

**F.No.11-31/2015-IA-III**  
Government of India  
Ministry of Environment, Forest & Climate Change  
(IA.III Section)

Indira Paryavaran Bhawan,  
Jor Bagh Road,  
New Delhi - 3

Dated: 12<sup>th</sup> February, 2016

**To**

The Deputy General Manager (E&C),  
Bharat Petroleum Corporation Ltd,  
Post Bag No. 2, Ambalamugal,  
**District Ernakulam** – 302 (Kerala)

**Sub: 'Laying heat traced pipe line from South Tanker Berth to Kochi Refinery' in Tehsil Kunnathunad of District Ernakulam (Kerala) by Bharat Petroleum Corporation Ltd – CRZ Clearance - Reg.**

Sir,

This has reference to your proposal forwarded by the Member Secretary, Kerala Coastal Zone Management Authority (KCZMA) vide their letter No.4583/A2/15/KCZMA/S&TD dated 08.09.2015, submitted the above mentioned proposal to this Ministry for grant of CRZ Clearance in terms of the provisions of the Coastal Regulation Zone (CRZ) Notification, 2011 under the Environment (Protection) Act, 1986.

2. The proposal for '**Laying heat traced pipe line from South Tanker Berth to Kochi Refinery' in Tehsil Kunnathunad of District Ernakulam (Kerala) by Bharat Petroleum Corporation Ltd**, was considered by the Expert Appraisal Committee (EAC) in the Ministry for Infrastructure Development, Coastal Regulation Zone, Building/ Construction and Miscellaneous projects, in its 153<sup>rd</sup> EAC meeting held on 18 – 20 November, 2015.

3. The details of the project, as per the documents submitted by the Project Proponents (PP), and also as informed during the above said EAC meeting, are reported to be as under:-

(i) **Proposal:** The project proponent proposes to lay 20" heat traced pipeline by replacing the redundant 30" crude oil pipeline handle HSVR/LSHS from North Tanker Berth (NTB)/South Tanker Berth (STB) to Kochi Refinery (KR) and the pipeline will be laid in the existing corridor. As a part of this project, two booster pumps & necessary strengthening/augmentation of South Tanker Berth including replacement of a loading arm is also envisaged.

(ii) **Location:** One 30" crude line and three 12" product lines were existing in the same corridor. From NTB/STB, the heat traced line will be laid underground crossing the BTH Junction. and proceeds along TD Road up to Durbar hall ground and proceeds along TD road and cross MG road at Jose Junction and proceed further along railway station road. From here the pipeline is laid through SRV road and Karekattu road, crossing MG road and Chittoor road up to railway quarters area. From here the heat traced pipeline turn left and proceeds through railway quarters compound along Swami Vivekananda road. BPCL is having ROW in this area. The pipe line take a right turn before KSRTC bus station, cross railway tracks through a culvert and proceed up to Mullassery canal. Across the canal, pipeline is

laid over head on the trestles provided on both banks. After crossing the canal the line is laid underground to cross A L Jacob over bridge in Salim Rajan Road which was constructed recently. From here the line is laid through pipeline corridor up to BPCL KR. At Eroor, the lines are crossing the railway tracks through the culvert and proceeds further on left side of the track up to KR. The pipeline is falling in CRZ-II with the pipeline occupying an area of 668.87 m, CRZ-IVB, with the pipeline occupying an area of 321.21 m. The CRZ area is limited on the banks of Vembanad and Kaniyampuzha which belongs to CRZ-II category. The water part of the river and Vembanad belongs to CRZ-IV category. The total length of the pipeline from South/ North Tanker Berth jetty to Kochi Refinery is approx 14 kms. Pipeline and the surrounding study area are covered under Survey of India Topo sheet No's 58C/5. The nearest Notified Historical/ Archaeological/ Tourist Places include Bolgatty Palace, which is 1 km west from STB/NTB Jetty and Hill Palace Museum, which is approx 2 km west from refinery. There is no ecologically sensitive area found along the proposed pipeline route to be categorised as CRZ-1A. Only a few mangrove trees are found at 50 m south of pipeline route along the west bank of Kaniyamuzha.

(iii) **Water body:** Pipeline passing through Chitrapuzhha (09° 58'20.66"N, 76° 21'39.99"E), Kanyampuzha (09° 58'24.04"N, 76° 20'41.99"E), Kanyavallipuzha (09° 58'24.11"N, 76° 19'31.24"E) on overhead trestles without affecting free flow of water.

(iv) There are three rail crossings in the pipeline corridor. They are (a) at Eroor (b) at BPCL terminal and (c) at FACT. These crossings are through culverts. After entering BPCL KR boundary, the pipelines are laid on sleepers up to the respective storage tanks.

(v) The pipeline will be laid along with associated facilities like Loading Arm, Booster Pumping Station, Pig launching/receiving facilities, etc.

(vi) The proposed pipeline will be of 20 inch in diameter of material grade of API 5L Gr X-65 PSL-2, WT-8.5mm SAWL pipe with dual layer Fusion Bonded Epoxy (FBE) coating suitable for in service temp of +110°C followed by minimum 70 mm thick Polyurethane foam insulation and 8 mm thick extruded seamless HDPE jacket. One inch pipe with heating element will be welded to the bare pipe for heating. The design temperature and pressure for the proposed pipeline will be 90°C and 18.0 kg/cm<sup>2</sup> (g).

(vii) **Water Requirement:** Water is required for the construction and operation phase which will be supplied by existing refinery/ contractor.

(viii) **Waste Generation:** During construction, solid waste generated will include packaging and wrapping material, stubs of spent welding electrodes, used rags and housekeeping wastes etc. Spent oils and other lubricants from equipment used by the contractor will be collected by the contractor & disposed off at CPCB/ local PCB approved recyclers. Hence impact on the surrounding environment during construction and operation phase of the project is not envisaged due to solid waste generation. During operation Hazardous waste generated include effluents discharged during pigging activity. Hazardous waste generated during pigging activity is collected & recycled.

(ix) **SCZMA Approval:** The Kerala Coastal Zone Management Authority has recommended the proposal vide their letter No. 4583/A2/15/KCZMA/S&TD dated 08.09.2015.

(x) **Investment/Cost:** The estimated cost of the project is Rs. 337.06 crores.

(xi) **Wildlife issues:** The proposed pipeline is not passing through national parks/ sanctuaries/ coral reefs/ ecologically sensitive areas.

(xii) **Employment potential:** In-direct employment of unskilled and skilled workers during pipeline laying period.

(xiii) **Benefits of the project:** The benefits of reduction in energy consumption due to underground Pipeline mode of transportation of LSHS, HSVR, VGO and reduced

transportation losses and fugitive emissions. Pipeline mode is the safest and reliable mode of transportation. Transit losses are the lowest.

4. The proposal was considered by the EAC in its 153<sup>rd</sup> meeting held on 18-20 November, 2015, and was recommended for grant of CRZ Clearance. As per recommendations of the EAC, the Ministry of Environment, Forest & Climate Change hereby accords CRZ Clearance to the above-mentioned project **'Laying heat traced pipe line from South Tanker Berth to Kochi Refinery' in Tehsil Kunnathunad of District Ernakulam (Kerala) by Bharat Petroleum Corporation Ltd**, under the provisions of CRZ Notification, 2011 and amendments thereto & circulars issued thereon and subject to the compliance of the specific and general conditions as under:-

#### **PART A – SPECIFIC CONDITIONS**

##### **Construction Phase**

- (i) The provision of CRZ Notification, 2011 shall strictly be adhered to by the project proponent.
- (ii) All the recommendations and conditions specified by Kerala Coastal Zone Management Authority (KCZMA) vide letter No.4583/A2/15/KCZMA/S&TD dated 08.09.2015, shall be complied with.
- (iii) There shall be no destruction of mangrove trees at 50 m south of pipeline route along the west bank of Kaniyamuzha. Crossing of rivers shall be on trestles with adequate clearance thereby having negligible impact on the flow.
- (iv) Labour camps, storage of material and machinery shall be away from the CRZ.
- (v) The excavated soil shall be used for refilling to the extent possible. Any soil laced with oil and other hazardous chemicals shall be separated from such impurities, treated and disposed at nearest TSDF sites. The spent oils and other lubricants from equipment shall be collected by the contractor & disposed off at CPCB/ local SPCB approved recyclers. There shall not be disposal of any waste in CRZ.
- (vi) Emergency Shut System shall be incorporated in the design so as to mitigate the impact of leakage. The adjacent population is to be made aware of the Risk associated with proposed project and mitigation measures to be taken in case of emergency.
- (vii) The project proponent shall obtain all permissions from concerned authorities prior to commencement of the project.
- (viii) Internationally accepted codes and practices should be followed in designing the pipeline system and their compliance should be guaranteed through proper inspection, frequent evaluation and intensive testing of all critical components.
- (ix) The smooth and safe operation of the system shall be ensured by incorporating a computerized SCADA (Supervisory Control And Data Automation) system. Any leakage in the pipeline shall be immediately detected by the Computer system and product pumping shall be immediately cut off.
- (x) Oil Spill Contingency Management Plan shall be put in place.
- (xi) Necessary signages shall be installed in both English and local languages wherever the pipeline is passing.



- (xii) All safety requirements shall be strictly followed. All the recommendation of EIA, EMP, DMP shall be strictly followed.
- (xiii) All kinds of safety precautions shall be taken to avoid any sort of accidents during handling of equipments and laying of pipeline. Emergency medical service shall be provided.
- (xiv) There shall no tapping of ground water within CRZ area.
- (xv) There shall be no disposal of waste or sewage in to the sea, creek or in CRZ area.
- (xvi) Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.

## **PART - B. GENERAL CONDITIONS**

- (i) A copy of the clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.
- (ii) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.

5. The above stipulations would be enforced among others under 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, EIA Notification, 2006 and CRZ Notification, 2011.

6. Officials from the Regional Office of MoEF&CC, Bangalore who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF&CC should be forwarded to the CCF, Regional Office of MoEF&CC, Bangalore.

7. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.

8. The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the CRZ Clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

9. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

10. The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website

of the Ministry of Environment, Forest & Climate Change at <http://www.envfor.nic.in>. The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Bangalore.


11. This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

12. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

13. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.


14. The proponent shall 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 Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

15. The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.

  
12/2/2016  
**(S.K. Srivastava)**  
**Scientist E**

Copy to:

- 1) The Secretary, Department of Environment, Government of Kerala, Thiruvananthapuram
- 2) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-32
- 3) The Member Secretary, Kerala State Pollution Control Board, Palamoodu Junction, Pattom Place, P.O. Thiruvananthapuram - 04
- 4) Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forests and Climate Change, Regional Office (SZ), Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wing, 17<sup>th</sup> Main Road, Koramangala II Block, Bangalore - 34
- 5) IA - Division, Monitoring Cell, MoEF, New Delhi - 3
- 6) Guard file

  
12/2/2016  
**(S.K. Srivastava)**  
**Scientist E**