

Petronet LNG Limited

Survey No. 347, Puthuvypu P.O. Kochi - 682 508, India.

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CIN L74899DL1998PLC093073

PAN: AAACP8148D. GST: 32AAACP8148D1ZP

PLL/KOCHI/MOEF/2020-21/01

25th May, 2020

Additional Principal Chief Conservator of Forests (C) Ministry of Environment, Forest and Climate Change, Regional Office (SZ), KendriyaSadan, 4thFloor, 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 2nd June 2003.

Sir,

The Six monthly compliance report for the above clearances are attached for the period ending 31st March 2020.

Thanking You,

With Regards

(Yogananda Reddy)

General Manager (Plant Head)

CC:

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



Registered & Corporate Office:

World Trade Centre, First Floor, Babar Road, Barakhamba Lane, New Delhi- 110 001 (INDIA) Tel: +91-11-23411411 / 23472525 Fax: +91-11-23472550

Dahej LNG Terminal:

GIDC Industrial Estate, Plot No. 7/A, Dahej Taluka: Vagra, Dist. Bharuch - 392130 (Gujarat) Tel: +91-2641-257249 Fax: +91-2641-257252

COMPLIANCE REPORT of CRZ Clearance no. J-16011/26/2001-IA-III vide your letters dated 02nd JUNE 2003 for the Construction of LNG Import Terminal at Puthuvypeen Island, Kochi, Kerala by M/s Petronet LNG Ltd. for the period october 2019 to March 2020.

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

- i. All the conditions stipulated by the Science Technology and Environment Department, Government of Kerala vide their Letter No. 4215/B1/2000/STED, dated 9th February-2001 should be effectively implemented.
 - Conditions mentioned in the Letter No. 4215/B1/2000/STED, dated 9th February-2001 did not specify any conditions for compliance.

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

Sr. No.	Conditions mentioned	PLL Compliance remarks
1.	No activities will be undertaken in the Mangrove area or in the buffer zone of the mangrove. The route of the pipeline and other activities shall have minimum of 50m from the nearby mangroves and forest land if any in the CRZ area.	PLL's plot is not in the mangrove area, it is about 100 m away from the buffer zone. All activities including the laying of pipelines are confined within the PLL's plot.
2.	Expansion of existing service road in the Costal Regulation Zone-I shall not be carried out.	Expansion of the existing service road in the Costal Regulation Zone-I belongs to Panchayat and PLL will not do any expansion of the service road.
3.	No groundwater shall be lapped for the project	PLL will not tap any ground water during operation of the terminal as water requirement will be met from the condensed water from air. During construction stage, requirement of water was met by outsourcing. At present the water requirement is met by procuring the water from vendors.
4.	The proponent shall obtain necessary No Objection Certificate (NOC) from Kerala State Pollution Control Board.	PLL has obtained required NOC from Kerala State Pollution Control Board in 1999 vide NOC No. PCB/NOC/EK/117/98 dated 17th September-1999 which

5.	FIA document including title	was renewed every time (mostly 2 years) before expiry of its validity period. We have obtained Consent to Operate with No. PCB/HO/EKM-1/ICO-R/18/2018 dated 10 th October 2018, and was valid up to on 31 st March 2023, a copy of the same has already been submitted along with compliance report dated March-2019.
0.	EIA document including risk analysis and disaster management plan should be submitted directly to MoEF for environment clearance, under intimation to this office.	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 Feb-2001 and letter dated 22nd Sept-2011 respectively.

ii. All the conditions stipulated by Kerala Pollution Control Board in their NOC No. PCB/NOC/EK/117/98 dated 17.09.99 should be effectively implemented.

 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:

Sr. No.	Conditions mentioned	PLL Compliance remarks
1	No.3: 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 from the Board regarding prevention and control of air, water, land and sound pollution.
2	No.4: The effluent treatment facilities proposed namely sewage treatment plant/septic tank, oil traps, hot water cooling facilities etc. shall be provided before commissioning the industry. Addition facilities required, if any to achieve the effluent standards laid down by the Board under section 17(1) (g) of Water (Prevention and Control of Pollution) Act' 1974 shall also be made along with.	PLL is generating only sewage waste and is being handled through septic tank and soak pit in individual building; details of STP have been submitted to KSPCB. PLL will comply with effluent standard of Water Act and if additional facilities are required then PLL will provide those facilities for treatment of effluent.

3	No.5: Air pollution control devices required shall be installed before commissioning the industry for controlling air pollution. Minimum stack/chimney height shall be as detailed below:	PLL is using Natural Gas as fuel for GTGs. GTGs are inbuilt with DLE burner (Dry low emission, Low NOx burners) and CEMS.
	69.0 m above ground level for flare stack	PLL had received letter from KSPCB dated 18-10-2010 regarding change in this condition, wherein the flare stack height reduced from 69.0 m to 43.2 m, a copy of this letter had already been submitted with six monthly report dated 30th September-2013.
	5.5 meter above the roof level of Generator room for the Gensets of capacity 750KVA	PLL has provided the stack discharge at 3.5 meter above the roof level of Generator room.
4	No.6: For bringing into use any outlet to discharge and for the discharge of sewage/trade effluent, the applicant shall obtain consent to discharge from the Board under the Water (Prevention and Control of Pollution) Act'1974 before commissioning the industry.	PLL is generating only sewage waste and is being handled through individual building's septic tank and soak pit. PLL has obtained Consent to Operate with No. PCB/HO/EKM-1/ICO-R/18/2018 dated 10th October 2018, and was valid up to on 31st March 2023,a copy of the same has already been submitted along with compliance report dated
5	No.7: The applicant shall obtain the "Consent to Operate" from the Board under the Air (Prevention and Control of Pollution) Act' 1981 before commissioning the industry.	March-2019. PLL has obtained Consent to Operate with No. PCB/HO/EKM-1/ICO-R/18/ 2018 dated 10 th October 2018, and was valid up to on 31 st March 2023,a copy of the same has already been submitted along with compliance report dated
6	No.8: The sign board showing the name of the industry shall be displayed at the entrance of the site.	March-2019. PLL has displayed the sign board showing name of the industry at the entrance of the site.

7	No.9: Suitable species of trees shall be	Green Belt area has been
	planted and maintained within and along the periphery of the factory premises, forming a green belt to improve the	developed along the periphery of the factory
	environment.	premises with trees like Gulmohar, Amaltas. Neem etc.
8	No.10: The date of commissioning of the industry shall be intimated to the Head Office and Regional office concerned of the Board at least one month in advance.	PLL had informed the date of commissioning of the industry vide letter no PLL/KOCHI/KSPCB/2013-14/C-06 dated 07th August-2013, A copy of this letter has already been submitted with six monthly report dated 30th September-2013.
9	No.11: There shall not be any fugitive emission from the plant/premises.	There will not be any fugitive emission from the plant/premises.
10	No.12: The location of the industry shall be as shown in the drawing attached. No change or alteration to the above shall be made.	There is no change made in the location of the industry, Location of the industry is as per the drawing.
11	No.13: The temperature difference between cooling water discharged and the receiving water body (sea water) temperature shall not be more than 50C and monitoring arrangements for the same shall be provided.	PLL will not discharge cooling water into sea or any other water body.
12	The ambient sound level measured at a distance of 1 m away from the boundary shall not exceed 65 dB (A) during day time and 55 dB (A) during night time.	Ambient sound levels measured at a distance of 1 m away from the boundary walls are well within the limits. Ambient sound level monitoring is done every month by KSPCB approved agency and the compiled report for the period of October -19 to March 20 is enclosed as Annexure#1.
13	Consent to establish shall be obtained prior to setting up of captive power plant in futures.	PLL has incorporated the details of GTG, used for captive power generation, in the subsequent application of the renewal for Consent to Establish.

- iii. No change in scope of work shall be made without prior approval of this Ministry.
 - Any change in scope would be carried out only with the prior approval of the Ministry.
- iv. Project proponent shall take all safety measures and take into account the dynamics of the marine/coastal area before constructing the break waters. The recommendations made by CWPRS (Central water & power research station) shall be duly implemented. The dredged materials shall be disposed of as per the recommendations by CWPRS.
 - The location and size of the basin has been arrived at after detailed model studies conducted by CW&PRS and further revalidated by HR Wallingford. The dredged material is being disposed of at the prescribed off-shore dumping ground identified as per CWPRS recommendations for Cochin Port Trust.
 - The Cutter suction Dredger's dredging material is dumped on the western side
 of the terminal as per the Cochin Port Trust allocated area for dumping. The
 Trailer Suction Dredger's dredging material is being dumped at the designated
 dumping site of Cochin Port at outer sea, about 15.6 km from the shore.
- v. No activities will be undertaken in the mangrove area or in the buffer zone of the mangroves. The route of the pipeline and other activities shall have minimum of 50 meters distance from the nearby mangrove and forest lands, if any, in the CRZ area. Expansion of existing service road into Coastal Regulation Zone-I (I) shall not be carried out.
 - PLL plot is not in the mangrove area and is at about 100m from the buffer zone.
 All activities and pipelines are confined to this plot. The existing service road which belongs to Panchayat has not been expanded into the Coastal Regulation Zone-I (i) area.
- vi. The laying and commissioning of the pipelines shall be in accordance with the established procedures; practices and rules. LNG facilities shall be designed, constructed and operated as per existing international standards. The pipelines shall be provided with in-built gas leakage detection and warning system. Adequate measures for monitoring pressures in excess of those for which the pipeline is designed shall be ensured to prevent leakage of gas.
 - The terminal construction complies with all existing International codes and best practices. Sufficient safety measures and warning systems are being in built into the system for detection of gas leakage, overpressure and other deviations in operating parameters. Details regarding the same have already been submitted with six monthly report dated 30thSeptember-2013.
 - Standards such as OISD-194, EN: 1473, NFPA 59A and others internationals standards & guidelines are followed during the terminal construction.

- vii. Design and alignment of the pumping platform/jetty and other structures should be chosen in such a way that it causes minimum resistance to the flow of tidal waters.
 - Jetty structure was designed and constructed after due consideration of this aspect. Jetty foundation is built on piles structure to cause minimum disturbance to tidal waters.
- viii. The pipelines related to effluent discharge, sea water intake and pumping of LNG should be laid on sea floor after trenching. Trenching operations should be restricted to minimum area to minimize damage to benthic fauna.
 - PLL has already submitted to MoEF the change in the regasification process of
 the terminal and Sea water intake is not required in Shell and Tube Vaporizers
 (STVs). It may be noted that PLL will not use sea water in any manner nor will
 discharge any effluent into the sea during operation of the terminal. Pipelines
 for LNG pumping from jetty to tanks are laid above ground along with
 trestle.
- ix. Disposal facilities should be completed prior to the commissioning of project activities. As per the thermal Plume Studies by NIO, Goa, the return water should be discharged at a location having water depth of about 3 m. Post monitoring should be carried out at definite intervals in order to ensure mid-course corrections, if any, for maintenance of environmental quality.
 - PLL has already submitted to MoEF the change of the regasification process of the terminal and Sea water intake is not required in Shell and Tube Vaporizers (STVs). It may be noted that PLL will not use sea water in any manner nor will discharge any effluent into the sea during operation of the terminal. As PLL is not using sea water in any manner this condition is not applicable.
- x. Fish eggs, larvae and small fish as well as plant and animal plankton pass through the water intake screen and at times through the trash bars. Accordingly, the water intake for regasification purpose is to be provided with a velocity cap, trash bars, and low intake velocity be maintained to minimize the entry of debris and fish.
 - PLL has already submitted to MoEF the change of the regasification process of the terminal and Sea water intake is not required in Shell and Tube Vaporizers (STVs). As PLL is not using sea water in any manner this condition is not applicable.
- xi. No groundwater shall be tapped for the project.
 - PLL did not tap groundwater during construction stage and will not during operation phase. Water requirement during operation of the terminal will be

generated and met from the condensed water from air. At present the water requirement is met by procuring the water from vendors due to running of terminal at low output.

- xii. Specific arrangement for rainwater harvesting should be made in the project design and the rainwater so harvested should be optimally utilized.
 - Rainwater collection system is in place for LNG storage tanks top and the water collected is being used in the terminal.
- xiii. The Bathymetric survey of the dredged material disposal site should be carried out regularly and it should be ensured that there is no navigational hazard due to reduction of navigational depth as a result of project activities. Location of dumping site should be informed to all concerned.
 - The dredged material disposal site is Common dumping site at outer sea, 15.6
 km away from shore and managed by Cochin Port Trust. The survey is being
 carried out by Cochin Port Trust.
- xiv. Regular surveys shall be conducted to identify changes in the channel morphology so that navigational hazards are minimal.
 - The channel is belongs to Cochin Port and its Morphology survey is done by Cochin Port Trust.
- xv. Mangrove afforestation will be promoted in consultation with the expert agencies and the local NGOs in the area. A detailed plan shall be worked out in this regard and submitted to this Ministry within 3 months.
 - A Detailed plan for Mangrove afforestation has already been submitted with six monthly report dated 30th September-2013.
 - In FY 2014-2015 Petronet LNG Ltd, Kochi, arrived at an agreement with Kerala State Social Forestry for a mangrove afforestation project in Ernakulum district, the total cost of the project is 71.05 lakhs. Till date, Petronet LNG Limited have already transfer fund of Rs.60.00 lakh for the Mangrove Afforestation Project which is entitled "Project for Mangrove afforestation in Ernakulam district" All details with regard to this project had already been submitted with six monthly compliance report dated 30th March-2015. Progress report was submitted along with the compliance report dated March 2019 and latest progress report is attached here with this report as Annexure # 2.
- xvi. Marine environment shall be periodically monitored to assess changes, if any, in the ecology and suitable remedial measures, if any required, shall be taken.

- PLL is conducting marine water sampling and analysis by a KSPCB approved third party M/s. Standard Environmental Laboratory, Ernakulam and the report suggest no adverse change in the marine environment.
- Latest copy of the marine water sampling report dated December-19 is enclosed as Annexure#3.
- xvii. The budget allocated for environment safeguard measures shall not be diverted for any other purpose.
 - Budget allocated for environment safeguard is not diverted for any other purposes.
- xviii. The comprehensive Environmental Impact Assessment report shall be completed early and the final report submitted to this Ministry within one year from the date of this clearance letter. Based on the comprehensive EIA report, additional environmental safeguards, as required, shall be implemented by the proponents.
 - 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.
- xix. Based on the risk analysis, Disaster Management Plan should be prepared and submitted to this Ministry within 6 months. Necessary safety norms for the movement of LNG ships are to be laid down by Port Trust Authorities within their jurisdiction communicated to the project proponent for strict compliance with a view to prevent collision, grounding or ramming or any other major accidents.
 - EIA with QRA and site emergency response plan (for 5 MMTPA terminal) submitted to MoEF vide letter dated 22nd September-2011 for EAC recommendations.
 - · Emergency Response and Disaster Management Plan of Petronet LNG Ltd, Kochi terminal was submitted with six monthly compliance report dated 05th April-2013.

5. GENERAL CONDITIONS:

i. Construction of the proposed structure should be undertaken meticulously conforming to the existing Central/local rules regulations including Coastal Regulation Zone Notification, 1991 and its amendments. All the construction designs/drawings relating to the proposed construction activities must | report dated 05th April-2013. have approvals of the concerned

The construction drawings have been approved by the concerned State Government Department/Agencies like and Department of Factories and Boilers, Fire and rescue Services etc. Copy of the approvals of Factories and Boiler, Fire rescue services has already submitted with six monthly compliance

	State Government Departments/Agencies.	
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.	 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 Piezometer inside the terminal. Sampling of the water drawn from Piezometer is being carried out by approved third party. The latest Ground water analysis report for the month of December-19 is enclosed as Annexure#4.
	Handling, manufacturing, storage and transportation of all hazardous chemicals should be carried out in 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	 We have applied for NOTIFICATION OF SITES to Factories & Boilers department 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. 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 16th November 2019, valid till 31st December-2020; a copy of the same has been submitting along with this report as Annexure#5. 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. Termina was commissioned on 20th August-2013 and all activities related to commissioning were completed by 10th September 2013.
iv.	Minor oil spills are likely to be caused due to ship movement in the port. Engine room waste, oil ballast and tank wash water have to be discharged to the shore reception for treatment by port authorities or by certified contractors. In case of major oil spills due to accidents. Petronet LNG Limited should interact with Kochi Port to ensure full preparedness to undertake all combat operations.	Oil spill Contingency plan is formulated to take care of such eventualities. We have already submitted details regarding the same with six monthly compliance report dated 05th April-2013. PLL is having one FIFI 1 tug with required boom barrier and other oil spill control related equipment. PLL jetty falls under the Cochin Port Trust (CPT), and the Oil Spill Contingency Management Plan is prepared by CPT. PLL has provided the information required from the terminal to be incorporated in the Oil Spill Contingency Management Plan. Coast guard is also part of the Oil spill contingency plan.
V	Control room/tower should be equipped with modern communication and control device to act instantaneously if spill/leakage occurs. At the jetty, loading arm should be equipped with latest Emergency Release Systems (ERS) and monitoring device for LNG services. Articulated cargo transfer arm should be used at the unloading jetty. It shall be ensured that LPG and LNG tankers are scheduled properly to avoid bunching and also that LPG will not be unloaded from the ship when the LNG tanker is at berth.	 Control room is equipped with modern communication and control facilities including emergency shut-down systems in the event of spill occurring. Loading arms are equipped with latest Emergency Release System (ERS). We do not handle LPG at cur jetty so the condition stand complied.
vi.	Dry chemical firefighting extinguishers should be provided at all levels of the jetty to permit personnel to fight small fires. Water spray for dispersing unignited vapour clouds should be kept as standby. Full- fledged firefighting facilities should be provided at jetty.	 Full-fledged firefighting facilities is provided in the jetty to handle any emergencies in the event of a fire. DCP extinguishers are provided at every level of jetty. Water curtain system is also provided at required locations. Brief note on Fire protection facilities have already been submitted with six monthly compliance report dated 30th September-2013.

vii.	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	 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 October -19 to March-20 is enclosed as Annexure # 6. PLL is conducting marine water quality analysis, once in six month. The latest test report, dated December -2019 is enclosed as Annexure#2.
	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.	
viii.	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	 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.
ix.	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
х.	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 05th April-2013.
xi.	Necessary navigational aids such as channel markers should be provided to	PLL has provided 4 Nos. of Buoys as instructed by cochin post trust. In future, if

	prevent accidents. internationally recognized safety standards shall be applied in case of barge/vessel movements	required, more navigation aids will be provided as per instruction/guidance of Cochin Port Trust. All required safety standards will be applied to vessel movements as per directions of Cochin Port Trust.
xii.	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 #7 .
xiii.	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 05th April-2013.
xiv.	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-IIIdated 16th 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.
XV.	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.
Xvi.	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.
Xvii.	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 GM (Plant Head), other members of the team includes 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

Xviii.	The project affected people, if any should be properly compensated and rehabilitated.	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. 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,
xix.	The funds earmarked for environment protection measures should be maintained in a separate account	drain, electricity and water as per guideline by authorities. Budget allocated for environment safeguard will not be diverted for other purposes.
	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.	
XX.	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 and action plans including the action taken reports in respect of mitigate measures and other environmental protection activities.
xxi.	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.
xxii.	This Ministry reserves the right to revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of this Ministry.	PLL is aware of the Ministry's right to revoke clearance for not complying with the conditions stipulated in the clearance.
xxiii.	This Ministry or any other competent authority may stipulate any additional conditions subsequently, if deemed	PLL will comply with any additional conditions stipulated by the ministry or any other competent authority.

	necessary for environmental protection, which shall be complied with.	
xxiv.	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.envfornic.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 30th September-2013.
XXV.	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 28th Feb 2011. No separate land developmental work was required, as this involved only augmentation of equipment in the same land.

Thanking You,

With Regards

(Yogananda Reddy) GM (Plant Head)

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TOCHI-SEA GO

Sr. No.	Avarage, Month	Oct-19		Nov-19		Dec-19		Jan-20		Feb-20		Mar-20	
	Location	Day	Night										
	Limit	65.00	55.00	65.00	55.00	65.00	55.00	65.00	55.00	65.00	55.00	65.00	55.0
1	East side Gate Outside boundary wall	51.40	40.80	51.90	41.40	51.90	41.40	51.20	40.70	52.00	41.10	51.80	41.70
2	North side Gate Outside boundary wall	51.00	40.60	50.60	40.50	50.60	40.50	50.90	41.30	50.90	40.60	51.00	40.60
3	West side Gate Outside boundary wall	50.70	40.30	50.20	40.10	50.20	40.10	49.40	40.70	49.70	40.40	50.50	40.80
4	South side Gate Outside boundary wall	49.90	40.10	49.50	40.30	55.00	40.30	48.90	40.20	50.20	40.10	49.10	40.20

Dy. Manager HSE

Sr. Manager- HSE

Date: 05.03.2020

Report on Mangrove Afforestation carried out by Petronet LNG Limited in collaboration with Social Forestry, Ernakulum Division in a land owned by Cochin port trust at Wellington Island for financial year 2018-2019

- Mangrove afforestation has been done in collaboration with Social Forestry, Ernakulam Division.
 The project was funded by Petronet LNG Limited & developed by Social Forestry Division, Ernakulam.
- A cheque for an amount of Rs. 1500000/- handed over to Assistant Conservator of forest along with a letter vide No: PLL/KOCHI/Social Forestry/2018-19/02, dated 28.01.2019 for the mangrove afforestation project in the land allotted by M/s. Cochin Port Trust to Social Forestry division, Ernakulam.
- 15000 saplings were raised in the nursery located at Malippuram Village in Ernakulam district for planting and out of that 14700 seedlings were planted in the CPT area and balance 300 seedlings were distributed to various educational institutions.
- Plating was scheduled to complete in the month of August 2019, however, due to heavy rain the
 plantation site was filled with water and was inaccessible and so the planting was delayed and
 rescheduled to November 2019.
- Environment Management cell of Petronet LNG Limited carried out two inspections at mangrove nursery and plantation site on 18.03.2019, 06.08.2019 & 30.01.2020, which was coordinated by Social Forestry, Ernakulum Division.

1. Project Activities:

SI. No	Description	Annexures
1	Request received from M/s. Cochin Port Trust to Social Forestry division, Ernakulam on 11.07.2018 for developing mangroves in 2.5 Ha of their land in Wellington island for obtaining Environmental Clearance for the proposed redeveloped activities.	Letter attached as Annexure -1
2	Social Forestry division had forwarded a letter on 11.12.2018 to PLL for allocating fund for the proposed project upon request initiated by PLL for undertanking this project.	Letter Attached Annexure -2
3	A cheque for an amount, Rs. 1500000/- handed over by PLL to Assistant Conservator on 28.01.2019 for developing mangorves in CPT land.	Letter Attched as Annexue -3
3	Development of saplings were started by Social Forestry division in their nursery located in Malippuram, Village, Ernakulam.	
4	Mangrove plantation was completed in the month of November-2019, two months later than the schedule due to heavy rain.	
5	Inspection carried out PLL Environment Management Cell (EMC) along with Social Forestry Officials at mangrove nursery and plantation site on 18.03.2019, 06.08.2019 & 30.01.2020.	

2. Photographs:

1. Cheque for an amount Rs. 1500000/- (Fifteen lakh) Handed over by Mr. J Ravichandran (Head – HSE, Petronet LNG Limited) to Mr. Anas (Assistant Conservator of Forest) on 28.01.2019.



2. Nursery & plantation site inspection carried out PLL EMC along with Social Forestry officials on 18.03.2019







 ${\it 3. \ Nursery inspection carried out by PLL EMC along with Social Forestry officials on } 06.08.2019$





4. Inspection carried out by PLL EMC along with social forestry officials at mangrove afforestation site on 30.01.2020





3. Project Expense Report submitted by Social Forestry, Ernakulam Division:

Social Forestry Division, Ernakulam

Progress report of project on mangrove afforestation in Ernakulam District

Amount deposited in account: 15 lakh Expenditure upto 10/02/2020: 1292266

Balance

: 207734

SI. No	Name of work	Quantity	Expenditure amount
1	Cost of seeds, raising of basketted seedlings & 2nd year mtce. of seedlings planted	15000	177941
2	Extension Activities including planting of mangroves(out of 15000 seedlings ,300 Nos were distributed to various educational institutions)	14700	905000
3	Habitat improvement Programme	1 No	16820
4	General awareness & extension activities	3No	54090
5	Overhead expenses	TA of staff and other office expenses	97033
6	Entrypoint activities giving awareness to public for afforestation programme(nursery album)		41382
	Total		1292266



ANAX - MA
Assistant Conservator of Forests
Social Forestry, Ernakulam



कोच्चिन पोर्ट ट्रस्ट COCHIN PORT TRUST मुख्य अभियंता कार्यालय CHIEF ENGINEER'S OFFICE कोच्चन/Cochin-682009



No. T1/Mangrove. Affn./2018-C/244 8(3)

Dated: 11/07/2018

10,

Assistant Conservator of Forests, Social Forestry, Edappally, Ernakulam

2 Si

SUB: Environmental clearance for the proposed Re development activities of Cochin Port at W/Island compensatory mangrove afforesation - reg:

As part of obtaining Environmental Clearance for the proposed Re-development activities of Cochin Port at W/Island, CoPT proposes to develop mangrove afforestation in 2.5 ha, of port area in W/Island. A sketch showing the location of the area is enclosed.

In this context, a site visit at the proposed location for mangrove afforestation has been conducted by your representative, Sri. Sudheesh alongwith our Horticulturist, on 02/07/2018.

It is understood that, the Forest department is agreeable to take up the work of development mangrove afforestation for government organisations. Hence it is requested that the work of development of mangrove afforestation in 2.5 ha, of port area at W/Island may be taken up by the Forest department at your cost. It is also requested to submit a formal offer letter indicating the terms and conditions if any, for undertaking the work, at the earliest, for processing the matter further.

Encl: As above.

Yours faithfully.

CHIEF ENGINEER

Phone: 0484: 2666414/2582400, Fax: 0484: 2666414 E-Meil: copice@gmail.com, ce@cochinport.gov.in Wabsite: www.cochinport.gov.in



No. E2-461/18

Office of Assistant Conservator of Forests Social Forestry Division, Ernakulam Manimala Road, Edappally Ph:0484 2344761

Email: acf,sf-ekm,for@kerala.gov,ln

Date: 11..12..2018

From

Assistant Conservator of Forests Social Forestry Emakulam.

To

The Vice President (O & M) Petronet LNG Limited

Sir,

Sub: Project on mangrove afforestation in Ernakulam

District - reg.

Ref: (1) That office letter No. PLL/KOCHI/HSE/13-14/C2

(2) That office letter No. PLL/KOCHI/Social Forestry/ 2018-19/01 dt. 09.10.2018.

Please see the subject cited. M/s. Cochin Port Trust has shown willingness for mangrove afforestation in their area and to take up the planting in the next year, nursery and allied activities have to be planned now. The fund allotted in the last financial year had been exhausted and to take up the obligatory maintenance and other activities committed in the project, ₹25.0 lakhs may please be released.

Yours faithfully,

Assistant Conservator of Forests



Petronet LNG Limited

Survey No. 347, Pulluayou PO. Kochi - 682,508, India. 16l: -91-484-2502259 Fax: +91-484-2502264 www.petronellog.com CIN L74899DL1998PLC093073 PAN: AAACP8148D. GSY: 32AAACP8148D1ZP

Nor PLL/KOCHI/Social Forestry/2018-19/02

28th January, 2019

1500 The Assistant Conservator of Forests, School Protestry Divisional Office, Macimula koasi, Engagally P.O. Ernstkolinkr 582024

Dear Sin

Sun. Mangrove Plantation on CPT Land. keh (i) Our letter with No. PLL/KOCHI/Social Forestry/2018-19/01, dated 09.10.2018 (ii) Your letter with No. E2-461/18, dated 11.12.2018.

We are hereby submitting the cheque of Rs 15, 00,000/- (Rupees Fifteen Lakh only) to Assistant Cubservator of forest (Social Forestry), Ernakulam, for the "Project on Mangrove Afforestation in I makulam Distriction the land allotted by M/s Cochin Port Trust to social forestry* for the financial year 2016-19. Details of the cheque are as given below,

Bank, HUFC, Cheque No. 002009, dated 14.01.2019

Combing Year

Rest Regards

T. N. NEELAKANTAN Sr. Vice President (Plant Head) Petronet LNG Limited Survey No. 347, Parkurypa PO Kocht-682 508, Dist. Broakulum Norde (belin)

conservate.

Social Forestr

Y.N. Neelalcantan

Ar. Vice President (Plant Head)

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felt (1011) 2041 1411 / 23472525 Fax: +01 (1-23472520)

Dahej LNG Terminal: GBDC Industrial Estate, Flot No. 7/A, Dahej Yasuka: Vegra, Dist. Brenzch – 392136 (Gejarat) Tel: +91-2641-257249 File: +91-2641-217252

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TEST REPORT



Test Report No: TC540219000004306P Date: 26.12.2019 Page 1 of 1

	CUSTO	OMER DETAILS			
Customer Name & Address	an and an analysis of the second	M/s Petronet LNG Limited Survey No.347, Puthuvypu P.O Kochi, Ernakulam District			
Customer Reference		Test Request Form Dated 20.12.2019			
	SAM	PLE DETAILS			
Sample Code	19000004306	Sample Received On	20.12.2019		
Sample Name	Water	Sampling Procedure	SEAAL/ENL/GEN/SOP/01& SEAAL/MBL/SOP/06		
Sample Description	Marine Water	Sampling Location	Jetty Head		
Identification By Customer	Jetty Head	Sampling Condition	Good		
Sampled On 20.12.2019		Test Started On	21.12.2019		
Sampled By	Laboratory	Test Completed on	26.12.2019		

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 2017	Hazen	1.00
03	рН	IS 3025 Part 11:1983 RA 2017		6.43
04	Electrical Conductivity	IS 3025 Part 14:1984 RA 2019	μS/cm	49625
05	Total Dissolved Solids	IS 3025 Part 16:1984 RA 2017	mg/L	32250
06	Turbidity	IS 3025 Part 10:1984 RA 2017	NTU	12.8
07	Chloride (as Cl)	IS 3025 Part 32:1988 RA 2019	mg/L	24744
08	Salinity	SEAAL/SOP/06	ppt	44.7
09	Sulphate (as SO ₄)	IS 3025 Part 24:1986 RA 2019	mg/L	5486
10	Iron (as Fe)	IS 3025 Part 53:2003 RA 2019	mg/L	0.95
11	Mercury (as Hg)	APHA (23rdEdition) 3112-B: 2017	mg/L	< 0.002
12	Lead (as Pb)	APHA (23rd Edition) 3111-B: 2017	mg/L	< 0.20
13	Copper (as Cu)	IS 3025 Part 42:1992 RA 2019	mg/L	< 0.05
14	Zinc (as Zn)	APHA 3111B 23rd Edn, 2017	mg/L	< 0.025
15	Nickel (as Ni)	IS 3025 Part 54: 2003 RA 2019	mg/L	< 0.10
16	Cadmium (as Cd)	IS 3025 Part 41: 1992 RA 2019	mg/L	< 0.03
17	Cyanide (as CN)	IS 3025 Part 27:1986 RA 2019	mg/L	< 0.01
18	Fluoride(as F)	luoride(as F) APHA 23rdEdition 4500-F- B D: 2017		1.51
19	Arsenic (as As)	IS 3025 Part 37: 1988 RA 2019	mg/L	< 0.002
20	Hexavalent Chromium (as Cr3+)	IS 3025 Part 52:2003 RA 2019	mg/L	< 0.20
21	Pesticide	USEPA 508: 1995		Absent
22*	Insecticide	USEPA 508: 1995		Absent
23	Oil & Grease	IS 3025 Part 39:1991 RA 2019	mg/L	< 1.00
24	Dissolved Oxygen	IS 3025 Part 38:1989 RA 2019	mg/L	6.47
25	Biochemical Oxygen Demand (3 days at 27 °C)	IS 3025 Part 44:1993 RA 2019	mg/L	3.98
26	Chemical Oxygen Demand	IS 3025 Part 58:2006 RA 2017	mg/L	2178
27	Total Suspended Solids	IS 3025 Part 17:1984 RA 2017	mg/L	14.6
28	Total Bacterial Count	IS 1622:1981 RA 2014	cfu/mL	520
29	Faecal Coliform	IS 1622:1981 RA 2014	MPN/100ml	< 2
30	E coli	IS 1622:1981 RA 2014	MPN/100ml	< 2

^{*}Not, Under NABL scope

End of Report

For and on behalf of Standards Environmental & Analytical Laboratories

Authorized Signatory

The results are related only to the samples submitted for analysis and this test report shall not be reproduced proof in the written approval or the laboratory.

Standard^s Environmental & Analytical Laboratories



TEST REPORT



Test Report No: TC540219000004305P Date: 26.12.2019 Page 1 of 1

	CUSTO	OMER DETAILS			
Customer Name & Address		M/s Petronet LNG Limited Survey No.347, Puthuvypu P.O Kochi , Ernakulam District			
Customer Reference		Test Request Form Dated 20.12.2019			
	SAM	MPLE DETAILS			
Sample Code	19000004305	Sample Received On	20.12.2019		
Sample Name	Water	Sampling Procedure	SEAAL/ENL/GEN/SOP/01& SEAAL/MBL/SOP/06		
Sample Description	Ground Water Bore Well	Sampling Location	East Side - Green Belt		
Identification By Customer		Sampling Condition	Good		
Sampled On	20.12.2019	Test Started On	21.12.2019		
Sampled By	Laboratory	Test Completed on	26.12.2019		

SL NO	TEST PARAMETER	TEST METHOD	UNIT	RESULT
01	pH	IS 3025 Part 11:1983 RA 2017		7.22
02	Total Dissolved Solids	IS 3025 Part 16:1984 RA 2017	mg/L	403
03	Turbidity	IS 3025 Part 10: 1984 RA 2017	NTU	0.80
04	Chloride (as Cl)	IS 3025 Part 32:1988 RA 2014	mg/L	98.9
05	Iron (as Fe)	IS 3025 Part 53:2003 RA 2014	mg/L	0.50
06	Fluoride(as F)	APHA 23rdEdition 4500-F- B D: 2017	mg/L	0.60
07	Sulphate (as SO ₄)	IS 3025 Part 24:1986 RA 2014	mg/L	135
08	Electrical Conductivity	IS 3025 Part 14:1984 RA 2013	μS/cm	1085
09	Mercury (as Hg)	APHA (23rdEdition) 3112-B: 2017	mg/L	< 0.002
10	Lead (as Pb)	APHA (23rd Edition) 3111-B: 2017	mg/L	< 0.20
11	Copper (as Cu)	IS 3025 Part 42:1992 RA 2014	mg/L	< 0.05
12	Total Chromium (as Cr)	IS 3025(Part 52):2003	mg/L	< 0.40
13	Zinc (as Zn)	APHA 3111B 23rd Edn, 2017	mg/L	< 0.025
14	Temperature	IS 3025 Part 9:1984 RA 2006	°C	29.0
15	Salinity	SEAAL/SOP/06	ppm	0.18
16	Oil & Grease	IS 3025 Part 39:1991 RA 2014	mg/L	42.0
17	Dissolved Oxygen	IS 3025 Part 38:1989 RA 2014	mg/L	5.78
18	Biochemical Oxygen Demand (3 days at 27 °C)	IS 3025 Part 44:1993 RA 2014.	mg/L	69.7
19	Chemical Oxygen Demand	IS 3025 Part 58:2006 RA 2012	mg/L	594
20	Cyanide (as CN)	IS 3025 (Part-27):1986 (Reaff.2003)	mg/L	< 0.01
21	Cadmium (as Cd)	APHA (23rd Edition) 3111-B: 2017	mg/L	< 0.03
22	Pesticide	SEAAL/INS/RWM/SOP/01		Absent
23*	Insecticide	USEPA 508: 1995		Absent

*Not Under NABL scope

Note: Values given for test parameters Mercury, Lead, Copper, Chromium, Zinc, Cyanide, Cadmium are our MDL (Minimum Detection Level) values as per NABL Scope.

End of Report

For and on behalf of Standards Environmental & Analytical Laboratories

Authorized Signator

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 approval of the laboratory.



GOVERNMENT OF KERALA DEPARTMENT OF FACTORIES AND BOILERS

Form-4

(Prescribed under Rule 5)

License is hereby granted to Shri/Smt. VINOD KUMAR MISHRA (DIRECTOR FINANCE) () 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 2020.

1.	Registration No	D09/CHN/03/286/2013	5.	Permit No & Date	73/2019 (19-03-2019)	
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.	4. Details of the premises			Manufacturing Process & NIC Code		
	Panchayat Elamkunnappuzha			1. RECEIVING STORAGE RELOADING		
	Village	Puthuvype (CT)		BUNKERING REGASIFICATION AND SUPPLY		
	Survey No 347			LNG & RLNG (52109)		
	Taluk	Kochi				
	District	Ernakulam				

Place: Ernakulam Date: 16-11-2019

(Issued under Rule 5, renewed under Rule 7)

Calendar Year	No. of Workers	Power	Fees	Additional Fee	Excess Fee	Remittance Date	Renewed Date	Sign	of Official
2020	380	69920.83 KW +18249.99 KVA	228220.00			17-10-2019	16-11-2019		
Amendment Details									
Factory Nam	е	No. of Workers	Power(KW)	Fees	Additional Fee	Remittance Date	Amendment Year	Amendment Date	Sign of Official
PETRONET LNG LTD		290	67834.97 (18249.99 KVA)	0	0.0		2018	25-07-2018	
PETRONET LNG LTD		380	67834.97 (18249.99 KVA)	790	13280.0	23-10-2018	2018	19-12-2018	
PETRONET LNG LTD		380	69920.83 (18249.99 KVA)	830	0.0	17-10-2019	2019	16-11-2019	
Transfer Details									
Transferred From Transferred To		erred To	Transfer Fee	Remittance Date	Year of Transfer	Transfer Date Sign of Official		of Official	
RAJENDER SINGH, DIRECTOR Vinod Kumar Mishra (TECHNICAL) (null)		a (Director Finance)	830.00		2019	25-09	-2019		

(License Renewal application for 2021 should be submitted on or before 31-10-2020)

- * This is a computer generated certificate. Hence there is no need for a Physical Signature
- * Third Party Verification is enabled for Digitally Signed License.Please visit https://idms.fabkerala.gov.in/fabnet/verifyLicense.do

Annexure-06

				Ambient Air Mo	nitoring Report, (Octob	er 2019 to March 2020)			
LOCATION NO.	Location of Ambient Air Sampling	Month & Date of Sampling	PM (<10 microns) in Micrograms/m3; Limit 100 Micrograms/m3	PM (<2.5 microns) in Micrograms/m³; Limit 60 Micrograms/m³	SOx as SO ₂ in Micrograms/m³; Limit 80 Micrograms/m³	NOx, Oxides of Nitrogen in Micrograms/m3; Limit 80 Micrograms/m3	Carbon Monoxide (CO); mg/m ³ 4.0 mg/m ³	OZONE Micrograms/m³; Limit 180 Micrograms/m³	Hydrocarbons (HC); Micrograms/m3;
		Oct-19	64.4	22.8	0	0	0	0	
		Nov-19	68.9	26.1	0	0	0	0	
	(Watch tower-2)	Dec-19	52.4	20.9	Ô	0		0	
1	near MGH	Jan-20	50.7	22.5	0			0	
	building.	Feb-20	65.1	24.3	0	0		0	
	building.	Mar-20			. 0	0		0	
		Avarage	55.3 61.13	23.1	0.00	0		0	
	Near Fire Station Building	Oct-19	59.4	23.30		0.00		0.00	0.6
		Nov-19	61.8	24.2	0	0		0	
		Dec-19			0	0		0	
2		Jan-20	77.9	26.8	0	5.18		0	
_		Feb-20	80.2	27.1	0	4.98		0	
		Mar-20	73.6 76.4	25.9 25.1	0	5.38		0	
		Avarage	71.55	25.28	0.00	4.98		0	
		Oct-19	54.1	23.28	0.00	3.42		0.00	0.0
	Fire water	Nov-19	50.2	25.3	0	4.31		0	
	Reservoir+	Dec-19	50.9	19.3	0	6.24		0	
3	Nesel voll+	Jan-20	50.6	18.2	0	0		0	
		Feb-20	54.1	20.6	0	0		0	
	Watch Tower-5	Mar-20	52.2.	20.6	0	5.8	0	0	
		Avarage	53.68	21.10	0.00	3.37	0.00	0.00	0.0
		Oct-19	60.3	21.9	0	0	0	0	
		Nov-19	65.6	25.1	0	0		0	
	Watch tower-3	Dec-19	54.6	20.3	0	0		0	
4		Jan-20	61.5	23.6	0	0	0	. 0	
	near Tank T-101	Feb-20	58.4	22.1	0	0	0	0	
		Mar-20	57.2	24	0	0	0	0	
		Average	59.60	22.83	0.00	0.00	0.00	0.00	0.0

Annexure -7





CSR UPDATE KOCHI

Major Highlights Oct 2019- Mar 2020

Environment







Healthcare



Petronet LNG Foundation

Disability Assessment camp & Distribution of medical equipment for divyangjans through M/s. ALIMCO









Education



Infrastructure development of schools in Vypin, Kannur, Alappuzha















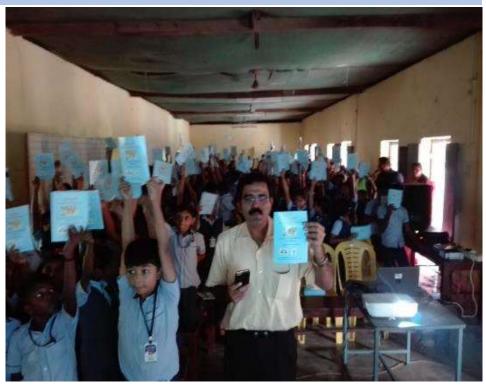


Education (contd..)



Tobacco Awareness Campaign in SNUP School, Thrikkakara





Education (contd..)



Free bicycles distributed to 544 girl students of fisher folk community across 3 districts in Kerala

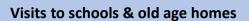








Continuous Field Visits for Community Need Assessment









Visit to Mahatma Buds school in Elankunnapuzha



Interview with faculties of SCMS

















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