 2270 Kg of kitchen organic wastes converted to manure in the year 2022-23.

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	Empty barrels / containers /liners contaminated with hazardous chemicals /wastes (Cat 33.1)	:	Plastic or metallic barrels containing chemical / oil residue.
4	Industrial use of paint 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. Cee Jee Lubricants, Aluva 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 shed is 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 generated is collected in MS barrels or other suitable containers at the generation point and then shifted to storage shed by concerned department. Used oil and empty chemical barrels are sold to KSPCB authorised recycler, M/s. Cee Jee Lubricants, Aluva.

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.

Paint and ink 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. Rainwater collected from LNG storage tanks are being collected and stored in raw water storage tanks. This water is being used for domestic use. Condensate water from air heater is directed to fire water storage reservoir. An STP is installed in the terminal for treating domestic sewage. 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. Total 150 new plants were planted in the green belt during World Environment Day celebrations -2022. A kitchen garden is also being maintained inside the terminal.

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 it is periodically reviewed 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

: *20-9-23*



Approved By: Yogananda Reddy

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