

COMPLIANCE REPORT TO YOUR ORDER DT. 13TH MARCH 2003

i. All the conditions stipulated by the Science Technology and Environment Department, Government of Kerala vide their Letter No. 4215/B1/2000/STED, dated 9.2.2001 should be effectively implemented.

- **Conditions mentioned in the Letter No. 4215/B1/2000/STED, dated 9.2.2001 does not specifies and conditions for compliance.**
- **Conditions mentioned in the Letter No. 1143/A2/2005/STED dated 14-10-2005 from Kerala coastal Zone Management Authority are and PLL compliance remarks are 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 plot is not in the mangrove area and is at about 100 m from the buffer zone. All other activities and pipelines are limited to within this plot.
2.	Expansion of existing service road in the Costal Regulation Zone-I (shall not be carried out.	The existing service road which belongs to Panchayat has not been expanded into the CRZ-I (i).
3.	No groundwater shall be tapped 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.
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 17.9.99 which was renewed every time (mostly 2 years) before expiry of its validity period. We have received Consent to Operate no. PCB/HO/EKM/ICO/40/2013 dated 05 th August 2013, Valid up to 31 th March 2015. Enclosed as Annexure#1.

5.	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 has been submitted with letter vide ND/LNG/K22/2K1 dated 16 th Feb-2001 for 2.5 MMTPA and EIA with QRA and Site emergency response plan (for 5 MMTPA terminal) submitted to MoEF vide letter dated 22 nd Sept-2011 .
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ii. All the conditions stipulated by Kerala Pollution Control Board in their NOC No. PCB/NOC/EK/117/98 dated 17.9.99 should be effectively implemented.

- **PLL's latest Consent to Establish number is PCB/HO/EKM/ICE-R/03/2013 dated 14th March 2013, Valid up to 30th June 2014.**
- **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.
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 alongwith.	PLL is generating only sewage waste and is being handled through septic tank and soak pit in individual building. Scheme has been submitted to KSPCB. PLL will comply with effluent standard of Water Act and if additional facilities are required will be provided 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:	Low NOx burners are used for Gas Turbine Generator (GTG). Provided online monitoring instrument for GTG. Using Natural Gas as fuel for GTG.
	69.0 m above ground level for flare stack	PLL has received letter for change in the condition from KSPCB dated 18-10-2010 (enclosed Annexure#2). The minimum height of the flare stack shall be read as 43.2 instead of 69.0 m.
	5.5 meter above the roof level of Generator room for the Gensets of capacity 750KVA	PLL has provided the stack discharge 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 PCB/HO/EKM/ICO/40/2013 dated 05 th August 2013, Valid up to 31 th March 2015.
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.	PLL has obtained consent to Operate PCB/HO/EKM/ICO/40/2013 dated 05 th August 2013, Valid up to 31 th March 2015, already enclosed as Annexure#1 .
6	No.8: The sign board showing the name of the industry shall be displayed at the entrance of the site.	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 planted and maintained within and along the periphery of the factory premises, forming a green belt to improve the environment.	Green Belt area is being developed and tree plantation of Gulmohar, Amaltas, Neem along the periphery of the factory premises is carried out.
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 has inform date of commissioning vide letter no PLL/KOCHI/KSPCB/2013-14/C-06 on dated 7 th August 2013 enclosed as Annexure#3 .
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.	PLL will not make any change or alteration in location of the industry as shown in 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 5 ^o C and monitoring arrangements for the same shall be provided.	PLL will not be using any sea water for project as well as during operation stage.
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 level monitoring once in every month is being done and results are within the specified limits Annexure Annexure#4 .
13	Consent to establish shall be obtained prior to setting up of captive power plant in futures.	PLL has incorporated the details of GTG for captive power 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 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 off 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 limited to within 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 attached as Annexure# 5.**
 - **Standards such as OISD-194, EN: 1473, NFPA 59A and others 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 construction is completed. This aspect has been considered while designing the jetty structure. 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.
- **Pipelines for LNG pumping from jetty to tanks are laid above ground alongwith trestle. It may be please noted that PLL will not use any sea water intake and no discharge is proposed from the sea during operation of the terminal.**
- 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 will not use any sea water intake and will not discharge any return water during operation of the terminal.**
- 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.
- **As PLL is not going to use any sea water intake so this condition is not applicable.**
- xi. No groundwater shall be tapped for the project.
- **No groundwater is being tapped either at construction stage or during operation phase. Water requirement during operation of the terminal will be generated and met from the condensed water from air.**
- 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 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.
- **PLL Mangrove afforestation related work details are summarized and given as Annexure#6.**
 - **A Detailed plan for Mangrove afforestation is submitted for your perusal as Annexure#7.**
- 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 environment monitoring once in month to assess any changes from M/s. Suganthi Devadason Marine Research Institute. PLL is submitting the same report to the industry along with the compliance status report with respect to the Environment clearance No. J-16011/26/2001-IA-III dated 16th November 2010 for dredging for the purpose of creating an approach channel for LNG import terminal. Dredging work by Petronet LNG is complete and after May-2013 and further regular dredging of the channel is being done by CPT.**
 - **One copy of the marine environment monitoring report for month of May-2013 is enclosed as Annexure#8.**
- xvii. The budget allocated for environment safeguard measures shall not be diverted for any other purpose.
- **Budget allocated for environment safeguard will not be diverted for 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 has been submitted with letter vide letter ND/LNG/K-22/2ka dated 16th Feb-2001 for 2.5 MMTPA and EIA with QRA and site emergency response plan (for 5 MMTPA terminal) submitted to MoEF vide latter dated 22nd Sept-2011.**

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 Cochin Port Trust Authorities within their jurisdiction and 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 latter dated 22nd Sept-2011 for EAC recommendations.**
- **Emergency Response and Disaster Management Plan of Petronet LNG, Kochi terminal was submitted with last six monthly compliance report on dated 05/04/2013.**

5. GENERAL CONDITIONS:

i.	Construction of the proposed structure should be undertaken meticulously conforming to the existing Central/local rules and regulations including Coastal Regulation Zone Notification, 1991 and its amendments. All the construction designs/drawings relating to the proposed construction activities must have approvals of the concerned State Government Departments/Agencies.	<ul style="list-style-type: none"> ▪ The construction drawings have been approved by the concerned State Government Department/Agencies like Department of Factories and Boilers, Fire and rescue Services etc. ▪ Copy of the approvals of Factories and Boiler; Fire rescue services already submitted with last six monthly compliance report on dated 05/04/2013. Find enclosed as Annexure# 9 & Annexure# 10 again for records.
ii.	The proponent shall ensure that as a result of the proposed constructions, ingress of the saline water into the groundwater does not take place. Piezometers shall be installed for regular monitoring for this purpose at appropriate locations on the project site.	<ul style="list-style-type: none"> ▪ It is being ensured that saline water ingress into groundwater is not taking place by regular monitoring. Two Piezometers have been installed for the purpose at appropriate locations. ▪ Sampling of the water drawn from Piezometers is being carried out monthly and the ground water level has no any change and the result of the salinity is normal. Ground water analysis report for the months of April-13 to August-13 is enclosed as Annexure#11.
iii.	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	<ul style="list-style-type: none"> ▪ 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. We have already submitted with last six monthly compliance reports on dated 05/04/2013, Please find enclosed as Annexure# 12 again for records. ▪ 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

		<p>2013. We have already submitted with last six monthly compliance reports on dated 05/04/2013, Please find enclosed as Annexure# 13 again for records.</p> <ul style="list-style-type: none"> ▪ Permit to construct and plan approvals obtained from Director of Factories and Boilers. We have already submitted with last six monthly compliance reports on dated 05/04/2013, Please find enclosed as Annexure# 14 again for records. ▪ We have prepared Emergency response and Disaster Management Plan and it was submitted to District collector office vide letter no. PLL/KOCHI/DC/2012-12/C-06 dated 15th November 2012. We have already submitted with last six monthly compliance reports on dated 05/04/2013, Please find enclosed as Annexure# 15 again for records. ▪ Contingency plan with the concerned authorities was prepared and communication for commissioning was done to all authorities before the commissioning of the project. ▪ All approvals as necessary were obtained before the commissioning of the project. Terminal commissioned was on 20th August. Activities were completed on 10th September 2013.
<p>iv.</p>	<p>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.</p>	<p>Contingency plan is formulated to take care of the eventualities. We have already submitted with last six monthly compliance reports on dated 05/04/2013.</p>

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 being equipped with all communication and control facilities including emergency shut-down systems in the event of spill occurring
vi.	Dry chemical fire fighting extinguishers should be provided at all levels of the jetty to permit personnel to fight small fires. Water spray for dispersing un-ignited vapour clouds should be kept as standby. Full- fledged fire fighting facilities should be provided at jetty.	Full-fledged fire fighting 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 as well as water curtain system is provided. A note on Fire protection facilities is attached as Annexure# 16.
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 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.	<ul style="list-style-type: none"> ▪ A well-equipped laboratory is with suitable Equipments for monitoring quality of air and water has been set up. ▪ Qualified and competent manpower for Laboratory is available with PLL. ▪ PLL will carry out periodic monitoring of environmental parameters at regular intervals and report will be submitted to the concerned authorities. ▪ During project work ambient air monitoring was being carried out once in month at three locations and analysis report for the month of July-13 is enclosed as Annexure# 17. ▪ PLL was conducting marine environment monitoring once in month to assess any changes from M/s. Suganthi Devadason Marine Research Institute. PLL is submitting the same report to the industry along with the compliance status report with respect to the Environment clearance No. J-16011/26/2001-

		IA-III dated 16th November 2010 for dredging for the purpose of creating an approach channel for LNG import terminal (already enclosed as Annexure# 08)
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	Project construction work is completed and labour camp is removed. Adequate facilities for cooking, sanitation, drinking water etc. had been provided to the laborers during construction period.
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 are being provided for collection of sewage and regular disposal will be carried out from authorized agency of Cochin corporation and no sewage or waste will be allowed to enter water bodies
x.	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 with last six monthly compliance reports on dated 05/04/2013.
xi.	Necessary navigational aids such as channel markers should be provided to prevent accidents. internationally recognized safety standards shall be applied in case of barge/vessel movements	PLL has provided 4 Nos. of Buoys as per demand by cochin post trust demand. In future also proper navigational aids as approved by Cochin Port Trust will be provided and all required safety standards will be applied for 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.	<ul style="list-style-type: none"> ▪ A separate fund for CSR is kept by PLL and we have carried out various activities for the community development and welfare for villagers. ▪ We have submitted item-wise details along with the time bound action plan vide letter No. PLL/KOCHI/MOEF/2012-13/C-06 dated 22nd March, 2013 (enclosed as Annexure# 18).

		<ul style="list-style-type: none"> ▪ Details of the CSR activities like Belbow junction road development 1.5 Crores, Current year 3.45 Crores for road and solar light, others like school building renovations, library 13 lakh.
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 with last six monthly compliance reports on dated 05/04/2013.
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 orderNo. J-16011/26/2001-IA-III dated 16th November 2010 for undertaking dredging operations of the basin. Dredging operations are being undertaken with safeguard measures to prevent turbidity conditions in the dredged area and periodic monitoring of the same is being carried out by M/s. Suganthi Devadason Marine Research Institute.
xv.	For employing unskilled, semi-skilled and skilled workers for the project, preference shall be given to local people.	PLL has given preference to local people for 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.	PLL has complied with the recommendation while preparing the Environment Management plan and Disaster Management plan as contained in the EIA and Risk Analysis report of the Project.
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 a General Manager – Technical. PLL have recruited qualified personnel in HSE department & Laboratory Operation Department for Environment monitoring.
xviii.	The project affected people, if any should be properly compensated and rehabilitated.	No people affected directly by the project because it was uninhabited area. Land was acquired by Cochin Port Trust for new road construction

		towards project and affected people were provided with infrastructure like road , drain, electricity and water as per guideline by authorities to the tune of Rs 55 lakhs.
xix.	The funds earmarked for environment protection measures should be maintained in a separate account and there should be no diversion of these funds for any other purpose. A year wise expenditure on environmental safeguards should be reported to this Ministry.	Budget allocated for environment safeguard will not be diverted for other purposes.
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 if mitigative measures and other environmental protection activities.	PLL will extend full support to the officers of this ministry's Regional Office, Banglore and the officers of the Central and State Pollution Control Board during the inspection for monitoring purpose. PLL will furnish full details of analysis reports and action plans for environmental protection
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 for any modification in the clearance conditions
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 about the right of the ministry and have noted this condition
xxiii.	This Ministry or any other competent authority may stipulate any additional conditions subsequently, if deemed necessary for environmental protection, which shall be complied with.	PLL will comply with additional conditions, if any suggested by the ministry or any other competent authority in writing
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	PLL had advertised regarding environmental clearance accorded by the ministry of Environment & Forest in two local newspapers widely circulated in the region

	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.envfornc.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.	around the projectAnnexure#19.
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.	PLL has complied. PLL letter dated 5th Sept-2008 enclosed as Annexure# 20.

COMPLIANCE REPORT TO YOUR ORDER DT. 13TH MARCH 2006

A. SPECIFIC CONDITIONS

- i. All conditions stipulated in the clearance letter of even number dated 2nd June, 2003 should be strictly implemented. Also, all conditions stipulated by the State Coastal Zone Management Authority vide their letter No.1 143/A212005/STED, dated 14th October, 2005 should be complied.
 - **Conditions mentioned in the Letter No. 4215/B1/2000/STED, dated 9.2.2001 does not specifies and conditions for compliance.**
 - **Conditions mentioned in the Letter No. 1143/A2/2005/STED dated 14-10-2005 from Kerala coastal Zone Management Authority are compiled by PLL. Point wise compliance is given on page no. 1 of COMPLIANCE REPORT TO YOUR ORDER DT. 13TH MARCH 2003 in this report.**
- ii. No Objection Certificate/consent should be obtained from the Kerala State Pollution Control Board for the enhanced LNG capacity at the terminal, before initiating the project.
 - **PLL has received renewal of the CTE; the latest Consent to Establish number is PCB/HO/EKM/ICE-R/03/2013 dated 14th March 2013, Valid up to 30th June 2014.**

- **PLL has received Consent to Operate no. PCB/HO/EKM/ICO/40/2013 dated 05th August 2013, Valid up to 31th March 2015. Already enclosed as Annexure#1.**
 - **Conditions mentioned by KSPCB in the CTE No. PCB/NOC/EK/117/98 dated 17.9.99 are complied.**
- iii. The project proponent should ensure that all necessary precautions including installation of Full-containment - Type LNG tank with concrete roof as indicated in the risk analysis report should be implemented.
- **The two storage tanks being built are of Full containment type and as per the risk analysis report.**
- iv. The project proponent should ensure that no additional dredging/expansion or regasification plant will be undertaken for the above project.
- **PLL will not undertake additional dredging / expansion of regasification plant without approval of MOEF. Only maintenance dredging is being carried out by Cochin port Trust.**
- v. The budget allocated for environment safeguard measures should not be diverted for any other purpose.
- **Budget allocated for environment safeguard will not be diverted for other purposes.**
- vi. The comprehensive Environmental Impact Assessment report which is under preparation should be completed early and the final report submitted to this Ministry within one year,
- **Comprehensive EIA has been submitted with letter vide ND/LNG/K22/2K1 dated 16th Feb-2001 for 2.5 MMTPA and EIA with QRA and Site emergency response plan (for 5 MMTPA terminal) submitted to MoEF vide letter dated 22nd Sept-2011.**
- vii. Based on the risk analysis, Disaster Management Plan should be prepared and submitted to this Ministry within 6 months.
- **EIA with QRA and site emergency response plan (for 5 MMTPA terminal) submitted to MoEF vide latter dated 22nd Sept-2011 for EAC recommendations.**

B. GENERAL CONDITIONS

All the stipulations under “General Conditions” of this order have been already responded to, as above.



FILE NO. - PCB/HO/EKM/CE/74/05



KERALA STATE POLLUTION CONTROL BOARD

INTEGRATED CONSENT TO OPERATE

UNDER

The Water (Prevention & Control of Pollution) Act 1974

The Air (Prevention & Control of Pollution) Act 1981&

The Environment (Protection) Act 1986

TO

Consent no: PCB/HO/EKM/ICO/40/2013

**Petronet LNG Limited
Puthuvyppu P. O
Ernakulam- 682 508**

Date: 05.08.2013 Validity: 31/03/2015

Copy to:

1. The Chief Environmental Engineer, Regional Office, Ernakulam
2. The Senior Environmental Engineer, District Office-1, Ernakulam
3. The Secretary, Elamkunnapuzha Grama Panchayath, Ernakulam
4. Stock file





1. GENERAL

1	Validity	31/03/2015
2	Name and address of establishment	Petronet LNG Limited Puthuvyppu P. O Ernakulam- 682 508
3	Communication	Telephone : 0484-2502259 Fax : 0484-2502264 e-mail : diritech@petronetlng.com Website : www.petronetlng.com
4	Occupier details	Sri. Rajendar Singh Director (Technical)
5	Survey Number	347
6	Village	Puthuvypeen
7	Taluk	Kochi
8	District	Ernakulam
9	Local body	Elamkunnapuzha Grama Panchayath
10	Category	Orange
11	Capital Investment	` 4190.67 crores
12	Scale	Large
13.	Annual Fee	` 33,52,536/-
14	Fee remitted	` 33,52,536/- (one year fee adjusted from ICE)
15	Water consumption	37 m ³ /day
16	Effluent generation	20 m ³ /day
17	Date of application	12/04/2013
18	Date of clarification	20/05/2013 & 20/07/2013
19	Date of enquiry	17.05.2013
20	Activity	LNG re-gasification facility of capacity 5 MMTPA Occupational health centre





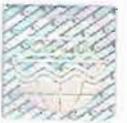
1. GENERAL CONDITIONS

- 2.1. This consent is granted subject to the power of the Board to review and make variation in all or any of the conditions.
- 2.2 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.
- 2.3 For renewal of the consent, application in the prescribed form shall be submitted to the Board in the third month before the date of expiry of the consent.
- 2.4 No change or alteration of the industrial plant is to be made without prior written permission of the Board. Any change in the particulars furnished and/or in the identity of the occupier/authorised agent is to be intimated to the Board forthwith.
- 2.5 In case of discharge / apprehended discharge of any water / air pollutant or hazardous waste due to any accident or other unforeseen act or event, it shall be immediately intimated to the Board and the consentee / authorisee shall make all possible efforts to mitigate / prevent / remediate the discharge/emission.

3. CONDITIONS AS PER The Water (Prevention & Control of Pollution) Act

- 3.1 The proposed sewage treatment plant consisting of treatment units such as screen chamber, oil & grease trap, sewage equalisation tank, primary settling tank, aeration tank, closing tank, secondary settling tank, treated sewage tank, multigrade filter, activated carbon filter & treated water tank shall be completed & commissioned before commissioning the administrative block & canteen facilities. The mode of disposal of the treated effluent shall be informed before commissioning the plant. Sewage from the existing facility shall be treated in septic tank soak pit system.
- 3.2 Condensate water from air heaters shall be effectively utilised. Proposal for utilisation shall be furnished.
- 3.3 There shall be easy access to each and every effluent treatment unit and the final outlet for inspection and drawing of effluent samples.





- 3.4 Water meter shall be fixed to record consumption of water.
- 3.5 Time of Day meter shall be installed exclusively for the effluent treatment systems shall be maintained properly.
- 3.6 Arrangements shall be provided for rain water harvesting and for utilization of harvested rain water.
- 3.7 Lighting arrangements shall be provided in the effluent treatment and recycling area.
- 3.8 Natural drainage of the area shall be protected.
- 3.9 Drawing showing outlet location of sewage treatment plant shall be submitted after commissioning the STP and got approved by the Board within 3 months.

4. CONDITIONS AS PER The Air (Prevention & Control of Pollution) Act

- 4.1. Emission characteristics shall not exceed the following:

Sl. No.	Chimney No.	Source of emission	Height (above ground level)	Air pollution control measures	Parameter in mg/Nm ³	
1.	FS-1	Flare stack	43.2 m	--		
2.	S-1 & S-2	Gas Turbine Generator GTG-A	21.50 m each	--	NOx	450
3.	S-3 & S-4	GTG-B	21.50 m each	--	NOx	450
4.	S-5 & S-6	GTG-C	21.50 m each	--	NOx	450
5.	E-1	Emergency DG set	12.7 m	Acoustic enclosure		--
6.	V-1	SCV Stack	12 m	--		--
7.	FP1, FP-2, FP-3 & FP-4	Fire pumps (Diesel operated)	14.5 m	--		--
8.	MSO-1	MSO compressors	7 m	--		--

- 4.2. There shall not be any fugitive emission from the premises.
- 4.3. Record, of type, quantity and purpose of consumption of fuel shall be maintained and abstract shall be submitted to the Board along with emission monitoring report.





- 4.4. Minimum of three ambient air quality monitoring stations shall be maintained in and around the premises of the factory and the records of such monitoring shall be submitted to the Board as and when called for.
- 4.5. One ambient air quality monitoring facility shall be provided and maintained.
- 4.6. Stacks shall be fitted with port hole and plat form cum ladder to facilitate monitoring of emissions.
- 4.7. The suspended particulate matter at the boundary of the premises shall not exceed the standards applicable for the adjoining area.
- 4.8. The sound level measured 1 m outside the boundary of the premises shall not exceed the sound level applicable for the adjoining area.
- 4.9. All operations likely to produce dust or noise shall be carried out within sufficiently closed and insulated premises.

**5. CONDITIONS AS PER
The Hazardous Wastes (Management, Handling and
Transboundary Movement) Rules, 2008**

- 5.1. Activities for which Authorisation is granted:

Collection	√	Transportation	√
Reception	--	Storage	√
Treatment	--	Disposal	√

- 5.2. (i) Type, quantity and mode of storage/collection/treatment/disposal of hazardous wastes shall be as follows:

Sl. No.	Type of waste	Schedule Category	Quantity	Mode of	
				Storage	Disposal
1.	Used oil	I 5.1	2 kl/y	Stored in plastic or steel drums kept in an area having impervious flooring and proper roofing	By sale or transfer to an operator having facility and possessing valid authorisation/ valid registration as recycler / re-refiner from the State Board
2.	Waste residue containing oil	I 5.2	500 kg/y		





3.	Industrial use of paints, plastic & ink waste	I 21.1	500 kg/y	Closed leak proof containers in a shed having concrete flooring and proper roofing	Through KEIL, Ambalamedu, Kochi
4.	Barrels and containers used for handling of hazardous wastes / chemicals	I 33.3	500 kg/y		

(ii) The location of the hazardous waste storage site shall be made known by display board at the site. The premises of the disposal site shall be kept clean.

5.3 Labelling and Transportation

(a) All hazardous waste containers shall be provided with a general label as given in **Form 12**.

(b) Hazardous waste manifest in **Form 13** shall be got prepared in set of six (all six copies to be signed by the transporters) and retained/ transported as indicated below:

Copy number with colour code	Purpose
Copy 1 (white)	To be forwarded by the occupier to the State Pollution Control Board
Copy 2 (yellow)	To be retained by the occupier after taking signature on it from the transporter and the remaining four copies to be carried by the transporter
Copy 3 (pink)	To be retained by the operator of the facility after signature
Copy 4 (orange)	To be returned to the transporter by the operator of facility after accepting waste
Copy 5 (green)	To be returned by the operator of the facility to State Pollution Control Board after treatment and disposal of wastes
Copy 6 (blue)	To be returned by the operator of the facility to the occupier after treatment and disposal of wastes

(c) The occupier shall provide the transporter with relevant information in **Form 11** regarding the hazardous nature of the wastes and measures to be taken in case of an emergency.





- (d) Details of disposal of hazardous wastes by sale/transfer (date, quantity, name and address of the buyer) shall be recorded in a log book and produced as and when called for.
- (e) The occupier shall ensure that at the time of auction or sale of wastes, the period of validity of certificate of registration of the registered re-refiner or recycler is sufficient to reprocess the quantity of wastes being sold or auctioned to him.
- 5.4 Records of hazardous wastes generated shall be maintained in **Form-3**.
- 5.5 The occupier shall ensure that the hazardous wastes are transported to authorised recycler/facility in accordance with the provisions of these Rules.
- 5.6 The occupier shall take all steps to contain contaminant and prevent accident while handling hazardous waste.
- 5.7 The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous waste without obtaining prior permission of the Board.
- 5.8 Any unauthorised change in personnel, equipment and working conditions as mentioned in the application by the person authorised shall constitute a breach of this authorisation.
- 5.9 All the facility personnel must be well informed about the hazardous waste management procedure relevant to the positions in which they are employed. All the facility personnel must be trained to ensure that they are able to respond effectively to emergencies by familiarizing them with the emergency procedures, emergency equipment operations and communication or alarm systems.
- 5.10 The authorisee must comply with the provisions of the Environment (Protection) Act and the Rules made thereunder.
- 5.11 Facilities must be established, tested periodically and maintained to minimize the possibility of a fire, explosion or any unplanned sudden or non- sudden release of hazardous waste to air, soil or surface water which could threaten human health or environment.





5.12 The authorisee must develop, implement and maintain and keep upto date, a contingency plan designed to minimize hazard to human health or the environment from fires, explosions or any unplanned sudden release of hazardous waste to air, soil or water.

6. Conditions as per the Bio-Medical Wastes (Management and Handling) Rules

6.1 Activities for which Authorisation is granted:

Generation	✓	Transportation	--
Collection	✓	Treatment	✓
Reception	--	Disposal	✓
Storage	--	Any other form of handling	--

6.2 Needle destroyers shall be made available and put into use at each nursing station.

6.3 Used needles and syringes shall be mutilated to prevent reuse and then disinfected and disposed as per BMW Rules.

6.4 Type, category and method of storage/treatment/disposal of bio-medical wastes shall be as follows:

Sl. No.	Type of Waste	Category	Quantity	Method of storage	Method of treatment and Disposal
1.	Human anatomical Waste	1	--	As per schedule II of Bio-medical Waste (Management and Handling) Rules	Through IMAGE
2.	Animal waste	2	--		
3.	Microbiology and biotechnology wastes	3	--		
4.	Waste sharps	4	250 g/m		
5.	Discarded medicines	5	250 g/m		
6.	Soiled waste	6	500 g/m		
7.	Solid waste	7			





6.5 The Authorisation is subject to conditions as may be specified in the Rules from time to time under the Environment (Protection) Act, 1986.

6.6 The Bio-medical wastes shall not be stored beyond 24 h.

6.7 Records on BMW generation and disposal at the occupational health centre shall be maintained and submitted whenever called for.

7. OTHER CONDITIONS:

7.1 Used lead acid batteries, if any, shall be disposed as per the Batteries (Management and Handling) Rules 2001.

7.2 e- waste shall be disposed in an environmentally sound manner. The following details shall be submitted to the Board on or before 31st December every year.

Sl. No.	Particulars of e-waste	Quantity of e-waste disposed in previous year	Quantity of e-waste proposed to be disposed in current year	Mode of disposal

7.3 Adequate fire protection equipment in accordance with the fire safety regulations shall be established / installed at salient places within the unit and for ensuring the same, necessary certificate from Fire & Rescue Services Department shall be obtained.

7.4 Two sign boards of size 6X4 ft shall be placed near the main entrance of the plant. One board shall display important consent conditions and other shall display the latest air, water, noise, hazardous wastes and chemicals monitoring data against the standards specified.

7.5 The conditions in the clearance No. J-16011/26/2001-IA-III dated 31/01/2013 of the MoEF shall be complied with.

Date: 05.08.2013



Office Seal

SIGNATURE & NAME OF
ISSUING AUTHORITY

☎: General: 0471- 2312910, 2318153, 2318154, 2318155 Chairman: 2318150 Member Secretary: 2318151
E-mail: keralapcb@asianetindia.com FAX: 0471 - 2318134, 2318152 web: www.keralapcb.org



KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram - 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

File No. PCB/HO/EKM/CE/74/05

Dated: 18.10.2010

CONSENT to ESTABLISH- VARIATION ORDER

(Under the Water (Prevention & Control of Pollution) Act, 1974; the Air (Prevention & Control of Pollution) Act, 1981 & the Environment (Protection) Act, 1986)

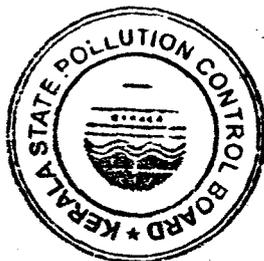
- Ref:-
1. Consent no. PCB/ CE/183/99 dated 17.9.1999
 2. Consent no. PCB/ CE/183/2001 dated 10.12.2001
 3. Consent no. PCB/ CE/1446/2003 dated 18.12.2003
 4. Consent no. PCB/ CE/1446/2003 dated 23.8.2006
 5. Consent No. PCB/CE/1446/2008 dated 13-5-2008
 6. Consent No. PCB/CE/1446/2008 dated 17.05.2010
 7. Your letter no. PLL/SVPT/Cochin/2010 dated 04.06.2010

The 'consent to establish - renewal' order issued vide reference 6 to Petronet LNG Ltd., Puthuvypeen, Emakulam to establish LNG storage and regasification terminal with capacity of 208330 tonne per month is hereby modified to the following extent, in acceptance of the applicant's contention that the height of 43.2 m satisfies the Board's norms and in consideration of the stipulation of Southern Naval Command that the height of the flare stack shall not exceed 47.7 m.

In Condition no. 5 of 'consent to establish' cited 1st the minimum height of flare stack shall be read as 43.2 m instead of 69.0 m.

Rest of the conditions in the consent remain unchanged.

For and on behalf of the
KERALA STATE POLLUTION CONTROL BOARD



JEYAPRASAD S.D.
CHAIRMAN
CHAIRMAN

To

The Director
Petronet LNG Limited
1st Floor, World Trade Centre
Babar Road, Barakhamba Lane
New Delhi 110001

Copy to:-

1. The Chief Environmental Engineer, Regional Office, Emakulam
2. The Environmental Engineer-2, District Office, Emakulam
3. Stock file



Petronet LNG Limited

Survey No. 347, Puthuvypu P.O
Kochi - 682508, India.
Tel: 0484 - 2502259 Fax: 0484 - 2502264

PLL/KOCHI/KSPCB/2013-14/C-06

7th August 2013

Chief Environmental Engineer
Kerala State Pollution Control Board,
Gandhinagar,
Kochi - 682020

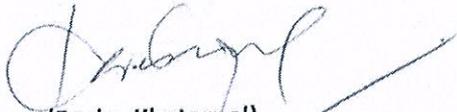
Madam,

This is to notify your good office that PLL Kochi terminal's commissioning activities would be commencing tentatively on Saturday, 10th of August 2013 with the arrival of first ship at its jetty for unloading the LNG cargo. It is expected that the commissioning would be completed by 20th August 2013 as per the present plans. We have taken all necessary precautions with respect to safety and security as per prescribed procedures including imparting the necessary awareness to the ward members of local Panchayat and other officials.

In view of the initial cooling down of the terminal required to be carried out the first time, some flaring of R-LNG is expected during the commissioning and stabilisation period. This would be done in a controlled manner as per approved Standard Operating Procedure.

Thanking you

Yours sincerely


(Pushp Khetarpal)
Sr. Vice President (O&M)

*Received
pb
17/8/13*



Regd. Office:
World Trade Centre, First Floor, Babar Road,
Barakhamba Lane, New Delhi 110 001. (India)
Tel: 011-23472525/23411411 Fax: 011-23472550

Dahej LNG Terminal
GIDC Industrial Estate, Plot No. 7/A,
Dahej, Taluka: Vagra, Dist. Bharuch - 392130 (Gujarat)
Tel: 02641-257004/05/07, 253182 Fax: 02641-253180



PETRONET LNG KOCHI TERMINAL

AMBIENT NOISE REPORT ANALYSIS 2013

	East Side Gate Noise in dB		North side Gate Noise in dB		West side Noise in dB		South side gate Noise in dB		Jetty head area Noise in dB	
	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
APRIL	52.10	47.10	46.10	47.50	47.15	47.35	50.05	53.10	57.20	46.00
MAY	55.45	47.80	52.80	44.50	50.80	48.25	49.45	48.05	53.80	48.85
JUNE	54.05	41.00	57.05	46.40	54.70	41.90	51.90	44.80	58.80	50.55
JULY	50.10	44.60	53.70	47.15	49.30	42.05	53.70	42.25	58.85	50.70
AUGUST	49.70	42.10	52.45	46.00	49.15	41.75	53.40	45.80	58.25	52.25
SEPTEMBER	50.15	46.10	53.80	45.50	46.65	40.55	54.05	42.10	58.10	50.60


 HARSHAD
 SOLANKI
 Manager - HSE

Note on Fire and Gas Detection System installed at Kochi terminal

1. FGS Full integrated system for fire, gas and spill monitoring, alarm and protection of equipments.
2. Comprises of gas detectors (point & open path type), flame detectors, fire beacons, gas beacons, fire sounders, gas sounders, manual call points in various process areas.
3. An independent standalone system that can monitor fire alarms signal within the building also.
4. Auto operation for fire water pump, HVAC controls, deluge valves in case of fire.
5. Dedicated FG detection system for jetty and process area.
6. A 60 inch mimic panel installed at Central control room and fire station showing full information of fire and gas detectors, beacons, sounders and manual call point in all process areas.
7. Voting logic (2002) to ensure confirm gas or flame detectors.
8. Low alarm set at 25% of LEL, high alarm at 50% of LEL gas detectors.
9. For potential LNG or cold hazardous liquid leakage, RTD are used to suite cryogenic temperature less than -165 deg C.
10. Completely equipped with UPS supply to allow FGS to work even in blackout of power or instrument air supply.
11. Fire monitors and sprinkling system operation in auto in case of confirmed fire.

Mangrove Afforestation Details at PLL; Kochi

PLL approached social forestry wing of Forest Department of Kerala Government to associate in mangrove afforestation initiative. As per Forest department report 2005 published by Forest survey of India, Kerala has a mangrove cover of only 8 sq. km spread over Kannur and Ernakulam Districts. Ernakulam has a cover of only 1 sq km area of open mangrove. In fact lion share of mangrove cover is under private possession and the rest with Govt agencies. Considering the prevailing pressure on land and demographic scenario in Kerala, allotment of Govt land or acquisition of private property with mangrove conservation by applying mangrove seedlings and their associates to mangrove owners for enrichment planting in open area and farm lands congenial for raising mangroves along with preferred agricultural crops.

We have therefore decided to associate with the social forestry wing and supply seedling to mangrove owners to promote the cause of mangrove conservation. Forest dept is providing the necessary technical support for the plant stock. Plans are also there to conduct mangrove conservation literacy campaign to disseminate the message and significance of the effort in this direction.

As suggested by them, Forest department's authorized representative has raised nursery of 20000 seedlings for distribution to public on coastal tracts. A new order will be placed by PLL to the said authorized representative for raising 50000 sapling and will be ready for distribution by Feb-2014 to various parties identified by the forest dept. Other promotional campaigns and Programmes will also be conducted with the help of Forest Department towards this objective. 20000 seedling have already been distributed to Center for Water Resources Development and Management (CERDM), an institution of the Kerala State Council for Science, Technology and Environment, for planting along the aquaculture ponds selected in nine coastal district of Kerala, under ongoing project on "Integrated Mangrove Aquaculture of the Environmental Management and Socio-Economic upliftment of Rural people of Kerala.

Last year we had developed 20000 mangrove sapling and handed over to Center for Water Resources Development and Management (CDRDM) for planting along the aquaculture ponds under Project "Integrated Mangrove Aquaculture"

Subject to the availability and allotment of land from Forest Dept PLL is also ready to undertake mangrove afforestation directly.

* PLL will approach Kerala Forest Department for associating and collaboration in Mangrove Afforestation.



Mangrove Afforestation Plan

PLL is committed for refurbishing the environment by mangrove plantation and have spent significant amount and efforts towards the same in Gujarat. A Detailed report is attached. In Kerala also company has plans to spend reasonable amount towards this activity and has following plan:

- A. To develop mangrove seedling and distribution of the same to public in coastal area for plantation, as per the availability of land
- B. Plantation of mangroves based on land being made available for the same

As of now no land has been ear marked or made available for this purpose, therefore PLL has made the following plans for development of seedlings. Efforts are on for contacting various authorities for identifying the land for mangrove plantation.

Sl. No.	Year	Mangrove Plantation Plan	Expenditure	Status
1.	2012-13	Mangrove raising nursery to supply 20,000 seedlings to Public in Costal Area.	Rs. 5.6 lakh	Seedling being raised at nursery Vadekkemangattu, Pengilipuram, Ulunthy, Alappuzha. Seeding will be available in Dec-2012.
2.	2013-14	Development of 50,000 seedling for distribution or plantation subject to availability of land in Kerala.	Rs. 15 lakh	
3.	2014-15	Development of 50,000 seedling for distribution or plantation subject to availability of land in Kerala.	Rs. 15 lakh	
4.	2015-16	Development of 50,000 seedling for distribution or plantation subject to availability of land in Kerala.	Rs. 15 lakh	

5.	2016-17	Development of 50,000 seedling for distribution or plantation subject to availability of land in Kerala.	Rs. 15 lakh	
6.	2017-18	Development of 50,000 seedling for distribution or plantation subject to availability of land in Kerala.	Rs. 15 lakh	
7.	2018-19	Development of 50,000 seedling for distribution or plantation subject to availability of land in Kerala.	Rs. 15 lakh	
8.	2019-20	Development of 15,000 seedling for distribution or plantation subject to availability of land in Kerala.	Rs. 4.4 lakh	
		Total Expenditure	Rs. 1 crore	

* PLL will approach Kerala Forest Department for associating and collaboration in Mangrove Afforestation.

**Environmental Monitoring of LNG Terminal Kochi - Marine
Dredging work**

31st Report

Submitted to

M/S. AFCONS INFRASTRUCTURE LIMITED

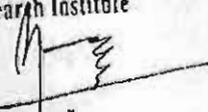
by

Director

Suganthi Devadason Marine Research Institute
44-Beach Road, Tuticorin - 628 001

19 June 2013

For Suganthi Devadason Marine Research Institute


Director

Environmental Monitoring of LNG Terminal Kochi - Marine Dredging work

Sampling on 29.05.2013

Marine Water & Sediment Quality

Physico-chemical parameters

The atmospheric temperature was recorded as 31.4⁰C and water temperature was recorded between 29.0 and 29.3 ⁰C with low in bottom water and high in surface water. The salinity value was observed high in bottom water with 31.0 ppt and low in surface water with 19.0 ppt. The EC value was observed high in bottom water with 29.3 mS/cm and low in surface water sample with 29.1 mS/cm. The pH level was between 7.88 and 7.95 in this station. Turbidity values varied between 6.5 and 8.1 NTU with low in surface water and high in bottom water. The TSS values were observed between 110 and 130 mg/l, with high values in bottom water and low in the surface water sample of this station.

The dissolved oxygen level was recorded as 3.9 and 4.8 mg/l with low values in bottom water and high in surface water. The BOD level was between 1.9 and 2.0 mg/l in this station. The level of calcium was between 380 and 460 mg/l; Magnesium level was high in bottom water with 1254 mg/l and low in surface water sample with 1188 mg/l; Total hardness was high in bottom water sample with 1714 mg/l and low in surface water sample with 1568 mg/l; Carbonate level was between 10 and 20 mg/l and bicarbonate level was between 90 and 100 mg/l; Nitrate level was recorded between 1.11 and 1.36 mg/l, with low value in the surface water and high in bottom water; Nitrite level was between 0.25 and 0.41 mg/l with low level in surface water and high in bottom water; Total Phosphate level was between 0.15 and 0.25 mg/l with high values in bottom water and low in surface water; Inorganic Phosphate level was observed between 0.10 and 0.20 mg/l, with high level in bottom water and low in surface water sample; Silicate level was between 5.0 and 6.9 µg/l with low level in the surface water and high in bottom water; Chloride level was around 17.7 gm/l in all the water samples of this station; and the level

of oil and grease was between 1.15 and 1.25 mg/l with low values in the surface water and high in the bottom water.

The sediment pH level was observed as 7.95. The oil and grease level in the sediment was 1.20 mg/kg. The organic matter in the sediment was 1.806 % while the organic carbon level was observed as 2.255 %. The sediment texture analysis shows that the clay content was high with 37% and sand was low with 30% in this station.

Physico-chemical parameters

Physical parameter	Station (14.5m) Lat 09° 58.355'N Long 076° 13.666'E		
	Surface	Middle	Bottom
Water			
Atmospheric temperature (°C)	31.4		
Water Temperature (°C)	29.3	29.1	29.0
Salinity (ppt)	19.0	25.0	31.0
EC (mS/cm)	29.1	29.3	29.3
Turbidity (NTU)	6.5	7.8	8.1
pH Value	7.88	7.93	7.95
TSS (mg/L)	110	118	130
Chemical parameters			
DO (mg/l)	4.8	4.4	3.9
BOD (mg/l)	2.0	2.0	1.9
Calcium (mg/l)	380	440	460
Magnesium (mg/l)	1188	1221	1254
Total Hardness (mg/l)	1568	1661	1714
Carbonate (mg/l)	20	10	10
Bicarbonate (mg/l)	100	100	90
Nitrates (mg/L)	1.11	1.25	1.36
Nitrites (mg/L)	0.25	0.36	0.41
Total Phosphates (mg/L)	0.15	0.23	0.25
Inorganic phosphate (mg/l)	0.1	0.16	0.20
Silicates (µg/L)	5.0	6.1	6.9
Chloride (gm/l)	17.6	17.6	17.7
Oil & grease (mg/l)	1.15	1.21	1.25

Sediment	
pH Value	7.95
Oil & grease (mg/kg)	1.20
Organic matter (%)	1.806
Organic Carbon (%)	2.255

Sediment texture (%)	Station (14.5m) Lat 09° 58.355'N Long 076° 13.666'E
Sand %	30
Silt %	33
Clay %	37

Biological parameters

Microbiological parameters

The total heterotrophic bacteria in the water were high in bottom water samples with 48×10^4 CFU/ml and low in surface water sample with 31×10^4 CFU/ml. No coli form and *E.coli* were found in the water samples.

Microbiological parameters

Bacteriological analysis	Surface	Middle	Bottom
Water			
THB (CFU/ ml)	31×10^4	40×10^4	48×10^4
<i>E.coli</i> (CFU/ ml)	Nil	Nil	Nil
Coli form count /100ml	Nil	Nil	Nil

Planktons and benthic organisms

The phytoplankton density was 203658 cells/l and zooplankton was 14782 no/m³ in this station. The chlorophyll a was 1.9 mg/l and Pheophytin was 1.8 mg/l in the water sample. The density of macro benthic organisms was low and gastropods were dominant groups followed by bivalves with 23 and 19 no/m² respectively. The density of meiobenthic organisms were 63 no/m² in this station.

Plankton and benthic organisms

Plankton density	Station (14.5m) Lat 09° 58.355'N Long 076° 13.666'E
Phytoplankton (cells/l)	203658
Zooplankton (no/m ³)	14782
Chlorophyll a (mg/l)	1.9
Pheophytin (mg/l)	1.7

Macro benthos (no/m ²)	Station (14.5m) Lat 09° 58.355'N Long 076° 13.666'E
Gastropods	23
Bivalves	19
Polychaetes	11
Echinoderms	0
Scaphopods	0
Crustaceans	0
Meiobenthos (no/m ²)	63

Heavy metals

The heavy metal analysis in the water showed below detectable level for Arsenic, Chromium, Nickel, Cadmium and Mercury in all the water samples. Lead concentration was found comparatively high in bottom water with 60 ppb and low in surface water with 35 ppb. The copper level was found high in bottom water with 61 ppb and low in surface water with 46 ppb. The heavy metal analysis in the sediment samples showed below detectable level for Chromium and Mercury in this station. The Nickel concentration was 4.16 $\mu\text{g/gm}$; Lead 4.05 $\mu\text{g/gm}$; Cadmium 3.13 $\mu\text{g/gm}$; Iron 498.55 $\mu\text{g/gm}$; Copper 4.53 $\mu\text{g/gm}$; Calcium 1.25 mg/gm in the sediment sample of this station.

Heavy metals in water sample

Water sample (ppb) Station (14.5m) Lat 09° 58.355'N Long 076° 13.666'E	Surface	Middle	Bottom
Chromium Cr (ppb)	BDL	BDL	BDL
Lead Pb (ppb)	35	51	60
Nickel Ni (ppb)	BDL	BDL	BDL
Cadmium Cd (ppb)	BDL	BDL	BDL
Mercury Hg (ppb)	BDL	BDL	BDL
Copper Cu (ppb)	46	55	61
Arsenic As (ppb)	BDL	BDL	BDL

BDL - Below Detectable Level

Heavy metals in sediment sample

Sediment sample (Dry weight)	Station (14.5m) Lat 09° 58.355'N Long 076° 13.666'E
Chromium Cr ($\mu\text{g/gm}$)	BDL
Lead Pb ($\mu\text{g/gm}$)	4.05
Nickel Ni ($\mu\text{g/gm}$)	4.16
Cadmium Cd ($\mu\text{g/gm}$)	3.13
Mercury Hg ($\mu\text{g/gm}$)	BDL

Iron Fe ($\mu\text{g/gm}$)	498.55
Calcium Ca (mg/gm)	1.25
Copper Cu ($\mu\text{g/gm}$)	4.53

BDL - Below Detectable Level

Summary and Remarks

The environmental monitoring was conducted at LNG Terminal Kochi - Marine Dredging work area on 29.05.2013. The sampling station was fixed by the client. The sediment sample and water samples at 3 levels (surface, middle and bottom) were collected and it was observed that there are no significant changes in the physical, chemical and biological parameters from the baseline data collected on 25.09.2010 and the following months. The salinity values were high in the bottom, while low in middle and surface water samples, which may be due to monsoonal flow and fresh water mix. The results in general indicate that the values are almost similar including TSS values, which are comparatively deviated from the baseline values, however, these changes may not have any significant impact on the prevailing biological resources like plankton density and macro fauna as these variations are temporary. The benthic faunal density is comparatively poor always including baseline data and the following months, but it may be correlated to the prevailing sediment nature. The microbiological parameters like total heterotrophic bacteria are well within the limit and also there was no coliform and *E.coli* found in the water samples. The other physico-chemical parameters, including temperature, dissolved oxygen and heavy metal values are seems to be normal and the changes, if any are seasonal and temporary. In general, the result is an indication that the dredging has no significant impact on the existing biological parameters such as plankton, benthos and biological productivity.

For Suganthi Devadason Marine Research Institute


Director

No.T3/5921/2012/F&B/R.Dis

Office of the Director of
Factories & Boilers, Thiruvananthapuram

Dated 17-07-2012

email : director@fabkerala.gov.in

Telephone : 0471-2463597

From

Director of Factories & Boilers
Thiruvananthapuram

To

Shri/Smt MR.C.S MANI
[M/s PETRONET LNG LTD]
DIRECTOR (TECHNICAL),1ST FLOOR, WORLD TRADE
CENTRE,BABAR ROAD,NEW DELHI - 110 001

Sir,

Sub : Approval of plans under Factories Act and Rules- PETRONET LNG
LTD,PUTHUVYPU.P.O,ERNAKULAM,KOCHI,KERALA - 682 508 - Plans approved
documents forwarding of -regRef : Letter No:A/986/11 dated 24-04-2012 of the Inspector of Factories and Boilers , Gr-
null,Directorate F&BYour attention is invited to your application dated 19-06-2012 forwarded vide the letter referred
above. One set of approved drawings is enclosed here with.

Yours faithfully

s/e
Director of Factories & Boilers
Thiruvananthapuram

Enclosure:- 1. Permit No: 175/2012

2. Plans (~~52~~ Nos.) **52 Nos** *q*Copy to:- 1. Inspector of Factories and Boilers, Gr- null,Directorate F&B with approved plans
2. Joint Director of Factories and Boilers
3. License Section

.....
Note: An amount of Rs. 300460.00/- remitted vide chalan No. 82,33, Dated 30-06-2012,23-03-2012 is debited to Government
account.



OFFICE OF THE DIRECTOR, FACTORIES & BOILERS
THIRUVANANTHAPURAM

Factory Plan Approval Order
Section 6(1) of Factories Act 1948, Rule-3 of Kerala Factories Rules 1951

Order No: T3/5921/2012/F&B/R.Dis. Dated 17-07-2012

Permit No: 175/2012

(Permit No: 19/2011 is modified)

1. Factory Name & Address :: PETRONET LNG LTD
PUTHUVYPU.P.O,ERNAKULAM,KOCHI,KERAL
A - 682 508
2. Occupier Name & Address :: MR.C.S MANI
DIRECTOR (TECHNICAL),1ST FLOOR, WORLD
TRADE CENTRE,BABAR ROAD,NEW DELHI -
110 001
3. New/Modification of the existing :: New
4. If Existing, ::
 - a)Registration No ::
 - b)Permit No & Date ::
 - c)Office ::
5. Area ::
 - a)Existing ::
 - b)Proposed :: 59892 sq. m
 - c)Deletion ::
 - d)Total :: 59892 sq. m
6. Workers ::

	Male	Female	Total
a)Existing			
b)Proposed	131	06	137
c)Deletion			
c)Total			137 Nos

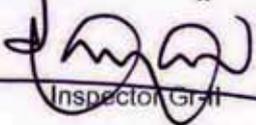
7. Manufacturing Process with NIC :: STORING PUMPPING AND RE- GASIFICATIO OF LIQUIFIED NATURAL GAS AND DISTRIBUTION OF COMPRESSED NATURAL GAS (52109)
8. Power ::
- a)Existing ::
- b)Proposed :: 418389 KW + (20148.20 KVA DG Set)
- c)Deletion ::
- d)Total :: 418389 KW + (20148.20 KVA DG Set)
9. Factory Location ::
- a)District :: Ernakulam
- b)Taluk :: Kochi
- c)Village :: Puthuvaippu
- d)Survey No :: 347
- e)Panchayat/Municipality/Corporation :: Elamkunnappuzha

Following conditions should be satisfied before starting the manufacturing process. In addition to this, permit is valid in accordance to the directions given by the factory inspector after inspection.

1. Validity of the permit is one year from the date of issue of permit.
2. If the construction of factory is not completed during the specified period, the permit has to be revalidate.
3. Construction of building for the factory shall be done in accordance with the plan approved vide the above permit. If any change is required, new plan shall be got approved. Application for factory license can be submitted only after getting such approval.
4. According to Kerala Factories Rule 3(4) factory manager/occupier shall submit a Stability Certificate in Form No.3 along with the application for license to this office. Original Certificate shall be submitted to the concerned Inspector. (Validity period of Stability Certificate is 5 Years)
5. As per Rule 4 and 5 of Kerala Factories Rules manufacturing process shall be carried on only after getting the Factory License.



^{SJC}
Director of Factories & Boilers
Thiruvananthapuram
Forwarded/By Order


Inspector General



कोच्चिन पोर्ट ट्रस्ट COCHIN PORT TRUST

Phone : 2666871-2505/2516
 Tele Fax: 0484-2666417
 E-mail : coptdc@sifi.com
 उप संरक्षक का कार्यालय
DEPUTY CONSERVATOR'S OFFICE
 कोच्चिन COCHIN - 682 009

No.DC/PA/CFO/2011

Date: 7th March, 2011.

Shri P. Khetarpal,
 Vice President, (O & M)
 Petronet LNG Ltd,
 Sy. No.347,
 LNG Terminal Site,
 Puthuvypu,
 Ernakulam - 682 508.

Sir,

Sub:- NOC for site plan – Kerala Fire & Rescue service.

The site plan drawings and plan for installation of fire fighting system of M/s. Petronet LNG Terminal Puthuvypu forwarded for approval to the Divisional Fire Officer, Fire & Rescue service, Govt. of Kerala is approved and a 'No Objection Certificate' is issued under the following conditions.

1. All fire fighting arrangements should be made as per the existing relevant rules and plan submitted.
2. The escape and main stairs should reach upto the roof top.
3. A fresh NOC should be obtained from this department on completion and before occupation of the building.

It is suggested that work progress chart, material specifications used may be forwarded to the undersigned for enabling effective supervision during installation.

Thanking you,

Encl: 1. Site Plan drawing
 2. Original NOC

Yours faithfully,

 (Capt. Paul N Joseph)
 Dy. Conservator

No: D1 7367 / 2010

Divisional Office
Fire and Rescue Services
Ernakulam
dt. 31/01/2011

C E R T I F I C A T E

The Plan of the buildings as per occupancy and height of in Re.Sy.No. 347 of Puthuvype Village in Elamkunnappuzha Corporation/Municipality/ Grama Panchayath in Ernakulam proposed to be constructed by M/s. Petro Net Ltd., World Centre, First Floor, Babar Road, Barakhaba lane, New Delhi-11001 was verified by the Scrutiny Committee, Fire and Rescue Services, Central Division, Ernakulam on 29/01/2011. The Committee has recommended to issue **No Objection Certificate** in respect of the plans submitted by the applicant subject to the following conditions.

<u>Sl. No.</u>	<u>Name of Building</u>	<u>Type of Occupancy</u>	<u>No. of floors</u>	<u>Height</u>
1.	Reception Centre Block (F)	Business	Single	4.60 mtrs
2.	Fire Station	Business	Single	6.5 mtrs
3.	<u>Composite Building</u>			
3 (a)	Cabin for Drivers Waiting Room (Block A)	Residential	Single	4.75 mtrs
(b)	Ware House (Block B)	Storage	Single	8.75 mtrs
(c)	Main Building (Block C)	Business	G+1	9 mtrs
(d)	Workshop (Block D)	Industrial	Single	8.75 mtrs
(e)	Cabin for operational health	Business	Single	4.75 mtrs
4.	Laboratory	Business	G+1	8.75 mtrs
5.	Operator Cabin for Weigh Bridge	Business	Single	3.5 mtrs
6.	Maintenance Building	Industrial	G+1	12.60 mtrs
7.	D.G Shed	Industrial	Single	8.30 mtrs
8.	Sub Station	Industrial	G+1	9.50 mtrs
9.	Main Control Room	Business	Single	6.35 mtrs

10. GTB Hall + Control Room	Business	Single	14.97 mtrs
11. Gas Metering Station Shed	Industrial	Single	4 mtrs
12. Nitrogen Package Shed	Industrial	Single	4 mtrs
13. Operator Cabin for LNG Turk	Business	Single	3.5 mtrs
14. Maritime Area Guest House	Business	Single	4.20 mtrs
15. Unloading LNG Sampling Unit shed	Hazardous	Single	3.3 mtrs
16. Jetty Control Room and Sub Station	Business	G+1	10.70 mtrs
17. Jetty Control Cabin	Business	G+2	9.00 mtrs
18. Watch Tower	Business	Tower	13.00 mtrs

1. All Fire fighting arrangements should be made as per the existing relevant Rules.
2. Fire escape & Main staircase should reach up to the roof top.

Under my seal and authority a No Objection Certificate is issued for the proposed construction of the above mentioned Buildings in the above mentioned Site and survey number. A fresh NOC should be obtained from this Department after completion and before occupation of the Building.



Joe Kuruvilla Easow
 01.02.11
 Joe Kuruvilla Easow
 DIVISIONAL OFFICER
 ERNAKULAM

To, ✓
 The Dy. Conservator, Cochin Port Trust, Cochin-682009
 Vide. Lr. No. DC / PA / Fire / 2010 Dt. 02/11/2010

Copy To,

1. The Applicant (with approved Fire Fighting System Plans. You are requested to produce the approved fire system plans & NOC at the time of Final Inspection)
2. The Station Officer, Fire & Rescue Station , Club Road



Petronet LNG Limited – KOCHI TERMINAL

GROUND WATER ANALYSIS REPORT

Issue No: 01	Doc.No: PLL/Kochi/Lab/2013-14/FMT-17	
Revision No: 00	Effective Date: 15-01-2013	Page 1 of 1

GROUND WATER ANALYSIS REPORT

Date	pH	Conductivity (μS/cm)	TDS(ppm)	Turbidity(NTU)	Salinity(g/Kg)	D.O(ppm)	Sampling Location
15-01-2013	7.70	5590	3801	35.9	2.5	6.71	Sample Collected from South West Piezometer-II (HDPE PIPE).
20-01-2013	7.10	5550	3774	50.5	2.9	6.22	Sample Collected from South West Piezometer-II (HDPE PIPE).
15-02-2013	7.05	5434	3695	45.2	2.7	6.16	Sample Collected from South West Piezometer-II (HDPE PIPE).
18-03-2013	7.01	5370	3652	44.2	2.7	6.44	Sample Collected from South West Piezometer-II (HDPE PIPE).
18-04-2013	7.12	5241	3564	55.7	2.6	6.35	Sample Collected from South West Piezometer-II (HDPE PIPE).
18-05-2013	7.31	5384	3661	51.6	2.5	6.34	Sample Collected from South West Piezometer-II (HDPE PIPE).
13-06-2013	7.93	269	183	30.9	0.1	6.21	Sample Collected from South West Piezometer-II (HDPE PIPE).
15-07-2013	7.82	327	222	28.6	0.1	6.18	Sample Collected from South West Piezometer-II (HDPE PIPE).
10-08-2013	7.74	351	239	25.7	0.1	6.24	Sample Collected from South West Piezometer-II (HDPE PIPE).
07-09-2013	7.66	408	277	21.8	0.2	6.28	Sample Collected from South West Piezometer-II (HDPE PIPE).
09-10-2013	6.78	58.9	40	14.2	0.0	6.39	Sample Collected from South West Piezometer-II (HDPE PIPE).


L.S.RAJA

Senior Engineering Officer – Lab Operations



Petronet LNG Limited

Survey No. 347, Puthuvypu P.O.

Kochi - 682508, India.

Tel: 0484 - 2502259 Fax: 0484 - 2502264

No. PLL/KOCHI/F&B/2012-13/C-04

28th November, 2012

To,

The Inspector of Factories & Boilers,
Kumbalangivazhy,
Palluruthy (PO)
Kochi-682006
Kerala.

Dear Sir,

Sub: Grant an approval and notification of site under rule 7 of MSIHC Rule and submission of Safety Report (schedule 8) & Emergency Response Plan.

Petronet LNG Kochi terminal's industrial activity falls under the major Accident Hazard (MAH) installation category as per requirements of *The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989*.

We are submitting herewith the following documents:

- Schedule no.7: Information to be furnished for the notification of sites
- Schedule no.8: Information to be furnished in Safety Report
- Emergency Response and Disaster Management Plan as per the requirement under rule no.13, containing information as required for preparation of off-site emergency plan under the rule no.14.

You are requested to kindly acknowledge receipt of the Safety report and Emergency Response and Disaster Management Plan for Petronet LNG, Kochi terminal.

We shall be pleased to provide any additional information or clarification, if required and your suggestions for improving the safety practices at our LNG Terminal in Kochi.

Kindly grant an approval for undertaking industrial activity for LNG Regasification at M/s Petronet LNG Ltd, Survey No: 347, Puthuvypu (PO), Ernakulam, 682508, Kerala.

Thanking you.

Yours Sincerely,

(Pushp Khetarpal)
Sr. Vice President (O&M)



Recd. 28/11/2012

Encl: As above along with Annexes.

Cc to: 1) Director of Factories & Boiler, Thiruvanthapuram
2) Jt. Director of Factories & Boiler, Kakkand

List of Annexure:

- 1) Schedule no.7: Information to be furnished for the notification of sites
- 2) Schedule no.8: Information to be furnished in Safety Report
- 3) Emergency Response and Disaster Management Plan
- 4) Appendix list of Schedule-7

Appendix No:	Name of Appendix
1	Organisation Structure
2	Fire Fighting arrangement details
3	Fire and Gas detection system
4	Instrumentations alarms and trips
5	Emergency release/ shutdown system
6	Preventive maintenance schedule
7	International and national standards and codes
8	Site layout
9	Site showing the location and quantities of all significant inventories of the hazardous chemicals
10	Process description
11	Guidelines for training of Personnel

- 5) Appendix list of Schedule - 8

Appendix No:	Name of Annexure
1	Location Map
2	Terminal Layout
3	Process Flow Chart
4	Process Description
5	MSDS
6	HAZID Study
7	HAZOP Study
8	International and national standards and codes
9	Fire Protection Facilities (Hydrant & FGS Layout)
10	QRA
11	Maintenance and Inspection schedule
12	Guidelines for training of Personnel
13	Allocation and delegation of responsibility of Plant Safety
14	Implementation of Safety Procedures
15	Emergency Response and Disaster Management Plan (ERDMP)
16	Accident/Emergency communication route

तार "विस्फोट", नागपुर
 Telegram: 'EXPLOSIVES', Nagpur
 Website: <http://peso.gov.in>
 Email: explosives@explosives.gov.in
 दूरभाष/ Telephone : 0712-2510248
 फैक्स/ FAX : 2510577

कार्यालयीन उद्देश्य, सभी पत्रादि "मुख्य विस्फोट नियंत्रण" पदनाम से भेजे जाएं, उन व्यक्ति का नाम से नहीं।

All communications intended for this Office should be addressed to the 'Chief Controller of Explosives' and NOT to him by name.



भारत सरकार

GOVERNMENT OF INDIA

पेट्रोलियम तथा विस्फोट सुरक्षा संस्थान

PETROLEUM AND EXPLOSIVES SAFETY ORGANISATION

(पूर्व नाम- विस्फोट विभाग)

(Formerly- Department of Explosives)

"ए" ब्लॉक, पाँचवां तल, न्द्रीय कार्यालय परिसर,

"A" Block, 5th Floor, CGO Complex,
 Seminary Hills, Nagpur-440 006 (महाराष्ट्र)

Seminary Hills, Nagpur- 440006



No. PV(SC)S-87/KL/1
 Nagpur, dated 04.02.2013

To,

M/s. Petronet LNG Limited,
 World Trade Centre,
 First Floor, Babar Road,
 Barakhamba Lane,
 New Delhi – 110 001

Sub: Permission for LNG storage, re-gasification and LNG tanker loading terminal situated at Sy.No. 347, Village Puthuvypeen, Taluk Kochi, Dist. Ernakulam (Kerala) – Regarding.

Dear Sirs,

Please refer to your letter No.ND/LNG/K-27/2K12/09 dated 28.08.2012 & ND/LNG/SRVPT/K-27/2K12/02 dated 31.12.2012

It is noted that you have fully completed the installing all the facilities for receiving, storage and regasification of LNG as well facilities for loading LNG into tankers in your LNG terminal at Sy.No. 347, Village Puthuvypeen, Taluk Kochi, Dist. Ernakulam (Kerala) as per the drawing approved vide this office letter of even no. dated 10/11/2000 & 16/12/2005.

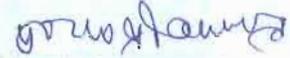
It is also noted that the double wall, double integrity Atmospheric LNG storage tank no. T-101 & T-102 tanks (2 X 1,55,000 m³ each) have been constructed as per approved drawings and tested & certified by Third Party Inspection agency i.e. Lloyds Register in compliance to applicable standard. It is also noted that the LNG will be stored below 1.5 Kg/Cm² pressure at – 168⁰C and as such does not come under the purview of the Act and Rules administered by this Department. However, the Government of India is considering amendment of the rules to cover such storage also and as & when rules are amended to cover LNG storage, you will have to obtain licences for the same by submitting documents etc. which will be specified in the rules.

In view of above, there is no objection in commissioning the above said tanks No. T-101 and T-102 for storage of LNG and also use the facilities for loading LNG into road tankers, provided such LNG Transport Tanker are duly licensed and the consignee/ LNG receiver has a valid storage licence under SMPV(U) Rules, 1981.

Please note that all due safety precautions and such measures shall be taken while commissioning and operating above storage tanks, tanker and other connected facilities. One set of drawings submitted by you is sent herewith duly endorsed in token of approval.

Encl. a/a.

Yours faithfully,



(P. C. Srivastava)

Jt. Chief Controller of Explosives
for Chief Controller of Explosives

Copy along with approved drawings forwarded to:-

1. The Jt. Chief Controller of Explosives, South Circle, Chennai.
2. The Dy. Chief Controller of Explosives, Ernakulam.

For Chief Controller of Explosives

ams: "EXPLOSIVES", Nagpur
Website : <http://explosives.nic.in>
Email: explosives@explosives.gov.in

Telephone: 0712-2510248
FAX: 2510577

All communications intended for this Office should be addressed to the "Chief Controller of Explosives" and NOT to him by name.



GOVERNMENT OF INDIA
Ministry of Commerce and Industry
PETROLEUM AND EXPLOSIVES SAFETY ORGANISATION (PESO)
(Formerly Department of Explosives)
"A" BLOCK, 5TH FLOOR, CGO COMPLEX
Seminary Hills, Nagpur- 440 006

No.G-22 (47)175
Dated: 04.02.2013

To:

✓ M/s.Petronet LNG Ltd.,
World Trade Centre,
1st floor, Babar Road,
Barakhamba lane
New Delhi – 110001.

Sub: Permission for commissioning of LNG Unloading and Handling Jetty at Puthuvypeen, Kochi, Distt. Ernakulam (Kerala).

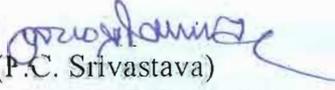
Dear Sirs,

Please refer to this office approval No. PV (SC)S-87/KL/I dated 10.11.2000 and 16.12.2005 and your letter Nos. ND/LNG/K-27/2K12/04, 05 and PLL/KOCHI/PESO/2012-13/C-03, 04 dated 28.08.2012, 17.12.2012 and 18.12.2012 respectively on the above subject.

It is noted that you have completed of the subject facilities in all respect and have satisfactorily completed trial run of entire fire fighting equipments associated back up facilities, there will be no objection in commissioning the LNG Unloading and Handling Jetty with the condition to obtain necessary clearance/permission from the Ministry of Shipping and other statutory Authority/Bodies, if required under any other law/statutes, as applicable to such facilities. The Fire Fighting Systems shall always be maintained in conformity with the requirements of OISD-156.

A set of drawings duly endorsed are sent in token of approval

Yours faithfully,


(P.C. Srivastava)

Jt. Chief Controller of Explosives
For Chief Controller of Explosives

Copy to The Under Secretary to the Govt. of India, Ministry of Shipping Road Transport & Highways, Department of Shipping (Port Wing), Transport Bhavan, New Delhi – 110001 for information and necessary action

Copy along with copies of approved drawing are forwarded to:-

1. The Jt. Chief Controller of Explosives, South Circle, Chennai.
2. The Dy. Chief Controller of Explosives, Ernakulam.

For Chief Controller of Explosives

Grams: "EXPLOSIVES", Nagpur
Website : <http://explosives.nic.in>
Email: explosives@explosives.gov.in

Telephone: 0712-2510248
FAX: 2510577

All communications intended for this Office should be addressed to the "Chief Controller of Explosives" and NOT to him by name.



GOVERNMENT OF INDIA

Ministry of Commerce and Industry

PETROLEUM AND EXPLOSIVES SAFETY ORGANISATION (PESO)

(Formerly Department of Explosives)

"A" BLOCK, 5TH FLOOR, CGO COMPLEX

Seminary Hills, Nagpur- 440 006

No.P-2 (4) 812
Dated: 04.02.2013

To:

M/s. Petronet LNG Ltd.
World Trade Centre,
1st floor, Babar Road,
Barakhamba lane
New Delhi – 110001.

Sub: Permission for commissioning of 38"(965 mm) x 927.35 meter long LNG pipeline from LNG unloading Jetty and upto the storage tank area isolation valve within your LNG storage Terminal , situated at Puthuvypeen, Kochi, Distt.: Ernakulam (Kerala).

Dear Sirs,

Please refer to your letter Nos.ND/LNG/K-27/2K2, ND/LNG/K-27/2K12/06, 07, PLL/KOCHI/PESO/ 2012-13/C-01, 02 & ND/LNG/SRVPT/K-27/K12/01 dated 17.07.2012,28.08.2012 , 18.12.2012 and 31.12.2012 respectively on the above subject.

Since installation/laying of the subject pipeline has been completed and the reports of tests conducted on the said pipeline is satisfactory, there is no objection to your commissioning the above pipeline as per the provisions of M.S.I.H.C. Rules, 1989. Every precaution shall be taken to safely operate the pipeline and immediate action taken if any unsafe condition is noticed at any stage of operation and maintenance.

The records of design, fabrication and testing of each section of pipeline, location of welds, material of construction, valves, bends, flanges etc. (with identification marking for each weld and fitting) may please be preserved for records.

Please note that operation of the pipeline shall be done according to SOP's furnished and regular patrolling is undertaken to ensure safe use and operation. Annual Safety Audit Report from an independent agency as required under Rule 10 of MS1HC Rules, 1989 shall be carried out and forwarded every year to this office for record.

Copies of "As Built" Drawings duly approved are also enclosed herewith.

Yours faithfully,

(P.C. Srivastava)

Jt. Chief Controller of Explosives
For Chief Controller of Explosives

Copy alongwith approved as built drawings are forwarded to:-

1. The Jt. Chief Controller of Explosives, South Circle, Chennai.
2. The Dy. Chief Controller of Explosives, Ernakulam.

No. T3/6489/2013/F&B/R.Dis

Office of the Director of
Factories & Boilers, Thiruvananthapuram

Dated 24-07-2013

email : director@fabkerala.gov.in

Telephone : 0471-2463597

From

Director of Factories & Boilers
Thiruvananthapuram

To

Shri/Smt RAJENDER SINGH, (DIRECTOR TECHNICAL)
[M/s PETRONET LNG LIMITED]
PETRONET LNG LIMITED,
IST FLOOR, WORLD TRADE CENTRE, BABAR ROAD,
NEW DELHI - 110 001.

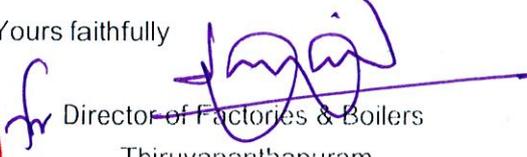
Sir,

Sub : Approval of plans under Factories Act and Rules- PETRONET LNG
LIMITED, PUTHUVYPU.P.O, ERNAKULAM, KOCHI, KERALA - 682 508 - Plans approved
documents forwarding of -reg

Ref : Letter No:A/689/13 dated 30-05-2013 of the Inspector of Factories and Boilers , Gr-II, Kochi

Your attention is invited to your application dated 30-05-2013 forwarded vide the letter referred
above. One set of approved drawings is enclosed here with.

Yours faithfully


Director of Factories & Boilers
Thiruvananthapuram
Enclosure:- 1. Permit No: 223/2013
2. Plans (73 Nos.)Copy to:- 1. Inspector of Factories and Boilers, Gr- II, Kochi with approved plans
2. Joint Director of Factories and Boilers
3. License Section

Note: An amount of Rs. 12500.0/- remitted vide chalan No. 17 Dated 23-05-2013 is debited to Government account.





**OFFICE OF THE DIRECTOR, FACTORIES & BOILERS
THIRUVANANTHAPURAM**

Factory Plan Approval Order
Section 6(1) of Factories Act 1948, Rule-3 of Kerala Factories Rules 1951

Order No: T3/6489/2013/F&B/R.Dis. Dated 24-07-2013

Permit No: 223/2013

1. Factory Name & Address :: PETRONET LNG LIMITED
PUHUVYPU.P.O,ERNAKULAM,KOCHI,KERALA
A - 682 508
2. Occupier Name & Address :: RAJENDER SINGH, (DIRECTOR TECHNICAL)
PETRONET LNG LIMITED.
1ST FLOOR, WORLD TRADE CENTRE, BARBAR
ROAD, NEW DELHI - 110 001.
3. New/Modification of the existing ::
4. If Existing ::
 - a)Registration No :: D09/CHN/03/286/2013
 - b)Permit No & Date :: 175/2012 17-07-2012
 - c)Office :: Directorate F&B
5. Area ::
 - a)Existing :: 71199.00sq. m
 - b)Proposed :: 2500.00
 - c)Deletion ::
 - d)Total :: 73699.00
6. Workers ::

	Male	Female	Total
a)Existing	131	6	137
b)Proposed	0	0	0
c)Deletion	0	0	0
c)Total			137

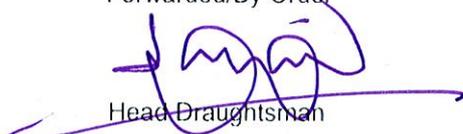
7.	Manufacturing Process	::	STORING PUMMPING AND RE-GASIFICATION OF LIQUIFIED NATURAL GAS AND DISTRIBUTION OF COMPRESSED NATURAL GAS (52109)
8.	Power	::	
	a)Existing	::	66789.19 KW + (18249.99 KVA DG Set)
	b)Proposed	::	15.00 KW
	c)Deletion	::	0.00 KW
	d)Total	::	66804.19 KW+ (18249.99 KVA DG Set)
9.	Factory Location	::	
	a)District	::	Ernakulam
	b)Taluk	::	Kochi
	c)Village	::	Puthuvaippu
	d)Survey No	::	347
	e)Panchayat/Municipality/Corporation	::	Elamkunnappuzha

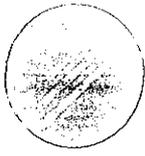
Following conditions should be satisfied before starting the manufacturing process. In addition to this, permit is valid in accordance to the directions given by the factory inspector after inspection.

1. Validity of the permit is one year from the date of issue of permit.
2. If the construction of factory is not completed during the specified period, the permit has to be revalidated.
3. Construction of building for the factory shall be done in accordance with the plan approved vide the above permit. If any change is required, new plan shall be got approved. Application for factory license can be submitted only after getting such approval.
4. According to Kerala Factories Rule 3(4) factory manager/occupier shall submit a Stability Certificate in Form No.3 along with the application for license to this office. Original Certificate shall be submitted to the concerned Inspector. (Validity period of Stability Certificate is 5 Years)
5. As per Rule 4 and 5 of Kerala Factories Rules manufacturing process shall be carried on only after getting the Factory License.



[Handwritten signature in blue ink]

sd/1
 Director of Factories and Boilers
 Forwarded/By Order

 Head Draughtsman



PETRONET
LIMITED

Petronet LNG Limited

Survey No. 347, Puthuvypu P.O.

Kochi - 682508, India.

Tel: 0484 - 2502259 Fax: 0484 - 2502264

No. PLL/KOCHI/DC/2012-13/C-06

15th November, 2012

To,

The District Collector,
Office of the District Collector,
Civil Station, Kakkanad
Ernakulam-682030
Kerala

Subject: Emergency Response and Disaster Management Plan

Sir,

Petronet LNG Kochi Terminal's industrial activity falls under the Major Accident Hazard (MAH) installation category as per requirements of *The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989*.

Emergency Response and Disaster Management Plan (ERDMP) is submitted herewith as per the requirement under rule no.13, containing information related to the industrial activity including the nature, extent and likely effects off-site of possible major off-site accidents as required for preparation of Off-site Emergency Plan under rule no.14.

The Emergency Response and Disaster Management Plan (ERDMP) is being submitted to District Emergency Authority for the purpose of enabling the concerned authority to prepare the District Disaster Management Plan (Off-site Emergency Plan). We shall be pleased to provide any additional information or clarification, if required.

Thanking you.

Yours Sincerely,

(Pushp Khetarpal)
Sr. Vice President (O&M)

Encl.: Emergency Response and Disaster Management Plan (ERDMP)

Received
Shri
A to be
15/11/12

DESIGN PHILOSOPHY

Fire Scenario Criteria

Design of fire protection shall be based on the following criteria.

- Fire scenario is considered with a single fire risk philosophy, i.e. there will be only one major fire at the same time and fires will not occur simultaneously at different places. However, the potential escalation from one fire to other fire zones is foreseen.
- An assumption that a fire within the Terminal shall be controlled or extinguished by a private fire brigade using mobile, portable and fixed firefighting equipment/systems, and no external fire fighting resources will be available.

Fire Water Reservoir

Fresh water is used as fire water for firefighting purpose and pressure maintenance of fire water system respectively. Fire water shall be stored in two (2) earthen fire water reservoirs of 6464 m³ & 6344 m³ capacity at low water level and of 8171 m³ & 8047 m³ capacity at high water level for four hours aggregate rated capacity of fire pumps and shall be fully dedicated to fire service.

Fire Water Pumps

There are six primary fire pumps installed in fire pump house. Two motor-driven vertical fire pumps P-1002A/B and two engine-driven vertical fire pumps P-1002C/D shall be on duty for supplying the maximum fire water demand in total, and other two engine-driven vertical fire pumps P-1002E/F are standby. Each fire water pump has a rated flow of 660 m³/hr for delivering to total flow rate of 2640 m³/hr. The pump differential head is 105 m, in order to ensure a minimum pressure of 7.0 kg/cm²g at the farthest outlet point of fire main.

Fire pumps P-1002A/B/C/D/E/F, start automatically and sequentially when the fire main system pressure falls below the set point 9.5 kg/cm², 9.0 kg/cm², 8.5 kg/cm², 8.0 kg/cm², 7.5 kg/cm² and 7.0 kg/cm² of the pressure switches respectively.

Two 60 m³/hr at 105 m motor-driven vertical jockey pumps P-1001A/B are provided to maintain a pressure in the fire main header during normal operation. A jockey pump will keep the fire loop system pressurized at 10.5 kg/cm². The jockey pump will start automatically when the pump setting at automatic mode and the system pressure falls to 10.0 kg/cm² and stop automatically when the system pressure reached to 10.5 kg/cm². Normally one jockey pump is on duty and another one is standby by pump selector located at main control room. Either of jockey pumps P-1001A or P-1001B will run at a time. In case of failure of one jockey pump, another one will start automatically in 30 seconds.

Fire Water Main Loop Network

The fire water piping network will deliver water to hydrants, monitors, indoor hose cabinets, water spray systems and the high expansion foam system.

Water hydrants are provided along the fire main to supply water streams. The distance between hydrants does not exceed 30 m in process, storage area and Jetty, and 45 m in utility & building area. A hydrant is of 2-1/2" double headed oblique angle type outlet to comply to IS:5290 type-A landing valve with 4" stand post & cut-off gate valve. The capacity of hydrant outlet stream is 36 m³/hr.

Hose boxes shall be provided beside hydrants at a rate of one hose box for every hydrant. Each hose box contains the following equipment:

- Two (2) 2-1/2" x 15 m fire hoses (reinforced rubber line) along with couplings.
- Two (2) 2-1/2" fog/jet adjustable water nozzles (branch pipes)
- One (1) international ship/shore fire hose flange adaptor (only for one hose box located on the Jetty head)

Ground water monitors are provided at the ground level for rapid water application in LNG tank area, truck loading area and jetty area. The monitor nozzle is of a variable type to discharge straight and fog stream, and has a discharge capacity of 155 m³/hr. The minimum horizontal throw of monitor at inlet pressure of 7 kg/cm² at an angle of 30° from horizontal in still weather condition is 60 m.

Two remote controlled tower monitors equipped with electro-hydraulic driven motor are ~~located on pylon at a safe distance from the Unloading Arms and have a discharge capacity of 454 m³/hr each.~~ These water monitors are provided with remote operators located at a safe distance from the base of the monitor pylon & can also be controlled from jetty control room. The monitor controllers are provided with radiation protection shields.

Hose reels of 40 m length are provided in buildings, elevated process platforms and HP pump shed.

Medium and High Velocity Water Spray System are provided for process area. Water application rate of 10.2 lpm/m² is applied for all protected equipments except BOG compressor, LNG HP Send out pumps, diesel oil pumps, LNG tanks & transformers. Water application rate of 12.2 lpm/m² is applied for BOG compressor and water application rate of 20.4 lpm/m² shall be applied for HP LNG Send out pumps, diesel oil pumps & transformers. The system is of automatic actuation type by flame detectors and remote operation from the main control room is also enabled. Moreover, the system can be initiated by manual at the deluge valve locally.

One water curtain system is provided at the jetty face to segregate the jetty head and LNG ship in the event of an LNG fire at ship or the loading arm connection, and assist

personnel in reducing vapor spread in the event spills from one area to another. Two water curtains are also be provided near the STV/SCV and metering station respectively to prevent LNG/NG release reaching the non-process area.

DRY CHEMICAL EXTINGUISHING SYSTEM

A dry chemical extinguishing system is provided for protection for the Jetty Unloading Platform. The remotely operated dry chemical system consists of two remotely operated dry chemical monitors, four hose reels and one skid-mounted dry chemical supply unit including DCP storage tank, nitrogen gas cylinders and interconnecting piping, one hydraulically controlled unit. The monitors are hydraulically remote controlled from jetty control room or another safe, accessible location along the approach trestle, and installed on a tower and the roof of unloading control cabin on the Jetty head respectively so that they can supplement the fire fighting systems provided for the ship's manifold.

CLEAN AGENT SYSTEM

A total flooding clean agent fire extinguishing system (Argon-based IG-01 system as per NFPA 2001) is be provided for main control room , jetty control room & substation, GTG hall & control room in each building for rack Room, console room, computer room, UPS room and their space under raised floor & above false ceiling. The system can be activated automatically by signals from fire detection system and locally manually.

FIRE EXTINGUISHERS

ABC dry chemical portable fire extinguishers are installed for whole outdoor areas included LNG spill trenches and impounding basin. BC dry chemical fire extinguishers are also installed for indoor areas such as BOG compressors shelter, LNG send out pump shelter, Gas metering station shelter, Service water sump & pump house, Fire water pump house, Foam houses, Air compressor/Dryer and chiller shelter.

ABC dry chemical portable fire extinguishers are installed for indoor areas such as Main Control Room, Substation, DG Shed, Maintenance Building, Fire Station, Jetty Control Room and Substation, Operator's Room, Laboratory Building, GTG Hall & Control Room, LNG Drain Drum Shed, Truck Loading Gantry, Operator Cabin for Truck Loading, Maritime Area Guard House, Watch Tower, Analyzer Shelter, Unloading Control Room, Weighbridge Shelter.

CO₂ portable fire extinguishers are installed for the room with electrical equipment such as Main Control Room, Substation, Fire Station, Jetty Control Room and Substation, Laboratory Building, GTG Hall & Control Room. The maximum traveling distances to an extinguisher does not exceed 15 m.

MOBILE FOAM EQUIPMENT

One trailer (160L of foam) will be provided near diesel day tank (T-0401). AFFF foam concentrate and foam solution at 3% volume is used. The trailer will be connected directly to the hydrant in order to supply foam (as foam hydrant) around tanks, for fighting small fire due to leakage within the dike of diesel day tank.

The equipment will be provided with:

- One 2 1/2" foam nozzle.
- Two 2 1/2" x 15m fire hoses (reinforced rubber line) along with couplings.

FIRE STATION AND EQUIPMENTS

A full-fledged fire station with two multipurpose fire tender vehicles is available. Each tender has a DCP vessel capacity of 2000kg, water tank capacity of 2800lts. and foam tank capacity of 1000lts.

Fire station has the minimum following facilities:

- Fire fighting agents
- Fire fighting equipments
- Mobile fire fighting equipments.
- Safety equipments like fire shoes, fire blankets, breathing apparatus.
- Centralized fire alarm panel
- Supervisory and control panels
- Emergency communication

Tele - (M) - 9447981480
9497003257

Environmental Services
(Kerala State Pollution Control Board Approved laboratory)
NH- 47,Desom,Aluva,Ernakulam.

ANALYSIS REPORT

Client : M/s. Afcons Infrastructure Ltd,
Puthuvypeen P.O
Ernakulam.

Date of Sampling : 05-07-2013

Report No: AAM/201307/24-1

Details of Sample :- Ambient Air Quality monitoring .

Report Date: 09-07-2013

Sl.No.	Particulars	Unit	Value Reported	Limit *
	<u>LOCATION :- Sea shore Area</u>			
1.	Particulate Matter (< 10 Microns)	Microgm/M3	82.0	100
2.	Particulate Matter (< 2.5Microns)	"	27.3	60
3.	Sulphur Dioxide	"	11.0	80
4.	Oxides of Nitrogen	"	14.0	80
5.	Carbon Monoxide	"	370	4000

* As per National Ambient Air Quality Standards.



Am

ANALYST



**PETRONET
LNG
LIMITED**

Petronet LNG Limited

Survey No. 347, Puthuvypu P.O.

Kochi - 682508, India

Tel: 0484 - 2502259 Fax: 0484 - 2502264

PLL/KOCHI/MOEF/2012-13/C-06

22nd March, 2013

The Director

Ministry of Environment & Forests,
Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi – 110 003

Dear Sir

Sub: Environmental and CRZ clearance for enhancing the re-gasification capacity from 2.5 MMTPA to 5.0 MMTPA for LNG Import Terminal at Puthuvypeen Island, Kochi, Kerala.

Ref: Environmental Clearance No. J-16011/26/2001-IA-III vide your letter dated 31st January, 2013.

We have earmarked funds amounting to 5% of the cost of capacity enhancement of the re-gasification project for community development and other infrastructure related as well as CSR projects.

Please find herewith item-wise details alongwith time bound action plan of expenditure of this amount.

Thanking you,

With regards

(Pushp Khetarpal)

Sr. Vice President (O&M)

Encl: Expenditure Plan for the above by Petronet LNG limited, Kochi.

Cc:

1. The Additional Director, Ministry of Environment & Forests; Regional Office (Southern Zone), Kendriya Sadan, IV Floor, E & F Wing 17th Main Road; II Block, Koramangala; Bangalore – 560 034

Expenditure Plan for CSR Activity						
SI No.	Description of Items	Amount Allocated	Expenditure Plan			
			2012-2013	2013-2014	2014-2015	2015-2016
1	Enhancement of basic Infrastructure in Elankunnapuzha Grama Panchayat as jointly agreed with different stakeholders.	12,00,00,000	3,00,00,000	3,00,00,000	3,00,00,000	3,00,00,000
2	Education	93,45,000	72,90,000	7,88,333	6,33,333	6,33,333
3	Other welfare schemes for local community including environment and health care	3,90,00,000	20,00,000	1,60,00,000	1,35,00,000	75,00,000
	Total	16,83,45,000	3,92,90,000	4,67,88,333	4,41,33,333	3,81,33,333

INTERVIEW ON 22.3.2006

rs for interior fitout works :
 a holder in Civil Engineering with
 experience in execution of interior fitout
 be capable of working independently
 f interior/renovation works.

ment / Maintenance Engineers :
 a holder in Engineering with atleast
 experience in the field of facility manage-
 Plumbing, AirConditioning & Civil)
 experience in managing of
 and technicians of different trades.

**g license will be an added
 ge for the above posts.**

imum Age Limit 35 years

the above ONLY may WALK-IN for
 22.3.2006 at 9.30 A.M. with their
 is along with a recent passport size
 ph, passport copies and all other
 als to

PORTS & IMPORTS (PVT) LTD
 1st Floor, 10th Cross, Changanudi, Bangalore-560006.
 NO : 199340000 W100043238785

WES - CAREER BUILDING

nt to Clause 49 of the Listing Agreement,
 Company Secretaries have been
 ic Issue Certificate regarding
 pliance of conditions of Corporate
 erformance as stipulated in the Clause"

ND OUT OF THE CROWD

- ES
- ECOME Continuing Professional Development
- PANY
- ETARY Pre-Membership Training (16 Months)
- Final Examination (9 Papers)
- Intermediate Examination (8 Papers)
- Foundation Examination (5 Papers)

NEW SCHEDULE

in Course	Prospectus and Application form
Fee - Artg	Cash Payment : Rs. 70/-
excluding	By Post/Courier : Rs. 110/-
se	DD/PO in favour of "The Institute of Company Secretaries of India"
is equivalent	payable at New Delhi
of admission	
of passing	
months	

Final examination for
 2006 examination for
 18th March 2006

any Secretaries of India

HEADQUARTERS
 ational Area, Lodi Road, New Delhi - 110 003
 444, 24617321-24, 24644431-32
 25727 E-mail : info@icsi.edu

INDIA REGIONAL COUNCIL
 New No. 9 (Old No. 4), Wheatcmts Road,
 onnai-600034. Ph: 044-28279898, 28222212
 28268685 E-mail: sro@icsi.edu

Bangalore: 22286574, 22261864,
 5385766, Hyderabad: 23399541, 23396494,
 2340797, Mangalore: 2216432, Mysore: 2516065,
 25017, Thiruvananthapuram: 2451915,
 2416337, Visakhapatnam: 2533516
 licut: 2762239, 2762338, Pallakkad: 2524548,
 :2442072, Thrissur: 2383960

at : www.icsi.edu



Jaya Bachchan

Gargi Parsai

NEW DELHI: The Samajwadi
 on Friday said its disquali-
 nya Sabha member Jaya Ba-
 would be re-nominated in
 election to her seat once it
 fied vacant.

Party general secretary
 Singh told mediapersons
 party is fully behind Ma-
 chan. She will be re-nom-
 She has been disqualified
 cause of any misdeed but o-
 nical grounds. Only
 Bachchan can prevent Jay-
 chan from entering Parlia-
 Asked why was she not
 nated on Friday for the b-

PUBLIC NOTICE

My clients 1.Mrs.A.R.Lakshmi, 2.Mr.B.Ramamurthy,
 3.Dr.R.Muthukrishnan, 4.Mr.R.Raghunandan,
 5.Mrs.R.Sudha and 6.Mrs.R.Shanthi, are share holders
 of M/s.Sri Krishna Tiles and Potteries (Madras) Private
 Limited (herein after referred to as 'company'). As
 share holders of the Company, my clients have filed
 C.P.No.2/2006 before Additional Principal Bench,
 Company Law Board, Chennai, seeking various reliefs
 including a permanent injunction restraining Respondent
 2 to 6 viz., Mr.A.K.Mulhuswamy, Mr.A.K.Shankar Prasad,
 Mr.A.R.Santhanakrishnan, Mrs.Radhika Santhanakrishnan,
 respectively, from functioning as directors of the
 company or representing themselves on behalf of the
 company. The Company Law Board, by order dated
 10-01-2006 was pleased to pass an order, inter-alia,
 as follows:

"In the meanwhile, considering the interests of the company
 and safeguarding the apprehension of the petitioners it is
 directed that any sale of the properties of the company will
 be subject to the outcome of the company petition and further
 that the company shall furnish forthwith full particulars
 regarding any sale of the properties of the company."

Therefore, this notice is issued in order to inform the
 members of the public that any person entering into any
 transaction/ dealing regarding the properties of the
 company would be doing it at his/their own costs and risks.

R.VENKATAVARADAN, Advocate
 14, Rama Rao Road, Mylapore, Chennai-600004.

PUBLIC NOTICE

Petronet LNG Limited, having registered
 office at 1st Floor, World Trade Centre,
 Babar Road, Barakhamba Lane, New
 Delhi 110001, has received environmental
 clearance from Ministry of Environment &
 Forests on 13th March 2006, for increasing
 the size of LNG storage tanks to net
 capacity 1,55,000 cu. metres for its
 proposed LNG terminal at Kochi, Kerala.
 The copies of clearance letter are available
 with Kerala State Pollution Control Board
 and may also be seen at Website of the
 Ministry of Environment & Forests at
<http://www.envfor.nic.in>.

മമ്മൂട്ടി... മമ്മൂട്ടി... മമ്മൂട്ടി...

MANDRAMA DAILY

HINDU ALL SOUTHERN EDITION

18/3/2006

DISPLAY

storage tanks to net
 00 cu. metres for its
 terminal at Kochi, Kerala.
 arance letter are available
 Pollution Control Board
 seen at Website of the
 nvironment & Forests at
 or.nic.in.

HINDU All Southern Edition Hindu Chennai 1502 March 18th 2006

K-9

KOCHI/LNG/MOEF

10th June 2003

**The Chief Conservator of Forests,
Regional Office (SZ),
Ministry of Environment & Forests,
Kendriya Sadan, IV Floor, E&F Wings
7th Main Road, Koramangala
Bangalore-560034**

Dear Sir,

Sub: Construction of LNG Import Terminal at Puthuvypeen Island, Kochi, Kerala-regarding.

As pre condition No 24 of the general condition, stipulated by the Central Environmental Clearance issued by the Ministry of Environment and Forests(MOEF) vide ref No.J-16011/26/2001-IA.III dated 2nd June 2003, we forward herewith copy of the public notification released on local daily News Papers on 6th June 2003. The name of the local vernaculars where the public notice was released is as under.

- 1) Malayala Manorama
- 2) Mathrubhoomi

This is for your information please.

For Petronet LNG Ltd,



(T B Nair)

Encl: as above

CC :- GGM(LNG)

Encl: Original Public Notices is enclosed herewith for your kind information and record -
Respectfully,
G. R. Nair
10/06/03

പൊതു നോട്ടീസ്

പെട്രോനെറ്റ് എൽ.എൻ.ജി. ലിമിറ്റഡ്, റെജിസ്റ്റേർഡ് ഓഫീസ്: വേൾഡ് ട്രെയ്ഡ് സെന്റർ, 1st ഫ്ലോർ, ഭാരകാംബ ലേൻ, ന്യൂഡൽഹി-110001 എറണാകുളം ജില്ലയിലെ പുതുവൈപ്പിനിൽ നിർമ്മിക്കുന്ന എൽ.എൻ.ജി. ടെർമിനലിന് ഇന്ത്യ ഗവൺമെന്റിന്റെ പരിതസ്ഥിതി, വന മന്ത്രാലയത്തിന്റെ പരിതസ്ഥിതി സാരക്ഷണത്തിനുള്ള അനുമതി ജൂൺ 2, 2003ന് ലഭിച്ചു. അനുമതി പത്രത്തിന്റെ കോപ്പികൾ കേരള പൊല്യൂഷൻ കൺട്രോൾ ബോർഡിൽ ലഭ്യമാണ്. കൂടാതെ ഇന്ത്യ ഗവൺമെന്റിന്റെ പരിതസ്ഥിതി, വന മന്ത്രാലയത്തിന്റെ വെബ്സൈറ്റായ <http://www.envformic.in> ലും ലഭ്യമാണ്.

ESTD - 1986

പൊതു നോട്ടീസ്

M. Athar Khan

പെട്രോനെറ്റ് എൽ.എൻ.ജി. ലിമിറ്റഡ്, റെജിസ്റ്റേർഡ് ഓഫീസ്: വേൾഡ് ട്രെയ്ഡ് സെന്റർ, 1st ഫ്ലോർ, ഭാരകാംബ ലേൻ, ന്യൂഡൽഹി-110001 എറണാകുളം ജില്ലയിലെ പുതുവൈപ്പിനിൽ നിർമ്മിക്കുന്ന എൽ.എൻ.ജി. ടെർമിനലിന് ഇന്ത്യ ഗവൺമെന്റിന്റെ പരിതസ്ഥിതി, വന മന്ത്രാലയത്തിന്റെ പരിതസ്ഥിതി സാരക്ഷണത്തിനുള്ള അനുമതി ജൂൺ 2, 2003ന് ലഭിച്ചു. അനുമതി പത്രത്തിന്റെ കോപ്പികൾ കേരള പൊല്യൂഷൻ കൺട്രോൾ ബോർഡിൽ ലഭ്യമാണ്. കൂടാതെ ഇന്ത്യ ഗവൺമെന്റിന്റെ പരിതസ്ഥിതി, വന മന്ത്രാലയത്തിന്റെ വെബ്സൈറ്റായ <http://www.envformic.in> ലും ലഭ്യമാണ്.



Petronet LNG Limited

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September 5, 2008

Additional Director,
Ministry of Environment and Forest,
Paryavaran Bhavan,
CGO Complex, Lodhi Road,
New delhi-110003

**Subject: Status of progress of Construction activities of LNG terminal at
Puthuvypeen Island, Kochi, Kerala**

Dear Sir,

The Ministry of Environment and Forests vide their letter no. J-16011/26/2001-IA-III dated 2nd June 2003 had accorded the Environmental Clearance for the construction of LNG Import terminal at Puthuvypeen Island, Kochi (Kerala). A copy of approval is attached as Annexure-A.

Subsequent to the above clearance certain changes listed below needed to be carried out:

1. Increasing the LNG Storage tank Capacity to 2 x 155,000 m3
2. Increasing the LNG carrier size up to 165,000 m3

PLL therefore approached the Ministry of Environment and Forests for above changes and the Environmental Clearance for enhanced capacity of LNG Storage Tanks and LNG Carrier ships was accorded vide their letter no. J-16011/26/2001-IA-III dated 13th March 2006. A copy of approval is attached as Annexure-B.

The Comprehensive Environment Impact Assessment report along with Disaster Management Plan has already been submitted along with the initial application for the said clearance. A copy of Risk Analysis report was also submitted vide our letter dated 27th May 2005. A copy of letter is attached as Annexure-C.

The execution of the project was put on hold due to certain market related reasons. PLL has now resumed work on the project and started the construction activities like

1. Boundary wall construction work was awarded on 01st December 2006 and it has been completed on 31st May 2008.
2. Site Grading and land filling work was awarded on 6th February 2008 and likely to be completed by 5th February 2009.

EPC contract for Two LNG Storage tanks has been awarded to M/s IHI Japan on 1st February 2008. The EPC has already mobilized on site and Installation of Batching plant and preparation work for temporary facilities is under progress.

The Bidding process for the other two packages (i.e. Regasification and Marine Facilities) is on and the selection of EPCC for these is expected to be completed by October/November 2008.

Based on the revised marine studies (post Tsunami), PLL (as per the recommendation of M/s H R Wallingford, UK) has decided to delete the breakwater from the scope of work of the marine facilities. Additionally for the regasification facilities ambient air heat based vaporisers (similar to those adopted for Dahej project) are chosen instead of open rack vaporisers. Use of ambient air heat based vapouriser is more eco-friendly since this does not involve release of any effluent to sea or ambient air.

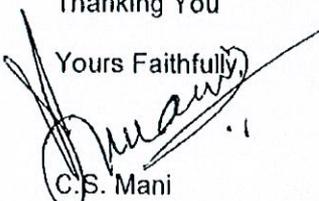
Based on the current schedule, it is estimated that mechanical completion would be completed by end of 2011.

The EPC Contractor has been advised to comply with the various conditions stipulated by the Ministry of Environment and Forests in the above mentioned letters.

This is for your kind information and record.

Thanking You

Yours Faithfully,



C.S. Mani

Director (Technical)