



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/2018-19/06

21st November, 2018

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 13th March 2006.

Sir,

The Six monthly compliance report for the above clearances are attached for the period ending 30th September 2018.

Thanking You,

With Regards

(T. N. Neelakantan)
Sr. Vice President (Plant Head)



T. N. NEELAKANTAN
Sr. Vice President (Plant Head)
Petronet LNG Limited
Survey No. 347, Puthuvypu PO
Kochi-682 508, Dist. Ernakulam
Kerala (India)

CC:

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

Regd. 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 CRZ Clearance no. J-16011/26/2001-IA-III vide your letters dated 13th MARCH 2006; for the Construction of LNG Import Terminal at Puthuvypeen Island, Kochi, Kerala by M/s Petronet LNG Ltd.

Point-wise compliance to stipulated terms and conditions of the CRZ Clearance is as follows:

A. SPECIFIC CONDITIONS

- i. All conditions stipulated in the clearance letter of even number dated 2nd June, 2003 should be strictly implemented. Also, all conditions stipulated by the State Coastal Zone Management Authority vide their letter No.1 143/A212005/STED, dated 14th October, 2005 should be complied.
 - **Conditions mentioned in the Letter No. 4215/B1/2000/STED, dated 09th February-2001 does not specifies and conditions for compliance.**
 - **All conditions mentioned in the Letter No. 1143/A2/2005/STED dated 14th October-2005 from Kerala coastal Zone Management Authority are compiled with. Point wise compliance status is given as Annexure#1.**
- ii. No Objection Certificate/consent should be obtained from the Kerala State Pollution Control Board for the enhanced LNG capacity at the terminal, before initiating the project.
 - **We have obtained Consent to Establish with No. PCB/NOC/EK/117/98 dated 17th September-1999 before initiating the project and the CTE was subsequent renewed.**
 - **We have obtained Consent to Operate with no. PCB/HO/EKM/ICO-R/12/ 2016 dated 28thFebruary 2016, and was valid up to on 31st March 2018, a copy of the same was submitted along with the six monthly compliance report for the period of October-2016 to March-2017. We have applied for the renewal of our Consent to Operate and we expect to receive the same very soon.**
- iii. The project proponent should ensure that all necessary precautions including installation of Full-containment - Type LNG tank with concrete roof as indicated in the risk analysis report should be implemented.
 - **PLL has built two LNG storage tanks, both the tanks are of Full-containment with concrete roofing.**
- iv. The project proponent should ensure that no additional dredging/expansion or regosification plant will be undertaken for the above project.
 - **PLL will not undertake additional dredging / expansion of regasification plant without approval of MOEF. Only maintenance dredging is being carried out by Cochin port Trust.**
- v. The budget allocated for environment safeguard measures should not be diverted for any other purpose.

- **Budget allocated for environment safeguard will not be diverted for other purposes.**
- vi. The comprehensive Environmental Impact Assessment report which is under preparation should be completed early and the final report submitted to this Ministry within one year,
- **Comprehensive EIA of 2.5 MMTPA Terminal and EIA with QRA and Site emergency response plan of 5 MMTPA terminal has already been submitted with vide letter ND/LNG/K22/2K1 dated 16th February-2001 and letter dated 22nd September-2011 respectively.**
- vii. Based on the risk analysis, Disaster Management Plan should be prepared and submitted to this Ministry within 6 months.
- **EIA with QRA and site emergency response plan (for 5 MMTPA terminal) submitted to MoEF vide letter dated 22nd September-2011 for EAC recommendations.**

B. GENERAL CONDITIONS

i.	Construction of the proposed structure should be undertaken meticulously conforming to the existing Central/local rules and regulations including Coastal Regulation Zone Notification, 1991 and its amendments. All the construction designs/drawings relating to the proposed construction activities must have approvals of the concerned State Government Departments/Agencies.	<ul style="list-style-type: none"> ▪ The construction drawings have been approved by the concerned State Government Department/Agencies like Department of Factories and Boilers, Fire and rescue Services etc. Copy of the approvals of Factories and Boiler, Fire rescue services has already been submitted with six monthly compliance report dated 05th April-2013.
ii.	The proponent shall ensure that as a result of the proposed constructions, ingress of the saline water into the groundwater does not take place. Piezometers shall be installed for regular monitoring for this purpose at appropriate locations on the project site.	<ul style="list-style-type: none"> ▪ PLL is continuously ensuring that there is no ingress of saline water into the ground water by periodic analysis of ground water, and for the same we have installed two Piezometers at appropriate locations. ▪ Sampling of the water drawn from Piezometers is being carried out by approved third party. The latest Ground water analysis report is of the month of August-18 and is enclosed as Annexure#2.
iii.	Handling, manufacturing, storage and transportation of all hazardous chemicals should be carried out in	<ul style="list-style-type: none"> ▪ We have applied for NOTIFICATION OF SITES to Factories & Boilers department

	<p>accordance with MSIHC Rules, 1989 and subsequent amendments, All approvals from State and 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</p>	<p>vide letter no. PLL/KOCHI/F&B/2012-13/C-04 dated 28th November 2012 as per requirement of MSIHC rules 1989. The same has already been submitted with six monthly compliance report dated 05th April-2013.</p> <ul style="list-style-type: none"> ▪ We have received final clearance from Chief Controller of Explosive for commissioning of Jetty, LNG unloading line, LNG tanks, and Regasification facilities with letters dated 04th February-2013. We have already submitted the same with six monthly compliance reports, dated 05th April-2013. ▪ Permit to construct and plan approvals were obtained from Director of Factories and Boilers. We have already submitted the details regarding the same with six monthly compliance report, dated 05th April-2013. ▪ We have received the renewed factory license dated 25th July 2018, valid till 31st December-2018; a copy of the same is enclosed as Annexure#3. ▪ We have prepared Emergency response and Disaster Management Plan and it was submitted to District collector office vide letter no. PLL/KOCHI/ERDMP/DC/2014-15/C-01 dated 5th April-2014. ▪ A comprehensive contingency plan was prepared in collaboration with the concerned authorities before commissioning of the project to meet any eventuality in case of an accident ▪ All approvals as necessary were obtained before the commissioning of the project. Terminal was commissioned on 20th August-2013 and all activities related to commissioning were completed by 10th September
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iv.	A well-equipped laboratory with suitable instruments to monitor the quality of air and water shall be set up as to ensure that the quality of ambient air and water conforms to the prescribed standards. The laboratory will also be equipped with qualified manpower including a marine biologist so that the 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 the seasons and the results should be properly maintained for inspection of the concerned pollution control agencies. The periodic monitoring reports at least once in 6 months must be sent to this Ministry (Regional Office at Bangalore) and State Pollution Control Board.	2013. <ul style="list-style-type: none"> ▪ A well-equipped laboratory with suitable Equipments for monitoring the quality of air and water is in place, with Qualified and competent personals. However, PLL is carrying out periodic monitoring of environmental parameters by KSPCB approved agency. ▪ Ambient air monitoring is carried out once in a month at four different locations and analysis report for the month of April-18 to September-18 is enclosed as Annexure #4 ▪ PLL is conducting marine water quality analysis, once in six month. The latest test report, dated June-18 is enclosed as Annexure #5
v.	Adequate provisions for infrastructure facilities such as water supply, fuel for cooking, sanitation, etc must be provided for the laborers during the construction period in order to avoid damage to the environment, Colonies for the laborers should not be located in the Coastal Regulation Zone area. It should also be fuel wood purpose	<ul style="list-style-type: none"> ▪ During the construction phase, PLL has provided adequate infrastructure facilities such as water supply, fuel for cooking, sanitation, etc to the labourers. ▪ Labour colonies were not located in Costal Regulation Zone area.
vi.	To prevent discharge of sewage and other liquid wastes into the water bodies, adequate system for collection and treatment of the wastes must be provided. No sewage and other liquid wastes without treatment should be allowed to enter into the water bodies.	Individual Septic tanks with soak pits have being provided for collection of sewage. The collected sewages are regular disposal through authorized agency of Cochin corporation. No sewage or waste from PLL will be allowed to enter water bodies
vii.	Appropriate facility should be created for the collection of solid and liquid wastes generated by the barges/vessels and their safe treatment and disposal should be ensured to avoid possible contamination of the water bodies	Vessels and tugs will dispose their garbage as per the guidelines of Annex V of Marpol (IMO). We have already submitted the related details with six monthly compliance report dated 05 th April-2013.
viii.	Necessary navigational aids such as channel markers should be provided to prevent accidents. internationally recognized safety standards shall be	PLL has provided 4 Nos. of Buoy as instructed by cochin post trust. In future, if required, more navigation aids will be provided as per

	applied in case of barge/vessel movements	instruction/guidance of Cochin Port Trust. All required safety standards will be applied to vessel movements as per directions of Cochin Port Trust.
ix.	The project authorities should take appropriate community development and welfare measures for villagers in the vicinity of the project site, including drinking water facilities. A separate fund should be allocated for this purpose.	A separate fund for CSR is kept aside by PLL and we have carried out various activities for the community development and welfare, a brief description of our CSR activities with photographs are enclosed as Annexure # 6.
x.	The quarrying material required for the construction purpose shall be obtained only from the approved quarries/borrow areas. Adequate safeguard measures shall be taken to ensure that the overburden and rocks at the quarry site do not find their way into water bodies.	PLL sourcing of quarrying material is only from Government approved quarries. We have already submitted the details regarding the same with six monthly compliance report on dated 05 th April-2013.
xi.	The dredging operations to be undertaken with the prior approval of this Ministry, shall be executed with appropriate safeguard measures to prevent turbidity conditions in consultation with the expert agencies such CWPRS/NIO.	PLL has obtained Environmental clearance from the MOEF vide their order No. J-16011/26/2001-IA-III dated 16 th November-2010 for undertaking dredging operations of the basin. Dredging operations is completed and PLL has handed over the basin to M/s Cochin Port Trust for maintenance.
xii.	For employing unskilled, semi-skilled and skilled workers for the project, preference shall be given to local people.	During the project, PLL had given preference to locals while employing unskilled, semi-skilled and skilled worker wherever possible based on their qualification and merits.
xiii.	The recommendations made in the Environment Management Plan and Disaster Management Plan, as contained in the Environmental Impact Assessment and Risk Analysis Reports of the project shall be effectively implemented.	All recommendations made in Environment Management Plan and Disaster Management Plan, as contained in Environment Impact Assessment and Risk Analysis Report of the project are effectively implemented.
xiv.	A separate Environment Management Cell with suitably qualified staff to carry out various environment issues should be set up under the charge of a Senior Executive who will report directly to the Chief Executive of the Company.	PLL has set up Environment Management Cell under Sr. Vice President – (Plant Head), other members of the team includes GM (Operations & Maintenance), Head of Operation department, C&P (Contracts & Procurement) department, Technical department, HSE department, Civil Department,

		Lab operation & a representative from HR department for effective implementing the stipulated environment safeguards. The SOP of the Environment Management Cell was revised on 23/04/2018 and the copy of the same has already been submitted along with the six monthly compliance report for the period ending March-2018.
xv.	The project affected people, if any should be properly compensated and rehabilitated.	No people affected directly as the project was on uninhabited land. Some Land was acquired by Cochin Port Trust for constructing new access road for the project and those affected were provided with infrastructure like road, drain, electricity and water as per guideline by authorities.
xvi.	The funds earmarked for environment protection measures should be maintained in a 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 this Ministry.	Budget allocated for environment safeguard will not be diverted for other purposes.
xvii.	Full support should be extended to the officers of this Ministry's Regional Office at Bangalore 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.	PLL will extend 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 of analysis reports and action plans for environmental protection
xviii.	In case of deviation or alteration in the project including the implementing agency, a fresh reference should be made to this Ministry for modification in the clearance conditions or imposition of new ones for ensuring environmental protection. The project proponents should be responsible for implementing the suggested safeguard measures.	PLL has not carried out any deviation or alteration in the project. PLL will comply with this requirement and will take permit from the Ministry prior to any deviation, alteration and modification in the project.

xix.	This Ministry reserves the right to revoke	PLL is aware of the Ministry's right to
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	this clearance, if any of the conditions stipulated are not complied with to the satisfaction of this Ministry.	revoke clearance for not complying with the conditions stipulated in the clearance.
xx.	This Ministry or any other competent authority may stipulate any additional conditions subsequently, if deemed necessary for environmental protection, which shall be complied with.	PLL will comply with additional conditions, if any suggested by the ministry or any other competent authority in writing.
xxi.	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 Committee and may also be seen at Website of the Ministry of Environment & Forests at http://www.envforin.in . The advertisement should be made within 7 days from the date of issue 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 along with the six monthly compliance report dated 30 th September-2013.
xxii.	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 Land Development Work.	Site appraisal clearance obtained on 28 th Feb 2011. Na separate land developmental work was required, as this involved only augmentation of equipment in the same land.

Thanking You,

With Regards



(T. N. Neelakantan)
Sr. Vice President (Plant Head)

T. N. NEELAKANTAN
Sr. Vice President (Plant Head)
Petronet LNG Limited
Survey No. 347, Puthuvypu PO
Kochi-682 508, Dist. Ernakulam
Kerala (India)



Test Report No: SEAAL/1808/WA/R096	Date: 30.08.2018	Page 1 of 1
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CUSTOMER DETAILS			
Customer Name & Address		M/s Petronet LNG Limited Survey No.347 ,Puthuvypu P.O Kochi - 682 508	
Customer Reference		Test Request Form Dated 24.08.2018	
SAMPLE DETAILS			
Sample Code	SEAAL/1808/WA/S096	Sample Received On	27.08.2018
Sample Name	Water	Sampling Procedure	---
Sample Description	Ground Water- Bore Well	Sampling Location	East Side
Identification By Customer	---	Sampling Condition	Good
Sampled On	24.08.2018	Test Started On	27.08.2018
Sampled By	Laboratory	Test Completed on	30.08.2018

SL NO	TEST PARAMETER	TEST METHOD	UNIT	RESULT	ACCEPTABLE LIMIT (IS 10500 - 2012)
01	pH	IS 3025 Part 11:1983 RA 2012	---	7.21	6.50 - 8.50
02	Total Dissolved Solids	IS 3025 Part 16:1984 RA 2012	mg/L	171	500 (Max)
03	Turbidity	IS 3025 Part 10: 1984 RA 2012	NTU	0.50	1.00 (Max)
04	Chloride (as Cl)	IS 3025 Part 32:1988 RA 2014	mg/L	20.5	250 (Max)
05	Iron (as Fe)	IS 3025 Part 53:2003 RA 2014	mg/L	0.38	1.00 (Max)
06	Fluoride(as F)	APHA 23 rd Edition 4500-F- B D: 2017	mg/L	< 0.10	1.00 (Max)
07	Sulphate (as SO ₄)	IS 3025 Part 24:1986 RA 2014	mg/L	23.4	200 (Max)
08	Electrical Conductivity	IS 3025 Part 14:1984 RA 2013	μS/cm	281	---
09	Mercury (as Hg)	IS 3025 Part 48:1994 RA 2014	mg/L	< 0.001	0.001 (Max)
10	Lead (as Pb)	IS 3025 Part 47:1994 RA 2014	mg/L	< 0.01	0.01 (Max)
11	Copper (as Cu)	IS 3025 Part 42:1992 RA 2014	mg/L	< 0.05	0.05 (Max)
12	Total Chromium (as Cr)	IS 3025 Part 52:2003 RA 2014	mg/L	< 0.05	0.05 (Max)
13*	Zinc (as Zn)	IS 3025 Part 49:1994 RA 2009	mg/L	< 0.20	5.00 (Max)
14	Temperature	IS 3025 Part 9:1984 RA 2006	°C	27.0	---
15*	Salinity	SEAAL/SOP/06	ppm	37.0	---
16	Oil & Grease	IS 3025 Part 39:1991 RA 2014	mg/L	< 5.00	---
17	Dissolved Oxygen	IS 3025 Part 38:1989 RA 2014	mg/L	7.05	---
18	Biochemical Oxygen Demand (3 days at 27 °C)	IS 3025 Part 44:1993 RA 2014	mg/L	< 2.00	---
19	Chemical Oxygen Demand	IS 3025 Part 58:2006 RA 2012	mg/L	< 10.0	---
20*	Cyanide (as CN)	IS 3025 Part 27:1986 RA 2009	mg/L	< 0.01	0.05 (Max)
21	Cadmium (as Cd)	IS 3025 Part 41:1992 RA 2014	mg/L	< 0.003	0.003 (Max)
22*	Pesticide	USEPA 508 : 1995	---	Absent	---
23*	Insecticide	USEPA 508 : 1995	---	Absent	---

*Not Under NABL scope

End of Report

For and on behalf of
Standard^S Environmental & Analytical LaboratoriesLaiju 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 authorization of the Laboratory

Standard^S Environmental & Analytical Laboratories

Accreditation and Approval: NABL as per ISO 17025: 2005 & "A" Grade laboratory of 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, info@sealabs.in



GOVERNMENT OF KERALA
DEPARTMENT OF FACTORIES AND BOILERS

Form-4

(Prescribed under Rule 5)

License is hereby granted to Shri/Smt. RAJENDER SINGH, DIRECTOR (TECHNICAL) () for the premises detailed hereunder for the use as a factory within the limits specified in the Permit (s) and for the manufacturing process stated herein after subject to the provision of the Factories Act 1948 and the Kerala Factories Rules 1957.

The license shall remain in force till the 31st day of December 2018.

1.	Registration No	D09/CHN/03/286/2013	5.	Permit No & Date	92/2016 (31-03-2016)
2.	Name & Address of the Factory	PETRONET LNG LTD PUTHUVYPU P.O,ERNAKULAM, KOCHI, KERALA - 682 508.	6.	Name of the Region	Ernakulam
3.	Registration Date	09-05-2013	7.	Name of the Division	Kochi
4.	Details of the premises		8.	Manufacturing Process & NIC Code	
	Panchayat	Elamkunnappuzha		1. RECEIVING STORAGE RELOADING BUNKERING REGASIFICATION AND SUPPLY OF LNG & RLNG (52109)	
	Village	Puthuvaippu			
	Survey No	347			
	Taluk	Kochi			
	District	Ernakulam			

Place : Ernakulam

Date : 25-07-2018

(Issued under Rule 5, renewed under Rule 7)

License Details

Calendar Year	No. of Workers	Power	Fees	Additional Fee	Excess Fee	Remittance Date	Renewed Date	Sign of Official
2018	290	67834.97 KW +18249.99 KVA	194350.00				30-01-2018	

Amendment Details

Factory Name	No. of Workers	Power(KW)	Fees	Additional Fee	Remittance Date	Amendment Year	Amendment Date	Sign of Official
PETRONET LNG LTD	195	66832.58 (18249.99 KVA)	750	0.0	14-10-2015	2015	02-02-2016	
PETRONET LNG LTD	290	67834.97 (18249.99 KVA)	1500	11500.0	18-07-2016	2016	06-09-2016	
PETRONET LNG LTD	290	67834.97 (18249.99 KVA)	0	0.0		2018	25-07-2018	

Transfer Details

Transferred From	Transferred To	Transfer Fee	Remittance Date	Year of Transfer	Transfer Date	Sign of Official

Annexure-04

Ambient Air Monitoring Report, (April 2018 to September 2018)									
LOCATION NO.	Location of Ambient Air Sampling	Month & Date of Sampling	PM (<10 microns) in Micrograms/m ³ ; Limit 100 Micrograms/m ³	PM (<2.5 microns) in Micrograms/m ³ ; Limit 60 Micrograms/m ³	SOx as SO ₂ in Micrograms/m ³ ; Limit 80 Micrograms/m ³	NOx, Oxides of Nitrogen in Micrograms/m ³ ; Limit 80 Micrograms/m ³	Carbon Monoxide (CO); mg/m ³ 4.0 mg/m ³	OZONE Micrograms/m ³ ; Limit 180 Micrograms/m ³	Hydrocarbons (HC); Micrograms/m ³
1	(Watch tower-2) near MGH building	Apr-18	61.3	19.7	0	0	0	0	0
		May-18	71.6	22.9	0	0	0	0	0
		Jun-18	46.8	12.1	0	0	0	0	0
		Jul-18	51.5	14.8	0	0	0	0	0
		Aug-18	64.6	20.5	0	0	0	0	0
		Sep-18	71.2	23.6	0	0	0	0	0
		Average	61.17	18.93	0.00	0.00	0.00	0.00	0.00
2	Near Fire Station Building	Apr-18	76.4	30.2	0	6.7	0	0	0
		May-18	38.2	14.6	0	5.64	0	0	0
		Jun-18	21.9	8.28	0	3.21	0	0	0
		Jul-18	24.4	9.26	0	2.98	0	0	0
		Aug-18	36.9	17.8	0	3.82	0	0	0
		Sep-18	48.2	19.4	0	4.11	0	0	0
		Average	41.00	16.59	0.00	4.41	0.00	0.00	0.00
3	Fire water Reservoir+ Watch Tower-5	Apr-18	70.9	24.1	0	2.45	0	0	0
		May-18	61.9	17.8	0	2.96	0	0	0
		Jun-18	34.6	10.9	0	2.78	0	0	0
		Jul-18	42.8	15.6	0	30.8	0	0	0
		Aug-18	53.6	19.9	0	4.1	0	0	0
		Sep-18	65.1	23.8	0	4.84	0	0	0
		Average	54.82	18.68	0.00	7.99	0.00	0.00	0.00
4	Watch tower-3 near Tank T-101	Apr-18	89.2	37.4	0	3.92	0	0	0
		May-18	82.8	29.6	0	2.21	0	0	0
		Jun-18	73.4	20.5	0	2.19	0	0	0
		Jul-18	65.4	18.6	0	2.98	0	0	0
		Aug-18	71.9	21.6	0	3.96	0	0	0
		Sep-18	68.3	19.4	0	4.38	0	0	0
		Average	75.17	24.52	0.00	3.27	0.00	0.00	0.00


Officer HSE


21/11/18
Manager HSE



Test Report No: SEAAL/1806/EN/R147	Date: 18.06.2018	Page 1 of 1
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CUSTOMER DETAILS			
Customer Name & Address		M/s Petronet LNG Limited Survey No.347 ,Puthuvypu P.O Kochi - 682 508	
Customer Reference		Test Request Form Dated 09.06.2018	
SAMPLE DETAILS			
Sample Code	SEAAL/1806/EN/S147	Sample Received On	11.06.2018
Sample Name	Water	Sampling Procedure	SEAAL/MSP/24 & SEAAL/MBL/SOP/06
Sample Description	Marine Water	Sampling Location	---
Identification By Customer	---	Sampling Condition	Good
Sampled On	09.06.2018	Test Started On	12.06.2018
Sampled By	Laboratory	Test Completed on	16.06.2018

SL NO	TEST PARAMETER	TEST METHOD	UNIT	RESULT
01	Temperature	IS 3025 Part 9:1984 RA 2006	°C	29.0
02	Colour	IS 3025 Part 4:1983 RA 2012	Hazen	1.00
03	pH	IS 3025 Part 11:1983 RA 2012	---	7.26
04	Electrical Conductivity	IS 3025 Part 14:1984 RA 2013	µS/cm	12778
05	Total Dissolved Solids	IS 3025 Part 16:1984 RA 2012	mg/L	8297
06	Turbidity	IS 3025 Part 10:1984 RA 2012	NTU	3.80
07	Chloride (as Cl)	IS 3025 Part 32:1988 RA 2014	mg/L	3919
08*	Salinity	SEAAL/SOP/06	ppt	7.08
09	Sulphate (as SO ₄)	IS 3025 Part 24:1986 RA 2014	mg/L	346
10	Iron (as Fe)	IS 3025 Part 53:2003 RA 2014	mg/L	1.92
11	Mercury (as Hg)	IS 3025 Part 48:1994 RA 2014	mg/L	< 0.002
12	Lead (as Pb)	IS 3025 Part 47:1994 RA 2014	mg/L	< 0.20
13	Copper (as Cu)	IS 3025 Part 42:1992 RA 2014	mg/L	< 0.05
14*	Zinc (as Zn)	IS 3025 Part 49:1994 RA 2009	mg/L	< 0.20
15	Nickel (as Ni)	IS 3025 Part 54:2003 RA 2014	mg/L	< 0.10
16	Cadmium (as Cd)	IS 3025 Part 41:1992 RA 2014	mg/L	< 0.03
17*	Cyanide (as CN)	IS 3025 Part 27:1986 RA 2009	mg/L	< 0.01
18	Fluoride(as F)	APHA 23 rd Edition 4500-F- B D: 2017	mg/L	0.67
19	Arsenic (as As)	IS 3025 Part 37:1988 RA 2014	mg/L	< 0.002
20	Hexavalent Chromium (as Cr ³⁺)	IS 3025 Part 52:2003 RA 2014	mg/L	< 1.00
21*	Pesticide	USEPA 508 : 1995	---	Absent
22*	Insecticide	USEPA 508 : 1995	---	Absent
23	Oil & Grease	IS 3025 Part 39:1991 RA 2014	mg/L	< 5.00
24	Dissolved Oxygen	IS 3025 Part 38:1989 RA 2014	mg/L	5.85
25	Biochemical Oxygen Demand (3 days at 27 °C)	IS 3025 Part 44:1993 RA 2014	mg/L	< 2.00
26	Chemical Oxygen Demand	IS 3025 Part 58:2006 RA 2012	mg/L	695
27	Total Suspended Solids	IS 3025 Part 17:1984 RA 2012	mg/L	12.0
28	Total Bacterial Count	IS 1622:1981 RA 2014	cfu/mL	35000
29	Faecal Coliform	IS 1622:1981 RA 2014	MPN/100ml	23
30	E coli	IS 1622:1981 RA 2014	MPN/100ml	< 2

*Not Under NABL scope

End of Report

For and on behalf of
Standard^s Environmental & Analytical Laboratories
Vaidyalek. Jindal Director
Microbiology

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

Standard^s Environmental & Analytical Laboratories

Accreditation and Approval: NABL as per ISO 17025: 2005 & "A" Grade laboratory of KSPCB

K.J. Tower, Pathalam, Udyogamandal P.O., Ernakulam-683 501, Tel. 0484-2546660, 93 87 27 24 02, 90 74 34 14 43

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CORPORATE SOCIAL RESPONSIBILITY - TOUCHING LIVES ... BEYOND BUSINESS!!

Petronet LNG Ltd. as a responsible Corporate Citizen, undertakes Socio-Economic Development Projects to meet priority needs of the marginalised and underserved communities with the aim to make them self-reliant. Petronet LNG Limited (PLL) started its CSR journey from Western Part of India and continued its journey to Southern and Eastern Part of India. Petronet LNG Foundation (PLF), an organisation committed to Sustainable Social Growth leads the CSR Initiatives, dedicated to the cause of humanity was formed dedicated for taking up CSR activities.

The Foundation is focused upon improving quality of lives and promote inclusive growth by way of positioning itself as a parenting force of various Social Change Agents operating at the ground level through the CSR Interventions.

CSR activities are undertaken with adherence to the current mandates of companies Act 2013 (Schedule VII) focusing on enhancing quality of life of the community in the vicinity of business locations as well as across the nation by way of strengthening and contributing in the sectors of Community Healthcare, Water and Sanitation, Education & Skill Development, Infrastructure & Community Asset Generation, Swachh Bharat Abhiyaan, Empowerment of Women, Sports, Art & Culture.

For the Education/Skill Development and Livelihood Generation initiatives a maximum of outreach is targeted and achieved by providing an all-round coverage across the area of operation and taking up initiatives and in several parts of the country directly and in collaboration with several organisations:

- ❑ **Skill Development and Youth Empowerment:** For income generation and bringing rural households out of the vicious cycle of poverty into the virtuous cycle of sustainable livelihoods. In Kerala, Kochi Skill Training Project named "Naipunyam" to train 100 Students in Plastic Technology with CBPST (Centre for Biopolymer Science and Technology), unit of CIPET has been started. The training programme shall focus on building knowledge on plastic product manufacturing, machine operations, trouble shooting and problem solving for different manufacturing process. Similar to this, in Gujarat, "Kaushal Setu" Skill Development Program with CIPET, Ahmedabad initiated to train 100 underprivileged youth from Gujarat. The training programme shall focus on building knowledge on plastic product manufacturing, machine operations.
- ❑ **Education Infrastructure:** Strengthening the educational institutes with infrastructure, Drinking water facilities, Causality complexes, conducting ideation programmes for the IIT students, basic life support, smart class room facilities and scholarship facilities have been done in the areas of Gujarat and Kerala.

To support the Health and Nutrition related causes several short and long term projects have been undertaken:

- ❑ **Numma Oonu:** "Numma Oonu" meaning "Our Food" was launched on January 26, 2018 strives to keep alive the dream of a hunger free Kochi by providing one free meal to anyone hungry without sacrificing his/her dignity in the selected hotels enlisted under KHRA. A Project on providing free food in the District of Ernakulam with Dist. Admin, the Kerala Hotels and Restaurants Association was launched, with an objective of making a hunger free city and ensuring access of food to the needy. More than 13,000 meals served in 5 Months across the City.
- ❑ **Health Camps & Health Infrastructure:** Eye Check-up Camps, Health Camps, Awareness Camps on basic life support, Solid waste management facilities, were organised benefitting about 5,000 people in Bihar, Kerala, Gujarat, Andaman & Nicobar and Delhi.
- ❑ **Swacch Bharat Abhiyan:** Construction and maintenance of around 170 toilet blocks for Boys/ Girls Secondary and Higher Secondary Schools in Assam, Kerala and Gujarat.
- ❑ **Clean Ganga Fund:** Contribution to the Clean Ganga Fund corpus set up by Government of India. The Fund has the objective of contributing to the national effort of cleaning of the river Ganga and will help bring innovation and technological know-how and connect with this national cause.

Towards promotion of sports initiatives have been taken like,

- **Kabaddi:** With Dist. Kabaddi Association, Ernakulam by providing Kabbadi Mats to Ernakulam District Kabaddi Association and ensuring the strengthening of the Sports Infrastructure in the nearby villages.
- **Football:** the U-17 FIFA World Cup through developing the Infrastructure (Ground Facility and Water Tank construction).

For better environment and sustainability, in addition of being the importer of the clean fuel the company through CSR initiatives have tried to take up mangrove plantations, afforestation with great zeal and enthusiasm. This includes plantation of about 1000 tress, solid waste management in the nearby schools, and installation of solar lights in the states of Gujarat, Kerala and Rajasthan

Good Samaritan Initiative: Aims to help those who are working with our Contractor and aims to provide support at their time of great need or crisis. Petronet LNG Foundation (PLF) with all the support of the PLL employees is making all efforts to give fresh life to this by engaging deeply with all our contractors to discover genuine cases which are supported.

All of us would fondly recall our dear parents, an aunt, an uncle, a sister, a brother, a neighbour or a friend who supported us in times when we were overwhelmed with our problems. This is an opportunity for us to become that person, again.

The "GIVING" person is always remembered with gratitude and fondness. He or she goes out of their way, as a habit to provide support or help those in need – sometime for a very selfish purpose – to positively invest in the cycle of karma. More often than not these people exude extreme confidence and satisfaction of living a complete life.

Numma Oonu (Providing Free Meals) -

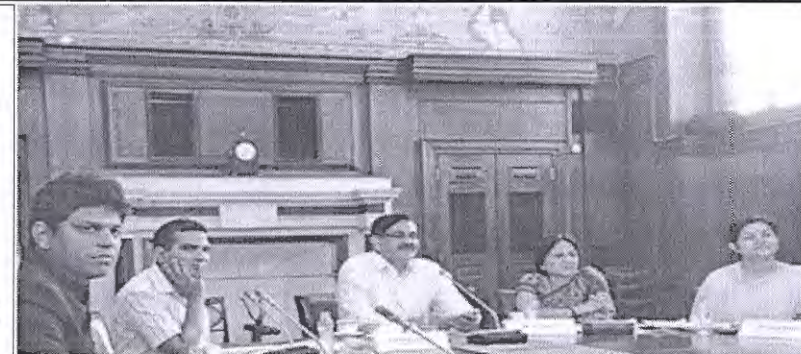
- ✓ Expanded to 20 Locations (500 meals per day at 39 Hotels) with third round of publicity & branding from July 1st 2018.
- ✓ Logo of Petronet Kitchen finalised.
- ✓ Numma Oonu presented before Honourable President's Office with District Collector, Ernakulam.
- ✓ Publicity Video & Numma Oonu Website of the project made.
- ✓ More than 30,000 meals served till date across Ernakulam.

Naipunyam with CBPST (Skill Development) –

- ✓ Kit Distribution, Fire Training & Awareness with periodic monitoring done.
- ✓ Completion of the Valedictory Function of 100 Students.
- ✓ 89 Students placed across several industries.

Flood relief works with employees participation –

- ✓ Relief Materials supply in the Peripheral Villages & Ernakulam (around 20 locations covered) with about Rs 15 Lakh by employee participation.
- ✓ Collection of Rs 4 Lakh in a day for the contract workmen by Kochi Employees.



Numma Oonu – New Centres (Expanded to 20 Locations), Presentation before Secretary to Hon'ble President of India on 30th July 2018



Kit Handover Ceremony & Valedictory Function at CBPST

Highlights

PLANT LEVEL IMPLEMENTED PROJECTS (FY 18-19)

	Amount (INR)
Waste Management facilities at the Taluka Hospital, Permbra, Kozikode	4.90
Construction of Library at Chowva High School, Kannur (Pipeline District)	4.10
Construction of Library & Computer facility at Cheemeni High School, Kasargode	2.33
Construction of three Smart Classrooms at Ernakulam, Kannur and Calicut in L P Schools	3.21
& Study materials support to underprivileged students of Govt. Aided Higher Secondary School for Girls, Venganoor	3.77
Supporting Old age Home with infrastructure & equipment at Guruvayoor	0.87
Supporting a Vypin programme for Tree Plantation Initiated with Vypin Block Panchayat	5.00
Supporting maintenance of School Toilets for the month of October 2017 to March 2018	5.00
Supporting art to the art form of Koodiyattam, Ernakulam (Ongoing from FY 17-18)	2.50
TOTAL	31.68



Petronet LNG Foundation
An Organisation committed to Sustainable Social Growth

Highlights

NUMMA OONU



നാഴിയൂരി കരുണ കൊണ്ട് നാടാകെ സന്തോഷം

'നൂറു നാഴി' എന്നീ 18 കരുണകളാണ് നാടാകെ വിതരണം ചെയ്തത്. ഇവയുടെ ഉപയോഗം വർദ്ധിപ്പിക്കാനും നൂറു നാഴി കരുണകളുടെ വിതരണം വർദ്ധിപ്പിക്കാനും നൂറു നാഴി കരുണകളുടെ വിതരണം വർദ്ധിപ്പിക്കാനും...

നൂറു നാഴി കരുണകളുടെ വിതരണം വർദ്ധിപ്പിക്കാനും നൂറു നാഴി കരുണകളുടെ വിതരണം വർദ്ധിപ്പിക്കാനും...

നൂറു നാഴി കരുണകളുടെ വിതരണം വർദ്ധിപ്പിക്കാനും നൂറു നാഴി കരുണകളുടെ വിതരണം വർദ്ധിപ്പിക്കാനും...



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District Collector with Petronet LNG Officials at Rashtrapati Bhavan (Dr Sanjay Kothari, IAS, Secretary of Hon'ble President chaired the meeting)



PLF Team with District Collector Ernakulam

നൂറു നാഴി കരുണകളുടെ വിതരണം വർദ്ധിപ്പിക്കാനും

നൂറു നാഴി കരുണകളുടെ വിതരണം വർദ്ധിപ്പിക്കാനും

നൂറു നാഴി കരുണകളുടെ വിതരണം വർദ്ധിപ്പിക്കാനും

നൂറു നാഴി കരുണകളുടെ വിതരണം വർദ്ധിപ്പിക്കാനും

Newspaper Clippings of Numma Oonu Expansion

ജില്ലാ ഭരണകൂടത്തിന്റെ നൂറു നാഴി കരുണകളുടെ വിതരണം വർദ്ധിപ്പിക്കാനും

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ജില്ലാ ഭരണകൂടത്തിന്റെ നൂറു നാഴി കരുണകളുടെ വിതരണം വർദ്ധിപ്പിക്കാനും



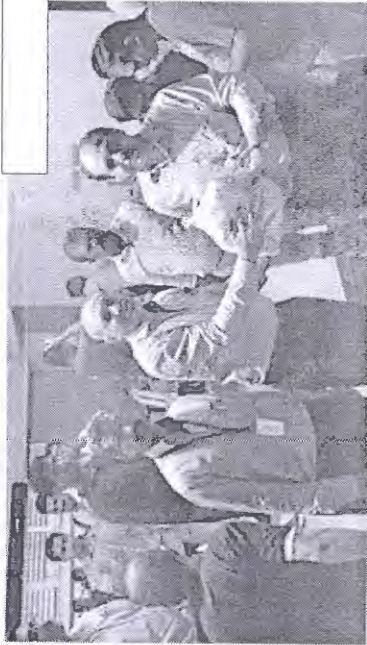
Petronet Kitchen Logo



Petronet LNG Foundation
www.petronetlpg.com

Highlights

FLOOD RELIEF WORKS



Highlights



Programme Inauguration


VYPIN PROJECT
AT
K PANCHAYATH,
LAM, KERALA



Initiation
Social Growth
- 2018-2019

with the Vypin



Chowva GHSS Library Inauguration



Chowva Library Inauguration



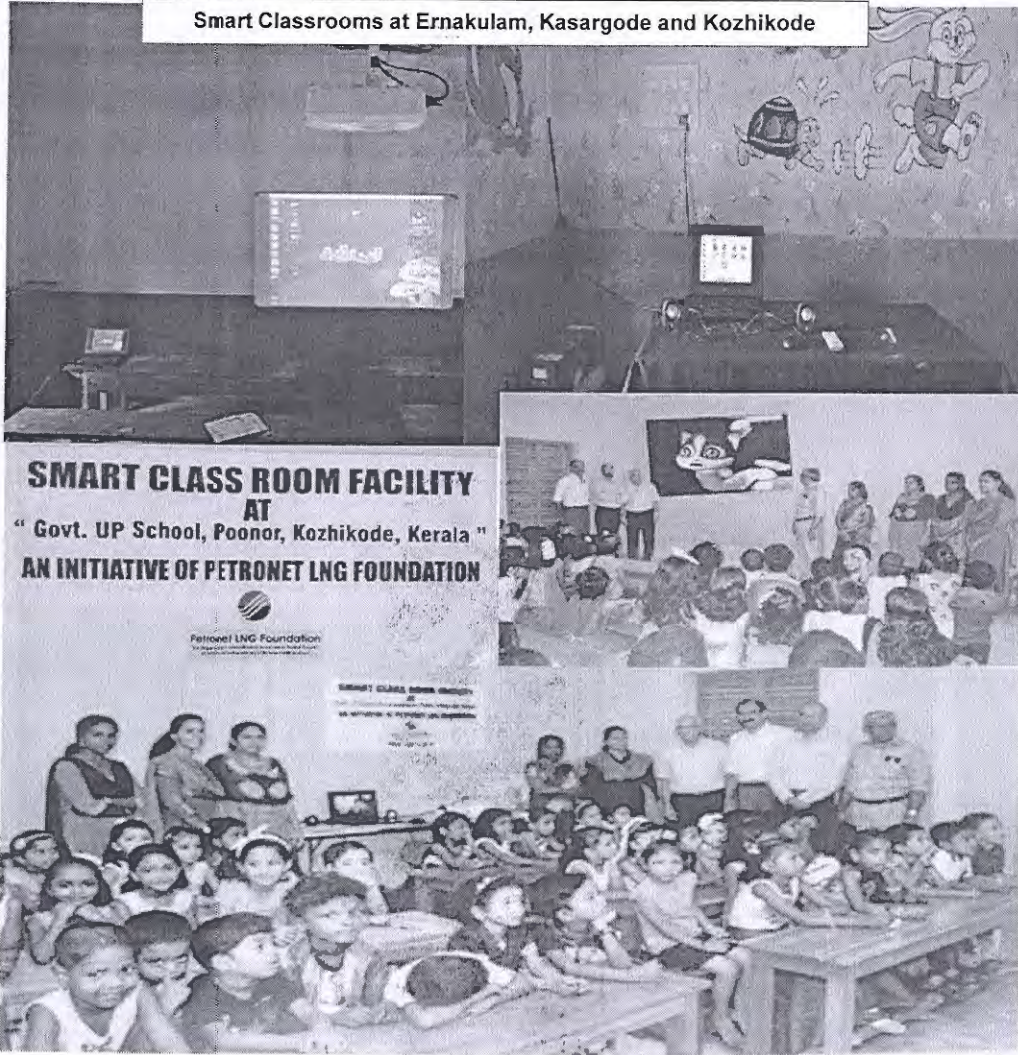
CBPST Visits and Kit Handover Ceremony



Petronet LNG Foundation
"An Organization committed to Sustainable Social Growth"

Highlights

Smart Classrooms at Ernakulam, Kasargode and Kozhikode



Solid Waste Management Plant at Taluka Hospital Perambra, Kozikode

Highlights



g At Kunjipara



Wash And Toilet Cleaning At Talawchpara



g At Kunjipara



Wash And Toilet Cleaning At Kunjipara



Good Samaritan Support Handed Over To Ms Shakeela



Support Handed Over Mr Vijayan



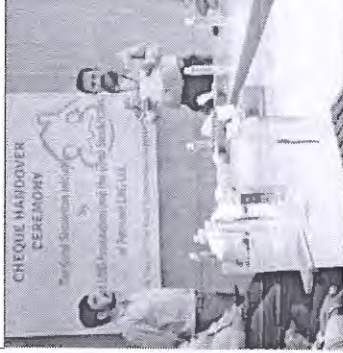
Ms Shakeela's Daughter - Thanks Card for the Support



Good Samaritan Support Hand



Good Samaritan Support Hand



Good Samaritan Support Hand



CSR Expenditure (FY 18-19, KOCHI)

CONSUMED IN FY 18-19

RS 1.3 CRORE

Consumption Summary of Annual CSR Expenditure Approved at Plant Level (PLL + PLF) – 2018-2019

HEADS	AMOUNT (INR)
CONSUMED & UNDER IMPLMENTATION	30.73 LAKH

Consumption Summary of Annual CSR Expenditure Approved at Corporate (Kochi Terminal) 2018-2019

X RAY UNIT – UNDER IMPLEMETATION	96.00 LAKH (APPROX)
VELICHAM – UNDER IMPLEMETATION	
NUMMA OONU – RS 25 LAKH	
FLOOD RELIEF – RS 15 LAKH	
CBPST (NAIPUNYAM) – RS 30 LAKH	

