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Validity expires on 04-01-2021



## ***Proceedings of the State Environment Impact Assessment Authority Kerala***

*Present: Prof. (Dr.) K.P. Joy, Chairman, Dr. J. Subhashini, Member and Sri. P. Mara Pandiyan,  
I.A.S., Member Secretary.*

Sub: Environmental Clearance -Application for environmental clearance for the installation of additional tanks to store crude oil in the Special Economic Zone in Sy. No. 347 at Puthuvypeen Village, Puthuvypeen Taluk, Ernakulam District, Kerala by Sri. G. Radhakrishna Pillai, Deputy General Manager i/c (Engineering & construction) – M/s BPCL, Post Bag No. 2, Ambalamugal, Ernakulam- 682302 - E.C- Granted

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### **STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY**

No. **810/EC3/2306/SEIAA/2015**

*dated, Thiruvananthapuram 05-01-2016*

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- Read:* - 1. Application dated 29.05.2015 from Sri. G. Radhakrishna Pillai, Deputy General Manager i/c (Engineering & construction) – M/s BPCL, Post Bag No. 2, Ambalamugal, Ernakulam- 682302
2. Minutes of the 46<sup>th</sup> meeting of SEAC held on 29/30.09.2015.
  3. Minutes of the 48<sup>th</sup> meeting of SEAC held on 06/07-11-2015.
  4. Minutes of the 47<sup>th</sup> meeting of SEIAA held on 07-01-2016.

#### **ENVIRONMENTAL CLEARANCE NO. 06/2016**

Sri. G. Radhakrishna Pillai, Deputy General Manager i/c (Engineering & construction) – M/s BPCL, Post Bag No. 2, Ambalamugal, Ernakulam- 682302 vide his application received on 01.06.2015, sought Environmental Clearance under EIA Notification, 2006 for the installation of additional tanks to store crude oil in the Special Economic Zone in Sy. No. 347 at Puthuvypeen Village, Puthuvypeen Taluk, Ernakulam District, Kerala. The project comes under Category B, Activity 6(b) as per the Schedule of EIA Notification 2006.

M/s Bharat Petroleum Corporation Limited – Kochi Refinery (BPCL-KR) a subsidiary of Bharat Petroleum Corporation Limited was established in 1963 and has been operating refinery since 1966 at Ambalamugal, Ernakulam district, Kerala. The refinery

has refining capacity of 9.5 MMTPA and in process of additional 6 MMTPA. It has crude storage facilities at two locations *i.e.*, at BPCL, Kochi refinery, Ambumugal and Shore Tank Farm (STF), Puthuvypeen. At Shore Tank Farm (STF) there are four tanks with net storage capacity of 220 TMT and at refinery there are 8 tanks with net storage capacity of 287 TMT, Post IREP (Integrated Refinery Expansion Project), it is planned to construct two new crude oil tanks of 41 TMT capacities along with conversion of one intermediate stream storage tank into crude oil service. It is also planned to convert 4 existing crude oil tanks into product service (HSD & LAN).

The Project is construction of additional two Crude Storage Tank (one present + one future) at STF, Puthuvypeen. The STF is operating four numbers Crude oil storage tanks of capacity are 82,300 KL with dimensions 79 m diameter 18 m height. An additional two crude oil storage tanks with same specifications is intended at STF. The proposed expansion project will be carried out in the existing Shore Tank Farm (STF) of BPCL-KR in Puthuvypu, Ernakulam, which is Special Economic Zone. The BPCL-KR Shore Tank Farm is surrounded by LNG Petro net on one side. BPCL-KR has the reference coordinates within latitudes 9°59'37.99" N and longitudes 76°13' 15.37"E. None of the areas are protected under international conventions, national or local legislation for their ecological, landscape, cultural or important/ecological sensitive areas are within 15 km Aerial distance from proposed storage facility except Mangalavanam Bird Sanctuary in Ernakulum city – 5 KM. Total investment of the project/activity is 145 Crores

The total area of BPCL-KR Shore Tank Farm is 70 hectares. Two additional crude storage tank (1 proposed + 1 Future) will be installed in the existing Shore Tank Farm, Puthuvypeen, Ernakulam. There will be no additional land requirement for the proposed project. In the BPCL-KR Shore Tank Farm of Bharat Petroleum Corporation Limited, Crude Oil received at the SPM, is pumped to shore through a 1200 NB, submarine pipeline of approximately 19.2 km length The Onshore Shore Tank Farm (STF) at Puthuvypeen has facilities for receipt, storage and transfer of the crude oil to the Kochi Refinery. From the STF, crude will be pumped to the Refinery through a 750 NB cross country pipeline that is about 24 km long.

2. 44<sup>th</sup> meeting of SEAC held on 12-13 August 2015 considered the matter and deferred for examining the necessity of EC for the proposed project and also production of

the authenticated copy of the EC already obtained. In course of the brief PowerPoint presentation the proponent has informed that they had applied for CRZ clearance. The Committee examined the ToR submitted by the proponent and suggested to add the following additional points to the draft ToR.

1. Details on list of hazardous chemicals to be stored along with storage quantities at the facility, their category (as per MSIHC Rules), MSDS.
2. Mode of receiving hazardous chemicals in isolated storages and mode of their dispatch.
3. Layout plan of the storage tanks and other associated facilities.
4. Details on types and specifications of the storage facilities including tanks, pumps, piping, valves, flanges, pumps, monitoring equipments, systems for emissions control safety controls including relief systems.
5. Arrangements to control loss/leakage of chemicals and management system in case of leakage.
6. Risk Assessment & Disaster Management Plan
  - Identification of hazards
  - Consequence Analysis
  - Details of domino effect of the storage tanks and respective preventive measures including distance between storage units in an isolated storage facility.
  - Onsite and offsite emergency preparedness plan.

3. 46<sup>th</sup> meeting of SEAC held on 29/30.09.2015 examined the proposal and came to the conclusion that the proposal requires EC and asked for detailed EIA report. As the clarification sought for has been received the matter has reappraised by SEAC in its 48<sup>th</sup> meeting held on 6/7 Nov. 2015 and found that the proponent had originally submitted the application to MoEF for clearance and MoEF transmitted the application to state SEIAA/SEAC to consider it as 6(b) under category B of scheduled of 2006 EIA notification. The ToR submitted by the proponent was accepted in the 46<sup>th</sup> SEAC meeting with suggestions to include some additional points. As per the decision of 47<sup>th</sup> meeting of SEAC the proponent has submitted EIA Report prepared by M/s S.V. Envirolabs & consultant, Visakapatanam a NABET accredited agency. The proponent has submitted letter from KCZMA (No.119/MS/2015/KCZMA dated 18.09.2015), in which it is stated

that the 72<sup>nd</sup> meeting of KCZMA held on 17.09.2015 considered the application of BPCL for CRZ clearance and made the following recommendations.

“KCZMA vide the decision on the agenda item no. 72.02.392 in the 72<sup>nd</sup> KCZMA meeting held on 17.09.2015 and 29.09.2015 decided to recommend the proposal as the proposal is permissible under the provisions of CRZ notifications. hence I am to forward herewith the proposal and inform you that construction of two additional crude oil storage tanks at Puthuvypeen in Ernakulam district is recommended subject to the implementation of safety regulations including guidelines issued by the Oil Industry Safety Directorate of the Ministry of Petroleum and Natural Gas and guidelines issued by MoEF and subject to further terms and conditions for implementation of ameliorative and restorative measures in relation to environment”.

4. The project falls within CRZ area. The committee considered the proposal in detail and took into consideration the fact that the proposal is implemented by a public sector undertaking, which is situated in a SEZ and is for the expansion of the existing storage capacity. The original application, EIA Report and other connected documents were examined in detail. Thereafter the committee decided to recommend the proposal for issuance of environmental clearance with the following specific conditions in addition to the general conditions and also after incorporating the recommendations of KCZMA.

1. Constant vigil shall be maintained to prevent oil spillage in any form to the backwaters.
2. All safety measures to deal such any such situation shall be properly maintained strictly adhering the relevant rules and protocols.
3. The mitigation measures proposed in EIA reports during the construction and implementation period shall be strictly followed.
4. The entire stretch of the pipeline shall be buried underground except at the booster pumping station, which will be properly fenced and the station would be manned round the clock. The buried lines should be protected with anticorrosive collar based coating. The coating will be tested with high voltage detector in accordance with prescribed standards.
5. Markers shall be installed at every 30 m to indicate the position of the line.

6. The smooth and safe operation of the system will be ensured by incorporating a computerised SCADA (Supervisory Control and Data Acquisition) system.
7. There should be safety boards at critical locations giving emergency instructions as well as contact details of Cochin Refineries Ltd.
8. It shall be ensured that the mangrove along the proposed area, if any shall not be adversely affected due to the project.
9. Storage of petroleum products shall be permitted within the provisions of CRZ Notifications 1991, and its subsequent amendments.
10. The impact of oceanographic parameters on the subsea pipelines such as bulking, slope stability, prediction of marine growth, local bad effects, pipe line spanning, liquefaction, etc. shall be studied.

5. Authority decided to accept the recommendation and to grant integrated E.C subject to the recommendations of the KCZMA and the above specific conditions recommended by the SEAC and also subject to strict observance of the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. State Environmental Impact Assessment Authority, Kerala hereby accord environmental clearance for the quarry project of Sri. G. Radhakrishna Pillai, Deputy General Manager i/c (Engineering & construction)– M/s BPCL, Post Bag No. 2, Ambalamugal, Ernakulam-682302 in the Special Economic Zone in Sy. No. 347 at Puthuvypeen Village, Puthuvypeen Taluk, Ernakulam District, under the EIA notification 2006, subject to the specific conditions in para 5.

7. Validity of the environmental clearance will be five years from the date of this clearance, subject to earlier review in the event of violation or non-compliance of any of the conditions stipulated herein.

8. Compliance of the conditions herein will be monitored by the Directorate of Environment and Climate Change or its agencies and also by the regional office of the Ministry of Environment & Forests, Govt. of India, Bangalore.

- i. Necessary assistance for entry and inspection should be provided by the project proponent and those who are engaged or entrusted by him to the staff for inspection or monitoring.

- ii. Instances of violation if any shall be reported to the District Collector, Ernakulam to take legal action under the Environment (Protection) Act, 1986.

The given address for correspondence with the authorised signatory of the project is Sri. G. Radhakrishna Pillai, Deputy General Manager i/c (Engineering & construction) – M/s BPCL, Post Bag No. 2, Ambalamugal, Ernakulam, Kerala.

Sd/-  
P. MARA PANDIYAN, I.A.S.,  
Member Secretary, SEIAA  
&  
Addl. Chief Secretary  
Environment & Forests Department  
Government of Kerala.

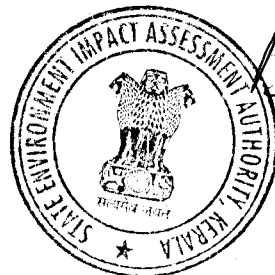
To,

Sri. G. Radhakrishna Pillai,  
Deputy General Manager,  
(Engineering & construction) I/C,  
M/s BPCL, Post Bag No. 2,  
Ambalamugal, Ernakulam- 682302.

Copy to:

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wing, II Block, Koramangala, Bangalore-560034
2. The Additional Chief Secretary to Government, Environment Department, Government of Kerala
3. The District Collector, Ernakulam
4. Director, Dept. of Environment and Climate Change, Govt. of Kerala, Tvm-24
5. Director, Factories & Boilers, Vanchiyoor, Thiruvananthapuram -4.
6. The Secretary, Elamkunnappuzha Grama Panchayat, Ernakulam 682012
7. Chairman, SEIAA, Kerala
8. Website
9. S/f, O/c

Forwarded/ By Order




Administrator,  
SEIAA.



**GENERAL CONDITIONS** (for projects other than mining)

- (i) Rain Water Harvesting capacity should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified elsewhere.
- (ii) Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.
- (iii) Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, inclusive of approach road and internal roads.
- (iv) The project shall incorporate devices for solar energy generation and utilization to the maximum possible extent with the possibility of contributing the same to the national grid in future.
- (v) Safety measures should be implemented as per the Fire and Safety Regulations.
- (vi) STP should be installed and made functional as per KSPCB guidelines including that for solid waste management.
- (vii) The conditions specified in the Companies Act, 2013 should be observed for Corporate Social Responsibility.
- (viii) The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.
- (ix) Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating activity.
- (x) All other statutory clearances should be obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives.
- (xi) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.
- (xii) The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
- (xiii) The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
- (xiv) The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which (both the advertisement and the newspaper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Department of Environment and Climate Change, Govt. of Kerala and may also be seen on the website of the Authority at [www.seiaakerala.org](http://www.seiaakerala.org). The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same signed in all pages should be forwarded to the office of this Authority as confirmation.
- (xv) A copy of the clearance letter shall be sent by the proponent to concerned Grama Panchayat/ District Panchayat/ Municipality/Corporation/Urban Local Body and also to the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company by the proponent.
- (xvi) The proponent shall submit half yearly reports on the status of compliance of the stipulated EC conditions including results of monitored data (**both in hard copies as well as by e-mail**) and upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the respective Regional Office of MoEF, Govt. of India and also to the Directorate of Environment and Climate Change, Govt. of Kerala.
- (xvii) The details of Environmental Clearance should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font of size of not less than 40.
- (xviii) The proponent should provide notarized affidavit (*indicating the number and date of Environmental Clearance proceedings*) that all the conditions stipulated in the EC shall be scrupulously followed.

  
for Member **RAJEEV**  
Secretary, SEIAA  
Administration  
State Environment Impact Assessment Authority  
Pallimankun, Pottab  
Thiruvananthapuram-695029  
Phone: 0471-2742264