

MINUTES OF THE 186th MEETING OF EXPERT APPRAISAL COMMITTEE FOR PROJECTS RELATED TO COASTAL REGULATION ZONE HELD ON 27th MARCH, 2018 AT INDIRA PARYAVARAN BHAWAN, MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, NEW DELHI

The 186th Meeting of the Expert Appraisal Committee for projects related to Coastal Regulation Zone was held on 27.03.2018 at Sutlej Conference Hall, Jal Wing, Ground Floor, Indira Paryavaran Bhawan, New Delhi. The members present were:

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| 1. | Dr. Deepak Arun Apte | - | Chairman |
| 2. | Dr. V.K Jain | - | Member |
| 3. | Shri T.P. Singh | - | Member |
| 4. | Dr. Anil Kumar Singh | - | Member |
| 5. | Shri. N.K. Gupta | - | Member |
| 6. | Shri. Arvind Kumar Nautiyal | - | Member Secretary |

Dr. M.V. Ramana Murthy, Dr. N.K Verma, Dr. Asha Ashok Juwarkar, Shri. Prabhakar Singh, Shri. Narendra Surana, Dr. Mohan Singh Panwar, Dr. Anuradha Shukla and Shri Sharad Chandra were absent.

Also in attendance: Shri W. Bharat Singh, Joint Director, MoEFCC and Dr. Bhawana Kapkoti Negi, Technical Officer, MoEFCC. The deliberations held and the decisions taken are as under:

2.0 CONFIRMATION OF THE MINUTES OF THE LAST MEETING.

The Committee having noted that minutes of the 184st meeting had taken care of the comments received from members as necessary confirmed the minutes.

3.0 CONSIDERATION OF PROPOSALS:

RECONSIDERED PROPOSALS:

3.1 Proposal for 5 MLD Hybrid Desalination Project at IREL complex, Chatrapur, Odisha by M/s Indian Rare Earths Limited [F.NO.11-41/2015-IA.III]- CRZ clearance reg.

The proposal of M/s Indian Rare Earths Limited (IREL) for setting up of a 5 MLD Hybrid Desalination Project at IREL complex, Chatrapur, in Odisha, was earlier considered in the 154th and 158th meetings of the Committee held during 22-23 December, 2015 and 27-28 April, 2016 respectively. The proposal was recommended for CRZ Clearance in the 154th Meeting but during processing of the file, it was noted that certain requisite documents were not available and the project was advised to submit them. The matter was again placed in the 158th Meeting, wherein the EAC had observed that they stand with its earlier recommendations. It was later noticed that CRZ map in 1:4000 scale with clear indication of CRZ-I, II, III, IV demarcations; project site superimposed on the CRZ map; CRZ map covering 7 km radius were not

available, in addition to 'NOC' from the State Pollution Control Board. These documents have been received now and it was decided that for clarity and procedural compliance the issue may be placed before the EAC (CRZ) and accordingly the matter was taken up in this meeting.

The project proponent made a presentation and provided the following information to the Committee:

- i) The project involves construction of Sea Water Intake Pump House and laying of intake & outfall pipelines (with protecting cables) etc. in CRZ area for setting-up of the proposed 5 MLD desalination plant at Odisha Sand Complex (OSCOM), of Indian Rare Earth Ltd. (IREL) in Ganjam district.
- ii) The project is one of the sanctioned project of the Department of Atomic Energy (DAE) project titled 'Field application of indigenous desalination technology in DAE unit', aimed to meet the fresh water needs of OSCOM as well as to demonstrate the field application of hybrid desalination technology (SWRO-MED) developed by BARC, Department of Atomic Energy (DAE), Government of India.
- iii) The project site will cover an area of 6500 m² area (130 m² x 50 m²) within IREL plant boundary. The proposed activity involves setting up of a 5.0 MLD hybrid sea water desalination plant comprising of 4.5 MLD Sea Water Reverse Osmosis (SWRO) Process and 0.5 MLD Multi Effect Distillation (MED) processes.
- iv) The proposed hybrid desalination plant will receive the chlorinated sea water at the rate of 950m³/hr by installing sea water intake facilities adjoining to OSCOM, IREL and about 500 m away from the plant site. Out of the 950 m³/hr chlorinated sea water, about 750 m³/hr will be processed through SWRO plant to produce 187.5 m³/hr of potable water and balance 200 m³/hr of sea water will be required at the MED plant to produce 20.8 m³/hr of high quality process water. The SWRO plant is a two stage RO (Reverse Osmosis) plant with high efficiency energy recovery device along with membrane.
- v) CRZ map indicating HTL, LTL demarcation in 1:4000 scale with the proposed pipeline route superimposed on the map has been prepared by IRS, Anna University.
- vi) The desalination plant will be constructed within the IRE complex, which is located beyond CRZ areas. The pump house, intake and out fall pipeline will be however constructed within CRZ areas. The proposed intake and discharge pipeline covers CRZ-III (A), CRZ-I (B) i.e. intertidal area and CRZ-IV (A).
- vii) Total length of intake pipe line will be 1723 m i.e. from intake station to desalination plant out of which 1348 m will be under different zones of CRZ areas. The length of the pipeline covering CRZ-III(A) area is 125 m i.e from pump house to inter tidal zone, 250 m in CRZ-I (B) (inter tidal area) and 598 m in CRZ IV (A) area. In both the CRZ-I (B) & (A) area, the diameter of the pipe will be 900mm.
- viii) Total length of Outfall pipe line will be 1623 m, out of which 1248 m will pass through CRZ areas. The length of the pipeline in CRZ-IV will be 498 m, CRZ-I(B) will be 250m, CRZ-III (A) area will be 500 m. About 375 m will be in non CRZ area.
- ix) The total Cost of the project will be Rs 112.90 crores.

x) The Odisha Coastal Management Authority (OCZMA) has recommended the project vide letter No. 64/OCZMA dated 25.08.2015

2. Based on deliberations held the Committee recommended the project for CRZ Clearance subject to the following conditions:

- i) The project activity shall be carried out strictly be as per the provisions of CRZ Notification, 2011, and shall not affect the coastal ecology of the area including flora and fauna.
- ii) The Project Proponent shall ensure that there is no destruction of mangroves during the construction as well as the operation phase of the project.
- iii) No radiation related discharge shall be released in the coastal area including the Sea.
- iv) There shall be no dressing or alteration of the sand dunes and natural features, including landscape changes for beautification, recreation and other such purpose.
- v) All the conditions stipulated by OCZMA while recommending the proposal, shall be strictly complied with.

FRESH PROPOSALS:

3.2 Proposal for laying Paradip-Hyderabad Petroleum Product Pipeline in the State of Odisha, Andhra Pradesh and Telangana by M/s IOCL [F.NO.11-5/2018-IA.III]- CRZ clearance reg.

The proposal of M/s Indian Oil Corporation Ltd. is for laying of pipeline i.e Paradip-Hyderabad Petroleum Product Pipeline in the States of Odisha, Andhra Pradesh and Telangana.

The project proponent made a presentation and provided the following information:

- i) The project involves laying of 1212 Km length underground pipeline from Paradip Refinery to Hyderabad and would originate from the pumping station at Paradip (Odisha State) and then towards southern direction more or less parallel to existing NH-16 up to proposed Berhampur ToP and further to Vizag ToP (Andhra Pradesh). Thereafter, the pipeline would traverse in South-West direction along NH-16 up to Rajahmundry ToP and further to Vijaywada ToP. From Vijayawada onwards, the pipeline would change direction to North-West following NH-9 for approximately 220 km up to the proposed new Hyderabad ToP (Telangana).
- ii) The pipeline will be laid along with Optical Fibre Cable for evacuation of white oil products i.e., MS, HSD, SKO and ATF from Paradip Refinery to depots in Odisha, Andhra Pradesh and Telangana.
- iii) The proposed pipeline will provide connectivity to a new grass root depot at Berhampur in Odisha, and also to Indian Oil's existing depots at Vizag, Rajahmundry and Vijayawada in Andhra Pradesh and Hyderabad in Telangana, along with associated facilities at Paradip refinery and at Rajahmundry and Vijayawada depots.
- iv) The length of the proposed pipeline is about 330 km in Odisha, 723 Km in Andhra Pradesh and 160 Km in Telangana.

- v) Santa Creek in Odisha divides Paradip Refinery into two parts i.e north side in which products/intermediate feed storage tanks are found and south side where the major processing units are situated. Thus, for transfer of the process fluids from south side to north side requires to cross the creek which is a tidal influenced water body and coming within CRZ area. The pipeline will be laid in the pipe corridor with the existing bridge.
- vi) The total length of pipeline in Odisha will be 330 km, out of which pipeline in CRZ area in Odisha will be approximately 2435.19 m as follows: (a) Pipeline in Bridge-1 (one side) comprises of 475.64 m in CRZ-I(A); 611.52 m in CRZ-III and 126.02 m in CRZ-IV (B) (Santa Creek area); and (b) Pipeline in Bridge-2 (another side) comprises of 504.25 m in CRZ-I(A); 601.76 m in CRZ-III and 116 m in CRZ-IV(B) (Santa Creek area).
- vii) In Andhra Pradesh the total length of the pipeline is about 723 Km, out of which 227.67 meter in CRZ-III and 106.08 meter in CRZ-IV (B) respectively. The pipeline will cross Meghadrigedda Creek
- viii) The proposed Paradip-Hyderabad pipeline traverses 13 river/creek crossings under the influence of CRZ area. One crossing is coming under CRZ-I A (mangrove) area and all other remaining crossings are coming under CRZ-III & IV B (Santra creek) and the details of pipeline areas passing through the CRZ IA (310.71m in Odisha), CRZ- III (1462.72m in Odisha and AP) and CRZ IVB (1552.78 m Odisha and A.P) areas.
- ix) The boundary of the Kambalakonda Wildlife Sanctuary in Andhra Pradesh is about 8 kms from the nearest out of pipeline. The Eco sensitive zone of the said sanctuary is 4.33 kms from the boundary of the Kambalakonda Wildlife Sanctuary.
- x) The Horizontal Directional Drilling (HDD) will be carried out at all major river crossings.
- xi) CRZ map indicating HTL, LTL demarcation in 1:4000 scale with the proposed pipeline route superimposed on the map has been prepared by IRS, Anna University.
- xii) No excavation in water bodies and CRZ areas. Crossings will be done through trenchless, Horizontal directional Drilling Methodology to a depth of min. 10-15m below below the deepest point of rivers, creeks and water body.
- xiii) The total Cost of the project will be Rs 7801 crores.
- xiv) The pipeline will be laid in agricultural fields at an average depth of 4-5 feet. After laying of the pipeline, the farmers will be able to cultivate the land without any problem.
- xv) This project is very useful to meet the increasing demands of petroleum products in the state of AP.
- xvi) The Andhra Pradesh Coastal Management Authority (APCZMA) recommended the project vide letter No. 48/APCZMA/2017 dated 13.11.2017 and Odhisha Coastal Management Authority (OCZMA) recommended the project vide letter No. 13/OCZMA dated 11.01.2018.
- xvii) Consent to Establish has been obtained from all concerned three states viz. Odisha, Andhra Pradesh and Telangana.
- xviii) Forest clearances has been obtained.
- xix) The water requirement will be 15 KLD approx. Raw Water will be mainly used for Pumping-cum-Delivery station construction works and drinking water facilities

to labour while laying of underground pipeline. The ground water will be utilized from existing wells inside IOCL marketing terminals & Refinery area.

- xx) Power will be utilised from Paradip Captive power plant for Paradip station and for other stations power will be taken from State Electricity Boards.
- xxi) Energy auditing of the stations, VFDs, lower pumping rate to avoid shutdown (at higher rate friction loss increases), LED panels, Solar panels, in stores roof top toughened glass to allow lighting by sunlight, street lights and towers to be operated by solar switch or timer, replacement of engines with motors, use of higher dia. pipes instead of putting up more boosting stations, periodical piggings, use of flow control valves instead of gate/ball valves with partial opening.

2. The Committee observed that the project per say will not change the characteristics of the CRZ area in the areas where the pipeline traverse and is a necessity. It was also observed that it is a permissible activity under CRZ notification 2011.

3. Based on deliberations held the Committee recommended the project for CRZ Clearance subject to the following conditions:

- i) A 2% of the cost of the project shall be apportioned for marine and coastal biodiversity protection and conservation measures, to be spent by the project proponent towards fulfilling its Corporate Environmental Responsibility (CER) during the currency of the project. Proper record and account of measures taken should be maintained and should also be submitted to the CZMA every six months.
- ii) Forest clearances in all the three states, shall be first obtained as may be applicable, prior to commencement of laying of pipelines in any forest areas.
- iii) Solid waste management shall be carried out as per Wastes Management Rules, 2016.
- iv) The pipeline shall strictly conform to norms/regulations specified in Oil Industry Safety Directorate (OISD) as may be applicable.

3.3 Proposal for replacement of existing Seawater Intake Pipeline and enhancement in Seawater Intake by developing two earthen ponds and auxiliary facilities, at Porbandar, Gujarat by M/s Saurashtra Chemicals, a division of Nirma Ltd. [F.NO.11-4/2018-IA.III] - CRZ clearance reg.

The proposal of M/s Saurashtra Chemicals (Saukem), a division of Nirma Ltd. is for replacement of existing seawater intake pipeline and enhancement in seawater intake by developing two earthen ponds and auxiliary facilities, at Porbandar, in Gujarat. The project proponent made a presentation and provided the following information:

- i) M/s Saurashtra Chemicals (Saukem) has a manufacturing facility of Soda Ash since 1959 at Porbandar, for which sea water has been sourced for its water requirement since 1959. The pipelines are corroded at several locations due to heavy silt formations along the line and needs replacement. In addition, it is

- proposed to develop two earthen ponds and required auxiliary facilities, so as to supplement sea water during low tide.
- ii) At present permission to utilize 176.1 MLD is available. After enhancement maximum extraction of water from sea water intake facility will be 400 MLD (quantity to be utilized at plant will remain the same).
 - iii) An RO plant having capacity of 10000 KLD to treat seawater is in place. It will be further utilized in manufacturing process.
 - iv) The existing sea water intake station, has equipment to pump 4.8 Lakh KLD of water from sea which is connected with the lines having capacity of 4.0 Lakh KLD.
 - v) Total length and diameter of existing water pipelines: 2 pipelines of 42" \varnothing and approx. 135 m length from sea to water intake point (to be replaced); and 4 pipelines of 30" \varnothing and approx. 625 m length from water intake point to plant.
 - vi) Proposed length and diameter of water pipelines are: From Water Intake Point – pond/reservoir): 1 pipelines of 30" \varnothing and approx. 500 m length; (Pond/reservoir – Plant): 1 pipeline of 30" \varnothing and approx. 700 m length; Pond / Reservoir -1 Capacity: 46,590 m³ (141.826 m * 109.505 m * 3 m); Pond / Reservoir -2 Capacity: 87,516 m³ (224.4 m * 130 m * 3 m).
 - vii) The total cost of the project will be Rs 5.00 crores.
 - viii) The pipeline will be pass through CRZ-IB, CRZ-III and CRZ IV and all along it will be submerged below the soil strata.
 - ix) CRZ map indicating HTL, LTL demarcation in 1:4000 scale with the proposed cabling route superimposed on the map has been prepared by IRS, Anna University.
 - x) Porbandar Bird Sanctuary is approximate 1.35 km from the project site.
 - xi) The Gujarat Coastal Management Authority (GCZMA) recommended the project vide letter No. ENV-10-2015-273-E (Tcell) dated 20.01.2018.

2. The Committee observed that the development of earthen ponds for storage of seawater will have a major impact on the soil and ground water of the area and thus may not be considered. The Committee further stated that the area is one of the best of its kind in terms of coastal ecology and should remain undisturbed and therefore the proposed interim storage of sea water is not an optimal solution. *The Committee therefore agreed and recommended that only replacement of existing pipelines and setting up of auxiliary facilities as maybe required such as pumping stations can be considered at present.*

3. The Committee also suggested an alternative option that in case the project proponent so desires, they may explore extending the intake (and outfall) pipelines further into the deeper sea to get a better draft and therefore more water during low tide. The Committee however, agreed that under such a circumstance, revised requisite documents such as: (i) marine EIA study report indicating impact arising due to choice of new location of intake and outfall points and mitigation measures suggested thereof; (ii) CRZ map showing the extent of pipelines (intake and outfall); and (iii) amendment to the recommendation from the Gujarat Coastal Zone Management Authority for such a scenario, shall be submitted and the proposal will be re-appraised for various options.

4. Based on the deliberations held the Committee, for the present recommended only replacement of the existing pipelines subject to the following conditions:

- i) A 2% of the cost of the project shall be apportioned for marine and coastal biodiversity protection and conservation measures, to be spent by the project proponent towards fulfilling its Corporate Environmental Responsibility (CER) during the currency of the project. Proper record and account of measures taken should be maintained and should also be submitted to the CZMA every six months.
- ii) Solid waste management shall be carried out as per Wastes Management Rules, 2016.
- iii) The conditions stipulated by the GCZMA vide its letter No. ENV-10-2015-273-E (Tcell) dated 20.01.2018, as may be applicable, shall be implemented.

3.4 Proposal for laying of 24 inches underground pipeline for carrying MS/HSD from Haldia Jetty-3 to BPCL's existing installation at Haldia, West Bengal by M/s Bharat Petroleum Corporation Ltd. [F.NO.11-6/2018-IA.III] - CRZ clearance req.

The proposal of M/s Bharat Petroleum Corporation Ltd. is for laying of 24 inch underground MS/HSD Pipeline over a distance of 9.0 Km from Haldia Jetty-3 to M/s BPCL's existing installation at Haldia, West Bengal. The project proponent made a presentation and provided the following information:

- i) BPCL Coastal Installation situated on the banks of Hooghly River at Haldia receives petroleum products through Ocean Tankers through Oil Jetty-II of Haldia Dock Complex having a draft of only 6.5 meters. No bigger vessels can be berthed at Jetty-II. The Coastal Installation situated on the banks of Hooghly River at Haldia outs at petrol pumps very frequently. No capacity expansion possible. Draft available at HOJ-3 is nearly 8 meters and the berth occupancy of this jetty is 45% only- offers opportunity of unfettered and timely berthing of vessels.
- ii) BPCL therefore, proposes to lay CS pipeline at its own cost from HOJ-3 to its own existing Oil Installation at Haldia to overcome the constraints and ease essential fuel supply to the markets.
- iii) The length of pipeline is approx. 9.0 Km, and will be of 24 inches diameter, with thickness of 6.4mm, and at operating pressure of 10 kg/cm². It will be corrosion protected with 3 LPE cathodic protection.
- iv) MS and HSD product will be handled.
- v) MS/HSD shall be received through the ocean tankers at existing HOJ-3. The tanker parcel size shall be in the range of 18000-25000 MT.
- vi) The facilities shall be equipped with the safety Instrumentation system with early alarm system to maintain the operations in safe limits.
- vii) The total cost of the project will be Rs 78.00 crores.
- viii) The pipeline will be laid underground and will passes through the proposed area falls in CRZ-IB (177.05 m), CRZ-II (6768.42 m) & CRZ-IVB (677.94 m).

- ix) CRZ map indicating HTL, LTL demarcation in 1:4000 scale with the proposed cabling route superimposed on the map has been prepared by IRS, Anna University.
- x) No ecologically sensitive areas are not in the vicinity of the proposed underground pipeline route.
- xi) The West Bengal Coastal Management Authority (WBCZMA) recommended the project vide letter No. 2739/EN/T-II/061/2017 dated 15.12.2017.

2. The Committee observed that the project per say will not change the characteristics of the CRZ area and is a permissible activity under para 3 sub clause (i) (a) of CRZ notification 2011 and regulated under para 8 I sub clause (i) (b) of CRZ notification 2011. Based on deliberations held the Committee recommended the project for CRZ Clearance subject to the following conditions:

- (i) A 2% of the cost of the project shall be apportioned for marine and coastal biodiversity protection and conservation measures, to be spent by the project proponent towards fulfilling its Corporate Environmental Responsibility (CER) during the currency of the project. Proper record and account of measures taken should be maintained and should also be submitted to the CZMA every six months.
- (ii) Solid waste management shall be carried out as per Wastes Management Rules, 2016.
- (iii) The conditions stipulated by the WBCZMA as may be applicable, shall be implemented.

There being no other agenda item, the meeting ended with a vote of thanks to the Chair.
