

MINUTES OF THE 317th MEETING OF EXPERT APPRAISAL COMMITTEE FOR PROJECTS RELATED TO COASTAL REGULATION ZONE HELD ON 23rd DECEMBER, 2022

The 317th meeting of the Expert Appraisal Committee for projects related to Coastal Regulation Zone was held on 23rd December 2022 through Video Conferencing due to the prevalent pandemic situation. The list of Members presents in the EAC (CRZ) is at **Annexure**.

The deliberations held and the decisions taken are as under:

1.0 OPENING REMARKS OF THE CHAIRMAN

At the outset, Dr. Deepak Arun Apte, Chairman, EAC (CRZ) welcomed the Members of the EAC and requested Dr. H. Kharkwal, the Member Secretary of the EAC to initiate the proceedings of the meeting with a brief account of the activities undertaken by the Ministry under CRZ Division.

2.0 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

The Committee having noted that the Minutes of the 315th meeting held on 29th November, 2022 are in order and confirmed the same with suggestions that in case any typographical / grammatical errors are noticed in due course, the same may be corrected suitably.

3.0 CONSIDERATION OF PROPOSALS FOR CRZ CLEARANCE

Item No. 3.1

Proposal for Development of “Mangrove Cruise Route” along Kuppam River, Kannur the Director, Department of Tourism, Government of Kerala-CRZ Clearance [IA/KL/CRZ/237781/2022] [F.NO.11/6/2022-IA.III]

“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of the data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

The proposal was earlier considered and deferred by the EAC in its 288th meeting held on 16th February, 2022. The EAC desired additional information on the CRZ area status of Pazhayangadi wherein in a Boat Terminal is proposed shall be provided, recommendations of Kerala CZMA for the proposed activities in the CRZ area, details of the floating restaurant, its location, mobility, safety features, etc., revised /composite map of the proposed locations, non-permissible activity in NDZ area, if any, as per the extant norms of CRZ Notification, 2011 shall be relocated to permissible area/outside CRZ area and details shall be provided and the number of pillars should be minimum, as not to interrupt the water flow, without compromising safety and stability of the project. The project proponent has now submitted

documents as desired by EAC and placed before the Committee. The project proponent and their consultant submitted reply on additional information desired by EAC earlier and made a detailed presentation of salient features of the project and informed that:

- i. The proposal is for CRZ clearance to the project for Development of Mangrove Cruise Route along Kuppam River of Kannur District, Kerala by the Department of Tourism, Government of Kerala.
- ii. The proposed project is a part of the Establishment of Malanad Malabar River Cruise Tourism Project. The associated facilities for the cruise route are planned at eight locations along the banks of Kuppam River, which falls in the CRZ area.
- iii. The proposed cruise route passes from Pazhayangadi to Kattampalikkadavu. Thus, the boarding point of the cruise will be at Pazhayangadi and the destination point will be at Kattampalikkadavu. The salient features of the proposed cruise tourism is to explore village life, inland fishing, serene riverine features etc.
- iv. The total length of the cruise route is about 30.18 km. The total cost of the project is ₹17.60 crores.
- v. Details of proposed locations are given below:

S. No	Location	Survey/No	Taluk	Village	District
1	Pazhayangadi	114/7B	Talipparamba	Madayi	Kannur
2	Pazhayangadi Muttukandi	120/1	Talipparamba	Ezhome	Kannur
3	Thavam	2	Talipparamba	Cherukunnu	Kannur
4	Cherukunnu	331/9A,331/3	Talipparamba	Cherukunnu	Kannur
5	Pattuvam Muthukuda	254/1	Talipparamba	Pattuvam	Kannur
6	Pattuvam Mangalasseri	436/1	Talipparamba	Pattuvam	Kannur
7	Kuppam	33/1, 33/2, 34 (b), 34/10	Talipparamba	Talipparamba	Kannur
8	Kattampallykkadavu	132	Talipparamba	Kooveri	Kannur

- vi. The vessel details of proposed Mangrove Cruise Route are as :

Vessel	Length (m)	Breadth (m)	Draft (m)	Passenger Capacity
Freedom	12.518	2.914	0.50	25
Marivillu	12.518	2.914	0.50	25
Kopravallam	12.00	2.50	0.27	10

vii. The details of project facilities at different location along with Built Up Area:

Sl. No	Location	Proposed Facilities	Built up area (sq.m)	CRZ area
1	Pazhayangadi	Boat Terminal	563.00	CRZ IB, CRZ III, CRZ IVB
2	Pazhayangadi Muttukandi	Boat race Gallery(Solar lamps-26no.s)	1188.00	CRZIA(50 m mangrove buffer), CRZ IB, CRZ IVB
		Pearl Spot Floating Restaurant	275.00	CRZ IB, CRZ IVB
3	Thavam	Boat Jetty Type C	87.00	CRZ IB, CRZ IVB
4	Cherukunnu	Minor Boat Terminal Type B	114.00	CRZ IB, CRZ IVB
5	Pattuvam Muthukuda	Boat Jetty Type C	87.00	CRZ IB,CRZ IVB
		Erumadam	16.00	CRZ IVB
6	Pattuvam Mangalasseri	Major Boat Terminal	157.83	CRZ IVB
7	Kuppam	Major Boat Terminal (Jetty 1)	145.50	CRZ IVB
		Major Boat Terminal (Jetty 2)	84.70	CRZ IVB
		Erumadam	16.00	CRZ IVB
		Biotoilet and Septic tank	32.24	CRZ II
		Natural Rough Paving Stone Paved Parking Yard - 10000sqft	735.74	CRZ II
8	Kattampallykkadavu	Boat Jetty Type A	94.72	CRZ IVB

viii. The proposed project layout was superimposed on the approved CZMP of the 1:4000 scale map, which was duly prepared by NCSCM Chennai.

ix. The proposed project / activities are permissible as per para 3(i)(a) and 4 (i) (f) of the CRZ Notification, 2011

x. The Kerala Coastal Zone Management Authority has recommended the proposal for clearance *vide* its letters No: 1673/A2/20/KCZMA, dated 16/07/2021 and letter No: 1816/A2/20/KCZMA, dated 26/09/2022.

2. Deliberations in the EAC:

The Committee after detailed deliberations and presented before the meeting, accepted the additional information / reply submitted during the meeting by PP and suggested that the PP shall submit a reply on representation received that the land reclamation process has been started prior to CRZ clearance for the floating restaurant on the project and also suggested an undertaking from Head of the Organisation that no activity / construction / expansion has since been taken up. The proposal is accordingly deferred for consideration in the next meeting.

Item No. 3.2

Construction of “Chennai Metro Rail Phase-II (Corridor 30 Madhavaram Milk Colony to SIPCOT at Chennai District by M/s Chennai Metro Rail Limited-CRZ Clearance regarding(IA/TN/CRZ/289987/2022) [F.NO.11/39/2022-IA.III]

“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of the data/information submitted is found to be false / misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

The proposal was earlier considered by the EAC (CRZ) in its 309th meeting held on 10thOctober, 2022. The Committee suggested that the project proponent shall submit flood mitigation measures at entry and exit of metro stations & evacuation shaft, flood management at beginning and end of tunnel, safety measures in case likely collapse of soil in adjacent areas due to impact of tunnelling and the Noise and vibration Management Plan during construction of the project. The project proponent has now submitted documents as desired by EAC and placed before the Committee. The project proponent and their consultant submitted reply on additional information desired by EAC earlier and made a detailed presentation of salient features of the project and informed that:

- (i). The proposed project is Construction of Metro Rail Network - Corridor 3 (Madhavaram to SIPCOT) having total length of the corridor as 45.813 km comprising 50 stations (30 underground stations and 20 elevated stations) in Chennai as part of convenience system.
- (ii). Chennai Metro Rail Limited (CMRL) is a Joint Venture of Government of India and Government of Tamil Nadu and Chennai is a fast growing city with huge public movement that demands a fast, reliable, convenient, efficient, modern and economical mode of public transport.
- (iii). The proposed Corridor 3 (of Phase II) is one of the longest corridors of CMRL with a total distance of 45.8 kms running north-south connecting densely populated localities of Chennai City
- (iv). Corridor 3 (of Phase II) acts as a key connectivity to other Corridors (4 & 5) of the CMRL's Network and is expected to contribute for decongestion in a major way.
- (v). The activities proposed in CRZ an area falls under developed / habitation areas.

- (vi). The objective of the project:
- Chennai District and its surroundings form Chennai Metropolitan Area covering 1189 Sq.km.
 - It is estimated to that 12.6 million would travel by public transport with the estimated 20.8 million daily person trips in 2026.
 - Inadequate transportation infrastructure and connectivity to the local specified locations have resulted in decreased used of public transport.
 - The use of personal motorized vehicles has increased which results in incremental pollution load on the environment.
 - Thus, mass transit transportation, especially as integrated metro system will be essential to Chennai and its surroundings.
 - Urban Mass Rapid Transit System (MRTS) and Phase 1 Metro Rail are in operation covering certain parts of Chennai and its surroundings.
 - Phase 2 Metro Rail covering three corridors is proposed to cover the regions where there is absence of mass transit system

(vii). The location of proposed alignment falling under CRZ in Thirumayilai Village, in Mylapore Taluk, Adyar Village in Guindy Taluk, Tharamani Village in Velachery Taluk, Chennai District, Tamil Nadu and project components falls under the CRZ IB, CRZ – II, CRZ –IVB classification and CRZ details are as:

Description	CRZ Classification	Length (m) / Area in Sq.m	Total
Proposed Metro Rail Tunnel	CRZ – IB	92.17 m	1219.86 m
	CRZ – II	821.09 m	
	CRZ - IVB	306.60 m	
Sub Total		1219.86 m	
Proposed Thirumayilai Station Boundary	CRZ – II	523.06 Sq.m	523.06 Sq.m
Proposed Thirumayilai Culvert	CRZ – IB	166.38 Sq.m	512.09 Sq.m
	CRZ – IVB	345.71 Sq.m	
Proposed Emergency Evacuation Shaft	CRZ – II	51.00 Sq.m	51.0Sq.m
Proposed Tharamani Station Boundary	CRZ – II	156.04 Sq.m	156.04Sq.m

(viii). The project components are: Metro Rail Underground Tunnel - 1,219.86 m in CRZ-IB, CRZ-II, CRZ-IVB Area, Metro Station - 679.10S Sq.m in CRZ-II Area, Culvert Reconstruction - 512.09 Sq.m in CRZ-IB, CRZ-IVB Area and Emergency Evacuation Shaft - 51 Sq.m in CRZ-II Area.

(ix). The PP intimated that as per CRZ Notification 2011, Para 4 (ii) (d) states that “the activities shall require clearance from MoEFCC, after being recommended by the concerned CZMA as: laying of pipelines, conveying systems, transmission line; and as Para 3 (iv) (a) states that, the activities are permissible within CRZ as: (a) required for setting up, construction or modernisation or expansion of foreshore facilities like ports, harbours, jetties, wharves, quays, slipways, bridges, sea link, road on stilts, and such as meant for defence and security purpose and for other facilities that are essential for activities permissible under the notification.

- (x). Tunnel alignment is proposed after the investigation of existing underground utilities as part of pre-planning, tunneling will be done using Tunnel Boring Machine (TBM), Under-Ground (UG) stations will be built by cut and cover method, UG stations are proposed with three levels i.e., Platform level, Concourse level, Ground / Road Level and Ground settlement analysis and monitoring will be carried out during tunneling.
- (xi). Evacuation Shaft is a safety structure for handling emergencies, shaft comprises of only staircase connecting various levels, shaft level varies from (-)31.8 m to (+) 6.88m, Mechanical Ventilation System is proposed for air circulation.
- (xii). As per NBC Norms, Safe means of egress to be provided if the tunnel distance between two safe egress facilities exceeds 750m. If the distance is more than 750 m evacuation shaft or cross passages are to be provided.
- (xiii). The distance between Greenways Road Station and Adyar Junction Station is 1200 m (i.e.>750m) and hence evacuation shaft is provided at the bank of Adyar River.
- (xiv). The Bridge reconstruction is proposed since foundation / pillars falls in the alignment of rail network (Underground Tunnel), it is proposed to replace the existing bridge with three cell box culvert on raft foundation and temporary earth retaining system and diversion of water during construction period is proposed.
- (xv). The estimated cost of the project in CRZ Area is ₹246.91 Crores.
- (xvi). The Tamil Nadu Coastal Zone Management Authority *vide* its letter No. 13760/EC.3/2022-1 dated 08/08/2022, has recommended the project for CRZ clearance.

2. **Deliberations in the EAC:**

The EAC deliberated on the proposal. The Committee noted that the project facilities are essential for the public, TNCZMA recommended the project and intimated that the activity is a permissible activity *vide* Para 3 (iv) (a), however, project requires CRZ clearance as per Para 4 (ii) (d) of CRZ Notification 2011 and the CRZ map of the 1:4000 scale was prepared by the Institute of Remote Sensing, Anna University, Chennai. The Committee also suggested that during the construction the vibration levels shall be monitored regularly at a distance of 200m on either side of alignment at receptors comprising educational, medical and physical cultural buildings and other fragile buildings. The Ground Penetrating Radar (GPR) measurements before and after tunneling should be taken up loose strata identified from geotechnical data along alignment and regular compliance report should be submitted to Regional Office.

The Committee after detailed deliberations and considering the submissions made by the project proponent recommended the proposal for CRZ Clearance, subject to the following conditions:

- (i). All construction shall be strictly in accordance with the provisions of CRZ Notification, 2011 and as amended from time to time.
- (ii). During the construction the vibration levels shall be monitored regularly at a distance of 200m on either side of alignment at receptors comprising educational, medical and physical cultural buildings and other fragile buildings.
- (iii). The Ground Penetrating Radar (GPR) measurements before and after tunneling should be taken up loose strata identified from geotechnical data along alignment and regular compliance report should be submitted to Regional Office.

- (iv). No groundwater shall be extracted within the CRZ area to meet water requirements during the construction and / or operational phase of the project.
- (v). The project proponent shall ensure the natural flow of the Creek water at the project site.
- (vi). No excavated material during the construction shall be dumped in water bodies or adjacent areas. The site shall be restored to its near original condition after completion of construction.
- (vii). Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
- (viii). Any temporary physical infrastructure set up during the construction period shall be removed simultaneously with the completion of laying of each segment of the project.
- (ix). All the conditions stipulated by the Tamil Nadu Coastal Zone Management Authority for CRZ clearance *vide* its letter No. Letter No. RC No P1/2503/2021. Dated 19/01/2022, and commitments made by the PP before the CZMA and EAC shall be followed in letter and spirit.
- (x). All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of the project or activity.

Item No. 3.3

Proposal for Construction of new fish terminal with approach Trestle at Mallet Bunder at ferry wharf, Mazgaon, Mumbai by M/s Mumbai Port Trust(MbPT) [IA/MH/CRZ/407045/2022] [F.NO.11/47/2022-IA.III]

1. The project proponent informed that the proposal is for construction of new fish terminal with approach Trestle at Mallet Bunder at ferry wharf, Mazgaon, Mumbai by M/s Mumbai Port Trust (MbPT).

2. Deliberations in the EAC:

The EAC noted that the project proponent has not made available the EIA / EMP report alongwith other documents for appraisal of the Committee and deliberation on the proposal without a detailed examination of the project may not serve the purpose. The Committee desired that the proposal shall be examined at a later stage and the PP shall circulate the EIA / EMP and other requisite documents as per the Agenda.

3. The proposal is accordingly deferred.

Item No. 3.4

Proposal for Conversion and Extension of existing 10” LPG pipeline to POL service along with associated facilities form Visakhapatnam Port Trust berths (oil wharf) to the existing terminal of M/s East India Petroleum Pvt Ltd. (EIPL) Visakhapatnam, Andhra Pradesh-CRZ Clearance regarding [IA/AP/CRZ/295172/2022] [F.NO.11/48/2022-IA.III]

“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false / misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

The project proponent submitted documents and their consultant made a detailed presentation of salient features of the project and informed that:

- (i) The proposal is for CRZ clearance for Conversion and Extension of existing 10” LPG pipeline to Petroleum, Oil and Lubricants (POL) service along with associated facilities from Visakhapatnam Port Trust berths (oil wharf) to the existing terminal of M/s East India Petroleum Pvt Ltd. (EIPL) Visakhapatnam, Andhra Pradesh.
- (ii) The operations activity in EIPL consists of receiving the POL products / chemicals and LPG, through the respective pipelines, from Vessels berthed at Visakhapatnam Port, into the tanks in the tank farm, for storage and onward discharge into road tank trucks for distribution.
- (iii) After commissioning of new 14” LPG pipeline the existing 10” LPG pipeline is in-operational and EIPL has proposed to convert the same existing 10” LPG service pipeline to POL service pipeline for transportation of Petroleum products and Liquid chemicals from OR-1, 2 & OR 3 berths to EIPL terminal in Port Exim Park area.
- (iv) Conversion of existing 10” LPG pipeline to POL services from Oil wharf to EIPL (East India Petroleum Pvt.Ltd.) of 5.2 Km length for receipt of Petroleum Products and Chemicals from the Ships berthed at OR 1, OR 2 & OR 3;
- (v) Laying pipelines of 10” dia – 2 no’s of 140 meters each length above ground pipelines up to bunker jetty connecting from EIPL pig launching station (OR1&2) at oil wharf for transportation of Petroleum products.
- (vi) The entire pipeline corridor of 5.34 Km is located in Visakhapatnam Port Trust area.
- (vii) The proposed conversion of pipeline shall be used for transportation of Petroleum products and liquid Chemicals from Vessels to Shore Tanks and Shore Tanks to Vessels berthed at Oil wharf at the berths of OR 1, OR 2 & OR 3 in the existing pipelines.
- (viii) Institute of Remote Sensing, Anna University, Chennai, prepared the CRZ maps and described that the 117 m of the new to be laid down Pipelines fall inside the CRZ-II as per approved CZMP 2011.
- (ix) The activities are permissible activity for “transfer of Hazardous substances from ships to ports, terminals and refineries and viceversa” is a permitted activity as per the paragraph 3(ii) (a) of CRZ notification 2011. In CRZ-II area” facilities for receipt and storage of petroleum products and liquefied natural gas as specified in annexure II of CRZ Notification 2011 is a permitted activity as per the paragraph 8(ii) (iv) of CRZ Notification 2011. However laying of pipelines, conveying systems, transmission lines is regulated as per the paragraph 4(ii) (d) of CRZ Notification, 2011.
- (x) The Consent To Establish (CTE) Order obtained from APPCB vide Order No. 29/APPCB/CFE/RO-VSP/HO/2007, dated 23/11/2022 and valid for a period of 7 years from the date of issue.
- (xi) The renewal of Consent & Authorization Order (CFO) has been issued by APPCB vide order No: APPCB/VSP/29/CFO/HO/2021, dated 15/11/2021 and valid upto 30/11/2025.

- (xii) The Fire NOC obtained for Terminal from A.P. State Disaster response and Fire Services Department *vide* File No:14799|VSPA,ISB/2020, dated 28/01/2021.
- (xiii) The prior approval from PESO *vide* letter No.A/P/HQ/AP/PL/3(P539945), dated 11/07/2022 has been obtained for and conversion and construction Extension of existing pipeline.
- (xiv) The ROW obtained from Visakhapatnam Port Authority (VPA), dated 11/04/2022.
- (xv) The Waste generation and quantity of Hazardous Waste are i) Slop Oil:1300 LPA, ii) Spent oil: 800 LPA, iii) Tank Bottom sludge and contaminated sand etc:1350 Kg/Annum and iv) Used pigs (foam & disc), cotton waste, PPE waste, gaskets):1100 Kg/Annum and the disposal shall be routed through M/s APEMC so as to send to APPCB authorized / recyclers (as Recyclable waste) Parwada.
- (xvi) The estimated cost of the project is ₹1.65 Crores and out of that ₹10.8 lakhs for Environment Management Plan budget.
- (xvii) The Andhra Pradesh Coastal Zone Management Authority *vide* its letter No.244/CRZ/IND/2020-664, dated 25/11/2022, has recommended the project for CRZ clearance.

2. Deliberations in the EAC:

The Committee noted that the Andhra Pradesh Pollution Control Board has recommended NOC for Consent To Establish (CTE), Consent & Authorization Order (CFO) for the project and APCZMA has recommended the project and intimated that the activity is a permissible under Para 3(ii) (a) and Para 8(ii) (iv) and storage of petroleum products and liquefied natural gas as specified in annexure II of CRZ Notification 2011.

The Committee after detailed deliberations and based on the clarifications / information submitted by PP recommended the proposal for CRZ Clearance, subject to the following conditions:

- (i) All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
- (ii) Any temporary physical infrastructure setup and excavated material during laying of pipelines shall not be dumped in water bodies or adjacent areas and the site shall be restored to its original condition after completion of construction of work.
- (iii) No storage reservoir for sea water shall be permitted and only pipelines conveyance system shall be installed.
- (iv) No groundwater shall be extracted within the CRZ area to meet the water requirements during the construction and/or operation phase of the project.
- (v) Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
- (vi) The prior approval from PESO should be obtained before commencement of the project.
- (vii) All the conditions stipulated by the Andhra Pradesh Coastal Zone Management Authority for CRZ clearance 2019 *vide* its Letter No. 244/CRZ/IND/2020 dated 25/11/2022 and commitments made by the PP before the APCZMA and EAC shall be followed in letter and spirit.
- (viii) All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

Item No. 3.5

Proposal Laying of Independent Treated Wastewater Disposal Pipeline for 6 MLD Capacity from Opal Premises upto Deep Sea off Luvara Coast, Dahej, Gujarat by M/s ONGC Petro Additions Limited (OPaL) - CRZ Clearance regarding [IA/GJ/CRZ/408256/2022] [F.NO.11/49/2022-IA.III]

“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of the data/information submitted is found to be false / misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The project proponent submitted documents and their consultant made a detailed presentation of salient features of the project and informed that:

- (i) The proposal is for CRZ clearance to the project for “Laying of Independent Treated Waste water Disposal Pipeline for 6 MLD Capacity from Opal Premises upto Deep Sea off Luvara Coast, Dahej, Gujarat by M/s ONGC Petro Additions Limited (OPaL).
- (ii) The ONGC Petro Additions Limited (OPaL) is promoted by Oil and Natural Gas Corporation (ONGC) and co-promoted by GAIL and GSPC and has set up a grass root mega Petrochemical Complex at Dahej, Gujarat in Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR) / SEZ.
- (iii) OPaL has already existing full-fledged waste water treatment facility for their combined waste water followed by UF and RO Recycling System. The treated waste water as per existing consent conditions (3600 KLD) is being discharged into GIDC drainage system.
- (iv) The current pipeline alignment is from the outlet of ACF at Effluent Common Treatment System (ECTS) to final pumping station of GIDC Dahej; which is further disposed to deep sea via GIDC pipeline system off Dahej Coast.
- (v) The proposed project component are as:

Sr. No.	Description	Design Capacity	Starting to End point Location	Length of Pipeline	Remarks
1.	Pumping Station	6 MLD	Pumping arrangements will be provided from the existing final pumping station at ECTS in OPaL premises located at Lat. Longs of 21°41'21.86"N, 72°36'10.99"E	-	Present pumping arrangements will be suitable augmented
2.	Segment 1: Onshore Pipeline – 355 mm OD – PN 10 PE	6 MLD	From the existing final Pumping Station at OPaL premises to Landfall point Lat.-Longs of	7.89 km	Present Disposal arrangements to GIDC Pumping Station will be discontinued. New

	100, IS 14333		21°39' 51.65"N, 72°32'23.13"E		independent onshore pipeline from the existing final pumping station at ECTS of OPaL will be laid.
3.	Offshore Pipeline with diffuser 315 mm OD, PN 10 PE 100, IS 14333	6 MLD	From landfall point to final outfall point via submarine pipeline and diffuser system off Luvara Coast at Dahej Lat.-Longs of 21°38'43.69"N, 72°30'52.70"E	3.31 km	Offshore section of pipeline will be laid with a diffuser system at suitable point selected as per Hydrodynamic Modelling and dilution and diffusion study.
Total (Onshore+ Offshore length)				11.21 km	

(vi) The CRZ demarcation as per approved CZMP as:

Sl. No.	Description	CRZ Area Classification (as per CRZ Notification 2011)	Length (km)
1.	Pipeline from OPAL to Landfall Point	CRZ III (NDZ)	1.12
		CRZ III (200 to 500 m from HTL)	0.44
		CRZ IA – Mud Flat	0.16
		In CRZ Area	1.72
		Non CRZ Area	6.17
	Total	7.89	
2.	Landfall point to outfall point	CRZ IB	0.37
		CRZ – IVA	0.13
		CRZ III (NDZ)	0.05
		CRZ IA – Mud Flat	2.76
		In CRZ Area	3.31
	Total in CRZ	5.03	

(vii) The CRZ Mapping and Delineation of CRZ boundaries, HTL and LTL and preparation of CRZ maps of 1:25000 scale and 1:4000 scale has been carried out by Institute of Remote Sensing, Anna University.

(viii) The project details are as:

1.	Type of Project	Deep Sea pipeline (Onshore & Offshore) for disposal of treated wastewater from ECTS final pumping station to Deep sea <i>via</i> Onshore and offshore Pipeline
	Present Flow	Present Flow – 3.6 MLD & Designed for 6 MLD
	Design Flow	6 MLD
2.	Pipeline Length & Project Costs	Onshore Pipeline Length – 7.89 km, Offshore Pipeline Length – 3.31 km, Total Project Cost – 24 Crores

3.	Outfall Point Location	3.31 Km off Luvara Coast in Gulf of Khambhat
4.	Pumping Station	Single Pumping upto the outfall point diffuser arrangement. Guard Pond proposed for storage
5.	Pipeline MOC Selected – Onshore + Offshore	High Density Polyethylene (HDPE)
6.	Source of Water	Construction Phase – Tanker Source Operation Phase – From Existing Premises
7.	Electricity Source	Source of Power: DGVCL. DG set will not be required at pumping station in case of power failure as OPaL, Dahej have their own captive power plant.

- (ix) The treated waste water system comprises of the following streams:
- Oily Water Treatment System – 150 cu.m per hr
 - Cooling Tower Blowdown Treatment System – 900 cu.m per hr
 - Sanitary Waste Water Treatment System – 15 cu.m per hr
 - Total Treatment System capacity – 1065 cu.m per hr**
 - RO Plant capacity – 165 cu.m per hr x 7 Skids = 1155 cu.m per hr
 - RO Reject – 80 cu.m per hr for disposal.
 - Total Treated Waters for disposal to sea:**
 - Neutralised DM Reject – 36 cu.m per hr. for disposal
 - Spent Caustic Treatment System Outlet - 2.1 cu.m per hr.
 - Regeneration Waters + CIP + Backwashes – 20 cu.m per hr
 - RO Rejects – 80 cu.m per hr
- (x) Total treated waste water for disposal to sea-138.1 cu.m per hr (3315 KLD) Say 150 cu.m per hr max. (3600 cu.m per day ~ 3.6 MLD) and design pipeline capacity considered – 6000 cu.m per day (6 MLD).
- (xi) The design features of the pipeline as:

Sl. No.	Parameter	Description
1.	Design Flow	6 MLD
2.	Pumping hours	24 Hrs
3.	No. of Pipeline	1 No. (Onshore + Offshore)
4.	Onshore Length	7.89 km
5.	Onshore Pipeline – HDPE as per IS 14333 – 1996	355 mm HDPE (PN 10, PE 100)
6.	Coefficient of Friction	1
7.	Offshore Length	3.31 km
8.	Offshore Pipeline – PE 100 Grade, PN 10 rating as per IS 14333 – 1996	315 mm HDPE (PN 10, PE 100)
9.	No. of Ports/Diffusers	4
10.	Dia. of Diffuser considered	100 mm
11.	Efficiency of pump set (n)	60-70 %
12.	Type of liquid	Treated Waste Water
13.	Specific gravity of Treated Waste Water	1,01
14.	Specific gravity of Sea Water	1.035

- (xii) The proposed Outfall Location are as:

Outfall Location	Description
Location (GIS)	Lat: 21°38'43.69"N, Long: 72°30'52.70"E
Location (UTM)	Lat: 2395645.00 N, Long: 242767.00 E
Depth with respect to CD	22.2 m
Distance from LFP	3.31 km
Treated Waste Water COD (Max)	250 mg/l

- (xiii) The treated waste water will be diffused through a scientifically designed diffuser system into marine waters at the depth of 22.2m below CD based on the Hydrodynamic modelling study for 6 MLD discharge at COD concentration of 250 mg/l.
- (xiv) The proposed outfall location is 3.31 Km from the LFP from the Luvara Coast. The point is located in such a way that that the treated waters are effectively diffused and attain natural ambient conditions within 120 m of the outfall location and in no case the waste water returns back to the shoreline.
- (xv) The dilution available at the selected outfall location at selected outfalls: COD (250 mg/l), dilution at SPLW: 868 times and dilution at SPHW: 1096 times.
- (xvi) The total employment likely to be generated (Nos.) by project about 100.
- (xvii) The total cost of the project ₹24.0 Crore.
- (xviii) The Gujarat Pollution Control Board has issued provisional Consent Order (CTE) *vide* Consent No. CTE-123008 and valid upto 05/08/2029.
- (xix) The Gujarat Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No. ENV-10-2022-62-T, dated 17/10/2022.

2. Deliberations in the EAC:

The Committee noted that the Gujarat CZMA recommended the project and intimated

The EAC deliberated on the proposal. The Committee noted that the activity is a permissible as per CRZ Notification 2011 and require prior CRZ clearance. The Committee suggested that PP shall ensure that the treated effluent discharge into sea / marine outfalls as per the prescribed standards of by CPCB / SPCB. The Committee also suggested that the monitoring of water quality and marine ecology should be conducted before construction of outfall and same shall be monitored at every 6 months. The details of water quality and marine ecology should be submitted to Regional Office. The Committee also advised to PP forward immediately by e-mail final copy of NOC for CTE that Gujarat Pollution Control Board has issued to all EAC Members and a record of Ministry. The same has been submitted by PP *vide* e-mail dated 23/12/2022 and same has been circulated to all EAC members including MoEFCC and accepted by EAC while approving the minutes.

The Committee after detailed deliberations and based on the clarifications / information submitted by PP recommended the proposal for CRZ Clearance, subject to the following conditions:

- (i) All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
- (ii) M/s ONGC Petrjo Additions Limited (OPaL) should strictly ensure disposal of treated effluent discharge into sea or marine outfalls to the prescribed standards of CPCB / SPCB.
- (iii) Monitoring of water quality and marine ecology should be conducted before construction of outfall and same shall be monitored at every 6 months. The details of water quality and marine ecology should be submitted to Regional Office.
- (iv) Any temporary physical infrastructure setup and excavated material during laying of Pipelines shall not be dumped in water bodies or adjacent areas and the site shall be restored to its original condition after completion of construction of work.
- (v) No storage reservoir for sea water shall be permitted and only pipelines conveyance system shall be installed.
- (vi) No groundwater shall be extracted within the CRZ area to meet the water requirements during the construction and/or operation phase of the project.
- (vii) Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
- (viii) All the conditions stipulated by the Gujarat Coastal Zone Management Authority for CRZ clearance 2019 *vide* its Letter No. ENV-10-2022-62-T, dated 17/10/2022 and commitments made by the PP before the GCZMA and EAC shall be followed in letter and spirit.
- (ix) All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

4.0. Any other item with the permission of the Chair.

The meeting ended with a Vote of Thanks to the Chair.

List of the Expert Appraisal Committee (CRZ) Members participated during Video Conferencing (VC) Meeting held on 23rdDecember 2022.

S. No.	Name of Members	Designation
1.	Dr. Deepak ArunApte	Chairman
2.	Dr. M.V. Ramana Murthy	Member
3.	Dr. Manoranjan Hota	Member
4.	Shri M.S. Negi	Member
5.	Prof. V.K.Jain	Member
6.	Shri Sham Wagh	Member
7.	Dr. Niraj Sharma	Member
8.	Shri P.K. Mishra	Member
9.	Shri R.S.P. Verma	Member
10.	Dr. H. Kharkwal	Member Secretary
