

# Deendayal Port Authority (Erstwhile :Deendayal Port Trust)

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Office of the Dy.CE & EMC (i/c),  
ANNEX, Administrative Office  
Gandhidham - Kutch  
Pin - 370 201.

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CN/WK/1600 - A/ (EC & CRZ Clearance onwards - Muldwarka) /25 Dated: 11/02/2025

To,  
The Deputy Director General of Forests (C),  
Ministry of Environment, Forest & Climate Change,  
Integrated Regional Office,  
Gandhinagar, A wing-407 & 409,  
Aranya Bhavan Near CH-3 Circle,  
Sector 10 A, Gandhinagar -382010  
Email: [iro.gandhingr-mefcc@gov.in](mailto:iro.gandhingr-mefcc@gov.in)

**Sub:** Development of Setting up of RoRo/RoPax Facility at, Muldwarka, Gujarat, by Deendayal Port Authority at Survey No. 74/3 for Onshore area -6 Ha, Muldwarka, Kodinar, Gir Somnath. (Offshore Facility: 320m waterfront & Onshore Facility: 6Ha. Area Development) - **Pointwise Compliances of the conditions stipulated in the EC&CRZ Clearance and Monitoring Report in Data Sheet reg.**  
(EC Identification No. EC23B033GJ179470 and Proposal No. SIA/GJ/NCP/66680/2021)

**Ref.:** 1. EC & CRZ Clearance accorded by the SEIAA, Gujarat vide letter no. SEIAA/GUJ/EC&CRZ/7(e)/1710/2023 dated 30/12/2023.  
2. DPA communication no. CN/WK/1600- A/ (EC & CRZ Clearance onwards - Muldwarka)/29 dated 27/2/2024.  
3. DPA letter no. CN/WK/1600-A/(EC & CRZ Clearance onwards - Muldwarka)/84 dated 05/07/2024 - Compliance report of stipulated conditions of EC & CRZ Clearance submitted through email & also in PARIVESH PORTAL (Period up to May, 2024).

Sir,  
It is requested to kindly refer above cited reference for the said subject.

In this connection, it is once again to state that, the SEIAA, Gujarat had accorded EC&CRZ Clearance dated 30/12/2023 to the subject project of the DPA provisionally for six-month duration subject to the compliance in stipulated time period of the certain conditions (marked as dark in EC & CRZ Clearance- Specific condition no. 1,4,10 & 11). Therefore, DPA vide communication no. CN/WK/1600- A/ (EC & CRZ Clearance onwards -Muldwarka)/29 dated 27/2/2024 had submitted requisite compliances of the specific conditions no. 1,4,10 & 11 to the SEIAA, Gujarat within stipulated time period mentioned in the EC & CRZ Clearance, for information & consideration.

In the said EC & CRZ Clearance letter dated 30/12/2023, in Para C. COMPLIANCE OF ENVIRONMENT CLEARANCE /REPORTING/ ADMINISTRATION / APPEAL, Condition No. 87, the SEIAA, Gujarat has stipulated the condition that, "**Designated key person shall submit six monthly compliance report to SEIAA/SEAC, MOEF&CC, GPCB and Nodal Department of the Government**".

Accordingly, DPA vide above mentioned communication dated 5/7/2024 had submitted compliance report of stipulated conditions mentioned in the EC & CRZ Clearance & Monitoring Report in Data sheet (Period up to May, 2024) and also uploaded in PARIVESH 2 PORTAL.

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However, due to procedural issues, we are unable to upload compliance report for present period (June 24 to September 24). After resolution of the issues, the periodic compliance reports will be submitted in the PARIVESH 2 PORTAL.

In view of the above and in order to avoid non-compliance of EC condition regarding submission of six monthly compliance report, we are submitting herewith compliance report of the stipulated conditions mentioned in the EC & CRZ Clearance granted by the SEIAA, Gujarat dated 30/12/2023 as **Annexure 1** and Monitoring Report in Data Sheet as **Annexure 2 (Period: June, 2024 to September, 2024)** (in soft copy) through email in ID: [iro.gandhingr-mefcc@gov.in](mailto:iro.gandhingr-mefcc@gov.in)

This is for kind information and record, please.

This has the approval of Chief Engineer, Deendayal Port Authority.

Yours faithfully,



Dy. Chief Engineer & EMC(I/c)  
Deendayal Port Authority

Encl.: As above

**Copy along with point wise compliance of stipulated conditions, to:**

1) The Member Secretary,  
State Level Environment Impact Assessment Authority, Gujarat,  
**Office:** Gujarat Pollution Control Board, "Paryavaran Bhavan"  
**Sector-10 A, Gandhinagar-382010.**  
E-mail : [msseiaagj@gmail.com](mailto:msseiaagj@gmail.com), [seiaaguj@yahoo.com](mailto:seiaaguj@yahoo.com).

2) Shri Prasoon Gargava,  
Scientist E & Regional Director,  
Central Pollution Control Board,  
Parivesh Bhawan,  
Opp. VMC Ward Office No.10, Subhanpura,  
Vadodara - 390 023.  
Email Id : [prasoon.cpcb@nic.in](mailto:prasoon.cpcb@nic.in)

3) The Unit Head, Junagadh,  
Gujarat Pollution Control Board,  
Paryavaran Bhavan,  
Sector 10A,  
Gandhinagar - 382 010,  
Email: [uh-gpcb-juna@gujarat.gov.in](mailto:uh-gpcb-juna@gujarat.gov.in)

4) The Regional officer,  
"Pankaj Bunglow", Opp. St. Anne's Church,  
Station Road, Junagadh-362 001  
Email Id: [ro-gpcb-juna@gujarat.gov.in](mailto:ro-gpcb-juna@gujarat.gov.in)

# **Annexure -1**

## COMPLIANCE REPORT (up to September 2024)

**Subject:** Compliance of conditions stipulated by SEIAA, Gujarat in Environmental & CRZ Clearance granted for "**Setting up of RoRo/RoPax facility at Muldwarka Port, Gujarat**".

**Reference:** Environmental and CRZ Clearance granted by SEIAA, Gujarat vide SEIAA/GJ/EC&CRZ/7(e)/1710/2023 dated 30/12/2023.

**Current Status of work:** No construction activity has been started.

Sr. No	EC Conditions	Compliance status
<b>A. Conditions:</b>		
<b>A. 1 Specific condition:</b>		
1.	PP shall submit approved Revised wildlife / lion conservation plan from competent authority within six Month time period & submit copy to this office	The necessary compliance has already been communicated to SEIAA, Gujarat vide letter no. CN/WK/1600- A/ (EC & CRZ Clearance onwards - Muldwarka)/29 dated 27/02/2024. A copy of the same had already been submitted along with pointwise compliance report (period up to May, 2024) submitted vide communication dated 5/7/2024.
2.	PP shall strictly adhere to all conditions of CRZ Clearance issued by GCZMA vide order no. ENV-T-2022-63- T dated 20.05.2023	The pointwise compliance of stipulated conditions mentioned therein is attached herewith as <b>Annexure A</b> .
3.	Construction debris generated during the construction phase shall not be disposed into creek, sea, estuary or into the CRZ areas, in any case. Construction debris shall be disposed as per provisions of construction and demolition waste management rules 2016 etc.	No construction activity has been started. However, it is assured that Construction debris generated during the construction phase shall not be disposed into creek, sea, estuary or into the CRZ areas. Construction debris shall be disposed as per provisions of construction and demolition waste management rules 2016 etc.
4.	PP shall not carry out any parking activities including construction in CRZ IA area as per provisions of CRZ Notification 2011	The necessary compliance has already been communicated to SEIAA, Gujarat vide letter no. CN/WK/1600- A/ (EC & CRZ Clearance onwards - Muldwarka)/29 dated 27/02/2024. A copy of the same had already been submitted along with pointwise compliance report (period up to May, 2024) submitted vide communication dated 5/7/2024.
5.	PP shall carry out gardening area of 33 % in premises	No construction activity has been started. However, it is assured that, necessary gardening area as per the stipulated condition will be developed.
6.	PP shall submit shoreline management plan	No construction activity has been started. However, it is assured that DPA shall prepare shoreline management plan and submit the same in due course.
7.	PP shall provide STP of 22 KLD capacity in premises & treated domestic wastewater will be used for gardening & green belt development in premises	No construction activity has been started. Generated waste water shall be sent to septic tank equipped with soak pits. However, it is assured that if waste water quantity exceed, STP shall be provided to treat domestic wastewater and treated wastewater



		will be used for gardening & green belt development, as per stipulated condition.
8.	PP shall dispose off dredge material quantity (300,000 m3) as identified by Department of ocean engineering in IIT, Madras	No dredging activity has been started. However, it is assured that, dredged material will be disposed off at the location identified by IIT, Madras.
9.	PP shall provide budget allocation of Rs. 1 crore for conservation activities to conserve for schedule-I species	It is submitted that DPA vide letter dated 02/08/2023 had submitted revised Conservation plan for Sea Turtle, Indian Peafowl & Asiatic Lion wherein budget allocation of Rs. 1 Crore for conservation activities is provided. The Conservation plan mentioning budget allocation had already been submitted along with pointwise compliance report (period up to May, 2024) submitted vide communication dated 5/7/2024.
10.	Proponent shall submit the certificate of no fatality in sea turtle area and also approval of Forest department on turtle conservation plan	The necessary compliance has already been communicated to SEIAA, Gujarat vide letter no. CN/WK/1600- A/ (EC & CRZ Clearance onwards - Muldwarka)/29 dated 27/02/2024. A copy of the same had already been submitted along with pointwise compliance report (period up to May, 2024) submitted vide communication dated 5/7/2024.
11.	PP shall obtain permission from forest department on revised conservation plan of 30.6.2023	The necessary compliance has already been communicated to SEIAA, Gujarat vide letter no. CN/WK/1600- A/ (EC & CRZ Clearance onwards - Muldwarka)/29 dated 27/02/2024. A copy of the same had already been submitted along with pointwise compliance report (period up to May, 2024) submitted vide communication dated 5/7/2024.
12.	Authorized end-users shall have permissions from the concerned authorities under the rule-9 of the Hazardous and other wastes (Management and transboundary movement) Rules 2016	Not applicable
13.	Stream Segregation during drilling and testing activities should be adopted to separate oil and water	Point Noted for compliance.
14.	The Environmental and CRZ Clearance to the project is primarily under provisions of EIA Notification, 2006 and CRZ Notification, 2011. It does not tantamount to approvals/consent/permissions etc required to be obtained under any other Act Rule/regulation. The Project Proponent is under obligation to obtain approvals/clearances under any other Acts/ Regulations or Statutes as applicable to the project	Point Noted.
15.	The project proponent shall abide by all the commitments and recommendations made in the Form-II, EIA and EMP report and also	It is assured that, DPA shall abide by the commitments and recommendations made in the Form-II, EIA and EMP report and also that

	that have been made during their presentation to EAC	have been made during their presentation to the SEAC.
16.	Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area. Proponent shall obtain the CRZ Clearance for their project	No construction has been started. However, it is assured that, Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction works other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area. Proponent shall obtain the CRZ Clearance for their project
17.	The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained. Creek water monitoring program shall be implemented during the construction phase	No construction has been started. However, it is assured that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained. Creek water monitoring program shall be implemented during the construction phase.
18.	Dredging shall not be carried out during the fish breeding season. Dredging, etc. shall be carried out in confined manner to reduce the impacts on marine environment. As committed, Silt curtains shall be used to minimize spreading of silt plume during dredging operation. Turbidity should be monitored during the dredging using online monitoring system. No removal of silt curtain unless baseline values are achieved	No dredging activity has been started. However, it is assured that, dredging activity shall be carried out as per the stipulated condition.
19.	Maintenance dredging provided, the dredged material shall be disposed within port limits.	No dredging activity has been started. However, it is assured that the dredged material shall be disposed of at the location identified by the IIT, Madras.
20.	Wherever possible, dredged material shall be used for bank nourishment. With the enhanced quantities, the impact of dumping on the estuarine environment should be monitored and necessary measures shall be taken on priority basis if any adverse impact is observed	No dredging activity has been started. However, it is assured that, possibility will be explored to use dredged material for bank nourishment.  Point Noted for compliance.
21.	An independent monitoring be carried out by any Government Agency/institute to evaluate the impact during dredging. Impact of dredged material on estuarine environment along with shore line change be monitored by the PP and necessary mitigation measures be taken in case any adverse observed. The details shall be submitted along with the six-monthly monitoring report.	No dredging activity has been started. Point Noted for compliance.
22.	Marine ecological monitoring and its mitigation measures for protection of phytoplankton, zooplanktons, macrobenthos, estuaries, sea-grass, algae, sea weeds, Crustaceans, Fishes, coral reefs and mangroves etc. as given in the EIA-EMP Report shall be complied with in letter and spirit.	Point Noted for compliance.

23.	Domestic wastewater generated shall be sent to Septic Tanks equipped with Soak Pits. Wastewater generated from terminal buildings shall be treated and used for green cover development only	No construction activity has been started. Generated waste water shall be sent to septic tank equipped with soak pits. However, it is assured that if waste water quantity exceed, STP shall be provided to treat domestic wastewater and treated wastewater will be used for gardening & green belt development, as per stipulated condition.
24.	Mangroves conservation and management plan to be prepared in consultation with State Forest department and approved plan shall be implemented.	No construction has been started. However, it is to state that DPA is exploring the agencies for Mangroves conservation and management plan to be prepared in consultation with State Forest department and approved plan to be implemented.
25.	A continuous monitoring programme covering all the seasons on various aspects of the estuarine, coastal and marine environs including intertidal and subtidal marine flora and fauna with focus on sea turtles, corals and sea grass (if any) need to be undertaken by reputed universities available in the State or by entrusting to the National institutes/ renowned Universities/accredited Consultant with rich experiences in marine science aspects. The monitoring should cover various physico-chemical parameters along with PHC coupled with biological indices such as microbes, plankton, benthos and fishes on a periodic basis during construction and operation phase of the project. Any deviations in the parameters shall be given adequate care with suitable measures to conserve the marine environment and its resources. Adequate funds be allocated for the same	No construction has been started.  Point Noted for compliance
26.	Continuous online monitoring of air and water covering the total area shall be carried out and the compliance report of the same shall be submitted along with the 6 monthly compliance reports	No construction has been started.  Point Noted for compliance
27.	The actions shall be in accordance with proposed landscape planning concepts to minimize major landscape changes. The change in land use pattern shall be limited to the proposed port limits and be carried out in such a way as to ensure proper drainage by providing surface drainage systems including storm water network.	No construction has been started.  Point Noted for compliance
28.	All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan along with half yearly compliance report.	Point Noted for compliance

<b>B.</b>	<b>STANDARD CONDITIONS:</b>	
<b>B.1</b>	<b>AIR QUALITY MONITORING AND PRESERVATION:</b>	
29.	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO <sub>2</sub> and NOx emissions) within and outside the project area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions	No construction has been started.  Point Noted for compliance
30.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards.	No construction has been started.  Point Noted for compliance
31.	Shrouding shall be carried out in the work site enclosing the dock/proposed facility area. This will act as dust curtain as well achieving zero dust discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations, preventing waste dispersion, improving working conditions through provision of shade for the workers	Point Noted for compliance
32.	Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion	Point Noted for compliance
33.	The Vessels shall comply the emission norms prescribed from time to time	Point Noted for compliance
34.	Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection)Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board	Point Noted for compliance
35.	A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to	No construction has been started.  Point Noted for compliance



	be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments	
<b>B.2</b>	<b>WATER QUALITY MONITORING AND PRESERVATION</b>	
36.	The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained	No construction has been started. However, it is assured that, no creeks or rivers are blocked due to any activities at the Project site and free flow of water is maintained.
37.	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area	No construction activity including dredging has been started.  Point Noted for compliance.
38.	No ships docking at the proposed project site will discharge its on-board waste water untreated in to the estuary/ channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site	Point Noted for compliance
39.	Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle if any	Point Noted for compliance
40.	The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters	Point Noted for compliance
41.	Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage	Point Noted for compliance
42.	Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water	Point Noted for compliance
43.	Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression	No construction activity has been started. Generated waste water shall be treated in septic tank/soak pit. However, it is assured that if waste water quantity exceed, STP shall be provided to treat domestic wastewater and treated wastewater will be used for gardening & green belt development, as per stipulated condition.

44.	A certificate from the competent authority for discharging treated effluent untreated effluents into the public sewer/ disposal/drainage systems along with the final disposal point should be obtained	Point Noted.
45.	No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources	Point Noted for compliance
46.	All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body.	Point Noted for compliance
<b>B.3 NOISE MONITORING AND PRESERVATION</b>		
47.	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted as a part of six-monthly compliance report	Point Noted for compliance
48.	Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.	Point Noted for compliance
49.	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources	Point Noted for compliance
50.	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time	Point Noted for compliance
<b>B.4 ENERGY CONSERVATION MEASURES</b>		
51.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;	Point Noted for compliance
52.	Provide LED lights in their offices and residential areas	Point Noted for compliance
<b>B.5 WASTE MANAGEMNET</b>		
53.	Dredged material shall be disposed safely in the designated areas. Shoreline should not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring reports.	No dredging activity has been started. Point Noted for compliance

54.	Necessary arrangement for the treatment of the effluents and solid wastes must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the or State Pollution Control Board and under the Environment (Protection) Act, 1986	Point Noted for compliance
55.	The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management 2016.	Point Noted for compliance
56.	Any wastes from construction and demolition activities related thereto shall be managed so as to conform to the Construction and Demolition Waste Management Rules, 2016	Point Noted for compliance
57.	A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.	Point Noted for compliance
58.	Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.	Point Noted for compliance
59.	Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism for integration of terminals oil contingency plan with the overall area contingency plan under the co-ordination of Coast should be covered	Point Noted for compliance
<b>B.6 GREEN BELT</b>		
60.	Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant	Point Noted for compliance
61.	Top soil shall be separately stored and used in the development of green belt	Point Noted for compliance
<b>B.7 MARINE ECOLOGY</b>		
62.	Dredging shall not be carried out during the fish breeding and spawning seasons	No dredging activity has been started.
63.	Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment.	No dredging activity has been started. Point Noted for compliance
64.	The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population	No dredging activity has been started. Point Noted for compliance

65.	While carrying out dredging, an independent monitoring shall be carried out through a Government Agency/institute to assess the impact and necessary measures shall be taken on priority basis if any adverse impact is observed	No dredging activity has been started. Point Noted for compliance
66.	A detailed marine biodiversity management plan shall be prepared through the NIO or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and submitted to and implemented to the satisfaction of the State Biodiversity Board and the CRZ authority. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, mollusks, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods and include underwater photography	No construction has been started. Point Noted for compliance
67.	Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components including all micro, macro and mega floral and faunal components of marine biodiversity	No construction has been started. Point Noted for compliance
68.	The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river	Point Noted for compliance However, it is assured that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river
<b>B.8</b>	<b>HUMAN WORKER HEALTH ISSUE</b>	
69.	The work space shall be maintained as per international standards for occupational health and safety with 71 provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs	Point Noted for compliance
70.	Workers shall be strictly enforced to wear personal protective equipment's like dust mask, ear muffs or ear plugs, whenever and wherever necessary/ required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration	Point Noted for compliance

71.	In case of repair of any old vessels, excessive care shall be taken while handling Asbestos & Freon gas. Besides, fully enclosed covering should be provided for the temporary storage of asbestos materials at site before disposal to CTSDF	Point Noted for compliance
72.	Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/ accidents	Point Noted for compliance
73.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented	Point Noted for compliance
74.	Provision shall be made for the housing of construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Point Noted for compliance
75.	Occupational health surveillance of the workers shall be done on a regular basis.	Point Noted for compliance
<b>B.9 OTHER CONDITIONS</b>		
76.	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area)	Point Noted for compliance
77.	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project	DPA is not using ground water for any purpose. Water requirements will be met through procurement from GWSSB or private tankers.
78.	All excavation related dewatering shall be as duly authorized by the CGWA. A NOC from the CGWA shall be obtained for all dewatering and ground water abstraction	DPA is not using ground water for any purpose Water requirements will be met through procurement from GWSSB or private tankers.

79.	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.	Point Noted for compliance
80.	All other statutory clearances such as the approvals for storage of diesel / fuel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities	Point Noted for compliance
81.	The company shall have a well laid down environmental policy duly approved by the Board of Directors' The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholder's / stake holders. The copy of the board resolution in this regard shall be submitted as a part of six-monthly report	The DPA has Environmental Policy approved by the competent authority. The Environmental policy has already prescribed for standard operating process/procedure to bring into focus any infringements/ deviation/ violation of the environmental or forest norms.  DPA is already having well established Environment Management Cell for ensuring proper checks on non-compliances/ violations of Environmental norms.
82.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization	DPA is already having well established Environment Management Cell for ensuring proper checks on non-compliances/ violations of Environmental norms.
83.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report	Point Noted for compliance
84.	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out	Point Noted for compliance
<b>C.</b>	<b>COMPLAINCE</b>	<b>OF</b>
	<b>CLEARANCE/REPORTING/ADMINISTRATION/APPEAL</b>	<b>ENVIRONMENT</b>
85.	Project proponent shall inform to all the concerned authorities including Municipal Corporation and District Collector and shall	DPA has already given advertisement in two newspapers i.e. in Divya Bhaskar, Rajkot Edition (Gujarati & English) & in Times of



	also give wide publicity through advertisement in minimum two local newspapers within seven days, about the Environment Clearance order accorded	India, Ahmedabad Edition (Gujarati & English) dated 04/01/2024 A copy of the same had already been submitted along with pointwise compliance report (period up to May, 2024) submitted vide communication dated 5/7/2024. Further, DPA vide letter dated 04/01/2024 had already informed to the concerned local bodies.
86.	Project proponent shall appoint a key person in the organization who shall be responsible for compliance of above condition fully on behalf of the proponent. It will not mean that appointing a key person will exempt the project proponent from the responsibility of compliance. Any change in key person shall immediately be informed to SEIAA and all concerned authorities	Point Noted for compliance
87.	Designated key person shall submit six monthly compliance report to SEIAA/SEAC, MOEF&CC, GPCB and Nodal Department of the Government.	Point Noted for compliance.
88.	The Nodal Department or any authority or officer authorized by MOEF&CC/SEIAA can inspect the site of the project and all the facilities, for verification of compliances of environment clearance conditions	Point Noted. It is assured DPA shall assist Nodal Department or any authority or officer authorized by MOEF&CC/SEIAA during their inspection to the site of the project and all the facilities.
89.	In case of violation reported upon, the project proponent shall be responsible for all the legal actions as per Environment Protection Act, 1986 including SEIAA may cancel, withdraw or keep in abeyance, the Environment Clearance accorded	Point Noted.
90.	Any person including the project proponent affected by this Environment Clearance order may file appeal to Honorable National Green Tribunal West Zone branch, Pune, preferably within a period of thirty days from the date of issue of Environment Clearance as prescribe under section 16 of National Green Tribunal Act 2010	Point Noted.
91.	All complaints and public grievance or representations may be addressed to SEIAA/SEAC in the email addresses (a) <a href="mailto:msseiaagj@gmail.com">msseiaagj@gmail.com</a> & (b) <a href="mailto:seacgujarat@gmail.com">seacgujarat@gmail.com</a>	Point Noted.

# **Annexure -A**

**COMPLIANCE REPORT (up to September, 2024)**

**Subject:** Compliance of conditions stipulated in CRZ recommendations issued by GCZMA for the proposal "Setting up of RORO/ RO PAX Facility by M/s. Deendayal Port Authority (Erstwhile: Deendayal Port Trust) at MulDwarka, Gujarat".

**Ref.:** Letter No. ENV-10-2022-63-T dated 20/05/2023 of Director (Environment) & Member Secretary, GCZMA, Forest & Environment Department, GoG.

<b>Sr. No.</b>	<b>Conditions in CRZ Recommendation Letter</b>	<b>Compliance</b>
	<b>Specific Conditions</b>	
1	The provisions of the CRZ notification, 2011 and as amended from time to time shall be strictly adhered to by the DPA.	No construction activity has been started. However, it is assured that provisions of the CRZ notification, 2011 and as amended from time to time shall be strictly adhered to by the DPA.
2	DPA shall obtain all necessary clearances/ NOC from authorities/ departments before construction and commissioning of the activities.	No construction activity has been started. However, it is assured that DPA shall obtain all necessary clearances/ NOC from authorities/departments before construction and commissioning of the activities.  DPA had already obtained CTE from GPCB vide letter no 16135 dated 9/5/2022. Further, a copy of the same once again submitted along with Pointwise compliance report submitted vide communication dated 5/7/2024.
3	All the recommendations and suggestions given by the Ultra Tech Environmental Consultancy and Laboratory in their Environment Impact Assessment Study shall be implemented strictly by DPA.	No construction activity has been started. However, it is assured that all the recommendations and suggestions given in Environment Impact Assessment Study shall be implemented by DPA.
4	DPA shall adhere to their undertaking dated 15/09/2022. DPA shall not undertake any development for onshore parking facility in CRZ-1A area as mentioned in CRZ map prepared by IRS, Anna University, Chennai and submitted to CRZ authority. No parking facility shall be provided in CRZ-1A area. Instead multiple parking shall be provided outside CRZ 1A area.	No construction activity has been started. However, it is assured that DPA shall adhere to with the undertaking dated 15/09/2022 submitted to the GCZMA.  A copy of revised planning of onshore parking facility (after excluding CRZ 1 A area), which had already been submitted to the GCZMA at the time of obtaining CRZ Recommendation. Further, a copy of the same once again submitted along with Pointwise compliance report submitted vide communication dated 5/7/2024.

5	Dredging shall be as per the Dredging plan of study report submitted by IIT, Madras on "Hydrodynamic and Dredge Disposal Modelling/ EIA/ EMP/ Undertaking and disposal of Dredged materials to the tune of 3,00,000 cu.mt shall be carried at designated area only.	No dredging activity has been started. However, it is assured that, DPA shall comply with the stipulated condition and dredged materials shall be disposed in designated area, as per IIT, Madras report.
6	DPA shall submit the Sea Turtle Conservation Plan to PCCF [WL] for its implementation or implement by its own based on approval of Sea Turtle Conservation Plan from PCCF [WL]. PP has to use its CSR/CER amounting Rs. 1.00 crore fund for Sea turtle and other coastal and marine flora & fauna conservation.	The Chief Wildlife Warden, Gujarat State, Gandhinagar vide letter no. WLP/32/C/TE-2/511-513/2024-25 dated 24/1/2024 has accorded approval to the Conservation Plan ( <u>revised</u> ) (Sea Turtle, Indian Peafowl & Asiatic Lion) submitted by DPA for the project of "Setting up of Ro-Ro/Ro-Pax Facility at Muldwarka, Gujarat", vide letter dated 2/8/2023 to the Dy.CF, Gir (West Division), Junagadh. A copy of the said approval of the Chief Wildlife Warden dated 24/1/2024 along with conservation plan submitted along with Pointwise compliance report submitted vide communication dated 5/7/2024. (with Financial Outlay of Rs. 1 crore).
7	DPA shall need to prepare Shore Line Management Plan [SMP of Muldwarka port] through reputed institutions like NCSCM, NIO, NIOT, IIT etc and shall submit to GCZMA. PP shall also monitor and implement the steps or action proposed in Shoreline Management Plan and report of that shall be submitted to GCZMA periodically.	No construction activity has been started. However, DPA is exploring the agencies to prepare Shore Line Management Plan. Once finalised report of same will be submitted to the GCZMA.
8	No effluent or sewage shall be discharged into the sea/ creek or in the CRZ area and shall be treated to conform to the norms prescribed by the Gujarat Pollution Control Board and shall be reused/ recycled as per the approval of the Board.	No construction activity has been started. However, it is assured that No effluent or sewage shall be discharged into the sea/ creek or in the CRZ area and shall be treated to conform to the norms prescribed by the Gujarat Pollution Control Board and shall be reused/ recycled as per the approval of the Board.
9	The labour camps shall be located outside the CRZ area and labour shall be provided with the necessary amenities, including sanitation, water supply and fuel and it shall be ensured that the environmental conditions are not deteriorated by the labours.	No construction activity has been started. However, it is assured that the labour camps shall be located outside the CRZ area and labour shall be provided with the necessary amenities, including sanitation, water supply and fuel and it shall be ensured that the environmental conditions are not deteriorated by the labours

10	The groundwater shall not be tapped to meet with the water requirements in any case.	No construction activity has been started. However, it is assured that the groundwater shall not be tapped to meet with the water requirements.
11	The ferry vessels and Jetty sited shall have sign boards so that the passengers do not leave the food leftovers and other wastes I the sea and at jetty site and training in these aspects shall be given to the crew.	Point Noted for compliance
12	The noise level during transport and construction of marine facilities shall be kept minimum and shall not exceeded prescribed norms under their Rules.	No construction activity has been started. Point Noted for compliance.
13	All construction materials are to be kept covered in storage depots or in any other enclosed space to minimize the impact on ambient air quality.	No construction activity has been started. However, it is assured that all construction materials shall be kept covered in storage depots or in any other enclosed space to minimize the impact on ambient air quality
14	The construction debris generated during the construction phase shall not be discharged into the creek, sea, estuary or into the CRZ area. The debris shall be removed from the construction site immediately after the construction is over and shall be disposed off as per the guidance of the GPCB.	No construction activity has been started. However, it is assured that the construction debris generated during the construction phase shall not be discharged into the creek, sea, estuary or into the CRZ area. The debris shall be removed from the construction site immediately after the construction is over and shall be disposed off as per the guidance of the GPCB.
15	The construction camps shall be located outside the CRZ area and the construction labours shall be provided with the necessary amenities, including sanitation, water supply and fuel and it shall be ensured that the environmental conditions are not deteriorated by the construction labours.	No construction activity has been started. However, it is assured that the construction camps shall be located outside the CRZ area and the construction labours shall be provided with the necessary amenities, including sanitation, water supply and fuel and it shall be ensured that the environmental conditions are not deteriorated by the construction labours.
16	DPA shall take up greenbelt development activities in consultation with the Gujarat Institute of Desert ecology/ Forest department/ Gujarat Ecology Commission.	No construction activity has been started. However, it is assured that DPA shall take up greenbelt development activities.
17	The cost of the external agency that may be appointed by this department supervision/ monitoring of the project activities during construction/ operational phases shall be paid by DPA.	Point Noted for compliance
18	DPA shall contribute financially for any common study or project that may be	Point Noted for compliance

	proposed by this Department for environmental management / conservation/ improvement for the areas.	
19	DPA shall prepare and regularly update their local Oil Spill Contingency and Disaster Management Plan in consonance with the National oil spill and Disaster Contingency Plan.	Point Noted for compliance
20	DPA shall adopt the necessary soil conservation measures to prevent any exposed soil from being eroded or blown over.	Point Noted.
21	A Disaster Management Plan to meet with any eventualities that may arise during construction and/ or operational phase shall be prepared implemented.	Point Noted for compliance
22	A separate Environmental Cell with qualified personnel shall be created to Implement the Environmental Management Plan and a separate budget shall be provided for this purpose.	DPA is already having well established Environment Management Cell.
23	The cost of the external agency that may be appointed by this department for supervision/monitoring of the project activities during construction/ operational phases shall be borne by DPA.	Point Noted for compliance
24	DPA shall exercise extra precautions to ensure the navigation safety and mitigation of the risk associated with the project activities especially due to collision, sinking or accidents of the ships and would deploy the latest communication and navigation aids for this purpose.	Point Noted for compliance
25	A separate environmental management cell with qualified personnel shall be created for environmental monitoring and management during construction and operational phases of the project.	DPA is already having well established Environment Management Cell for environmental monitoring and management during construction and operational phases of the project.
26	DPA shall implement programs in line with the commitments made in the Environment Management Plan submitted and shall submit the reports to GCZMA periodically.	Point Noted for compliance
27	A six monthly report on compliance of the conditions mentioned in this letter shall have to be furnished by DPA on a regular basis to this Department.	Point Noted for compliance



28	A separate budget shall be earmarked for environmental management and socio-economic activities and details thereof shall be furnished to this Department. The details with respect to the expenditure from this budget head shall also be furnished.	Point Noted for compliance
29	DPA shall have to contribute financially for taking up the socio-economic upliftment activities in this region in consultation with the Forests and Environment Department and the District Collector/ District Development Officer.	Point Noted for compliance
30	An Environmental report indicating the changes, if any, with respect to the baseline environmental quality in the coastal and marine environment shall be submitted every year by DPA.	Point Noted for compliance
31	Environmental Audit report shall be submitted every year. The report shall also over the change in the coastal and marine environment due to commissioning of the proposed activities.	Point Noted for compliance
32	Any additional condition that may be imposed by this department/ SEIAA, from time to time shall have to be complied with by DPA.	Point Noted.

# **Annexure -2**

## Annexure 2

**Monitoring the Implementation of Environmental Safeguards  
Ministry of Environment Forest & Climate Change  
Integrated Regional Office (WZ), Gandhinagar  
Monitoring Report  
(for the period up to September, 2024)**

### DATA SHEET

1.	Project type: River-valley/ Mining / Industry / Thermal / Nuclear / Other (specify)		:	Infrastructure & miscellaneous projects + CRZ
2.	Name of the project		:	Setting up of RoRo/RoPax Facility at, Muldwarka, Gujarat, by Deendayal Port Authority at Survey No. 74/3 for Onshore area -6 Ha, Muldwarka, Kodinar, Gir Somnath. (Offshore Facility: 320m waterfront & Onshore Facility: 6Ha. Area Development).
3.	Clearance letter (s) / OM No. and Date		:	Environment and CRZ clearance accorded by the SEIAA, Gujarat vide letter SEIAA/ GJ/ EC&CRZ/ 7(e)/ 1710/ 2023 dated 30/12/2023.
4.	Location		:	
	a.	District (S)	:	Gir Somnath
	b.	State (s)	:	Gujarat
	c.	Latitude/ Longitude	:	20°45' N, 70°39' E
5.	Address for correspondence		:	
	a.	Address of Concerned Project Chief Engineer (with pin code & Telephone/telex/fax numbers)	:	Chief Engineer, Deendayal Port Authority, A.O. Building, Gandhidham- 370 201. P.O. Box no. 50. Phone: 02836 233192; 02836 220050
	b.	Address of Project: Engineer/Manager (with pin code/ Fax numbers)	:	Same as above
6.	Salient features		:	
	a.	of the project	:	Setting up of RoRo/RoPax Facility at Muldwarka (Offshore Facility: Waterfront Development 320 m and Onshore Facility: 6 Ha area) for berthing of vessel capacity of 2,000 DWT to 10,000 DWT. Maintenance Dredging : About 30000 m3 required for the berthing pocket and turning circle.
	b.	of the environmental management plans	:	The salient feature of the EMP is enclosed here with as <b>Annexure 1.</b>
7.	Production details during the compliance period and (or) during the previous financial year		:	No construction has been started.
8.	The breakup of the project area		:	Off shore facility: 320m waterfront and Onshore facility: 6 Ha backup area
	a.	submergence area forest &	:	NIL

		non-forest		
	b.	Others	:	NIL
9.		Breakup of the project affected Population with enumeration of Those losing houses / dwelling units Only agricultural land only, both Dwelling units & agricultural Land & landless labourers/artisan	:	NIL
	a.	SC, ST/Adivasis	:	NIL
	b.	Others (Please indicate whether these Figures are based on any scientific And systematic survey carried out Or only provisional figures, if a Survey is carried out give details And years of survey)	:	NIL
10.		Financial details	:	
	a.	Project cost as originally planned and subsequently revised estimates and the year of price reference:		
	1.	Estimated Cost of the Project	:	Rs. 140 Crore
	b.	Allocation made for environ-mental management plans with item wise and year wise Break-up.	:	The allocation made under the "Environmental Services & Clearance of other related Expenditure" scheme during BE 2024-2025 is Rs. 657 Lakhs.
	c.	Benefit cost ratio / Internal rate of Return and the year of assessment	:	--
	d.	Whether (c) includes the cost of environmental management as shown above.	:	Yes
	e.	Actual expenditure incurred on the project so far	:	No construction has been started.
	f.	Actual expenditure incurred on the environmental management plans so far	:	No construction has been started.
11.		Forest land requirement	:	
	a.	The status of approval for diversion of forest land for non-forestry use	:	NIL
	b.	The status of clearing felling	:	NIL
	c.	The status of compensatory afforestation, if any	:	NIL
	d.	Comments on the viability & sustainability of compensatory afforestation program in the light of actual field experience so far	:	NIL
12.		The status of clear felling in Non-forest areas (such as submergence area of reservoir, approach roads), if any with quantitative information	:	NIL
13.		Status of construction	:	
	a.	Date of commencement (Actual and/or planned)	:	No construction has been started. Date of commencement will be intimated once actual Project implementation started on Project site.

	b.	Date of completion (Actual and/or planned)	:	12 months
14.		Reasons for the delay if the Project is yet to start	:	-----
15		<p>Details of site visit:</p> <p>a) The dates on which the project was monitored by the MoEF&amp;CC Regional Office on previous occasions (if applicable).</p> <p>b) Date of site visit for this monitoring report.</p>		-----
16		<p>Details of correspondence with project authorities for obtaining action plans/information on the status of compliance to safeguards other than the routine letters for logistic support for site visits.</p> <p>(The first monitoring report may contain the details of all the letters issued so far, but the later reports may cover only the letters issued subsequently)</p>	:	-----

# **Annexure -1**



## 10 ENVIRONMENT MANAGEMENT PLAN

EMP (Environmental Management Plan) is a site specific plan which is designed to ensure that the project is implementing in an environmentally sustainable manner. All the key stakeholders like nearby dwellers, workers, contractors, consultants, design engineers etc. shall realize the risks that can arise during the construction as well as operational phase of the proposed project, on the site and how can they contribute in reducing those risks. EMP also ensures that the project implementation is carried out in accordance with the design and by performing appropriate mitigation actions to reduce adverse environmental impacts for a long term period.

Solid waste management system, traffic congestion management and other initiative are also included in EMP. Development of site for project activity to a certain extent, create inevitable impacts mainly during construction phase, but these impacts can be reduced significantly with the help of effective EMP. The potential environmental impacts, which need to be controlled, are mentioned below:

- Air pollution due to the emission of particulate matter and gaseous pollutants;
- Noise pollution due to various noise generating equipment's like DG Sets, Vibrations from machineries, noise from vessels, noise due to congestion (road transport as well as commuters).
- Waste water generation from sanitary/domestic activities.
- Solid waste Management (Collection- Process & Disposal).
- Labor camp with water, power, sanitation and medical facilities.
- Impact of dredging on marine biological environment

To ensure better environment in & around the project site as well as the neighboring population, an effective EMP is developed separately for construction phase.

**Table 10-1: Activities during Construction Phase**

Phase	Land-side Activity	Water-side Activity
<b>Construction</b>	<ul style="list-style-type: none"> <li>• Site Clearing</li> <li>• Transportation of Raw material</li> <li>• Construction/ Precasting/ Fabrication/ Welding/ Crane tracks</li> </ul>	<ul style="list-style-type: none"> <li>• Construction of RoRo/Ro Pax Facility</li> <li>• Maintenance Dredging</li> <li>• Men &amp; Material Transportation</li> <li>• Construction Waste Generation</li> </ul>

**Table 10-2: Activities during Operation Phase**

Phase	Land-side Activity	Water-side Activity
<b>Operation</b>	<ul style="list-style-type: none"> <li>• Operation of Jetty</li> <li>• Parking &amp; probable traffic congestion</li> <li>• Basic Utilities</li> <li>• Waste Management</li> <li>• Operation of generators &amp; machines</li> </ul>	<ul style="list-style-type: none"> <li>• Ferry Service</li> </ul>

### 10.1 Environmental Management Cell (EMC)

It is a cell for Environmental Management at the project site. EMC's overall responsibility is co-ordination of the actions required for environmental management and mitigation, and for monitoring the progress of the proposed management plans and subsequent actions to be taken for the project. The Cell is to be headed by a qualified Environmental Engineer and the other members of the cell that will include an environmental field scientist, Health & Safety Engineer and operators for machines present on site.

**Table 10-3: Institutional Composition of Environment Management Cell**

Sr. No.	Designation	Qualification	Responsibilities
1	Manager- Environmental Engineer (Reporting to Project Head – EHS)	B.Tech Environment	Implementation of EMP, compliance with regulatory conditions, Coordination with vendors
2	Health & Safety In charge (Reporting to Project Head – EHS)	M.Sc. Environment	Daily site inspection, compliance of EHS policies, reporting incidents,

The EMC will prepare a formal report on environmental management on regular interval. Apart from responsibilities listed above, the EMC will have the responsibility of the following:

- To implement the environmental management plan effectively,
- Risk identification and control of environmental problems
- To assure regulatory compliance with all relevant rules and regulations,

- To minimize environmental impacts as by strict adherence to the EMP,
- To initiate environmental monitoring as per approved schedule.
- Maintain documentation of good environmental practices and applicable environmental laws as ready reference.
- Maintain environmental related records.
- Coordination with regulatory agencies, external consultants, monitoring laboratories.
- All the Environment related aspects will be handled by a dedicated group and will be responsible for the compliance to all the issues - To manage post project-monitoring plan as per approved EIA & EMP.
- To develop & maintain green belt

### 10.2 Environmental Safety & Management System (EMS)

The objective is to establish a system to assess, monitor and manage environmental performances, which can be used to promote continual environmental improvement and prevention of pollution. Suggestion is to adopt Environment, Health & Safety Management System (EHS & MS) based on recognized international standards for environmental and safety management systems (ISO 14001 – 2015; OHSAS 18001- 2007, 2008).

The procedure that can be adopted in formulating the EMS is presented below:

- Identify and list out environmental aspects due to the operation of the proposed project
- Determine the key operations that have significant environmental impacts
- Identify and track environmental legislations, policies, codes and other relevant requirements
- Establish objectives and targets

### 10.3 Environment Management Fund

**Table 10-4: Environment Management Cost for Construction and Operation Phases**

Sr. No.	Environmental Aspect	Capital Expenditure	Annual Recurring Expenditure in
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		<b>in Lakhs</b>	<b>Lakhs</b>
1	Air and Noise Pollution control measures	10	2
2	Wastewater Management	4	1
3	Solid Waste Management	5	0.5
4	Greenbelt	4	0.4
5	Environmental Monitoring	8	0.8
6	CER fund 1. Installation of solar lights in project area and solar panel in port area, 2. Construction of 3 Public toilets under Total Sanitation Campaign in nearby village, 3. Sanitation and menstrual hygiene awareness program 4. Fishermen endowment fund 5. Medical Camp facilities for Villagers	1. 50 2. 20 3. 10 4. 50 5. 30 Total 150	-
	<b>Total</b>	<b>181</b>	<b>4.7</b>

#### 10.4 Mitigation Measures for RoRo/RoPax Facility at Muldwarka Port

##### 10.4.1 Mitigation measures on Impact on Air

- Vehicles & Machines to be properly and timely maintained and serviced regularly to control the emission of air pollutants in order to maintain the emissions of NO<sub>x</sub> and SO<sub>x</sub> within the limits prescribed by CPCB.
- Proper implementation of rules & provision of appropriately designed channels for the motion of the vehicles (LMV & H MV). This practice would not only help in reducing congestion but also, due to proper channels for turning, entry, parking, towards ramp for loading& offloading and exit, less emission can be expected. Will also help in reducing the idling time for vehicles.

- All static and mobile DG Sets should be used only during power cuts and their maintenance should be taken care of, so as to avoid any extra emission, more fuel requirement, leakage etc.
- Use of good quality fuel and lubricants will be promoted. Moreover, low Sulphur content diesel shall be used as fuel for generator sets to control emission of SO<sub>2</sub>.
- Emissions must be checked from the sources like- Generators, machineries and vehicles. They must be serviced and maintained regularly to avoid generation of dust and other air pollutants.
- Regular verification of PUC certificates of all the vehicles entering into the port area. Vehicles older than 15 years will not be allowed to operate during construction phase. Contractors also should be asked to provide regularly PUC Certificate for their vehicle mounted equipment and machinery as per prevalent norms.
- Include vegetation screens alongside the FH access roads and apply of speed restrictions in order to the dispersion of pollutants from roads
- Water sprinkling will be carried out to suppress fugitive dust during earthworks and along unpaved sections of access roads.
- Environmental awareness program/training will be organized to the personnel involved in developmental works.
- Adequately sized construction yard will be provided at the site for storage of construction materials, equipment tools, earthmoving equipment, etc. In addition, temporary field offices and worker amenities will be provided at site. Appropriate spill control measures and labeling / handling procedures will be maintained
- Dust covers will be provided on trucks that would be used for transportation of materials prone to fugitive dust emissions.

#### **10.4.2 Mitigation Measures for Impact on Water**

- A surface water monitoring program shall be implemented during the construction phase.
- Drinking water & wastewater treatment facilities at construction camp must be provided during constructional as well as operational phase.

- Storm water should be separated from domestic wastewater streams in order to reduce the volume of wastewater to be treated prior to discharge.
- The wastewater and sewage generated during construction at site will be collected in septic tank.
- Surface run-off from the construction site should be discharged via sand/silt removal facilities such as sand or silt traps and sediment basins. Channels, earth bunds, or sandbag barriers should be provided on site to direct storm water to such silt removal facilities.
- Special provision will be made to select Contractor with proven track record in implementation of storm water management. Provision for a contractor's waste water management plan will be incorporated in the EMP (to be provided by contractor).
- An adequate drainage system should be provided at the site with separate collection streams to segregate the storm run-off from roads, open areas, material storage areas, vehicle wash water and other wastewater streams. No construction during rainy days or extreme climatic conditions. Suitable measures will also be taken to prevent the runoff with construction materials into the drainage system. Contaminated storm water will be collected and conveyed to sedimentation tank for removing grit.

#### **10.4.3 Mitigation Measures for Impact on Soil**

- Soil erosion due to excavation could be reduced by levelling the soil
- Spillage of construction materials may be controlled to avoid soil contamination and deterioration. Care will be taken to avoid spillage of oil & diesel in order to prevent soil contamination.
- Monitoring the quality of soil used for land filling.
- Construction related soil impacts will be mitigated by organic manures and ensuring that construction phase wastewater is properly treated and reused/safely disposed.

#### **10.4.4 Mitigation Measures for Impact on Noise**

- All contractors should comply with the relevant CPCB noise standards;
- Activities that take place near residential or sensitive receptors shall be planned (restricted to daytime, taking into account weather conditions, etc.);
- Residents in the vicinity to be notified about construction schedules and activities;

- Where necessary, noise emissions should be minimized and controlled through the application of techniques which may include installation of sound barriers and optimization of internal-traffic routing.
- Proper maintenance of equipment to be conducted. Adequate choice while selecting internal combustion equipment to have properly functioning silencers or mufflers.
- Vehicles and generator sets to be serviced regularly and maintained properly to avoid any unwanted generation of noise or vibration from them. If possible, heavy machineries and generators to be operated during day time only.

#### **10.4.5 Mitigation Measures for Impact on Sea Water**

- The dredging activity shall be confined within the project site and the impact due to dredging shall cease upon completion.
- A schedule for dredging shall be prepared and list of DO(s) and DO NOT(s) shall be circulated among the people involved in construction activities.
- It is proposed to check turbidity levels with baseline turbidity levels as a reference during dredging.
- Post dredging monitoring program shall be carried out to assess the effect of dredging and disposal on marine ecology.
- Environmental Monitoring Program comprising of monitoring of marine water quality, marine sediment quality and marine ecology shall be initiated one week prior to commencement of dredging and shall be carried out throughout dredging period dredging and dredged material disposal shall be monitored for compliance with proposed mitigation measures.

#### **10.4.6 Mitigation Measures for Impact on Marine Ecology**

- To mitigate impacts on marine ecology, measures such as selection of equipment and dredgers, environmental monitoring and regulating activities based on monitoring results must be adopted.
- Providing silt screen to avoid movement suspended solid for a longer distance.
- Uniform disposal of dredged material at identified disposal location.
- Littering must be avoided and strict regulations must be implemented for the same.

- Proper navigation system for directions, management & maintenance of boats including the utilities must be present, so as to avoid accidents.

#### **10.4.7 Solid and Hazardous Waste Management Plan**

The Solid Waste Management Plan for the proposed site shall be based on the concept of 3-R's i.e. Reduce, Reuse and Recycle. This plan shall be developed to manage solid wastes and to avoid any discharges into the soil/land or water. It shall establish procedures for the storage, collection and disposal of waste. The overall objective of solid waste management plan is to minimize impact of waste generated through the following:

- Segregation of wastes at source;
- Minimize the amount of waste
- Ensure any hazardous wastes (e.g. used oils, lead-acid batteries) are securely stored and transferred to appropriate facilities;
- Ensure all wastes are properly contained, labeled and disposed of in accordance with National/local regulations; and
- Ensure waste is disposed of in accordance with the waste management hierarchy.
- An inventory shall identify the consumption of products/material, ensuring wastes traceability, and identifying potential wastage and overconsumption.
- Developing goals for reducing the quantities of waste generated, based on periodic reviews & observations.
- These zones acts individually and hence the waste should be collected to a common collection area and then it should be segregated as mentioned.
- During construction phase it is proposed that the contractor shall be responsible for collection, transport and disposal of all types of solid waste generation. It is proposed that the Solid Waste Management Plan for Construction phase shall be developed by the contractor and approved by the developer prior to construction phase.
- During operational phase passengers are not allowed to throw plastic or any other waste like food, water bottles, vegetables etc. It is necessary to highlight rules are regulations in the vessels which needs to be followed by passengers along with fine charged for breaking the rule. Waste disposal bins should be provided in the vessels for dumping of waste.