

## **MINUTES OF THE 179<sup>th</sup> MEETING OF EXPERT APPRAISAL COMMITTEE FOR PROJECTS RELATED TO COASTAL REGULATION ZONE HELD ON 28<sup>th</sup> NOVEMBER, 2017 AT INDIRA PARYAVARAN BHAWAN, MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, NEW DELHI**

The 179<sup>th</sup> Meeting of the Expert Appraisal Committee for projects related to coastal regulation zone was held on 28.11.2017 at Brahamputra Hall, Indira Paryavaran Bhawan, New Delhi. The members present were:

- |    |                             |   |                  |
|----|-----------------------------|---|------------------|
| 1. | Dr. Deepak Arun Apte        | - | Chairman         |
| 2. | Dr. V.K Jain                | - | Member           |
| 3. | Dr. M.V. Ramana Murthy      | - | Member           |
| 4. | Dr. N.K Verma               | - | Member           |
| 5. | Dr. Anil Kumar Singh        | - | Member           |
| 6. | Dr. Mohan Singh Panwar      | - | Member           |
| 7. | Shri. Sharad Chandra        | - | Member           |
| 8. | Shri. Arvind Kumar Nautiyal | - | Member Secretary |

Shri T.P. Singh conveyed his inability to attend the meeting due to his prior commitment. Dr. Anuradha Shukla, Dr. Asha Juwarkar, Shri. N.K. Gupta, Shri. Narendra Surana and Shri. Prabhakar Singh 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 178<sup>th</sup> meeting had taken care of the comments received from members as necessary confirmed the minutes.

### **3.0 CONSIDERATION OF PROPOSALS:**

#### **PROPOSAL FOR RE-CONSIDERATION:**

#### **3.1 Construction of 2- Lane Bridge over Middle Strait at Km 107.00 of NH-223 in the Union Territory of Andaman & Nicobar Islands by Andaman Public Works Department- CRZ Clearance [F.NO.10-38/2015-IA.III]- reg.**

The proposal of Andaman Public Works Department for construction of 2- Lane Bridge over Middle Strait at Km 107.00 of NH-223 in the Union Territory of Andaman & Nicobar Islands, was earlier considered in the 156<sup>th</sup> and 162<sup>nd</sup> meetings of the Committee held during 28-29 January, 2016 and 29<sup>th</sup> August, 2016 respectively. It was again re-considered in the 175<sup>th</sup> Meeting of the Committee held on 07.09.2017 but was deferred due to certain shortcomings as reflected in the minutes of the meetings. In the aforesaid meeting, the project proponent had presented and provided the following information to the Committee:

- i) The present site of the 2-lane Creek Bridge at Middle Strait comprises the section of National Highway-223 commencing existing chainage, Km. 106.590 (on Middle Strait Jetty Side, South Andaman Island) and meets at existing chainage, Km. 107.762 (on Nilambur Jetty side, Baratang Island).
- ii) Length of the proposed bridge will be 1.963 Kms
- iii) The proposed bridge will pass through different CRZ zones i.e, CRZ-IA, CRZ-III, CRZ-IVB.

<b>CRZ Area</b>		<b>Length (m)</b>	<b>Area (ha) (18 m Corridor )</b>
CRZ-1A	Mangrove Area	350	0.63
	Buffer Zone	287.75	0.518
Sub Total		637.75	1.148
CRZ-III		135.36	0.244
CRZ-IVB		282.28	0.508
Total area under CRZ		1,055.93	1.900

- iv) There are two missing links on NH-223 i.e. the First one is Middle Strait Creek which is between South Andaman Island & Baratang Island (at Km.107 of NH-223) and the other is Humphrey Strait Creek which is between Baratang Island & Middle and North Andaman Island (at Km. 130 of NH-223).
- v) The total length of the project will be 1963m, out of which 960m is the actual bridge length and 1003m (580m + 423m) are approach roads on both sides.
- vi) A total of 1730 nos. of mangrove trees will be affected in 0.63 Ha of existing mangrove area.
- vii) A total of 10 nos. of piers are coming in CRZ-1A area out of which 6 nos. are will be in existing mangrove area and balance 4 nos. in buffer zones.
- viii) Existing mangrove area to be cleared for construction will be minimized and is calculated as shown below:
  - Pier foundation locations (6 nos. x 18m x 18m) = 0.1944 Ha
  - Connecting patch = (350m – 6x18m) x 10m (width) = 0.2420 Ha
  - Total mangrove area to be disturbed during construction = 0.436 Ha
  - Total mangrove trees to be felled for construction = 1730 \* 0.436 Ha/ 0.63 Ha = 1197 nos.
- ix) Post construction only the foundation area of 6 columns (size 12m x 12m) would be permanently used, i.e. 0.086 Ha. Thus mangrove can be regenerated in the balance area of 0.544 Ha. can be regenerated naturally or by plantation.
- x) The project requires diversion of 2.77 Ha of forest land. A total of 627 nos. of trees are required to be felled, for which In-principle (Stage-I) approval has been obtained from the Regional Office, South Eastern Zone, MoEF&CC, Chennai on 25.07.2016 vide F.No.5-ANB005/2016-CHN/1494.
- xi) The silent features of proposed bridge are as follows :

<b>S. No.</b>	<b>Characteristics</b>	<b>Approved Alignment</b>
1	Orientation of Bridge	South-West to North-East
2	Bridge Proper Length (m)	960

3	Total Approach Length (m)	1003 (580m in South Andaman & 423m in Baratang Island)
4	Total length of Construction (m)	1963
5	ROW Width Required	18m
6	Forest Land Required (Ha)	2.77 Ha
7	Bridge alignment in Jarawa Reserve Forest (m)	660m (580m- Approach & 80m- Bridge Structure)

- xii) The bridge approach alignment falls in the eco sensitive area of Jarawa Reserve Forest (South Andaman Island) for 580m length
- xiii) The total project cost is Rs. 262.97 Crores
- xiv) Approval of Hon'ble Supreme Court & Directorate of Tribal Welfare, Andaman & Nicobar Administration has been obtained.
- xv) During construction phase, small quantity (50 - 75kg) of solid waste will be generated from construction labour camps. Municipal waste generated from labour camps and by workers will be collected, segregated and disposed after segregation as per provision of Municipal Solid Wastes (Management & Handling) Rules, 2000.
- xvi) Waste generated from waste oil generated from maintenance of heavy machinery will be collected and given to MOEF approved waste oil recyclers.
- xvii) The project will also create direct and indirect employment opportunities significantly during construction and operation phase
- xviii) The proposed project will be helpful in welfare of people by providing better, rapid and safe transport facilities in the region.
- xix) The project proponents could not provide details on number of mangrove trees that will be felled for the construction of bridge.
- xx) The project proponent also could not furnish mangrove conservation plan that is necessary.

2. The Committee noted the matter of restriction of activities in the area before Hon'ble Supreme Court in SLP No. 12125 of 2010. The Committee was informed by the project proponent that the project also has a strategic national importance.

3. The Committee also noted the response of the project proponent on the observations of the Committee in the 175<sup>th</sup> meeting as follows:

S.N.	Observations of EAC	Clarification
1.	<ul style="list-style-type: none"> <li>i) The State Government in its Application (Form-I) seeking CRZ Clearance filed in November, 2014 at Para 1.8 has mentioned that "the construction of approach road and bridge abutments require clearance of Jarawa Reserve Forests land on Middle Strait side and reserve forest land on Nilambur side."</li> <li>ii) While presenting the case before the Expert Appraisal Committee on 28.01.2016 in the</li> </ul>	<p>Total length of 660m (580m-Bridge Approach + 80m-Bridge structure) of bridge alignment is falling in Jarawa Reserve Area.</p> <p>The A&amp;N Administration had filed an Interlocutory Application (I.A.) No. 8/2017 in Petition(s) for Special Leave to Appeal(C) No. 12125 of 2010 before the Hon'ble Supreme Court seeking permission for construction of</p>

	<p>Ministry, the Andaman Public Works Department (Shri A. Josemone, nodal Officer) has further mentioned on page-8 that "the bridge approach alignment falls in Jarawa Reserve Forest (South Andaman Island) for 580m length. The same point has been re-iterated on page-10 of the presentation.</p> <p>The State Government should clarify that the approval(s) required for undertaking this construction work in Jarawa Reserve Forest has been obtained from the Competent Authority.</p>	<p>bridge in Jarawa Reserve Area. The Hon'ble Supreme Court in its judgment dated on 01.05.2017 stated that:</p> <p><b>"We see no reason to deny this permission as the same is for construction of bridges as mentioned above, the bridges be constructed after obtaining necessary statutory permission from the authorities concerned"</b></p> <p>Subsequently, the Competent authority Andaman &amp; Nicobar administration has excluded an area ad-measuring 1.18 Hect. (660mx18m) from the purview of section(1) of Section 3 of Andaman &amp; Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 as Reserved Area vide Notification dated 23.05.2017. A copy of Notification dated 23.05.2017 of Tribal Welfare) is enclosed herewith.</p>
2.	<p>The Hon'ble Supreme Court, in its order dated 4<sup>th</sup> December, 2006 in WP(C) No. 460 of 2004 in the matter of 'Goa Foundation Vs Union of India' had ordered that permission of Standing Committee of National Board of Wild Life should obtained for under taking any work /activity in Eco-Sensitive Zone of Protected Area. If Eco-sensitive Zone is not notified, then the clearance is required for any project or activity within 10 km of the boundary of the protected area. It is understood that the Protected Area here means National Park, Wild Life (Protection) Act, 1972. Further, it is learnt that the Jarawa Reserve Forest is not a Protected Area declared under the Wild Life (Protection) Act, 1972, but it is a Protected Area notified under the 'Protection of Aboriginal Tribes Regulation, 1986. In case the above Regulation of 1956 is there any designated authority parallel to the Standing Committee of NBWL for considering permission for construction in Jarawa Reserve Forest.</p>	<p>The Directorate of Tribal Welfare, Andaman &amp; Nicobar Administration is the authority for protection of Jarawa Reserve Forest area notified under "Protection of Aboriginal Tribes Regulation, 1986"</p>
3.	<p>Hon'ble Supreme Court in Order dated 2<sup>nd</sup> July, 2012 in SLP (C) No. 12125 of 2010 on ATR had taken a serious view on protection of Jarawa Tribes. In view of the above, a clarification is required from the UT Administration that all the required environmental safeguards will be put in place and permission of Competent</p>	<p>Hon'ble Supreme Court in I.A. No. 8/2017 Petition(s) for Special Leave to Appeal (C) No. 12125 of 2010 has permitted the construction of bridge in Jarawa Reserve Forest area vide its order dated 01.05.2017. the Supreme Court Order dated 01.05.2017 is</p>

	Authority) has been obtained for carrying out the proposed construction of the bridge a part of which falls in the Jarawa Reserve Forest.	enclosed herewith.
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4. The Committee also noted that about 10 piers will be required to be constructed in mangrove area and the project proponent was advised to carry out a detailed mangrove conservation and development action plan, in the last meeting considering that a significant number of mangroves shall be affected due to the project alignment. *The Committee while perusing the contents of the said plan noted that the number of mangroves trees to be felled can be reduced significantly to about 1200 nos. instead of 1730 nos.*

5. The Committee noted that there is no clear-cut provision in the CRZ Notification for permitting construction of a link road/bridge etc. where destruction of mangroves is involved. However, there is a special dispensation in the CRZ Notification for CRZ areas in Greater Mumbai in terms of provisions as extracted under:

*"Construction of roads, approach roads and missing link roads approved in the Development plan of Greater Mumbai on stilts ensuring that the free flow of tidal water is not affected, without any benefit of CRZ-II accruing on the landward side of such constructed roads or approach roads subject to the following conditions:-*

- (i) All mangrove areas shall be mapped and notified as protected forest and necessary protection and conservation measures for the identified mangrove areas shall be initiated.*
- (ii) Five times the number of mangroves destroyed/cut during the construction process shall be replanted."*

The Committee was of the view that, as a matter of exception, the project being of strategic national importance, similar dispensation could be provided for the bridge project as it involves destruction of mangroves. A suitable clause relating to compensatory afforestation of five times of the mangroves affected during the construction of the bridge may be incorporated in the conditions of the CRZ clearance.

6. The EIA report was perused and it anticipated impacts on biological fauna and fauna was noted. It was observed that while prima facie there will be some impact on the marine/water body due to construction of 10 piers in the mangrove areas, considering the need of the bridge from strategic point of view, the Committee felt that in national interest the proposal may be recommended for CRZ Clearance. The Committee further observed that a supplementary EIA report on marine impact assessment shall be submitted based on the deliberations held. *The Committee further observed that the A&N Administration shall be mindful of the Order of the Hon'ble Supreme Court in the matter of SLP No. 12125 of 2010 and shall not compromise in true spirit the implementation thereof of the aforesaid order vis-a vis the proposed bridge.*

7. Based on deliberations held the Committee recommended the project for CRZ Clearance purely from the considerations of this project being of a National strategic importance, subject to the following conditions:

- i) The number of mangroves trees to be felled shall be reduced to about 1200 nos. instead of 1730 nos. and accordingly prior approval for diversion of forests as admissible shall be obtained;
- ii) Five times the numbers of mangroves affected shall be regenerated in the region in association with the forest department.
- iii) A supplementary EIA report on marine impact assessment shall be submitted, before the project is processed for clearance by the Ministry.
- iv) The project proponent shall ensure that the Order of the Hon'ble Supreme Court in the matter of SLP No. 12125 of 2010 is not compromised and status of implementation thereof of the aforesaid order vis-a vis the proposed bridge after operation is regularly submitted to the regional office of the Ministry.

### **3.2 Setting up of 150 MLD Capacity Desalination Plant Based on Sea Water Reverse Osmosis at Nemmeli, East Coast Road, Chennai, Tamil Nadu by Chennai Metropolitan Water Supply and Sewerage Board - CRZ Clearance [F.NO.11- 36/2016-IA.III] reg.**

The proposal M/s Chennai Metropolitan Water Supply and Sewerage Board for Setting up of 150 MLD Capacity Desalination Plant Based on Sea Water Reverse Osmosis at Nemmeli, East Coast Road, Chennai, Tamil Nadu, was earlier considered in the 165<sup>th</sup> Meeting of the Committee held on 16-17 January, 2017. In the said meeting, the project proponent had presented and provided the following information to the Committee:

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

- i) The project involves 150 MLD Sea Water Reverse Osmosis Desalination Plant at Nemmeli, Thiruporur Taluk, District Kancheepuram (Tamil Nadu) promoted by M/s Chennai Metropolitan Water Supply and Sewerage Board Desalination Plant.
- ii) The objective of the project is for augmentation of drinking water supply in the Southern parts of Chennai city with per capita water supply of 135 LPCD as per norms. Chennai is the water stressed city with no perennial source of surface water. Hence to bridge the supply demand gap, CMWSSB resorted to desalination source.
- iii) Is on eastern side of East Coast Road (ECR) at 12° 42' 08" North, 80° 13' 29" East and is approximately 40 km south from the city.
- iv) **Intake and Outfall system:** The intake and outfall system includes as follows:
  - One intake structure in sea with depth of 10 m.
  - One no. of 100 mm opening Duplex screen to exclude larger marine life.
  - One intake pipe each of 2300 mm (OD) dia PN 6.4 bar and one 1600 mm (OD) PN 6 outfall HDPE

- A shock chlorination system in form of Hypo dosing is proposed to minimize marine growth in intake pipes
  - Lot of HDPE diffuser.
  - Travelling Band Screens before the Pumps to trap floating materials, sea shells, diatoms etc.
  - Vertical shaft pumps in Super Duplex Construction for sea water intake.
- v) **Reverse Osmosis** involves 7 nos. individual trains single stage/single pass RO each having dedicated pumping system and Energy Recover Devices (ERDs), permeate storage tanks, RO Clean-in-Place (CIP) system includes all tanks and pumps, All high pressure valves are of Super Duplex with PERN>41 and RO feed water storage tank 1 no.
- vi) **Treated Water Sump and Pump Sets:** Treated water sump of 1 no. of 6,800 cum capacity, and 3W+2S Horizontal Centrifugal Split Casing pumps in each of 2100 m<sup>3</sup>/hr o pump product water.
- vii) Plant Electrical Sub-station: 110/11 KV indoor sub-station with two incoming lines of 110 KV.
- viii) For the Phase III (150 MLD Product Water) plant to be developed in future, the seawater of 18958.33 m<sup>3</sup>/hour will be drawn from the sea and about 12708.33 m<sup>3</sup>/hour of brine reject will be released into the sea. The seawater intake head will be located at a distance of about 1050 m from the shoreline at 10 m depth. The outfall diffuser will be located at 650 m distance from the shoreline at 7.5 m water depth. The diffuser will have the multiple ports of 10 nos. x 500 mm diameter. This project involves construction of the following activities:
- Laying of seawater intake pipeline
  - Laying of outfall pipeline
  - Construction of seawater intake head
  - Construction of outfall diffuser
  - Construction of seawater sump with pump house
- ix) The main objective of the study is to ensure that the rejected water does not unduly alter the marine ecosystem by way of changes in salinity levels, chlorine effects and above all temperature variation exceeding the admissible levels. These are studied by simulating the situation in numerical models developed by various institutions, the most popular one being CORMIX model and MIKE 21.
- x) It is informed that a diffuser outfall located at 650 m distance into the sea at 7.5 m depth, with 10 ports of 500 mm dia. each, projecting above the bed by 1.5 m with orientation of 30 deg horizontal is adequate to ensure proper mixing and dilution which will not induct any major alteration to the existing marine ecosystem and consequently on marine life. The study on CORMIX model shows the mixing zone will extend for 65 m to achieve 22 times and extending further till 200 m distance to achieve to dilution of 27 times from the disposal location.
- xi) The Tamil Nadu Coastal Zone Management Authority has recommended the project vide their letter No. 845/EC.3/2016- 1 dated 14<sup>th</sup> January, 2016.
- xii) **Investment/Cost:** Rs.1089.48 Cr (2013-14 Price Level) and Rs.1258.88 Cr (2015-16 Price level).

- xiii) **Components in CRZ area:** The project falls under CRZ-III, CRZ-I (Inter Tidal zone) and CRZ-IV (sea water area). As per CRZ Notification, 2011, vide para 4 (i) (a), para 8 I CRZ I (i) (b) and para 8 III CRZ IIIA (h) & B (v) the desalination is permitted.
- xiv) The marine facilities for the desalination plant will consist of:
  - a) laying of seawater intake pipeline on the seabed but buried below seabed to a distance of 1050 m into the sea till 10 m water depth (CD),
  - b) laying of outfall pipeline on the seabed but buried below the seabed to a distance of 650 m into the sea till 7.5 m water depth(CD),
  - c) construction of seawater intake head, iv) construction of outfall diffuser
- xv) The demarcation of LTL/HTL/CRZ along the project shoreline was carried out for the existing operational plant; hence the same has been taken, as the proposed plant is within the premises of the existing operational 100 MLD.
- xvi) Location of intake/outfall and Quantity: 1 No. Intake at 12<sup>o</sup>41'41" N, 80<sup>o</sup>14'1.6"E and 1 No Outfall at 12<sup>o</sup>41'53.07" N, 80<sup>o</sup>13'52.10"E.
- xvii) The primary benefit of the proposed Desalination Plant is that it will assist in securing the supply of drinking water to the metropolitan population well into the future. It can continue to deliver high quality drinking water for consumption, even during periods of drought. It also provides an alternative source of water that will make our overall supply more diverse and less vulnerable to interruption. The provision of a secure water supply for residents and industry within the Chennai metropolitan area which will assist in maintaining living standards and the amenity of the urban area.

2. In the said 165<sup>th</sup> meeting, the EAC had noted that the project proponent is requesting for establishment of another desalination plant of capacity 400 MLD at a distance of 600 m approximately from the instant site of proposed 150 MLD. EAC had also observed that there is considerable space available at the Perur, East Coast Road, Chennai (proposed site for 400 MLD) which can accommodate both the desalination plants at the same location. Further the EAC had noted that there is significant erosion in Nemmeli beach arising due to the desalination plant of 100 MLD capacity commissioned there. The EAC in the said 165<sup>th</sup> meeting held in January, 2017 has deferred the project for the want of following information:

- i) As stated by the PP, both the desalination plants of 150 MLD and 450 MLD are situated at a distance of 600 m. Why the both plants cannot be installed at the same location and financial as well as environmental implications of two separate units against one single unit with 600 MLD capacities.
- ii) Impact of shoreline change needs to be performed.
- iii) Fresh recommendations from the TNCZMA after examining all the documents as mentioned para 4.2 of CRZ notification 2011 including NOC from concern state PCB.

3. On submission of the clarification of the above, the proposal was again placed before the Committee for its reconsideration. The project proponent informed that the proposed 150 MLD and 400 MLD capacities are being funded by two different external funding agencies and therefore the necessity to have separate entity. *The Committee in response to this observed that the same cannot be reason to justify*



*setting up of two separate plants at the cost of damaging the environment. The Committee therefore decided that considering the acute necessity of drinking water shortage in the region only the instant proposal of 150 MLD can be considered. The second proposal for 400 MLD will be dropped for the time being and will be reviewed after a site visit is undertaken.*

*The Committee noted further that the area is prone to erosion and the project proponent had in the past compromised on this front while setting up of the existing 100 MLD plant. The Committee therefore decided that as a penalty the project proponent shall not only develop a robust shoreline erosion control and management mechanism of the area but shall also submit an undertaking that it shall bear full cost environmental damage due to any erosion arising out of the proposed 150 MLD desalination plant. In pursuance thereof, the project proponent shall submit an undertaking to the TNSCZMA before commencement of work of the proposed plant.*

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

- i) The project proponent shall develop a robust shoreline erosion control and management mechanism of the area and shall also submit an undertaking to the TNCZMA before commencement of work of the proposed plant stating that it shall bear full cost of environmental damage due to any erosion arising out of the proposed 150 MLD desalination;
- ii) The project proponent shall ensure that the temporary structures installed for laying of pipe lines are removed within three months of accomplishment of the work;
- iii) The project proponent shall ensure that the structure proposed to be set up is Tsunami resistant;
- iv) The project proponent shall furnish documents cited in Environment and Forest Department, Govt. of Tamil Nadu letter no. 12312/EC.3/2017-1, dated 17.07.2017 such as conservation plan for turtle nesting, flora and fauna also to the regional office of the Ministry for compliance monitoring.
- v) 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.

### **3.3 Setting up of 400MLD capacity desalination Plant based on Sea Water Reverse Osmosis at Perur, East Coast road, Chennai, Tamil Nadu by Chennai Metropolitan Water Supply and Sewerage Board – CRZ Clearance[F.NO.11-37/2016-IA.III]reg.**

The proposal M/s Chennai Metropolitan Water Supply and Sewerage Board for Setting up of 400MLD capacity Desalination Plant Based on Sea Water Reverse Osmosis at Perur, East Coast road, Chennai, Tamil Nadu, about 600 m from the site

of the item at No.1 above, was earlier considered in the 165<sup>th</sup> Meeting of the Committee held on 16-17 January, 2017.

In view of the observation of the Committee on this item while deliberating Item No. 3.2 i.e 150 MLD desalination plant proposed to be located at about 600 m from the instant proposal for a 400 MLD capacity desalination plant, this proposal may be deferred for the present. It was also decided that a team (to be decided) will undertake a site visit before the proposal is taken up for re-consideration at a later stage.

**3.4 Proposal for construction of a Resort Building at Survey no.701/1 and 701/2 of Varkala Municipality of Trivandrum, Kerala by M/s Sea Cliff Resorts Private Limited- CRZ Clearance [F.NO.11-38/2017-IA.III] reg.**

The proposal of M/s Sea Cliff Resorts Private Limited for construction of a Resort Building at Survey no.701/1 and 701/2 of Varkala Municipality of Trivandrum, Kerala, was earlier placed for consideration in the 178<sup>th</sup> Meeting of the Committee held on 17.10.2017. In the said meeting, the Committee observed that the project proponent was not prepared to make a presentation and to provide requisite details in specific reference to the provisions under the CRZ Notification, 2011 and therefore decided that in case the proponent is ready by the end of the last item as per the agenda, the proposal could be considered. Committee also observed that considering the geomorphological importance of Varkala cliffs, there is an active proposal to declare Varkala cliffs as a 'National Geopark' under a Geological Survey of India (GSI) initiative to preserve geologically important sites in the country. That with this, Varkala stands a chance to find a place in the UNESCO's world map of geo-heritage sites. It was also observed that Varkala cliff is seriously affected by slumping and unplanned landuse on the Varkala cliff could be detrimental to the stability of the system. The project proponent must submit NOC from concerned authorities on this aspect. However, the proponent could not avail the opportunity given and therefore it was decided that the item may be deferred till the next meeting of the EAC.

2. The proposal was taken up for re-consideration. The project proponent made a presentation and provided the following information:

- i) The project will be developed as an environmental friendly resort at South Cliff of Varkala to cater to the growing demand of tourism in the area.
- ii) The total plot area will be 4573.0 sq.m and falls in CRZ-II. An existing building area (pre-1991) is located and the proposed structure will be developed on the landward side of the imaginary line of this existing building.
- iii) The project will comprise of G+6 upper floors (40 rooms).
- iv) Height of the structure will be 24 m and FAR will be 0.91.
- v) The proposed area falls in CRZ II as per CRZ 2011 - behind 50 m HTL and not in front of pre-1991 old bldg, as per CZMP, Kerala
- vi) The resort is proposed to be built on the landward side from the 50m buffer zone.
- vii) Water requirement will be about 50,000 litres.
- viii) STP will be constructed over an area of 50 m<sup>2</sup>.
- ix) Treated effluent will be used for irrigation.

- x) No ground water will be extracted for the project.
- xi) Rain water harvesting system will be installed.
- xii) The total cost of the proposed project is Rs 3.5 Crores.
- xiii) The KCZMA has recommended the project vide letter No. 1682/A3/15/KCZMA/S&TD, dated 28.04.2016.

3. The project proponent stated that the proposed site is not within any heritage site as declared by the concerned agency. The Committee observed that the project proponent shall be mindful of the proposal (if any) of Varkala finding a place in the UNESCO's world map of geo-heritage sites and shall accordingly implement the project in consonance with land use plan admissible for the region.

4. Based on the deliberations made and explanations given by the project proponent the Committee recommended the proposal for CRZ clearance subject to the following conditions:

- (i) The project shall be implemented keeping in mind and consonance with requirements of heritage sites keeping into consideration the likely tag of a world heritage site for Varkala Cliffs.
- (ii) There shall be no disposal of solid or liquid wastes in the coastal area. Solid waste management shall be as per Wastes Management Rules, 2016.
- (iii) A robust rain water harvesting system shall be implemented.
- (iv) In case, DG Sets is proposed to be used as backup power, it shall be ensured that well designed acoustic enclosures are installed in the DG sets such that a desirable insertion loss viz. 25 dB(A) is achieved.
- (v) 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.

## **FRESH PROPOSALS:**

### **3.5 Proposal for Establishment of Lighted Beacon at Sister Island, District Changlang, Andaman and Nicobar by M/s Director of Lighthouses and Lightships, Port Blair [F.NO.11-41/2017-IA.III]- reg.**

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

- (i) The project is aimed at felicitating the mariners and local fisherman to navigate safely in the Indian waters around Port Blair, in Andaman and Nicobar.
- (ii) The Sister Lighthouse is located at the strategic location, it was sanctioned by the Government of India for providing aids to Navigation to the mariners approaching to Port Blair and Safety Aids for small fishing boats and Patrolling vessels.

- (iii) The Proposed Sister Lighthouse is a 12.0 m G.I high trestle tower and to be constructed at Lat. 11°08'39.97"N and Long.92°43'48.82"E.
- (iv) The nearby lighthouses are North Cinque Lighthouse and North Brother Lighthouse located about 20 km north and south respectively away from proposed Sister Lighthouse.
- (v) The Clearance from NBWL and concurrence from Hon'ble Supreme Court of India are obtained. The Stage - I Clearance for Diversion of Forest land of 225 Sq.m at Sister Island is accorded and Stage - II Clearance is in progress.
- (vi) The Lighthouse is proposed to be situated at the South-West Peak of Sister Island at 60 m above MSL.
- (vii) The proposed Sister Lighthouse is to be developed in an area of about 225 Sq.m (15 m x 15m). It will have a 12m G.I high trestle tower with RCC Foundation. The lighting equipment will be LED based optical flasher Light.
- (viii) The proposed lighted beacon will be powered by solar energy and maintained as an unmanned lighthouse.
- (ix) Sister Island is a uninhabited island and declared as wild life sanctuary
- (x) The proposed lighthouse is located in CRZ-IA and as per IS 1893 (Part-1)-2002 the site location falls in Seismic Zone V.
- (xi) The north-west coast of Sister Island is covered with sandy Beach and Rock Outcrops on the Eastern coast.
- (xii) The vegetation of Sister Island comprises of Moist deciduous forest with thick mat of bamboo cover and few trees.
- (xiii) The Island is highly undulating with steep rocky slopes of angle > 60° right above shore line.
- (xiv) The CRZ map including HTL/LTL demarcation has been carried out by IRS, Ana University.
- (xv) No ground water extraction will be carried out. Water requirement will be fulfilled through purchased from commercial water supplier at Port Blair and transported to the site through departmental vessel.
- (xvi) Cost of the project will be Rs 0.5 crores.
- (xvii) The proposal has been recommended for CRZ Clearance by the ANZMA vide their letter No. APCCF/EPA/1/XVI/66, dated 21.06.2017.

2. The Committee observed that the proposal is in the interest of coastal security, navigation for mariners and local fishing vessels and is required. *Based on the presentation made by the project proponent and deliberations in the EAC meeting & considering that the project is permissible under clause 4, ii (c) of CRZ notification 2011, the Committee recommended the proposal for CRZ clearance subject to the following specific conditions:*

- i) Prior approval from the Standing Committee of the NBWL shall be obtained as may be applicable.
- ii) No disturbances to the characteristics of the island shall be made due to the project activity.
- iii) Utmost care will be taken to transfer construction material from ship to island considering shallow nature of the island waters abode with corals.

### **3.6 Proposed Construction of High Level Bridge across Pulicat Lake Connecting O/4 of Chennai – Pulicat Road to Pasiyavaram Road, Cuddapah, Tamil Nadu by M/s Highways Department, Government of Tamil Nadu [F.NO.11-43/2017-IA.III] reg.**

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

- i) Pasiyavaram, is an island located in Pulicat lake near Pazhaverkadu having a population of about 50,000.
- ii) The local people of Pulicat village face high difficulties during rainy season and high tides and are required to use boats or wade through water while commuting.
- iii) The main occupation of the population is fishing and people of the village are required to go to Ponneri town and Pulicat village for their errands.
- iv) A bridge with a width of 7.5 m is proposed which shall meet the requirements of IRC Code.
- v) There is no flow of water in the project site as it is only stagnant water after high tides and rainy days.
- vi) Based on the study by NIOT, Pallikaranai, a linear water way of 407.76 m is also proposed.
- vii) The proposed project site is located in CRZ-I as per CZMP.
- viii) CRZ map indicating HTL, LTL demarcation in 1:4000 scale with proposed cabling superimposed on the map has been prepared by IRS, Anna University.
- ix) Pulicat Bird Sanctuary and Pulicat lake is adjacent to the project site.
- x) The total length of the bridge will be 432 m and total lane width will be 8.5 m (carriage way- 7.5m & crash barrier 2 x 0.5m).
- xi) The TNCZMA has recommended the project vide letter No. P1/1639/2016, dated 01.11.2016.
- xii) The total Cost of the project will be Rs 18.2 crores.

2. The Committee noted that the Department of Environment, Govt. of Tamil Nadu, while recommending the proposal for CRZ Clearance vide its letter dated 01.10.2016 have desired that the following be carried out viz. *(a) An exclusive report on the extent of obstruction of free flow of water in the pulicat lake due to construction of the proposed bridge; and (b) A detailed report factoring bird sanctuary be undertaken.* The Committee noted that the project proponent should have these reports in place as the site is in a well know ecological sensitive area. The Committee observed that BNHS has made an extensive study on Pulicat Sancturay and the project proponent should have no difficulty in getting the report prepared.

3. The Committee further noted that the EIA report submitted contains no impact assessment and the Department of Environment, Govt. of Tamil Nadu has rightly seemed to have noted the same resulting in its observation on requirement of an exclusive report on the extent of obstruction of free flow of water in the pulicat lake due to construction of the proposed bridge. *The Committee therefore decided that the project proponent shall submit a supplementary marine EIA report with*

*special focus on birds from reputed institute and factoring also the concerns of the Department of Environment, Govt. of Tamil Nadu.*

4. Based on the deliberations held, the Committee observed that the proposal is pre-mature for consideration in its present form and therefore decided to defer the proposal.

### **3.7 Proposal for laying of common corridor pipeline (R-LNG spur pipeline) from Ennore to Manali, District Cuddaph, Tamil Nadu by M/s Indian Oil Corporation Limited (Pipelines Division)[F.NO.11-44/2017-IA.III] CRZ Clearance - reg.**

The proposal of M/s Indian Oil Corporation Limited (Pipelines Division) is for laying of common corridor pipeline (Regasified natural gas transportation pipeline and city gas transmission network) from Ennore to Manali, in District Cuddaph, Tamil Nadu. The project proponent made a presentation and provided the following information:

- (i) IOCL is in the process of establishing imported LNG storage and re-gasification terminal at Kamaraj Port Ltd. at Ennore with a capacity expandable upto 15 MMPTA and scheduled to be commissioned by June, 2018. For evacuation of gas and distribution of the same to various demand centres in the southern region pipelines are to be laid for immediate requirement to anchor customers in Chennai viz. Madras Fertilizers Ltd., Chennai Petroleum Corpn. Ltd., Tamil Nadu Petroproducts Ltd. and Manali Petrochemicals Ltd. and thus the proposed project.
- (ii) The pipeline will be 16" OD, laid underground from Ennore to various industries in Manali in Stage-1.
- (iii) The designed capacity of the pipeline will be 5.7 MMSCMD. The length of pipeline will be 22.656 Km of 16" main line and 6.625" dia. inside (spurline) anchor customers.
- (iv) It will also involve setting up of sectionalizing valve cum scrapper station at Ch. 11 km in Vallur Village.
- (v) The proposed pipeline falls in CRZ-I and CRZ-III. Length in CRZ-I will be 116 m and in CRZ III it will be 518 m.
- (vi) CRZ map indicating HTL, LTL demarcation in 1:4000 scale with proposed pipeline route superimposed on the map has been prepared by IRS, Anna University.
- (vii) The pipeline will be laid underground in entire stretch at minimum depth of 1.5 m and width 1.2 m.
- (viii) In most of the places, concrete coated pipeline shall be laid and at important crossings it will be laid through trenchless, Horizontal Directional Drilling Method, to a depth of minimum 10-15m below OGL.
- (ix) The underground pipeline is protected through 3 LPE coating externally and Epoxy coating internally in addition to cathodic protection.
- (x) Round the clock Operation and Maintenance of this R-LNG pipeline through SCADA Master Control Station.
- (xi) The total cost of the proposed project will be Rs 52.86 Crores

- (xii) The pipeline route follows a new independent RoW of common corridor (24 m width) and traverses through Ponneri and Tiruvottiyur Taluks of Triruvallur District of Tamil Nadu state.
- (xiii) The Proposed pipeline will pass through lands of industries like Kamarajar port ltd, Salt department, NTECL, IOCL, PWD, NHAI and Government and minimum private lands.
- (xiv) The TNCZMA has recommended the project vide letter No. CRZ 17942/EC.3/2017-1, dated 09.10.2017.

3. The Committee observed that the present proposal does not entail irreversible implications in so far as sensitivity of the area from CRZ considerations is concerned and therefore decided to recommend the proposal 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) The pipeline shall strictly conform to norms/regulations specified in OISD as may be applicable.
- (iii) SCADA system for monitoring and compliance mechanism shall install.
- (iv) Proper signages shall be placed enroute the pipeline at regular intervals of 500 meters.
- (v) An Emergency Response and Disaster Management Plan as per Petroleum and Natural Gas Regulatory Board (PNGRB) shall be in place before commissioning.

**3.8 Proposed addition/ alteration and extension in the premises of existing B. D. Petit Parsee General Hospital, Srikakulam, Maharashtra by M/s B D Petit Parsee General Hospital, Maharashtra[F.NO.11-40/2017-IA.III] – CRZ Clearance - reg.**

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

- i) The proposal is for addition/extension and extension in the premises of existing B. D. Petit Parsee General Hospital, Srikakulam, Maharashtra.
- ii) The project site falls in CRZ-II and the land is reserved for the designated Hospital. Extension / alteration being carried out within the existing hospital building of the same would not change the land use.
- iii) The proposed project is designed taking in to consideration the earthquake zone i.e. it falls in Seismic Zone III.
- iv) The total plot area of the proposed site is 39, 276.04 m<sup>2</sup>. Existing building covers 24,433.77 m<sup>2</sup> area. Proposed construction will cover 18,850.88 m<sup>2</sup> area under proposed FSI area and 3,148.58 m<sup>2</sup> area under proposed Non-FSI area. Thus total proposed construction will be 21,999.46 m<sup>2</sup>. Total area under

construction (existing and proposed construction) after completion will be 46,433.23 m<sup>2</sup>.

- v) The project comprises of additional hospital building B+G+7th upper floors (proposed 196 no of beds).
- vi) Total height of structure will be 31.9 m (maximum).
- vii) The permissible FSI is 1.33; out of this 1.32 FSI will be utilized.
- viii) Total 16 existing structures/ buildings will be demolished. About 2,456.44 m<sup>3</sup> demolition quantity will be disposed as per MCGM guidelines.
- ix) Parking facility for 152 four wheelers are proposed to be provided as per local norms and 2 ambulance parking space have been proposed.
- x) The total cost of the proposed project is Rs 149.72 cr.
- xi) CRZ map indicating HTL, LTL demarcation in 1:4000 scale with proposed cabling superimposed on the map has been prepared by IRS, Anna University.
- xii) The construction of new building will be started after obtaining all statutory requirements. We are proposing basement, therefore the deep excavation (19,653.49) will be done. Out of this, 2950 m<sup>3</sup> shall be used for backfilling and road pavement and remaining will be disposed as per MCGMs directions.
- xiii) About 20 nos. of trees to be cut and compensatory plantation @ 1:3 will be done thus total 60 nos of trees to be planted.
- xiv) Water requirement during construction phase, is around 25 KLD which will be met by tanker water.
- xv) During operational phase, total water demand of the project is expected to be 325 KLD and same will be met by fresh water from MCGM water supply.
- xvi) Rooftop rainwater of all building will be collected in 1 RWH tank of total 100 m<sup>3</sup> capacity for harvesting after filtration.
- xvii) Sludge generated from STP will be used as manure after drying.
- xviii) STP will be used and excess treated water will be used for flushing (122 KLD) and gardening (29 KLD) & HVAC purposes (151 KLD).
- xix) Biomedical waste generated is 208 kg/day and that will be collected by MPCB's authorised agency (SMS-Envoclean).
- xx) The MCZMA has recommended the project vide letter No. CRZ 2017/CR 46/TC 4, dated 06.07.2017.

2. The Committee noted that the proposal entails no CRZ implications as the construction activities is within the existing premises of the hospital and to be carried out by demolition of existing structures. *Based on the deliberations held and information provided by the project proponent, the Committee recommended the proposal for CRZ clearance subject to the following specific conditions:*

- (i) There shall be no disposal of solid or liquid wastes on the coastal area. Solid Waste management shall be as per Wastes Management Rules, 2016.
- (ii) In case, DG Sets is proposed to be used as back-up power, it shall be ensured that well designed acoustic enclosures are installed in the DG sets such that a desirable insertion loss viz. 25 dB(A) is achieved.
- (iii) 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.

### **3.9 Proposed Berthing jetty and allied infrastructure for Indian Coast Guard vessels at Gulf of Kachchh, Vadinar, Devbhoomi Dwarka, District Gujarat State by M/s Indian Coast Guard Station Vadinar, Gujarat [F.NO.11-45/2017-IA.III] -CRZ Clearance reg.**

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

- i) Indian Coast Guard (ICG) Station Vadinar is having one of its Operational Station and Marine Pollution Cell of Gujarat Region at Vadinar in the mouth of Gulf of Kutch.
- ii) ICG Station Vadinar is responsible for the security of coast of Gulf of Kutch and all SPMs in the area. The station has presently 03 Interceptor Boats and 02 Interceptor Crafts under its command berthing on dilapidated Port Trust Jetty having sounding 2.5 to 4 m severely restricting the operational deployment of ships due to tidal restrictions. Besides this Only Pollution Response cell in Gujarat Region is also operating under the station having huge equipment requiring bigger ships to berth alongside for quick positioning of pollution response equipment in case of an oil spill which is not available presently.
- iii) ICG has already kept bigger Patrol Vessels and Pollution Control Vessel (PCV) with integral helicopter ready to base at Vadinar for enhancing Coastal Security and quick response to Marine Oil pollution awaiting commissioning of own coast guard jetty.
- iv) ICG is presently dependent on small patrolling vessels and Pollution Control Vessels for enhancing Coastal Security and quick response to marine oil pollution. Hence for berthing of these ships, appropriate jetty with enough draft and other infrastructure is considered essential.
- v) The location of the proposed jetty will be between existing water intake jetty of ESSAR and existing KPT Jetty.
- vi) No cargo handling is envisaged from the proposed jetty.
- vii) About 0.25 ha to be reclaimed falls under Marine National Park but landward area is under Kandla Port Trust Conservancy.
- viii) Jetty structure will be as follows:

S. No	Structure	Zone	Length in m	Width in m	Number of piles	Foot print in m <sup>2</sup>
1	Berthing Jetty	Sub tidal	175	13	105 piles of 1.2 meter diameter	118.74
2	Approach Jetty	Sub tidal	190	9	78 pile 1.2 meter diameter	88.21

- ix) CRZ maps drawn in 1:25,000 and 1:4,000 scale. has been prepared by IRS, Anna University.
- x) The land area between HTL and 500 m setback line has been classified as CRZ-IA.
- xi) The water covered area from LTL to twelve nautical miles on the seaward side where the approach jetty and berthing jetty will be constructed is classified as CRZ-IV.
- xii) Reclamation area falls in inter tidal zone hence come under CRZ-IB.No mangroves and live coral observed in the intertidal zone for reclamation and sub tidal zone for piled jetty construction .
- xiii) The total cost of the proposed project is Rs57.0 cr.
- xiv) No dredging envisaged as part of this project
- xv) Draft available (-) 11m depth and the maximum draft required for the Coast Guard Vessels is only (-) 6.5m.
- xvi) Parking area will be located towards the north west of proposed jetty and it shall primarily serve as waiting bay and movement will be regulated into operational area
- xvii) The proposed construction area is about 2.2 km from the nearest mangrove vegetation

3. The Committee noted that the recommendation of the GCZMA is yet to be obtained and therefore decided that even though the project seem to merit recommendation for CRZ clearance due to sheer nature of its necessity for coastal security, the project proponent shall first satisfy the following:

- i) Details of action plan for implementation of mitigation measures envisaged for likely impact on marine national park.
- ii) Status of recommendation of GCZMA for the proposed project.
- iii) Status of clearance from Standing Committee of NBWL.

4. The Committee also noted that under para no. 3 (iv) (a) of CRZ Notification, 2011, reclamation for such an activity is permitted. Based on the deliberations held and in view of the observations made above, the proposal was deferred for reconsideration at a later stage.

**3.10. Proposal for Hotel and Resorts at Sy.No.159/3(Part), in Calangute Village, Bardez Taluka,Goaby M/s Nameh Hotel and Research, Goa -CRZ Clearance[F.NO.11-42/2017-IA.III]- reg.**

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

- i) Nameh Hotels & Resorts Pvt Ltd. Proposed to develop beach hotel and resort in Sy. No. 159/3 (Part), Calangute Village, Bardez Taluka, Goa.
- ii) The total plot area is 14757 sq. m. and the built up area is 4912.89 sq.m.
- iii) The height of structure will be 9 m.
- iv) The hotel consists 44 rooms and car parking proposed can accommodate 32 cars (1600 sq.m)

- v) The proposed site falls in CRZ III (Between 200m – 500m) as per CZMP.
- vi) CRZ maps drawn to 1:25,000 and 1:4,000 scale. has been prepared by IRS, Anna University.
- vii) The total cost of the proposed project is Rs 40.0 cr.
- viii) Water requirement during the construction period will be 10 KLD and 54 KLD during the operation phase and the requirement will be meet from the local authority.
- ix) An STP of capacity 55 KLD is proposed.
- x) About 52 KLD waste water will be generated and will be used for flushing (12 KLD), landscaping (34 KLD), floor/ road cleaning (2 KLD) & remaining 4 KLD to municipal sewer line.
- xi) RWH tank (capacity i.e., 40 cum) will be installed and based on roof area of 1314.82 sq. m and average rain fall per day of 25 mm, thus the total rain water collection per day will be approx 32.870 cum.
- xii) The GCZMA has recommended the project vide letter No. GCZMA/N/234/2467, dated 24.03.2017.

2. The Committee noted that the proposed hotel/resort is to be operational from water sourced from Goa Water Works Department and therefore decided that as a matter of abundant precaution, the project proponent may provide copy of permission from the Goa Water Works Department to the Ministry for records. The Committee further observed that in any case the proposed resort shall not draw ground water even for construction purpose.

3. Based on the deliberations held and clarifications provided the Committee however observed that the proposal can be recommended for CRZ clearance subject to the following specific 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) Ground water shall not be extracted for the project.
- iii) A robust rainwater harvesting system and water conservation system shall be adopted.
- iv) Copy of permission from the Goa Water Works Department shall be submitted to the Ministry for records.

**3.11. Proposal for setting up of sea water intake system by realigning of existing intake and outfall pipeline route at Ennore, Tiruvottiyur Taluk, Tiruvallur District, Tamil Nadu by M/s Coromandel International Limited, Tamil Nadu- CRZ Clearance[F.NO.11-46/2017-IA.III] reg.**

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

- i) Coromandel International Ltd. has a fertilizer unit at Ennore for manufacturing various products such as ammonium phosphate sulphate, gypsum, phosphoric acid and sulphuric acid. The company also has a Multi Effect Distillation (MED) unit within the existing facility for extraction of distilled water from saline water for product manufacturing.
- ii) Presently saline water is sourced from the existing outfall channel of Ennore Thermal Power Station based on mutual agreement between TANGEDCO and Coromandel International Ltd.
- iii) TANGEDCO has planned to shut down the existing outfall channel as part of restoration of ETPS and informed Coromandel International Ltd to have its own individual sea water facility for operating the MED unit.
- iv) This has resulted in stoppage of MED unit, shortage of fresh water and drop in production of Phosphatic Fertilisers from the facility, which is a vital input to the farming community.
- v) Hence, to ensure continued operation of MED unit and sustainable production of fertilisers, Coromandel International Ltd. propose to set up independent sea water intake facility for drawing water from the sea to meet MED operation, with no change in the existing sea water outfall.
- vi) Final outfall sea water temperature will be close to ambient temperature.
- vii) Salinity of the outfall water will be reduced to 49ppt from 54ppt.
- viii) Numerical modelling confirms salinity gets diluted within 107m from the outfall point with a raise in ambient of 0.008ppt, which is considerably negligible
- ix) No additional land usage is envisaged.
- x) Installation of new independent sea water intake line to the plant premises parallel to the existing sea water outfall, with water drawn 100 meters away from the sea coast.
- xi) Coromandel Ennore unit falls within 500 m set back line from HTL.
- xii) The proposed project will fall under CRZ II & CRZ IV (a) as per CZMP.
- xiii) CRZ maps 1:4,000 scale has been prepared by IRS, Anna University.
- xiv) No activity in CRZ I(B) as intertidal region is not available at proposed project site due to seawall along the coast
- xv) The proposed sea water intake facility is a permissible activity and falls under 4(f) of CRZ notification 2011
- xvi) No Ecologically Sensitive Areas viz., mangroves, sanctuaries, mudflats near the project vicinity
- xvii) The total cost of the proposed project is Rs 3.0 cr.
- xviii) NOC has been obtained from TNPCB, vide Lr.No.T12/TNPCB/F.101 AMB/RL/2017 dated 30.06.2017.
- xix) The TNCZMA has recommended the project vide letter No. 17943/EC-3/2017-1, dated 02.11.2017.

2. The Committee noted that a representation has been received from an NGO and the contents of which was deliberated. The Committee decided that Coromandel International Ltd. shall provide written clarifications to the representation received to the Ministry for records.

3. The Committee observed that any likely impacts of the proposed activity on the marine environment during construction and operational phases and appropriate mitigation measures in the form of marine environment management plan (MEMP) for minimising adverse impacts, if any, shall be taken due importance by the project proponent and implemented in letter and spirit.

5. Based on the clarifications provided by the project proponent and deliberations made, the Committee recommended the proposal for CRZ clearance subject to the following specific condition:

- 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) The project proponent shall ensure that any likely impact due to the proposed activity on the marine environment during construction and operational phases on the marine environment is managed through a robust marine environment management plan (MEMP) and implemented in letter and spirit.
- iii) The outfall point shall be placed at depth not less than 2.5 m from the surface of the water.
- iv) A written clarification to the representation received from an NGO shall be submitted to the Ministry for records.

### **3.12. Miscellaneous Item:**

#### **3.12.1 Proposal for laying of treated effluent carrying pipeline from proposed 50 MLD CETP to Deep Sea by MIDC Ltd.-CRZ Clearance[F.NO.11-39/2016-IA.III]- reg.**

The proposal was earlier considered in the 165<sup>th</sup> Meeting of the Committee held during 16-17 January 2017, wherein the project proponent made a presentation and provided the following information to the Committee:

- (i) The project involves laying 1000 mm OD HDPE Marine outfall pipeline from Landfall point to outfall point (Diffuser) in Arabian Sea from MIDC Tarapur to Deep Sea at Navapur in Maharashtra.
- (ii) Total length of the pipeline from the Landfall Point to the suggested Offshore Point works out to be 7.1 km. Geographical Coordinates: 19°48'21".59"N ; 72°37'25".35"E.
- (iii) Project components: The components of the project are as follows:
  - Pipeline (HDPE) of 1000mmdiameter to release 75 MLD treated effluent from Tarapur Industrial area into Arabian Sea (Navapur)
  - Construction of 3.5 m wide temporary approach road using initial lining of 2mm Geo textile film
  - Conducting marine Hydro-graphic (Bathymetry) survey

- 1000 mm dia. Polyethylene Pipes with 6 kg/cm<sup>2</sup> design pressure. 7.1 km (0.9 km intertidal) long line will be laid using 12 m long PP pipes sections, 2.5 m below the sea bed.
  - Providing erecting and placing RCC primary and secondary blocks as per design
  - Deploying suitable dredging equipment and carrying out in-water dredging in the open sea
- (iv) To cater for the present needs and also the expected expansion two different quantities of effluents (80 MLD & 120 MLD) were considered for modelling purpose. The location was selected in the coastal waters off Tarapur with the geographical co-ordinates 19°48'21.59"N; 72°37'25.35"E with a depth of 12m below CD. The model was run for 10 days by introducing BOD concentration of 100mg/l at proposed Disposal Point by considering ambient BOD is 1 mg/l. The maximum BOD concentration at 100m distance from proposed outfall would be around 1mg/l above ambient for 80 MLD & 1.5 mg/l above ambient for 120 MLD. At the edge of 200 m near ambient conditions would prevail.
- (v) Water requirement: Water will be required for construction phase. Same will be made available through tankers.
- (vi) Total excavation of sea floor will be about 2,50,000 Cubic Meters. Within the Intertidal zone, the trench will be excavated by Earth moving Machines. Interlocking Sheet Piles will be driven on the Sea Bed to prevent collapse of the Trench up to a length of 900 Meters from the HTL. The excavated material shall be temporarily stored on the Sea Floor in an evenly distributed manner and the same material shall be used for refilling the trench after laying pipeline. Surplus excavated material (sand-about 7,000 Cubic Meters) after Backfilling, will be disposed in to the nearby sea area in an evenly distributed manner to avoid obstruction to navigation.
- (vii) The project falls in CRZ IB and CRZ IVA areas as per layout superimposed on CRZ map of 1: 4000 scale prepared by Institute of Remote Sensing, Anna University, Chennai.
- (x) The Maharashtra Coastal Zone Management Authority (MCZMA) recommended the project vide their letter No. CRZ 2016/CR 197/TC 4 dated 27<sup>th</sup> October, 2016.

2. The Committee in the aforesaid 165<sup>th</sup> meeting had noted the following:

- i) MIDC is the nodal agency for providing infrastructural facilities required for smooth operations of different industrial projects/activities in the Tarapur industrial area. These include treatment of industrial effluents and its safe disposal to the recipient water body/sea.
- ii) The existing effluent treatment facility is through one CETP of 25 MLD capacity followed by disposal into coastal water off Navapur. In order to meet the increased industrial requirements and thus to augment the effluent treatment infrastructure, a new CETP of 50 MLD capacity is being proposed.
- iii) Also, one pipeline 7.1 km long is proposed to carry the treated effluent from the Tarapur MIDC to deep sea at Navapur. The water quality monitoring carried out by MPCB for the presently operational CETP of 25 MLD, run by Tarapur Environment Protection Society, reveals that treated effluents are not

meeting the discharge standards in terms of core parameters, and thus defeating the very purpose of CETP, which amounts to violation of the Environment (Protection) Act, 1986. This can have grave consequences on the health of locals and local livelihoods. The EAC desired for a clarification in this regard and asked MIDC to provide the details of individual units operating in the Tarapur MIDC, and whether complying with the prescribed discharge standards. It was also directed to collect data on input and output points of each unit on various pollutants. The Committee also recommended independent study to be conducted by some academic institution on criticality of the pollution levels.

3. In the said meeting the Committee had also sought for the compliance status of the conditions stipulated in the EC for the existing CETP of 25 MLD capacity, and also clearances obtained for the proposed CETP of 50 MLD capacity. Tarapur industrial area being one of the identified critically polluted areas, it was desired to seek inputs from MPCB on the corrective actions taken at their end to ensure treatment and disposal of industrial effluents in conformity with the statutory provisions. The Committee also observed that as per the CRZ Notification, 2011, MCZMA is to reconsider the proposal and their recommendations after the inputs and the No Objection Certificate from the MPCB.

4. Based on the above, the Committee had deferred the proposal for want of clarifications and inputs from the regulatory agencies namely MPCB, MCZMA. Also, the MIDC to required to coordinate and submit the details as explained above for further consideration of the proposal.

5. The Committee observed that the existing CETP is operated by M/s Tarapur Environment Protection Society (an SPV set up for operation and maintenance of the CETP). The Committee further observed that the Environmental Clearance (EC) for the proposed 50 MLD CEPT has been accorded by SEIAA, Maharashtra to M/s Tarapur Environment Protection Society, and non-compliance of the conditions stipulated in the EC would translate into violation of the E(P)A, 1986 provisions. The Committee therefore observed that the application for CRZ clearance for the proposed pipelines for carrying treated effluent from the proposed 50 MLD CETP should ideally be made by M/s Tarapur Environment Protection Society.

In response to the above, the project proponent informed the Committee that MIDC has been entrusted by the State Government to take up operation of the ETP.

The project proponent was advised to produce documentary evidence to the effect that it has been tasked by the Govt. of Maharashtra to provide such an infrastructure and not the Tarapore Protection Society, which has earlier obtained the EC for setting up of CETP by Maharashtra, SEIAA.

6. The Committee on perusal of the reports available noted that EIA report (Marine); CRZ maps (1:4000 Scale) with HTL demarcation and project site superimposed etc are missing, which are vital for assessment of the project.

7. The Committee further noted that for the proposed marine effluent discharge from the CETP, post its expansion from 25 MLD to 50 MLD capacity, following

detailed information needs to be compiled by the proponent, individually for the various industries involved and that of the affluent from the CETP:

- (i) Industry wise information on its name, category of industry (such as Dye and Dye & Dye intermediate, drugs and pharmaceuticals etc); water consumption and effluent discharge quantities, pollution load (BOD, COD, Ammoniacal nitrogen and heavy metals such as As, Pb, Cr, Cu and Zn) generated, and discharged industry wise to CETP.
- (ii) Influent and effluent characteristics at CETP inlet and outlet with flow, day wise data for a week on composite samples for all the parameters as per MoEF&CC's notification.
- (iii) Existing treatment scheme and proposed modification if any,
- (iv) Quantity of sludge generation (sludge from physico-chemical treatment and biological treatment - separately).
- (v) Compliance status of effluent discharged by each industry to CEPT as well as discharged from CETP into sea, at present.
- (vi) For expansion from 25 MLD to 50 MLD, PP should provide treatment scheme and achievable quality based on treatability study.
- (vii) List of industries going for expansion and new industries registered and/or planned with category of industry and quantity of water and effluent generation.

8. The Committee noted that the compilation of effluent discharge data as noted in para 7 above, would require considerable time and detailed analysis/studies. The Committee, therefore, decided that subject to fulfilling other statutory requirements for CRZ clearance as in para 6 above, the project could be considered for granting CRZ clearance, limitedly and only for completing the civil and infrastructure works for laying of 7.1 Km. pipeline envisaged for the marine outflow of the effluents from the CETP. Such a clearance would however be subject to the following additional conditions:

- (i) No discharge/release of effluents would be allowed in the pipeline until and unless the proponent places before the Committee, the analysis and effluent related information, as noted in para 7 above and seeks clearance from MoEFCC for the same.
- (ii) An independent study regarding the inflow/outflow from the CETP may also be carried out through NEERI and its report may be submitted before the EAC along with other parameters, as listed in para 7 above.

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

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