| Your application has been Submitted with following details   |                               |  |
|--|-------------------------------|--|
| Proposal No  | IA/KL/MIS/10670/2002          |  |
| Compliance ID  | 28390360                      |  |
| Compliance Number(For Tracking)  | EC/M/COMPLIANCE/28390360/2023 |  |
| Reporting Year   | 2023                          |  |
| Reporting Period   | 01 Dec(01 Apr - 30 Sep)       |  |
| Submission Date  | 01-12-2023                    |  |
| IRO Name   | P Subramanyam                 |  |
| IRO Email  | agmu102@ifs.nic.in            |  |
| State  | KERALA                        |  |
| IRO Office Address   | Budgam                        |  |
| Note:- SMS and E-Mail has been sent to P Subramanyam, KERALA with Notification to Project Proponent. |                               |  |



#### 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/MoEF&CC/2023-24/01

01.12.2023

Additional Principal Chief Conservator of Forests (C) Ministry of Environment, Forest and Climate Change, Regional Office (SZ), Kendriva 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 accorded to the LNG Terminal at Puthuvypu, Kochi.
- Ref: Environment Clearance No. J-16011/26/2001-IA-III vide your letters dated 2<sup>nd</sup> June 2003.

Sir.

The Six-monthly compliance report for the above clearance for the period of April to September 2023 is attached.

Thanking You

Sincerely,

LALANE Upinder Kumar Chief General Manager & Vice President (Plant Head)

Copy to: The Environmental Engineer, District Office 1, 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 No. J-16011/26/2001-IA-III dated 02<sup>nd</sup> JUNE 2003 for the Construction of LNG Import Terminal at Puthuvypeen Island, Kochi, Kerala by M/s Petronet LNG Ltd (PLL)

| SI. No | Condition Type | Condition Description  | Compliance Status  |
|--------|----------------|--|--|
| 1      | Specific       | All the conditions stipulated by the<br>Science Technology and Environment<br>Department (STED), Government of<br>Kerala vide their Letter No.<br>4215/B1/2000/STED, dated 9 <sup>th</sup> February-<br>2001 should be effectively implemented.  | <ul> <li>Letter No. 4215/B1/2000/STED, dated<br/>09th February-2001 does not specify any<br/>conditions for compliance.</li> <li>Conditions mentioned in the Letter<br/>No.1143/A2/2005/ dated 14.10.2005 from<br/>KCZMA are complied. Report attached as<br/>Annexure 1.</li> </ul> |
| 2      | Specific       | All the conditions stipulated by Kerala<br>Pollution Control board in their NOC No:<br>PCB/NOC/EK/117/98 dated 17.09.99<br>should be effectively implemented.  | Conditions stipulated by KSPCB in their NOC<br>No. PCB/NOC/EK/117/98 dated 17.09.99<br>are complied. <b>Report attached as Annexure</b><br><b>2.</b>   |
| 3      | Specific       | No change in scope of work shall be<br>made without prior approval of this<br>ministry.  | Any change in scope would be carried out only with the prior approval of the MoEF&CC.  |
| 4      | Specific       | The laying and commissioning of the<br>pipelines shall be in accordance with the<br>established procedures, practices, and<br>rules. LNG facilities shall be designed,<br>constructed, and operated as per<br>existing international standards. The<br>pipelines shall be provided with in-built<br>gas leakage detection and warning<br>system. Adequate measures for<br>monitoring pressures in excess of those<br>for which the pipeline is designed shall<br>be ensured to prevent leakage of gas. | Terminal construction and laying of<br>pipelines were carried out as per applicable<br>standards & regulations. Safety and warning<br>systems are installed, and the details were<br>submitted with HYCR for the period April to<br>Sep 2013.  |
| 5      | Specific       | No groundwater shall be tapped for the project.  | Groundwater is not required during<br>construction stage and operation phase.<br>Water requirement during operation of the<br>terminal is being met by the condensed<br>water generated from air heater & by<br>purchasing from municipal sources.                                   |
| 6      | Specific       | Specific arrangement for rainwater<br>harvesting should be made in the project<br>design and the rainwater so harvested<br>should be optimally utilized.   | Rainwater collection system is in place<br>above LNG storage tanks and the water<br>collected is being used in the terminal.   |
| 7      | Specific       | Mangrove afforestation will be<br>promoted in consultation with the<br>expert agencies and the local NGOs in<br>the area. A detailed plan shall be worked<br>out in this regard and submitted to this<br>Ministry within 3 months.   | Mangrove afforestation plan was submitted<br>with HYCR dated for the period April to<br>September 2013. PLL had spent Rs.60.00<br>lakh for Mangrove Afforestation Project till<br>date and the details were submitted to<br>MoEF&CC with the HYCR for October to<br>March 2020.      |

#### Period: April 2023 to September 2023

| 8  | Specific | The budget allocated for environment safeguard measures shall not be diverted for any other purpose.  | PLL ensure that the budget allocated for<br>environment safeguard will not be diverted<br>for other purposes.  |
|----|----------|---|--|
| 9  | Specific | The comprehensive Environmental<br>Impact Assessment report shall be<br>completed early, and the final report<br>submitted to this Ministry within one<br>year from the date of this clearance<br>letter. Based on the comprehensive EIA<br>report, additional environmental<br>safeguards, as required, shall be<br>implemented by the proponents.   | Comprehensive EIA report for 2.5 MMTPA<br>Terminal capacity was submitted at<br>MoEF&CC on 16 <sup>th</sup> Feb 2001. EIA and QRA<br>reports were submitted at MoEF&CC on<br>22nd Sept 2011. Additional safeguards are<br>being implemented in accordance with the<br>EIA report.  |
| 10 | Specific | Based on the risk analysis, Disaster<br>Management Plan should be prepared<br>and submitted to this Ministry within 6<br>months. Necessary safety norms for the<br>movement of LNG ships are to be laid<br>down by Cochin Port Trust Authorities<br>within their jurisdiction and<br>communicated to the project proponent<br>for strict compliance with a view to<br>prevent collision, grounding or ramming<br>or any other major accidents | Site emergency response plan was<br>submitted to MoEF&CC on 22nd<br>September-2011 and with the HYCR for the<br>period October 2012 to March 2013. Safety<br>norms for the ship movements as received<br>from CoPT (Cochin Port Trust) are included<br>as part of ERDMP.   |
| 11 | Specific | Project proponent shall take all safety<br>measures and take into account the<br>dynamics of the marine / Coastal area<br>before constructing the break waters.<br>The recommendations made by Central<br>Water and Power Research Station<br>(CWPRS) shall be duly implemented. The<br>dredged materials shall be disposed of as<br>per the recommendations by CWPRS.  | All the safety measures had taken before<br>breakwater construction. Location and size<br>of the basin were finalized after detailed<br>study done by CWPRS and revalidation by<br>HR Wallingford. Recommendations from<br>CWPRS were implemented. The dredged<br>material is being disposed of at the locations<br>identified by Cochin Port trust. |
| 12 | Specific | No activities will be undertaken in the<br>Mangrove area or in the buffer zone of<br>the mangrove. The route of the pipeline<br>and other activities shall have minimum<br>of 50m from the nearby mangroves and<br>forest land if any in the CRZ area.<br>Expansion of existing service road in the<br>Costal Regulation Zone-I shall not be<br>carried out.  | PLL is not located in the mangrove area. PLL<br>terminal is located at about 100m from the<br>mangrove buffer zone. The existing service<br>road belongs to Panchayat. PLL will not carry<br>out any expansion of existing service road<br>into CRZ Zone 1(i).   |
| 13 | Specific | Design and alignment of the pumping<br>platform/jetty and other structures<br>should be chosen in such a way that it<br>causes minimum resistance to the flow<br>of tidal waters.   | Jetty structure was designed and<br>constructed after due consideration of this<br>aspect. Jetty foundation is built on piles<br>structure to cause minimum disturbance to<br>tidal waters.  |

| 14 | Specific | The pipelines related to effluent<br>discharge, sea water intake and pumping<br>of LNG should be laid on sea floor after<br>trenching. Trenching operations should<br>be restricted to minimum area to<br>minimize damage to benthic fauna.   | LNG Pipelines are laid above ground along<br>the jetty trestle. PLL is not taking sea water<br>for its process and No effluent is getting<br>discharged into the sea.  |
|----|----------|---|--|
| 15 | Specific | Disposal facilities should be completed<br>prior to the commissioning of project<br>activities. As per the thermal Plume<br>Studies by NIO, Goa, the return water<br>should be discharged at a location<br>having water depth of about 3 m. Post<br>monitoring should be carried out at<br>definite intervals in order to ensure mid-<br>course corrections, if any, for<br>maintenance of environmental quality. | PLL had submitted to MoEF&CC, the change<br>in the regasification process of the terminal<br>and Sea water intake is not required in Shell<br>and Tube Vaporizers. So, this condition<br>remains not applicable.                     |
| 16 | Specific | Fish eggs, larvae and small fish as well as<br>plant and animal plankton pass through<br>the water intake screen and at times<br>through the trash bars. Accordingly, the<br>water intake for regasification purpose is<br>to be provided with a velocity cap, trash<br>bars, and low intake velocity be<br>maintained to minimize the entry of<br>debris and fish.   | PLL had submitted to MoEF&CC, the change<br>in the regasification process of the terminal<br>and Sea water intake is not required in Shell<br>and Tube Vaporizers.   |
| 17 | Specific | The Bathymetric survey of the dredged<br>material disposal site should be carried<br>out regularly and it should be ensured<br>that there is no navigational hazard due<br>to reduction of navigational depth as a<br>result of project activities. Location of<br>dumping site should be informed to all<br>concerned.   | The Bathymetric survey is being carried out<br>by Cochin Port Trust. The dredged material<br>is being disposed of at the locations<br>identified by Cochin Port trust.   |
| 18 | Specific | Regular surveys shall be conducted to<br>identify changes in the channel<br>morphology so that navigational hazards<br>are minimal.   | The channel is belonging to Cochin Port and<br>its Morphology survey has been carrying out<br>by Cochin Port Trust.  |
| 19 | Specific | Marine environment shall be<br>periodically monitored to assess<br>changes, if any, in the ecology and<br>suitable remedial measures, if any<br>required, shall be taken.   | Marine water analysis is being carrying out<br>once in 6 months through a KSPCB approved<br>lab. As per report, there are no adverse<br>changes observed in the marine water<br>quality. Latest report is attached as<br>Annexure 3. |

| 20 | General | Construction of the proposed structure<br>should be undertaken meticulously<br>conforming to the existing Central/local<br>rules and regulations including Coastal<br>Regulation Zone Notification, 1991 and<br>its amendments. All the construction<br>designs/drawings relating to the<br>proposed construction activities must<br>have approvals of the concerned State<br>Government departments/Agencies.  | Terminal construction was carried out as<br>per applicable central & local regulations<br>like KSPCB, PESO, F&B, Fire and Rescue<br>dept., KCZMA etc.<br>All the statutory approvals were submitted<br>with the HYCR for the period October 2012<br>to March 2013.                     |
|----|---------|---|--|
| 21 | General | 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.   | This was ensured during construction stage.<br>At present, ground water wells are installed<br>for ground water quality monitoring. Latest<br>ground water <b>analysis report is attached as</b><br><b>Annexure 4.</b>   |
| 22 | General | Handling, manufacturing, storage and<br>transportation of all hazardous<br>chemicals should be carried out in<br>accordance with MSIHC Rules, 1989 and<br>subsequent amendments, All approvals<br>from State and Central nodal agencies<br>including OISD, Chief Controller of<br>Explosives, Chief Inspectorate of<br>Factories must be obtained. A<br>comprehensive contingency plan in<br>collaboration with the concerned<br>authorities must be formulated before<br>commissioning of the project to meet<br>any eventuality in case of an accident. | Plant operations being carried out in<br>accordance with all applicable regulations.<br>All the approvals and licenses obtained from<br>statutory bodies were submitted with HYCR<br>for the period October 2012 to March 2013.  |
| 23 | General | Minor oil spills are likely to be caused<br>due to ship movement in the port.<br>Engine room waste, oil ballast and tank<br>wash water have to be discharged to the<br>shore reception for treatment by port<br>authorities or by certified contractors. In<br>case of major oil spills due to accidents.<br>Petronet LNG Limited should interact<br>with Kochi Port to ensure full<br>preparedness to undertake all combat<br>operations.  | Oil spill contingency plan is in place which is<br>prepared by CoPT. Any kind of spillage<br>incidents will be handled by Cochin Port<br>Trust. Details of oil spill contingency plan<br>was submitted to MoEF&CC along with the<br>HYCR for the period October 2012 to March<br>2013. |

| 24 | General | Control room / tower should be<br>equipped with modern communication<br>and control device to act<br>instantaneously if spill/leakage occurs.<br>At the jetty, loading arm should be<br>equipped with latest Emergency Release<br>Systems (ERS) and monitoring device for<br>LNG services. Articulated cargo transfer<br>arm should be used at the unloading<br>jetty. It shall be ensured that LPG and<br>LNG tankers are scheduled properly to<br>avoid bunching and also that LPG will not<br>be unloaded from the ship when the LNG<br>tanker is at berth.   | Control room is equipped with modern<br>communication and control facilities like<br>detectors & ESD systems for act during<br>leakage or spills. Loading arms are equipped<br>with Emergency release systems.<br>PLL do not handle LPG at our jetty.   |
|----|---------|--|---|
| 25 | General | Dry chemical firefighting extinguishers<br>should be provided at all levels of the<br>jetty to permit personnel to fight small<br>fires. Water spray for dispersing un-<br>ignited vapour clouds should be kept as<br>standby. Full- fledged firefighting<br>facilities should be provided at jetty.   | Fixed DCP fire extinguishing system & DCP<br>extinguishers are provided at jetty. Water<br>spray and curtain system is provided at jetty<br>and other locations. Details submitted with<br>HYCR for the period April to September<br>2013.  |
| 26 | General | A well-equipped laboratory with suitable<br>instruments to monitor the quality of air<br>and water shall be set up as to ensure<br>that the quality of ambient air and water<br>conforms to the prescribed standards.<br>The laboratory will also be equipped<br>with qualified manpower including a<br>marine biologist so that the marine<br>water quality is regularly monitored in<br>order to ensure that the marine life is<br>not adversely affected as a result of<br>implementation of the said project. The<br>quality of ambient air and water shall be<br>monitored periodically in all the seasons<br>and the results should be properly<br>maintained for inspection of the<br>concerned pollution control agencies.<br>The periodic monitoring reports at least<br>once in 6 months must be sent to this<br>Ministry (Regional Office at Bangalore)<br>and State Pollution Control Board. | A laboratory with equipment's for water<br>quality analysis and qualified employees is<br>in place. Water & Air quality monitoring is<br>carrying out with the help of a PCB approved<br>third party lab. <b>Reports attached as</b><br><b>Annexure 5</b> . Services of a marine biologist is<br>not required as there was a change in the<br>initially proposed project, where sea water<br>intake is required in the process. |
| 27 | General | Adequate provisions for infrastructure<br>facilities such as water supply, fuel for<br>cooking, sanitation, etc. must be<br>provided for the laborers during the<br>construction period in order to avoid<br>damage to the environment, Colonies<br>for the laborers should not be located in<br>the Coastal Regulation Zone area. It<br>should also be fuel wood purpose.   | During construction, PLL has provided<br>adequate infrastructure facilities such as<br>water supply, fuel for cooking, sanitation,<br>etc. to the labourers. Labour colonies were<br>not located in CRZ area.   |

| 28 | General | To prevent discharge of sewage and<br>other liquid wastes into the water<br>bodies, adequate system for collection<br>and treatment of the wastes must be<br>provided. No sewage and other liquid<br>wastes without treatment should be<br>allowed to enter into the water bodies.            | STP and septic tanks are provided for<br>treating sewages from buildings. No sewage<br>or waste from PLL are allowed to enter in<br>water bodies. Treated water from STP is<br>used for gardening purpose.  |
|----|---------|---|---|
| 29 | General | Appropriate facility should be created<br>for the collection of solid and liquid<br>wastes generated by the barges/vessels<br>and their safe treatment and disposal<br>should be ensured to avoid possible<br>contamination of the water bodies.  | Wastes generated by vessels and tugs are<br>handled & disposed by the vessels as per the<br>guidelines of Annex V of Marpol (IMO).  |
| 30 | General | Necessary navigational aids such as<br>channel markers should be provided to<br>prevent accidents. internationally<br>recognized safety standards shall be<br>applied in case of barge/vessel<br>movements  | All the navigation related requirements are maintained by Cochin Port Trust.  |
| 31 | General | The project authorities should take<br>appropriate community development<br>and welfare measures for villagers in the<br>vicinity of the project site, including<br>drinking water facilities. A separate fund<br>should be allocated for this purpose.                                       | CSR projects are being undertaken by PLL<br>for community development and welfare in<br>nearby villages using a separate CSR fund.<br>CSR report & expenditures during the<br>period, April to September 2023 is <b>attached</b><br><b>as Annexure 6.</b> |
| 32 | General | The quarrying material required for the<br>construction purpose shall be obtained<br>only from the approved quarries/borrow<br>areas. Adequate safeguard measures<br>shall be taken to ensure that the<br>overburden and rocks at the quarry site<br>do not find their way into water bodies. | Quarrying material was sourced from<br>Government approved quarries during<br>terminal construction. Details regarding this<br>are submitted with six monthly compliance<br>reports for the period October 2012 to<br>March 2013.                         |
| 33 | General | The dredging operations to be<br>undertaken with the prior approval of<br>this Ministry, shall be executed with<br>appropriate safeguard measures to<br>prevent turbidity conditions in<br>consultation with the expert agencies<br>such CWPRS/NIO.   | Dredging approval has been taken from<br>MoEF&CC vide their order No.<br>J16011/26/2001- IA-III dated 16th<br>November2010. Dredging completed &<br>maintenance dredging is being regularly<br>carried out by ensuring all safeguards.                    |
| 34 | General | For employing unskilled, semi-skilled<br>and skilled workers for the project,<br>preference shall be given to local people.   | During the project, PLL had given preference<br>to locals while employing unskilled,<br>semiskilled and skilled worker wherever<br>possible based on their qualification and<br>merits.   |

| 35 | General | The recommendations made in the<br>Environment Management Plan and<br>Disaster Management Plan, as contained<br>in the Environmental Impact Assessment<br>and Risk Analysis Reports of the project<br>shall be effectively implemented.   | All the recommendations are implemented.  |
|----|---------|---|---|
| 36 | General | A separate Environment Management<br>Cell with suitably qualified staff to carry<br>out various environment issues should<br>be set up under the charge of a Senior<br>Executive who will report directly to the<br>Chief Executive of the Company.   | PLL has set up an Environment Management<br>Cell (EMC) under Chief General Manager &<br>Vice President (Plant Head) with members<br>from plant departments.   |
| 37 | General | The project affected people, if any should be properly compensated and rehabilitated.   | No people affected directly as the project<br>was on uninhabited land.  |
| 38 | General | The funds earmarked for environment<br>protection measures should be<br>maintained in a separate account and<br>there should be no diversion of these<br>funds for any other purpose. A year wise<br>expenditure on environmental<br>safeguards should be reported to this<br>Ministry.   | The fund earmarked for environment<br>management is included in the budget and<br>will not be diverted for other purposes.  |
| 39 | General | Full support should be extended to the<br>officers of this Ministry's Regional Office<br>at Bangalore and the officers of the<br>Central and State Pollution Control<br>Boards by the project proponents during<br>their inspection for monitoring<br>purposes, by furnishing full details and<br>action plans including the action taken<br>reports in respect of mitigative<br>measures and other environmental<br>protection activities. | PLL extend its full support to the officers of<br>this ministry's Regional Office, Bengaluru<br>and the officers of the Central and State<br>Pollution Control Board during the<br>inspection for monitoring purpose. |
| 40 | General | In case of deviation or alteration in the<br>project including the implementing<br>agency, a fresh reference should be<br>made to this Ministry for modification in<br>the clearance conditions or imposition of<br>new ones for ensuring environmental<br>protection. The project proponents<br>should be responsible for implementing<br>the suggested safeguard measures.  | PLL has not carried out any deviation or<br>alteration in the project. PLL will comply<br>with this requirement and will take permit<br>from the Ministry prior to any deviation,<br>alteration and modification.     |
| 41 | General | This Ministry reserves the right to revoke<br>this clearance, if any of the conditions  | Noted. PLL will abide by all Environment clearance conditions.  |

|    |         | stipulated are not complied with to the satisfaction of this Ministry.  |  |
|----|---------|---|--|
| 42 | General | This Ministry or any other competent<br>authority may stipulate any additional<br>conditions subsequently, if deemed<br>necessary for environmental protection,<br>which shall be complied with.  | PLL will comply with additional conditions, if<br>any suggested by the ministry or any other<br>competent authority in writing.  |
| 43 | General | The project proponent should advertise<br>at least in two local newspapers widely<br>circulated in the region around the<br>project, one of which shall be in the<br>vernacular language of the locality<br>concerned informing that the project<br>has been accorded environmental<br>clearance and copies of clearance letters<br>are available with the State Pollution<br>Control Committee and may also be<br>seen at Website of the Ministry of<br>Environment & Forests at<br>http://www.envfornic.in. The<br>advertisement should be made within 7<br>days from the date of issue of the<br>clearance letter and a copy of the same<br>should be forwarded to the Regional<br>Office of this Ministry at Bangalore. | Advertised in two local newspapers widely<br>circulated in the region around the project.<br>Copy of advertisement submitted along<br>with the six-monthly compliance report for<br>the period April to September, 2013. |
| 44 | General | The Project proponents should inform<br>the Regional Office as well as the<br>Ministry the date of financial closure and<br>final approval of the project by the<br>concerned authorities and the date of<br>start of Land Development Work.  | PLL had informed the Regional Office as well<br>as the Ministry regarding the date of<br>financial closure and final approval of the<br>project vide letter dated 5th Sept-2008.   |

Conditions mentioned in the Letter No. 4215/B1/2000/STED, dated 9<sup>th</sup> February-2001 does not specifies any conditions for compliance.

Conditions mentioned in the Letter No. 1143/A2/2005/STED dated 14<sup>th</sup> October-2005 from Kerala coastal Zone Management Authority and PLL compliance remarks are as under:

| Sr.<br>No. | Conditions mentioned  | PLL Compliance remarks   |
|------------|---|--|
| 1.         | No activities will be undertaken in the<br>Mangrove area or in the buffer zone of<br>the mangrove. The route of the<br>pipeline and other activities shall have<br>minimum of 50M from the nearby<br>mangroves and forest land if any in the<br>CRZ area. | PLL's plot is not in the mangrove area,<br>it is about 100 m away from the buffer<br>zone. All activities including the laying<br>of pipelines are confined within the<br>PLL's plot.  |
| 2.         | Expansion of existing service road in<br>the Costal Regulation Zone-I shall not<br>be carried out.  | Existing service road in the Costal<br>Regulation Zone-I belongs to<br>Panchayat and PLL will not do any<br>expansion of this service road.  |
| 3.         | No groundwater shall be tapped for the project.   | PLL will not tap any ground water<br>during operation of the terminal as<br>water requirement will be met by local<br>purchase. During construction stage,<br>requirement of water was met by<br>purchasing.   |
| 4.         | The proponent shall obtain necessary<br>No Objection Certificate (NOC) from<br>Kerala State Pollution Control Board.  | PLL has obtained required NOC from<br>Kerala State Pollution Control Board in<br>1999 vide NOC No.<br>PCB/NOC/EK/117/98 dated 17 <sup>th</sup><br>September-1999.<br>We have obtained a Consent to<br>Operate with no. PCB/HO/EKM-1/ICO-<br>R/16/ 2023 dated 14 <sup>th</sup> August 2023, and<br>is valid up to on 31 <sup>st</sup> March 2028, a<br>copy of the same is enclosed here. |
| 5.         | EIA document including risk analysis<br>and disaster management plan should<br>be submitted directly to MoEF&CC for<br>environment clearance, under<br>intimation to this office.   | Comprehensive EIA for 2.5 MMTPA<br>Terminal capacity was submitted at<br>MoEF&CC on 16th February-2001. EIA,<br>QRA and Site emergency response<br>plan for 5 MMTPA terminal capacity<br>were submitted at MoEF&CC on 22nd<br>September-2011.  |

## Conditions mentioned by KSPCB in the CTE No. PCB/NOC/EK/117/98 dated 17.9.99 are and PLL compliance remarks are as under:

| SI.<br>No | Conditions mentioned  | PLL Compliance remarks  |
|-----------|---|---|
| 1         | The applicant shall comply with the instructions that the Board may issue from time to time regarding prevention and control of air, water, land and sound pollution.   | PLL will comply with any such instructions<br>from the Board regarding prevention and<br>control of air, water, land and sound<br>pollution.  |
| 2         | The effluent treatment facilities<br>proposed namely sewage treatment<br>plant/septic tank, oil traps, hot water-<br>cooling facilities etc. shall be provided<br>before commissioning the industry.<br>Addition facilities required, if any to<br>achieve the effluent standards laid<br>down by the Board under section 17(1)<br>(g) of Water (Prevention and Control of<br>Pollution) Act'1974 shall also be made<br>along with. | <ul> <li>PLL is generating only sewage wastes and<br/>it is being handled with an STP of capacity<br/>30 KLD &amp; through the septic tanks and<br/>soak pits installed for individual building.</li> <li>PLL will comply with the effluent standard<br/>as per Water Act and if additional facilities<br/>are required, then PLL will provide those<br/>facilities for treatment of effluents.</li> </ul>            |
| 3         | Air pollution control devices required<br>shall be installed before commissioning<br>the industry for controlling air pollution.<br>Minimum stack/chimney height shall be<br>as detailed below:   | PLL is using Natural Gas as fuel for GTGs.<br>GTGs are inbuilt with DLE burner (Dry low<br>emission, Low NOx burners) and CEMS<br>(Continuous Emission monitoring System).<br>Stacks of height as required by statues<br>were installed for Flare, GTG, EDG & Fire<br>water pumps.  |
|           | 69.0 m above ground level for flare<br>stack and 5.5 meter above the roof<br>level of Generator room for the Gensets<br>of capacity 750 KVA.  | PLL had received a letter from KSPCB<br>dated 18-10-2010 regarding change in this<br>condition, wherein the flare stack height<br>reduced from 69.0 m to 43.2 m, a copy of<br>this letter had already been submitted<br>with six monthly reports dated 30 <sup>th</sup><br>September-2013.<br>PLL has provided the stack discharge at<br>3.5 meter above the roof level for<br>Emergency Diesel Generator room (EDG). |
| 4         | For bringing into use any outlet to<br>discharge and for the discharge of<br>sewage/trade effluent, the applicant<br>shall obtain consent to discharge from<br>the Board under the Water (Prevention<br>and Control of Pollution) Act'1974<br>before commissioning the industry.  | PLL is generating only sewage waste and<br>is being handled through individual<br>building's septic tank, soak pit and STP.<br>Treated water from STP is being used for<br>gardening purpose. PLL has obtained<br>Integrated Consent to Operate from<br>Kerala State Pollution Control board.   |
| 5         | The applicant shall obtain the "Consent<br>to Operate" from the Board under the<br>Air (Prevention and Control of Pollution)  | PLL had obtained Integrated Consent to<br>Operate from KSPCB before<br>commissioning of the facility (ICTO No:  |

|    | Act'1981 before commissioning the industry.  | PCB/HO/EKM/ICO/40/2013 dated 05.08.2013).   |
|----|--|---|
| 6  | The sign board showing the name of<br>the industry shall be displayed at the<br>entrance of the site.  | PLL has displayed the sign board showing<br>name of the industry at the entrance of<br>the site.  |
| 7  | Suitable species of trees shall be<br>planted and maintained within and<br>along the periphery of the factory<br>premises, forming a green belt to<br>improve the environment.   | Green Belt area has been developed<br>along the periphery of the factory<br>premises with trees like Gul mohar,<br>Amaltas, Neem, fig, mango, arjun tree<br>etc. A horticulture department is<br>functioning inside the terminal for green<br>belt monitoring and gardening related<br>works. |
| 8  | The date of commissioning of the<br>industry shall be intimated to the Head<br>Office and Regional office concerned<br>of the Board at least one month in<br>advance.  | PLL had informed the date of<br>commissioning of the industry vide letter<br>no PLL/KOCHI/KSPCB/2013-14/C-06 dated<br>07 <sup>th</sup> August-2013, A copy of this letter has<br>already been submitted with six monthly<br>reports dated 30 <sup>th</sup> September-2013.                    |
| 9  | There shall not be any fugitive emission from the plant/premises.  | There are no fugitive emissions from the plant/premises.  |
| 10 | The location of the industry shall be as<br>shown in the drawing attached. No<br>change or alteration to the above shall<br>be made.   | There is no change made in the location<br>of the industry, Location of the industry is<br>as per the drawing.  |
| 11 | The temperature difference between<br>cooling water discharged and the<br>receiving water body (sea water)<br>temperature shall not be more than<br>50C and monitoring arrangements for<br>the same shall be provided. | PLL is not discharging cooling water into sea or any other water body.  |
| 12 | The ambient sound level measured at a<br>distance of 1 m away from the<br>boundary shall not exceed 65 dB (A)<br>during daytime and 55 dB (A) during<br>nighttime.   | Ambient sound levels measured at a distance of 1 m away from the boundary walls are well within the limits as specified.<br>Ambient sound level monitoring is being carried out every quarter by a KSPCB approved agency and the monitoring reports are being regularly submitted at KSPCB.   |
| 13 | Consent to establish shall be obtained<br>prior to setting up of captive power<br>plant in futures.  | A Consent to Establish was obtained by<br>PLL prior to setting up of captive power<br>plant.  |





#### **TEST REPORT**

| RI No.: SE                         | EAAL23061322A               |  |   | Date: 21-06-2   | 2023               |                       | Page 1 of 2 |  |
|------------------------------------|-----------------------------|--|---|-----------------|--------------------|-----------------------|-------------|--|
|                                    |                             |  | CUSTOMER D                                  | ETAILS          |                    |                       |             |  |
|                                    |                             | M/s Petro  | net LNG Limited                             |                 |                    |                       |             |  |
| Customer N                         | ame & Address               | Survey No.   | 347, Puthuvypu P.O                          |                 |                    |                       |             |  |
|                                    |                             | Kochi, Ern   | akulam District                             |                 |                    |                       |             |  |
| Customer Reference Test Reque      |                             | est Date: 12-06-2023                               |   |                 |                    |                       |             |  |
|                                    |                             |  | SAMPLE DE                                   | TAILS           |                    |                       |             |  |
| Product Cat                        | egory                       | Water  |   | Sample Code     |                    | WT230                 | 60219       |  |
| Sample Nan                         | ne                          | Water  |   | Sample Receive  | ed on              | 13-06-2               | 2023        |  |
| Sample Des<br>Customer             |                             | Marine Wa  | ter   | Temperature @   |                    | 4°C                   |             |  |
| Sample Con                         | ditions at Receipt          | Fit for Ana  | lysis                                       | Test Commence   | ed on              | 13-06-2               | 2023        |  |
|                                    | ntity& Packing              | 10 L & 125<br>Bottle                               | 10 L & 125 ml in a Plastic<br>Bottle        |                 | Test Completed on  |                       | 20-06-2023  |  |
| nformation Provided by<br>Customer |                             |  | Sampled by                                  |                 |                    | Lab Authorized Sample |             |  |
|                                    |                             |  | DETAILS OF SA                               | MPLING          |                    |                       |             |  |
| Sample Sou                         | rce                         | Jetty Area   | Date of Samp                                |                 | ng                 | 12-06-2               | 2023        |  |
| Sampling Pr                        | rocedure                    |  | EAAL/ENL/GEN/SOP/01 & Sa<br>EAAL/MBL/SOP/06 |                 | Sample Temperature |                       |             |  |
|                                    |                             | TEST H   | RESULTS - CHEMI                             | CAL PARAMET     | ERS                |                       |             |  |
| Sl.No.                             | PARAMET                     | ERS  | TEST MET                                    | THOD            | UNIT               |                       | RESULT      |  |
| 1                                  | Temperature                 |  | APHA 23rd 2550 B                            | Edn: 2017       | 0C                 |                       | 30          |  |
| 2                                  | Colour                      |  | IS 3025 (Part4):198                         | 33              | Hazen              |                       | 1           |  |
| 3                                  | pН                          |  | IS 3025 (Part 11):1                         | 983             |                    |                       | 7.36        |  |
| 4                                  | Electrical Conduc           | tivity   | IS 3025 (Part 14):1                         | 984             | µS/cm              |                       | 21870       |  |
| 5                                  | Total Dissolved S           | olids  | IS 3025 (Part 16):1                         | 1984 m          |                    |                       | 14210       |  |
| 6                                  | Turbidity                   |  | IS 3025 (Part 10:19                         | 984             | NTU                |                       | 3.9         |  |
| 7                                  | Total Suspended             | Solids   | IS 3025 (Part 17):1                         | 984             | mg/L               |                       | 2.80        |  |
| 8                                  | Chloride as Cl              |  | IS 3025 (Part 32):1                         | 988             | mg/L               |                       | 7410        |  |
| 9                                  | Salinity                    |  | APHA 23 <sup>rd</sup> Edition 25            | 20 – B: 2017    |                    |                       | 13.363      |  |
| 10                                 | Sulphate as SO <sub>4</sub> |  | IS 3025 (Part 24):1                         | 986             | mg/L               |                       | 1193        |  |
| 11                                 | Fluoride as F               | ×  | APHA 23rdEdition 450                        | 00-F- B D: 2017 | mg/L               |                       | 0.55        |  |
| $\leq$                             | Int                         | interaction and and and and and and and and and an | Bla   | muyas           |                    | 6                     | manna mil   |  |
| Chang                              | y Joy                       | and a land   | Rem   | iya B           |                    | L                     | aiju PN 🗸   |  |

TM-Chemical Checked by: Remya B TM-Biological Authorized Signatory

Laiju P N V Laboratory Head Authorized Signatory

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#### **TEST REPORT**

ULR No: TC540223000010834F

LRI No.: SEAAL23061322A

Date: 21-06-2023

Page 2 of 2

|        | TEST RESULTS – CHEMICAL PARAMETERS             |                               |      |                 |  |  |
|--------|--|-------------------------------|------|-----------------|--|--|
| SI.No. | PARAMETERS                                     | TEST METHOD                   | UNIT | RESULT          |  |  |
| 12     | Iron as Fe                                     | IS 3025 (Part 53):2003        | mg/L | 0.34            |  |  |
| 13     | Mercury as Hg                                  | IS 3025 (Part 48):1994        | mg/L | BDL (LOD-0.001) |  |  |
| 14     | Lead as Pb                                     | IS 3025 (Part 47):1994        | mg/L | BDL (LOD-0.01)  |  |  |
| 15     | Copper as Cu                                   | IS 3025 (Part 42):1992        | mg/L | BDL(LOD-0.016)  |  |  |
| 16     | Zinc as Zn                                     | APHA 23rd Edition 3111B: 2017 | mg/L | BDL (LOD-0.008) |  |  |
| 17     | Nickel as Ni                                   | IS 3025 (Part 54): 2003       | mg/L | BDL (LOD-0.003) |  |  |
| 18     | Cadmium as Cd                                  | IS 3025 (Part 41): 1992       | mg/L | BDL (LOD-0.003) |  |  |
| 19     | Arsenic as As                                  | IS 3025 (Part 37):1988        | mg/L | BDL (LOD-0.001) |  |  |
| 20     | Hexavalent Chromium as<br>Cr <sup>6+</sup>     | IS 3025 (Part 52):2003        | mg/L | BDL(LOD-0.07)   |  |  |
| 21     | Cyanide as CN                                  | IS 3025 (Part 27):2021        | mg/L | <0.01           |  |  |
| 22     | Oil & Grease                                   | IS 3025 (Part 39): 2021       | mg/L | <1.00           |  |  |
| 23     | Dissolved Oxygen                               | IS 3025 (Part 38):1989        | mg/L | 6.70            |  |  |
| 24     | Biochemical Oxygen Demand<br>(3 days at 27 °C) | IS 3025 (Part 44):1993        | mg/L | <2.00           |  |  |
| 25     | Chemical Oxygen Demand                         | IS 3025 (Part 58):2006        | mg/L | <4.00           |  |  |
| 26     | Pesticide                                      | SEAAL/INS/RWM/SOP/01          |      | < 0.005         |  |  |

| TEST RESULTS – BIOLOGICAL PARAMETERS |                         |                |               |        |   |  |
|--------------------------------------|-------------------------|----------------|---------------|--------|---|--|
| Sl.No.                               | PARAMETERS              | TEST METHOD    | UNIT          | RESULT | Requirement as<br>per Acceptable<br>Limit of<br>IS 10500 : 2012 |  |
| 1                                    | Total Plate Count       | IS 1622:1981   | cfu/mL        | 120    |   |  |
| 2                                    | Total Coliform Bacteria | IS 15185: 2016 | Absent/100 ml | Absent | Absent/100 ml   |  |
| 3                                    | E coli                  | IS 15185: 2016 | Absent/100 ml | Absent | Absent/100 ml   |  |
| 4                                    | Faecal Coliform         | IS 1622:1981   | MPN/100ml     | <2     | Absent/100 ml   |  |

\*Applicable only when sample is chlorinated

Note: BDL-Bclow Dctcction Limit,

LOD-Limit of Detection

Remark

Checked by:

\*\*\*End of Report\*\*\*

Shency Joy **TM-Chemical** 

Remya B TM-Biological Authorized Signatory

Laiju P N Laboratory Head Authorized Signatory

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# **Standard**S

#### **TEST REPORT**

# LRI No.: SEAAL23061322N Date: 21-06-2023 Page 1 of 1 CUSTOMER DETAILS CUSTOMER DETAILS M/s Petronet LNG Limited Survey No.347, Puthuvypu P.O Kochi, Ernakulam District Kochi, Ernakulam District Customer Reference Test Request Date: 12-06-2023 SAMPLE DETAILS

| SAMPLE DETAILS                      |                                      |                       |                        |  |
|-------------------------------------|--------------------------------------|-----------------------|------------------------|--|
| Product Category                    | Water                                | Sample Code           | WT23060219             |  |
| Sample Name                         | Water                                | Sample Received on    | 13-06-2023             |  |
| Sample Description by<br>Customer   | Marine Water                         | Temperature @ Receipt | 4°C                    |  |
| Sample Conditions at Receipt        | Fit for Analysis                     | Test Commenced on     | 13-06-2023             |  |
| Sample Quantity& Packing            | 10 L & 125 ml in a Plastic<br>Bottle | Test Completed on     | 20-06-2023             |  |
| Information Provided by<br>Customer |                                      | Sampled by            | Lab Authorized Sampler |  |

| DETAILS OF SAMPLING |  |                    |            |  |
|---------------------|--|--------------------|------------|--|
| Sample Source       | Jetty Area                                 | Date of Sampling   | 12-06-2023 |  |
| Sampling Procedure  | SEAAL/ENL/GEN/SOP/01 &<br>SEAAL/MBL/SOP/06 | Sample Temperature | 25°C       |  |

|        | TEST RESULTS – CHEMICAL PARAMETERS |                      |      |        |  |  |
|--------|------------------------------------|----------------------|------|--------|--|--|
| Sl.No. | PARAMETERS                         | TEST METHOD          | UNIT | RESULT |  |  |
| 1      | Insecticide                        | SEAAL/INS/RWM/SOP/01 | µg/L | Absent |  |  |

Remark

\*\*\*End of Report\*\*\*

Shency Joy TM-Chemical Checked by:



Laiju P N

Laboratory Head Authorized Signatory

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#### **TEST REPORT**

|                         |                             | ULR No: TC5                            | 40223   | 000010835F            |             |                   |
|-------------------------|-----------------------------|--|---|-----------------------|-------------|-------------------|
| LRI No.: S              |                             |  | Date: 21-06-2023                                |                       | Page 1 of 2 |                   |
|                         | 2                           | CUSTO                                  | MER D   | ETAILS                |             |                   |
|                         |                             | M/s Petronet LNG Lim                   | ited  |                       |             |                   |
| Customer N              | Vame & Address              | Survey No.347, Puthuvy                 | pu P.O  |                       |             |                   |
|                         |                             | Kochi, Ernakulam Distr                 | rict  |                       |             |                   |
| Customer F              | Reference                   | Test Request Date: 12-0                | 6-2023  |                       |             |                   |
|                         |                             | SAMP                                   | LE DE   | TAILS                 |             |                   |
| Product Ca              | tegory                      | Water                                  |   | Sample Code           | WT23        | 060220            |
| Sample Nar              | me                          | Ground Water                           |   | Sample Received on    | 13-06       | -2023             |
| Sample Des<br>Customer  | scription by                | Bore Well                              |   | Temperature @ Receipt | t 4°C       |                   |
| Sample Cor              | nditions at Receipt         | Fit for Analysis                       |   | Test Commenced on     | 14-06-2023  |                   |
| Sample Qua              | antity& Packing             | 10 L & 125 ml in a Plastic<br>Bottle   |   | Test Completed on     | 20-06-2023  |                   |
| Information<br>Customer | Provided by                 |  |   | Sampled by Lab A      |             | uthorized Sampler |
|                         |                             | DETAILS                                | OF SA   | MPLING                |             |                   |
| Sample Sou              | ırce                        | Bore Well (East Side)                  |   | Date of Sampling      | 12-06       | -2023             |
| Sampling P              | rocedure                    | SEAAL/ENL/GEN/SOP,<br>SEAAL/MBL/SOP/06 | /01 &   | Sample Temperature    |             |                   |
|                         |                             | TEST RESULTS - C                       | CHEMI   | CAL PARAMETERS        |             |                   |
| Sl. No.                 | PARAM                       | ETERS                                  | TE  | ST METHOD             | UNIT        | RESULT            |
| 1                       | pH                          | IS 3025                                | 5 (Part 1                                       | 1):1983               |             | 8.32              |
| 2                       | Temperature                 | APHA 2                                 | 3rd 255   | 60 B Edn: 2017        | °C          | 30                |
| 3                       | Total Dissolved S           | olids IS 3025                          | IS 3025 (Part 16):1984                          |                       | mg/L        | 1024              |
| 4                       | Electrical Conduc           | ctivity IS 3025                        | IS 3025 (Part 14):1984                          |                       | µS/cm       | 1862              |
| 5                       | Turbidity                   | IS 3025                                | IS 3025 (Part 10):1984                          |                       | NTU         | <0.1              |
| 6                       | Chloride as Cl              | IS 3025                                | IS 3025 (Part 32):1988                          |                       | mg/L        | 328               |
| 7                       | Iron as Fe                  | IS 3025                                | 5 (Part 5                                       | 3):2003               | mg/L        | 0.13              |
| 8                       | Fluoride as F               |  | APHA 23 <sup>rd</sup> Edition 4500-F- B D: 2017 |                       | mg/L        | <0.10             |
| 9                       | Sulphate as SO <sub>4</sub> | IS 3025                                | IS 3025 (Part 24):1986                          |                       | mg/L        | 112               |
| 10                      | Salinity                    | APHA 2                                 | 3rd 252   | 0 – B Edn.: 2017      |             | 0.96              |
| 11                      | Mercury as Hg               | IS 3025                                | 6 (Part 4                                       | 8):1994               | mg/L        | BDL (LOD-0.001)   |

Shency Joy TM-Chemical Checked by: Laiju P N Laboratory Head Authorized Signatory

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#### **TEST REPORT**

ULR No: TC540223000010835F

LRI No.: SEAAL23061323A

Date: 21-06-2023

Page 2 of 2

|         | TEST RESULTS – CHEMICAL PARAMETERS             |                           |      |                 |  |  |
|---------|--|---------------------------|------|-----------------|--|--|
| Sl. No. | PARAMETERS                                     | TEST METHOD               | UNIT | RESULT          |  |  |
| 12      | Lead as Pb                                     | IS 3025 (Part 47):1994    | mg/L | <0.20           |  |  |
| 13      | Copper as Cu                                   | IS 3025 (Part 42):1992    | mg/L | BDL (LOD-0.016) |  |  |
| 14      | Total Chromium as Cr                           | IS 3025 (Part 52):2003    | mg/L | BDL (LOD-0.05)  |  |  |
| 15      | Zinc as Zn                                     | APHA 3111B 23rd Edn, 2017 | mg/L | BDL (LOD-0.008) |  |  |
| 16      | Cadmium as Cd                                  | IS 3025 (Part 41):1992    | mg/L | BDL (LOD-0.003) |  |  |
| 17      | Cyanide as CN                                  | IS 3025 (Part 27):2021    | mg/L | <0.01           |  |  |
| 18      | Oil & Grease                                   | IS 3025 (Part 39): 2021   | mg/L | <1.00           |  |  |
| 19      | Dissolved Oxygen                               | IS 3025 (Part 38):1989    | mg/L | 6.80            |  |  |
| 20      | Biochemical Oxygen Demand<br>(3 days at 27 °C) | IS 3025 (Part 44):1993    | mg/L | <2.00           |  |  |
| 21      | Chemical Oxygen Demand                         | IS 3025 (Part 58):2006    | mg/L | 8.00            |  |  |
| 22      | Pesticide                                      | SEAAL/INS/RWM/SOP/01      | µg/L | < 0.005         |  |  |

Note: BDL-Below Detection Limit,

LOD-Limit of Detection

Remark

\*\*\*End of Report\*\*\*

Shency Joy TM-Chemical Checked by:

Laiju P N

Laboratory Head Authorized Signatory

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#### **TEST REPORT**

#### LRI No.: SEAAL23061323N

Date: 21-06-2023

Page 1 of 1

| CUSTOMER DETAILS        |                               |  |  |  |
|-------------------------|-------------------------------|--|--|--|
|                         | M/s Petronet LNG Limited      |  |  |  |
| Customer Name & Address | Survey No.347, Puthuvypu P.O  |  |  |  |
|                         | Kochi, Ernakulam District     |  |  |  |
| Customer Reference      | Test Request Date: 12-06-2023 |  |  |  |

| SAMPLE DETAILS                      |                                      |                       |                        |  |  |
|-------------------------------------|--------------------------------------|-----------------------|------------------------|--|--|
| Product Category                    | Water                                | Sample Code           | WT23060220             |  |  |
| Sample Name                         | Ground Water                         | Sample Received on    | 13-06-2023             |  |  |
| Sample Description by<br>Customer   | Bore Well                            | Temperature @ Receipt | 4°C                    |  |  |
| Sample Conditions at Receipt        | Fit for Analysis                     | Test Commenced on     | 14-06-2023             |  |  |
| Sample Quantity& Packing            | 10 L & 125 ml in a Plastic<br>Bottle | Test Completed on     | 20-06-2023             |  |  |
| Information Provided by<br>Customer |                                      | Sampled by            | Lab Authorized Sampler |  |  |

| DETAILS OF SAMPLING |  |                    |            |  |
|---------------------|--|--------------------|------------|--|
| Sample Source       | Bore Well (East Side)                      | Date of Sampling   | 12-06-2023 |  |
| Sampling Procedure  | SEAAL/ENL/GEN/SOP/01 &<br>SEAAL/MBL/SOP/06 | Sample Temperature | 24°C       |  |

| TEST RESULTS - CHEMICAL PARAMETERS |             |                      |      |        |  |  |
|------------------------------------|-------------|----------------------|------|--------|--|--|
| Sl.No.                             | PARAMETERS  | TEST METHOD          | UNIT | RESULT |  |  |
| 1                                  | Insecticide | SEAAL/INS/RWM/SOP/01 | µg/L | Absent |  |  |

Remark

\*\*\*End of Report\*\*\*

Shency Joy TM-Chemical Checked by:



Laiju P N Laboratory Head Authorized Signatory

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|                |  |                | Ambi   | ent Air Monitorir   | ng Report (Ap   | oril 2023 to Septeml  | oer 2023)   |   |                                       |
|----------------|--|----------------|--|---|---|---|---|---|---------------------------------------|
| OCATION<br>IO. | Location of<br>Ambient Air<br>Sampling | Month          | PM (<10 microns) in<br>Micrograms/m3;<br>Limit 100 Micrograms/m3 | PM (<2.5 microns) in<br>Micrograms/m <sup>3</sup> ;<br>Limit 60 Micrograms/m <sup>3</sup> | SOx as SO <sub>2</sub> in<br>Micrograms/m <sup>3</sup> ;<br>Limit 80<br>Micrograms/m <sup>3</sup> | NOx, Oxides of Nitrogen in<br>Micrograms/m3 ;<br>Limit 80 Micrograms/m3 | Carbon Monoxide (CO);<br>mg/m <sup>3</sup><br>4.0 mg/m <sup>3</sup> | OZONE<br>Micrograms/m <sup>3</sup> ;<br>Limit 180 Micrograms/m <sup>3</sup> | Hydrocarbons (HC);<br>Micrograms/m3 ; |
|                |  | April          | 82.8   | 40  | 0   | 0   | 0   | 0   | 0                                     |
|                |  | May            | 35.1   | 15.9  | 0   | 0   | 0.18  | 0   | 0                                     |
|                | (Watch Tower-1)                        | June           | 31.4   | 12.5  | 0   | 0   | 0.23  | 0   | 0                                     |
| 1              | near MGH                               | July           | 39.4   | 17.5  | 0   | 0   | 0.24  | 0   | 0                                     |
|                | building                               | August         | 40.3   | 15.3  | 0   | 0   | 0.59  | 0   | 0                                     |
|                | building                               | September      | 30.3   | 16.6  | 0   | 0   | 0.31  | 0   | 0                                     |
|                |  | Avarage        | 43.22  | 19.63   | 0.00  | 0.00  | 0.31  | 0.00  | 0.00                                  |
|                |  | April          | 77.4   | 33.6  | 0   | 0   | 0   | 0   | 0                                     |
|                |  | May            | 58.7   | 27.6  | 0   | 0   | 0.24  | 0   | 0                                     |
|                | Near                                   | June           | 49.6   | 23.4  | 0   | 0   | 0.35  | 0   | 0                                     |
| 2              | Fire Station                           | July           | 53.6   | 23.8  | 0   | 0   | 0   | 0   | 0                                     |
|                | Building                               | August         | 46.9   | 29.2  | 0   | 0   | 0.32  | 0   | 0                                     |
|                | Dunung                                 | September      | 39.4   | 21.9  | 0   | 0   | 0.39  | 0   | 0                                     |
| ı              |  | Avarage        | 54.27  | 26.58   | 0.00  | 0.00  | 0.22  | 0.00  | 0.00                                  |
| 3              |  | April          | 87.5   | 43.9  | 0   | 0   | 0   | 0   | 0                                     |
|                | Fire water                             | Мау            | 38.5   | 17.3  | 0   | 0   | 0.19  | 0   | 0                                     |
|                | Reservoir+                             | June           | 33.2<br>50.8   | 14.2<br>26.2  | 0   | 0   | 0.25  | 0   | 0                                     |
|                |  | July<br>August | 42.5   | 23.1  | 0   | 0   | 0<br>0.44   | 0   | 0                                     |
|                | Watch Tower-5                          | September      | 38.9   | 20.8  | 0   | 0   | 0.32  | 0   | 0                                     |
|                | watch lower-5                          | Avarage        | 48.57  | 24.25   | 0.00  | 0.00  | 0.20  | 0.00  | 0.00                                  |
| 4              | Watch Tower-3                          | April          | 88.7   | 42.6  | 0   | 0   | 0   | 0   | 0                                     |
|                |  | May            | 32.8   | 14.2  | 0   | 0   | 0.16  | 0   | 0                                     |
|                |  | June           | 36.5   | 11.9  | 0   | 0   | 0.2   |   |                                       |
|                |  | July           | 55.6   | 27.5  | 0   | 0   | 0   | 0   | 0                                     |
|                | near Tank T-101                        | August         | 38.7   | 19.6  | 0   | 0   | 0.26  | 0   | 0                                     |
|                |  | September      | 41.8   | 23.6  | 0   | 0   | 0.39  | 0   | 0                                     |
|                |  | Average        | 49.02  | 23.23   | 0.00  | 0.00  | 0.17  | 0.00  | 0.00                                  |



# **CSR UPDATES OF KOCHI LNG TERMINAL**

#### APRIL 2023- SEPTEMBER 2023



#### **CSR EXPENDITURE OF FY 2022-23**



#### HEALTH

Free Mobile Medical Unit working around Vypin Block and Kothamangalam Block in association with M/s Wockhardt foundation







PETRONET





## HEALTH







128 Slice CT Scan unit to General Hospital, Ernakulam

#### HEALTH

Free Mobile Medical Unit working around Vypin Block and Kothamangalam Block in association with M/s Wockhardt foundation









Awareness session on **Waste management** and free health check-up by Vypin and Kothamangalam MMU Team



Awareness session on Heart diseases and free health checkups by Vypin and Kothamangalam MMU Team as part of **World Heart Day** 

LINITED









It was a nice class, By this class we were able to learn more about MATHS. Also the basic rules of maths, We know that you two sisters work together a lot to teach us. I learned many things that I did not know to do but from this class I learned it. So it was very useful for me. It's all about my feedback about the class. Thank you so much for you two sisters to take this effort to teach us. Thank you PETRONET

you give me a feedbe

"Project Ganitham"- Mathematics guidance initiative aimed for 25000 high school students of Kerala.







Support towards paving tiles for Mazhavil Anganwadi, Puthuvype







Stone laying Ceremony for construction of Jhansi Rani Anganwadi in ward IX of Pallippuram Grama Panchayat was conducted on 11<sup>th</sup> May 2023

Jhansi Rani Anganwadi under Construction











LINITED

PLL supported repair of ceiling and classrooms of Government LP School, Palliport, Vypin



PLL supported Refurbishment of Toilets(Boys/Girl) of Santa Cruz School, Vypin



LINITED

PLL installed an incinerator at Government Medical College Idukki

## Swachhata Pakhwada 2023



Employees taking Swachhata Pledge



Cleaning drive (Around Prerana building)



Reimbursement of toilets of Santa Cruz School, Vypin



Cleaning Drive (Maintenance/ Warehouse)

India

## Swachhata Pakhwada 2023









Swachhata Poster Abhiyan for class 7<sup>th</sup>,8<sup>th</sup> and 9<sup>th</sup> Students on the topic "CLEAN INDIA GREEN INDIA" for students of Santa Cruz Higher Secondary School, Ochanthuruth.



LINITED



Essay writing competition on the topic "CLEANLINESS: FROM INDIVIDUAL TO SOCIETY" for high school students of Santa Cruz Higher Secondary School, Ochanthuruth.

## Swachhata Pakhwada 2023







Swachhata Poster Abhiyan has been organized on the topic "CLEAN INDIA GREEN INDIA" for students of Government higher Secondary School, Elankunnapuzha.



LIMITED

Awareness session on cleanliness was conducted for contract employees of Kochi LNG Terminal

#### Swachhata Hi Seva 2023



Employees taking Swatchhata Hi Seva Pledge





LIMITED

Awareness sessions on "Waste management at School and Home" were conducted at Govt UP School Azheekal and Govt. LP School Pallipuram as part of the campaign



Environment club inauguration and Waste Bins were conducted at Govt. UP School Azheekal

#### Swachhata Hi Seva 2023





Awareness session on cleanliness was conducted for contract employees of Kochi LNG Terminal







Exhibition, Seminar, Poster making, and Essay Writing Competitions conducted at various Schools in Vypin

#### Swachhata Hi Seva 2023







Street Play and Oath taking by KPMHS High School Students at Edavanakkad







LINITED

Shram Dhaan at Puthuvypu beach on 1 October 2023

#### WELFARE OF DIFFERENTLY ABLED





PLL extended Support towards setting up helpdesk for differently abled and senior citizens at Collectorate, Ernakulam. A formal inauguration has been conducted by Shri. Umesh N S K IAS, District Collector of Ernakulam in presence of Shri. Shajahan S, Deputy Collector, and Shri. Yogananda Reddy, CGM & VP (Plant Head) on 06- July- 2023.





#### WELFARE OF DIFFERENTLY ABLED











Help Desk for Differently Abled and Senior Citizens (Visitor's Facilitation Centre), RDO, Fort Kochi was Inaugurated by Shri Vishnu Raj P, Honorable Sub Collector of Ernakulam LINITED



Distribution and Training of "Saarthi Assistive Device" to Persons with Visual Impairment at Thiruvananthapuram, Kozhikode and Ernakulam

#### **DISASTER MANAGEMENT**



LIMITED

Inauguration of newly renovated office building of Kochi District Police training/ District Disaster management center, Marine Drive, Kochi was conducted on 31<sup>st</sup> May- 2023 in presence of Commissioner of Police Kochi and CGM & VP (Plant Head).



#### KERALA STATE POLLUTION CONTROL BOARD

FILE NO. :PCB/HO/EKM/CE/74/05 Date of issue :14/08/2023

#### INTEGRATED CONSENT TO OPERATE - RENEWAL

Consent No : PCB/HO/EKM-I/ICO-R/16/2023

Ref : 1.Consent No. PCB/HO/EKM-1/ICO-R/18/2018 dated 10.10.2018 valid up to 30.03.2023 2.Consent Variation Order No. PCB/HO/EKM-1/ICO-VAR/2019 dated 01.10.2019 3. Consent No : PCB/HO/EKM-I/ICO-VAR/27/2020 dated 29.12.2020 Valid up to 30.03.2023 4.Consent No. PCB/HO/EKM-1/ICO-VAR/09/2021 Dated 24/05/2021 valid up to 30.03.2023 5.Consent No. PCB/HO/EKM-I/ICO-VAR/04/2022 Dated 07/07/2022 valid up to 30.03.2023 6.Consent No. PCB/HO/EKM-I/ICE-EXP/06/2022 Dated 21/06/2022 valid up to 31/05/2027 7.Consent No. KSPCB/ER1/ICE/10017084/Expansion/2023 Dated 01/02/2023 valid up to 31/01/2028

The 'Integrated Consent to Operate' issued as per reference above to M/s Petronet LNG Limited, Puthuvypu P.O, Kochi-682508, Ernakulam is hereby renewed up to 31/03/2028 and issued to M/s Petronet LNG Limited, Puthuvypu P.O, Kochi-682508, Ernakulam The consent(s)/ variation order(s) cited under reference are integral part of this renewal order and this order is subject to the conditions stipulated therein and the following modifications/ additions.

#### I. GENERAL

| S.No. | Items               | Description   |  |  |
|-------|---------------------|---|--|--|
| 1     | Capital Investment  | Rs. 4420.36 Crores  |  |  |
| 2     | Annual Fees         | Rs. 8840000/-   |  |  |
| 3     | Fees Remitted       | Rs. 4,43,56,401/-   |  |  |
| 4     | Validity            | 31.03.2028  |  |  |
| 5     | Additional activity | LNG truck loading bay and associated facilities & New 30KLD STP |  |  |

#### **II. Stack Details**

| Stack No. | Source of<br>Emission | Emission<br>Rate(Nm3/Hr) | Stack Hei                  | Control                  |           |
|-----------|-----------------------|--------------------------|----------------------------|--------------------------|-----------|
|           |                       |                          | Ground Level(In<br>Meters) | Roof Level(In<br>Meters) | Equipment |
|           |                       |                          |                            |                          |           |
|           |                       |                          |                            |                          |           |

|  | As per p<br>consent | previous |  |  |  |  |  |
|--|---------------------|----------|--|--|--|--|--|
|--|---------------------|----------|--|--|--|--|--|

#### **III. CONDITIONS**

3.1. This consent is granted on the basis of the affidavit and other documents furnished by the applicant. If the statement furnished in the affidavit/document is found false or in the case of non compliance of integrated consent to operate conditions the consent issued will be withdraw/cancelled.

3.2. For renewal of the consent in case of continuance of discharge/operation of the establishment/industry, application in the prescribed form shall be submitted 2 months prior to the date of expiry through the web portal of the Board www.keralapcbonline.com. Late application will be accepted only with fine / late fee as applicable.

3.3.This consent is granted subject to the power of the Board to review and make variation in or revoke any of the conditions as the Board deems fit as per the relevant Acts/Rules.

3.4. The applicant shall comply with the instructions that the Board may issue from time to time regarding prevention and control of air, water, land and sound pollution.

3.5 No change or alteration of the unit/establishment is to be made without the prior written permission of the Board. Any change in the particulars furnished and/or in the identity of the occupier/authorized agent is to be intimated to the Board forthwith.

3.6 Pollution control measures provided in the unit to control air pollution, noise pollution and water pollution shall be maintained properly and made functional while the unit is in operation.

3.7 Waste batteries shall be disposed of as per the Battery Waste Management Rules, 2022.

3.8 Plastic Waste Management Rules, 2016 and amendments shall be followed for the management of plastic waste. Single use plastic ban as per notifications and orders for Kerala shall be strictly followed.

3.9 Environmental statement shall be submitted in Form V for each financial year ending on March 31st. 3.10 The condition No. 5.2 is modified as follows.

i. The description of the type of hazardous waste in Sl No.3 of "Industrial use of paints, plastic & ink waste" is changed to "Industrial use of paints & ink wastes".

ii. The Schedule/category of wastes in Sl No.4 Category No:33.3 changed to Category No:33.1 and the description of the type of hazardous waste 'Barrels and containers used for handling of hazardous wastes/chemicals' changed to 'Empty barrels/containers/liners contaminated with hazardous chemicals/wastes''

iii. Condition No.5.2 is modified as-The hazardous waste shall be stored for period not exceeding one hundred eighty days subject to the minimum quantity of generation of 10 TPA.

3.11 Condition no.6.4 is modified by adding "red 'category wastes- Contaminated wastes (recyclable) 3.12.Condition no 6.6 is modified as follows

"The Biomedical waste shall not be stored beyond 48 hours".

3.13. STP having treatment units such as Bar Screen, Oil and grease trap, equalization tank, MBR, Treated water tanks shall be operated effectively to achieve following discharge standards.

pH- .6.5 - 9

BOD- 30mg/l

Suspended Solids- 100 mg/l

Oil & Grease-10 mg/l

3.14. Treated effluent shall be reused to the maximum extent possible. Inbuilt facilities shall be provided for reuse of treated effluent for gardening, flushing etc and only balance shall be disposed through soak pit.

Reuse standards such as pH-6.5-8.5,BOD-3 mg/l, Suspended solids-10 mg/l,Oil & grease -1 mg/l shall be ensured if the treated water reused for the flushing and gardening.

All other conditions of the Integrated Consent to Operate issued as per reference above remain unchanged.

Sudheer Kulamulla Parambath Digitally signed by Sudheer Kulamulla Parambath Date: 2023.08.14 15:55:24+05'30'

DATE :14/08/2023

SIGNATURE & SEAL OF ISSUING AUTHORITY CHAIRMAN



**To** Sri.Pramod Narang, (Director, Technical) 1st Floor, World Trade Center, Babar Road Barakhamba Lane, New Delhi - 110 001, India Petronet LNG Limited Survey No:347, Puthuvypu P.O, Kochi-682508, Ernakulam

#### 1. This digitally signed document is legally valid as per the Information Technology Act 2000

2. For verifying this document please go to krocmms.nic.in and search using date of issue/name of the unit/Application Number in "Consent Granted Applications" link in the home page of the Board's Online Consent Management and Monitoring System.