



**File No: 11-91/2009-IA.III(Pt.)**  
**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**IA Division**  
**\*\*\***



Date **22/07/2025**



To,

SANJAY SINGH  
GUJARAT PIPAVAV PORT LIMITED  
APM TERMINALS, POST RAMPARA - 2, VIA RAJULA , Rampara, AMRELI, GUJARAT, APM  
TERMINALS, 365560  
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**Subject:** **Expansion and Modernization of Pipava Port, Pipavav port is located on the western bank of Gulf of Khambhat in Saurashtra region, Taluka Rajula, District-Amreli Gujarat by M/s Gujarat Pipava Port Ltd-Environmental and CRZ Clearance regarding.**

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/GJ/INFRA1/537804/2025 dated 17/05/2025 for grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and CRZ Notification 2011 as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC25A3501GJ5457525N
(ii) File No.	11-91/2009-IA.III(Pt.)
(iii) Clearance Type	EC and CRZ
(iv) Category	A
(v) Project/Activity Included Schedule No.	7(e) Ports, harbors, breakwaters, dredging
(vi) Sector	INFRA-1
(vii) Name of Project	Gujarat Pipavav Port Limited ( APM Terminals Pipavav)
(viii) Name of Company/Organization	GUJARAT PIPAVAV PORT LIMITED
(ix) Location of Project (District, State)	AMRELI, GUJARAT
(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

3. The proposal is for Expansion and Modernization of Pipava Port, Pipavav port located on the western bank of Gulf of

Khambhat in Saurashtra region, taluka Rajula, District-Amreli Gujarat by M/s Gujarat Pipava Port Ltd. It is situated at a latitude of 20°54'N and a longitude of 71°30' E.

4. The project/activity is covered under the category 'A' of item 7(e), i.e., 'Ports, harbours, breakwaters, dredging' of the schedule to the EIA Notification, 2006, and its subsequent amendments. The cost of the project is estimated is Rs. 3,400 Crores.

5. Environmental & CRZ Clearance of existing Gujarat Pipavav Port by M/s GPPL was granted by Ministry of Environment, Forest and Climate Change (MoEFCC) on 5<sup>th</sup> June 2012 for 7 years i.e., up to 4<sup>th</sup> June 2019. The EC & CRZ Clearance was further extended till 4th June 2024.

6. The port primarily handles containers, bulk/break bulk, LPG/liquid bulk as well as Ro Ro cargo. The port area leased from Gujarat Maritime Board(GMB) as per the Concession Agreement is 423 ha. The total area of the port is 592 ha, with reclamation land. Currently, the port can handle up to 1.35 MTEU of containers, 5 MTPA of dry bulk cargo, 2 MTPA of liquid cargo, and about 250,000 CEUs per year.

7. Details of the Existing and Proposed expansion Berths: The Port has five Berths to handle Containers, Bulk, Break bulk, Project Cargo, Liquid and RoRo Cargo. The details are as under:

Handling of Cargo	As per 2012 EC	Current	Proposed	Total after Expansion	Unit
Bulk & Break Bulk cargo	26	5	1	6	MTPA
Liquid cargo	6	2	4.4	6.4	MTPA
Container cargo	4	1.35	0.8	2.15	MTEUs
Roll on Roll off (Vehicle transportation)	750000	250000	50000	300000	CEU.

8. The status of the project as per the Environmental & CRZ Clearance dated 5<sup>th</sup> June 2012 are as following:

Sl. No	Activities proposed for expansion (2012)	Status as per 2019
1	Construction of berth number S and approach bridge (J' berth no 4 and LPG berth)- Phase 1	Not started
	Filling of guide bund of exiting LPG berth for container yard Phase-1	Not started
3	Extension of berth no-1 toward southwest b 110 m Phase 1	Not started
4	Relocation of LPG berth and construction of guide bund -Phase 1	Not started
5	Construction of liquid berth and guide bund- Phase 1	Not started
6	Joining of berth number 5 with LPG and Liquid berth for creating container berth (Phase- 2)	Not started
7	Filling of guide bund behind LPG and Liquid berth (Phase 2)	Not started
8	Relocation of LPG berth and guide bund - Phase 1	Not started
9	Construction of liquid berth and guide bund- Phase 2	Not started
10	Construction of coal yard and other bulk storage yard	Partly
11	Construction of container yard (Within and outside CRZ)	Partly
12	Construction of warehouse (Outside CRZ area)	Not started
13	Construction of rail sliding (Outside CRZ area)	Partly
14	Construction of closed conveyor for transport of coal (With' and outside CRZ)	Not started
15	Construction of first aid station and employees rest room	Completed
16	Construction of road	Partly
17	Construction of residential colony for employee (Outside CRZ)	Partly
18	Dredging (Capital and maintenance)	Partly

9. Cargo Handled: The cargo handled by the port in last two financial years is as follows:

Type of Cargo	Unit	Present	Proposed Addition	Total after Expansion
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Bulk & Break Bulk cargo	MTPA	5	1	6
Liquid cargo	MTPA	2	4.4	6.4
Container cargo	MTEUs	1.35	0.8	2.15
Roll on Roll off (RoRo)	CEU	250000	50000	300000

10. Details of Past Expansion and its Environmental Clearances: CRZ & Environmental Clearance (EC) for Expansion and modernization of Port Pipavav envisaged addition of 2450 mt. berth length, which included 3 Container Berths, extension of 110 m Bulk berth and 2 liquid berths, for handling 26 MMTPA of Bulk Cargo, 4 m TEUs of Container and LPG/POL of 6 MMTPA, Capital dredging of 18 MCBM and maintenance dredging of 2 MCUM obtained on 5th June, 2012. Extension of validity of CRZ & Environmental Clearance was extended up to 4th June 2022 by MoEF&CC on 2019. Further, EC&CRZ Clearance. Validity has been extended for 1 year i.e., up to 3rd June-2023 as per MoEF &CC gazette Notification 18-Jan-2021.

11. The current status of the Project: The Project/activities have been at various stages of development and the progress of the Project is as follows:

Sl. No.	Description	Status	Remarks
1	Construction of berth number 5 and approach bridge (joining berth no:- 4 and LPG berth)- Phase 1	Not Started	Could not be taken due to adverse macro-economic conditions.
2	Filling of guide bund of existing LPG berth for container yard-Phase 1	Not Started	
3	Extension of berth no 1 towards southwest by 110 meters- Phase 1	Not Started	Could not be taken up as the TPP in the hinterland of Pipavav did not materialize
4	Relocation of LPG berth and construction of guide bund- Phase 1	Not Started	Could not be taken up due to reduced demand and unfavorable macroeconomic conditions
5	Construction of liquid berth and guide bund-Phase 1	Not Started	
6	Joining of Berth number 5 with LPG and Liquid berth for creating container berth (Phase 2)	Not Started	Could not be taken up due to reduced demand and unfavorable macroeconomic conditions
7	Filling of guide bund behind LPG and liquid berth (phase2)	Not Started	
8	Relocation of LPG berth and construction of guide bund- Phase 2	Not Started	
9	Construction of liquid berth and guide bund-Phase 2	Not Started	
10	Construction of coal yard and other bulk storage yard	50%	Partly completed and proposed for completion of development
11	Construction of container yard	20%	Could not be taken up due to unfavorable macroeconomic conditions
12	Construction of warehouses	Approx 10,000 sqm Completed	
13	Construction of rail siding	50%	
14	Construction of closed conveyer for transport of coal	Not Started	Could not be taken up as the TPP in the vicinity of Pipavav did not materialize
15	Construction of first aid station and employees rest room	Completed	
16	Construction of road	Partly completed	Subject to Business trigger

17	Construction of residential Colony for employees.	Partly completed	Partly completed and proposed. for completion of development
18	Dredging(capital and maintenance)	Partly completed	Capital Dredging–1,11,941 CUM done. Maintenance Dredging undertaken every 1.5 to 2 years(740948.75 CBM of Maintenance dredging carried out since 2012. Expected to be carried out every 1.5 years

12. The Project has not been completed due to macroeconomic conditions, business scenario and trade related factors impacting volumes growth and the major expansion of waterfront facilities could not be undertaken as mentioned above.

13. Proposed Project Facilities: Based on the traffic forecast and business requirement GPPL proposes to develop following infrastructure.

- a) Construction of LPG/Liquid Berth (350 m long) Berth 6
- b) Construction of Guide Bund for Berth 6 (600m long)
- c) Construction of Container Berth No.5 (400 m long) and approach Bridge (Conversion of existing liquid Berth -5 and joining berth no.4)
- d) Filling of Guide Bund of existing liquid jetty for Container Yard
- e) Reclamation of area behind existing liquid jetty guide bund for Container Yard
- f) Construction of Liquid/LPG Berth 7 (350m long)
- g) Construction of Guide Bund for Berth 7 (475 m long)
- h) Construction of Tug Berth
- i) Extension of Berth No.1 towards southwest by 110 m
- j) Construction of Container Yard (within and outside CRZ)
- k) Construction & Maintenance Bulk Storage Yard & RoRo Yard
- l) Construction of Warehouse (outside CRZ)
- m) Construction of Railway siding (outside CRZ)
- n) Capital & Maintenance Dredging, deepening of channel, turning basin and new berths
- o) Construction of Canteen Facility (Outside CRZ)
- p) Construction of Road
- q) Construction of Residential Colony (outside CRZ)
- r) Construction of Storage facility for POL Gaseous, Chemical and Non- Hazardous Cargo
- s) Widening of existing guide Bund (Pipeline corridor) by 8m
- t) Widening of Jetty No.1 towards Landside
- u) The Port Capacity after undertaking the above Project would be as follows: -
- v) Containers: 2.15 MTEUs
- w) Bulk: 6 MMTPA
- x) Liquid: 6.4 MMTPA
- y) RoRo: 300,000 CEUs (Car equivalent Unit)

14. Terms of References (ToR): The ToR proposal was considered in the 333rd EAC meeting held on 11<sup>th</sup>-12<sup>th</sup> July, 2023 in the Ministry, the committee recommended the proposal for undertaking detailed EIA/EMP report. Ministry has prescribed the ToR vide letter No. 11-91/2009-IA.III(Pt.) dated 04<sup>th</sup> September, 2023.

15. The public hearing was conducted on 23.07.2024 under the chairmanship of Sub Divisional Magistrate, Rajula. at Open Plot, near Admin Building APM Terminals, Pipavav(Gujarat Pipavav Port Limited) Post-Rampara-2, Tal-Rajula, District Amreli-365560.

16. Land use Land cover of the project site:

Sl.No	Land use/Land cover	Area (ha)	Percentage (%)
1	Villages	610.8	3.3
2	Fallow	7613.6	41.7
3	Plantation	1110.7	6.1
4	Mangroves	213.7	1.2
5	Marshy/Swampy Land	1454.1	8.0



6	Barren Rocky/Stony Waste	139.1	0.8
7	Land with scrub	1259.1	6.9
8	Sandy Area	61.8	0.3
9	Mining/Industrial Wasteland	793.2	4.3
10	River/Creek/Canal/Stream	633.5	3.5
11	Tank/Pond/Lake Reservoir	359.6	2.0
12	Aquaculture Pond/Salt pans	2933.6	16.1
13	Industrial Area	1060.3	5.8
Total		18243.1	100.0

17. Terrain and topographical features: The topography of the study area is generally plain with minor undulation. The land is barren; the elevation ranges between 3 and 5 m above MSL. Pipavav is located at the edge of the Saurashtra coast, which is generally even with few indentations that permit minor port development and fisheries.

18. Details of water bodies, impact on drainage: The Proposed expansion will come on the shore of the Arabian Sea. No impact on drainage is envisaged due to the proposed expansion.

19. Water requirement: The total water requirement of the project is 1500 KLD, Upon Expansion water will be require 1537.5KLD. During operation existing capacity is 1500 KLD and will not require additional water capacity for proposed expansion. Water supply from GWIL pipeline will be sufficient to take care of construction/expansion plans as well. Port also using harvested rainwater to minimize the water usage. No Groundwater will be extracted.

20. Tree cutting: The proposed project will not involve any tree cutting.

21. Diversion of forest land: No forest area is involved in the proposed project site area. The project location encompasses various ecologically sensitive areas, including mangroves and reserved forest areas. The distribution of Mangroves is noticeable along the Motapat Creek, and the exact extent of the reserved forest was identified. There are no protected areas, such as marine national parks or wildlife sanctuaries, within a 10 km radius of the project site. Highly dense mangroves are present inside and near the Pipavav Port. However, a study of flora and fauna has been carried out based on the survey, which observed that none of them are listed in the Schedule. Among the sighted fauna, Pavo cristatus is a Schedule I protected species.

22. Waste Management: STP details:

Description	Existing in KLD	Proposed in KLD	After Expansion in KLD
STP	440 KLD for Township and Offices – MBBR	25 KLD for Jetty area – MBR	465 KLD (Both MBBR & MBR)

23. CRZ details: The proposed project falls in the CRZ region. CRZ IVA, IB, III and IVA are the CRZ region covered by project activity. The details are as following:

Label.	Label Proposed Facility	CRZ-Classification	AREA(In Sq.M)	Total Area (In Sq.M)
A	Construction of LPG/Liquid Berth (350 m long) Berth- 6	CR2-IVA	22265	22265
B	Construction of Guide Bund for berth 6 (600 m long)	CRZ-IB	3236	21142
		CRZ-IVA	17906	
C	Construction of container berth no 5 (400 m long)	CRZ-IB	16016	25293
		CRZ- IVA	9278	
	Filling of guide bund of existing liquid jetty	CRZ-IA(50 m Mangrove Buffer Zone)	1503	74562
		CRZ-IB	64715	
		CRZ-III(NDZ)	3826	
		CRZ-IVA	4519	
E	Construction of container yard &	CRZ-IA (50 m Mangrove Buffer Zone)	6519	56492

	reclamation of area behind existing liquid jetty guide bund for container yard	CRZ-IB	29605	
		CR2-IA	2170	
		CRZ-IVA	18261	
	Construction of Liquid/LPG Berth 7 (350 m)	CRZ-IVA	22010	22010
G	Construction of guide bund of berth 7 (475 m long)	CRZ IVA	30976	30976
H	Construction of tug berth	CRZ- IVA	1052	1052
I	Extension of berth No. 1 towards southwest by 110 m	CRZ-IB	5073	8256
		CRZ-IVA	3183	
	Reclamation of area behind existing Liquid jetty guide bund and construction of container yard.	CRZ-III(200m to 500 m from HTL)	36927	45984
		CRZ-III(NDZ)	9056	
K	Construction & Maintenance bulk storage yard & Ro Ra yard	CRZ-IA(50m mangrove buffer zone)	24869	418537
		CRZ-III (200 m to 500 m from HTL)	307170	
		CRZ-III (NDZ)	86497	
L	Construction of Warehouse	CRZ- III (NDZ)	7430	453088
		Outside CRZ	445658	
M	Construction of Railway siding	CRZ-III (200 m to 500 m from HTL)	2486	358684.
		Outside CRZ	356199	
	Capital & Maintenance Dredging, deepening of channel turning basin and new berths	CRZ- IB	85	1402304
		CRZ- IVA	1402220	
0	Construction of Canteen Facility	Outside CRZ	287	287
	Construction of Road	CRZ-IA(50m Mangrove Buffer Zone)	8428	50722
		CRZ-III (200 m to 500 m from HTL)	19974	
		CRZ - IA	10834	
		CRZ-III (NDZ)	1372	
		Outside CRZ	10115	
	Construction of Residential Colony	Outside CRZ	64003	64003
R	Construction of Storage facility for PDL Gaseous, Chemical and Non- Hazardous Cargo	CRZ-III (200 m to 500 m from HTL)	182415	592410
		CRZ-III(NDZ)	29352	
		Outside CRZ	380643	
S	Widening of existing guide Bund (Pipeline corridor) by 8 m	CRZ-IA (50m Mangrove Buffer Zone)	14473	43926
		CRZ- IB,	9725	
		CRZ-III (200 m to 500 m from HTL)	2456	
		CRZ-III (NDZ)	17273	
	Widening of Jetty No.1 towards Landside	CRZ- IB	5535	12677
		CRZ- IVA.	7142	
Total			3704670	3704670

24. Gujarat Coastal Management Authority has recommended the project vide letter no.ENV/10/2024/65/T dated 14<sup>th</sup> May, 2025.

25. CCR: IRO, MoEFCC, Gujarat visited the project site on 13<sup>th</sup> and 14<sup>th</sup> February, 2024 and issued the Certified EC

compliance report vide letter no. J-11/15-2024-IROGMR dated 19<sup>th</sup> February, 2024. The committee appraised the same.

26. Details of shoreline change: There will be no significant impact on the shoreline abutting the project and on the ecologically sensitive areas along the stretch. The estimated annual mud deposition in the new channel and berth pockets are found to be 1.2 million cum per annum. The deposition in the existing channel is found to be negligible viz, 0.03 million cum per annum. The annual deposition behind the existing piled 142 berths is estimated to be 0.7 million cum.

27. Dredging:

1. Construction of New Liquid Berth 6 & 7 (350 m Long) towards northeast of existing Liquid Jetty (berth 5).
2. Widening of Jetty No.1 towards Landside.
3. Extension of berth 1 towards southwest by 110 meters.
4. Capital dredging =  $8.0 \times 10^6$  m<sup>3</sup> per year.
5. Maintenance dredging =  $1.1 \times 10^6$  m<sup>3</sup> per year.
6. Suitable dredge material will be used for land reclamation in container backup area.

28. Filling of Guide Bund of existing liquid jetty area falls in CRZ-IA admeasuring 1503 Sq.m. Construction of Container Yard & Reclamation of area behind existing liquid jetty guide bund for Container Yard area falls under CRZ-IA which is around 6519 Sq.m. Construction & Maintenance bulk storage yard & RORO yard falls under CRZ-IA area with an area of 24869 Sq.m. Proposed construction of road is passing through the CRZ-IA area which is around 19262 Sq.M. Widening of existing guide Bund (Pipeline corridor) by 8 m is passing through the CRZ-IA area. It has been decided that out of all the mangroves area putting together, only 0.3 Ha mangroves will be impacted.

29. PP proposed to relocate the 0.3ha of Mangrove patch, and in compensation SCZMA has been recommended the specific condition that project proponent shall carryout 500ha Mangroves plantation in consultation with the Forest Department. PP has agreed to carry out 500 Ha of mangroves plantation at suitable location in consultation with the State Government.

30. Land acquisition and R&R issues involved: No land acquisition and R&R issues involved.

31. Employment potential: The proposed existing project is expected to generate employment for 1,985 people. The expansion of the proposed project is expected to generate employment for 300 people, with a total of 2,285 people employed.

32. Benefits of the project: The proposed project will support maritime trade and enhance the competitiveness of exports. Revenue generation and employment opportunities resulting from port development will improve regional development and enhance the nation's economic status.

33. Details of Court case: The proposed project does not involved any court case and litigations.

34. The EAC based on the information submitted and clarifications provided by the project proponent and detailed discussions held on all the issues during 403<sup>rd</sup> meeting during 28<sup>th</sup>-29<sup>th</sup> May 2025 **recommended** the project for grant of environmental and CRZ clearance with stipulated specific conditions along with other Standard EC Conditions.

35. The Ministry of Environment, Forest and Climate Change has considered the proposal based on the recommendations of the Expert Appraisal Committee (Infrastructure, CRZ and other Miscellaneous projects) and hereby decided to grant Environmental and CRZ Clearance for 'Expansion and Modernization of Pipava Port, Pipavav port is located on the western bank of Gulf of Khambhat in Saurashtra region, taluka Rajula, District-Amreli Gujarat by M/s Gujarat Pipava Port Ltd' under the EIA Notification, 2006 and CRZ notification, 2011 as amended, subject to strict compliance of the following specific conditions, in addition to all standard conditions applicable for such projects.

36. This issues with the approval of the Competent Authority.

#### **Copy To**

1. The Principal Secretary (PS) Forest & Environment Department 8<sup>th</sup> Floor, Block-14, New Sachivalaya, Gandhinagar-382010.
2. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Gandhi Nagar A wing- 407 & 409, Aranya Bhawan, Near CH-3 Circle, Sector-10A, Gandhi Nagar-382010.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 32.
4. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10A, Gandhinagar (Gujarat)-10.
5. Parivesh Portal.
6. Guard File/Monitoring File/Website/Record File.

## Annexure 1

### Specific EC Conditions for (Ports, Harbors, Breakwaters, Dredging)

#### 1. Specific Conditions

S. No	EC Conditions
1.1	The guide bund could be created on the trussle without disturbing the existing Mangroves and Tidal flow, which helps to support the growth of the existing mangroves.
1.2	As specified by the SCZMA the project proponent shall carryout 500ha Mangroves plantation in consultation with the Forest Department.
1.3	Mangrove patches are found in areas around the Construction of Container Yard & Reclamation of rea behind existing liquid jetty guide bund for Container Yard area. No Mangroove can be transplanted unless exigencies demand. Where absolutely necessary, relocating of Mangroves shall be undertaken with prior permission from the concern Authority. All the plantation will be done by the state forest department as deposit work and not by private contractors.
1.4	The PP shall prepare a Mangrove Restoration and Conservation Plan in consultation with the state forest department and submitted to the IRO of MoEFCC along with its first 6 monthly compliance report. The plan shall be implemented at the project cost and the status of the implementation of the same shall be submitted along with subsequent the six monthly EC and CRZ compliance report. The conservation plan shall adhere to the strategies to restore and revive the mangrove areas through ecological restoration and re-densification.
1.5	The wildlife conservation plan and green belt prepared shall be submitted to the State Forest Department. If the State Forest Department feels it necessary if any specific mitigation measures are recommended by the Forest Department, the same shall be incorporated into the Plan. A copy of the biodiversity assessment and conservation/mitigation plan shall be submitted to the Concern IRO, MoEFCC, to monitor the execution of the plan. Further, the status of the implementation of the Conservation plan shall be submitted along with the six monthly EC and CRZ compliance report.
1.6	BLEVE study shall be conducted for deciding the safe location of LPG storage in the port. Location



S. No	EC Conditions
	is to be reviewed as per outcome of the study. The report of the study shall also be submitted to the IRO along with first 6 monthly compliance report along with action taken on this report.
1.7	PP informed that the Joint Committee comprising of GCZMA sub Committee members along with the PP visited the proposed site on 11/11/2024 and made certain recommendations. All the recommendations shall be implemented as recommended by the SCZMA. The status of the implementation of the conditions shall be submitted along with the 6 monthly EC compliance report.
1.8	Marine ecological monitoring and its mitigation measures for the protection of phytoplankton, zooplanktons, macrobenthos, estuaries, sea-grass, algae, seaweeds, Crustaceans, Fishes, coral reefs and mangroves, etc. shall be carried out.
1.9	The Project proponent shall ensure that no creeks or rivers are blocked or alter due to any activities at the project site and free flow of water is maintained.
1.10	Suitable preventive measures be taken to trap spillage of fuel/engine oil and lubricants from the construction site. Measures should be taken to contain, control, and recover the accidental spills of fuel during cargo handling.
1.11	All the mitigation measures submitted in the EIA report shall be prepared in a matrix format, and the compliance for each mitigation plan shall be submitted to the Concern IRO, MoEF&CC, along with half-yearly compliance report.
1.12	All the recommendations and conditions specified by the Gujarat Coastal Zone Management Authority (GCZMA) vide letter No.ENV/10/2024/65/T dated 14 <sup>th</sup> May, 2025 shall be complied with.
1.13	All liquid waste arising from the proposed development will be disposed of as per the norms prescribed by the Central/State Pollution Control Board. There shall not be any disposal of untreated effluent into the sea/coastal water bodies. It shall be ensured that the wastewater generated is treated in the STP as committed by the project proponent. The treated waste water shall be reused for landscaping, flushing, and/or HVAC cooling purposes, etc. within the development. The project proponent should also make alternate arrangements for situations arising due to malfunctioning of STP. There shall be regular monitoring of standard parameters of the effluent discharge from STP under intimation to the SPCB.
1.14	Cargo handling area shall be provided with the adequate number of high-efficiency dust extraction systems. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.

S. No	EC Conditions
1.15	Storage of the cargo shall be accommodated with a Stacker reclaimed inside provided with DFS (Atomized Automatic Sprinkling System) including peripheral drainage system, internal roads, firefighting system, etc.
1.16	The wind net should be erected in the upwind direction to reduce wind speed hitting the Anthracite coal, Iron and Cement. The wind net should not be erected as a rigid structure. It should be allowed to get sagged in order to avoid the swirling effect.
1.17	Effective safeguard measures, such as regular water sprinkling, shall be carried out in critical areas prone to air pollution and having a high level of particulate matter such as around loading and unloading points and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
1.18	The project proponent shall install at least 4 systems to carry out 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 SO2 and NOx emissions) within and outside the port area at least at four locations (one within and three outside the port area at an angle of 120°each), covering upwind and downwind directions.
1.19	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 with the prescribed fugitive emission standards.
1.20	The project proponent shall abide by all the commitments and recommendations made in Form-II, EIA/EMP report, and also that have been made during their presentation to EAC.
1.21	Necessary arrangements for the treatment of the effluents and solid wastes/ facilitation of reception facilities under MARPOL must be made, and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986. The provisions of the Solid Waste Management Rules, 2016, E-Waste Management Rules, 2016, and Plastic Waste Management Rules, 2016 shall be complied with.
1.22	There should not be any groundwater extraction in the CRZ areas.
1.23	The Hazardous waste generated shall be properly collected and handled as per the provisions of

S. No	EC Conditions
	Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
1.24	The wastewater generated from the activity shall be collected, treated, and reused properly.
1.25	No Solid Waste will be disposed of in the Coastal Regulatory Zone area. The Solid Waste shall be properly collected, segregated, and disposed as per the provision of Solid Waste Management Rules, 2016.
1.26	The project proponent shall install necessary oil spill mitigation measures in the shipyard.
1.27	No hazardous chemicals shall be stored in the Coastal Regulation Zone area.
1.28	The Project Proponent (PP) shall conduct health impact studies through a reputed institute to assess the effects on the local community and evaluate the effectiveness of proposed mitigation measures.
1.29	Project Proponent shall strive to enhance the Green Belt beyond 33% and that the trees planted in this regard would be planted under the campaign "एक पेड़ माँ के नाम", and the details of the trees planted would be uploaded on the portal <a href="https://merilife.nic.in">https://merilife.nic.in</a> .
1.30	The Project Proponent (PP) shall conduct training and capacity building for personnel involved in oil spill response and hazardous waste management.
1.31	Necessary approvals be taken during implementation and commissioning from statutory bodies concerned.

**Standard EC Conditions for (Ports, harbors, breakwaters, dredging)**

**1. Statutory Compliance**

S. No	EC Conditions
1.1	Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.

S. No	EC Conditions
1.2	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.
1.3	All other statutory clearances such as the approvals for storage of diesel 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.

## 2. Air Quality Monitoring And Preservation

S. No	EC Conditions
2.1	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 SO2 and NOx emissions) within and outside the project area at least at four locations, covering upwind and downwind directions.
2.2	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.
2.3	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.
2.4	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.
2.5	The Vessels shall comply the emission norms prescribed from time to time.
2.6	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.
2.7	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 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.

## 3. Water Quality Monitoring And Preservation



S. No	EC Conditions
3.1	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.
3.2	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.
3.3	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.
3.4	Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.
3.5	The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.
3.6	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.
3.7	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.
3.8	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.
3.9	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.
3.10	No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.
3.11	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.

#### 4. Noise Monitoring And Prevention

S. No	EC Conditions
4.1	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
4.2	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.

S. No	EC Conditions
4.3	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.
4.4	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.

## 5. Energy Conservation Measures

S. No	EC Conditions
5.1	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;
5.2	Provide LED lights in offices and project areas.

## 6. Waste Management

S. No	EC Conditions
6.1	Dredged material shall be disposed safely in the designated areas.
6.2	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.
6.3	Necessary arrangements 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 Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.
6.4	The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
6.5	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
6.6	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.
6.7	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.
6.8	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.

## 7. Green Belt

S. No	EC Conditions
7.1	Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines.
7.2	Top soil shall be separately stored and used in the development of green belt.

## 8. Marine Ecology

S. No	EC Conditions
8.1	Dredging shall not be carried out during the fish breeding and spawning seasons.
8.2	Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment.
8.3	The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.
8.4	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.
8.5	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, molluscs, sea grasses, sea weeds, sub-tidal 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.
8.6	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.
8.7	The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.

## 9. Public Hearing And Human Health Issues

S. No	EC Conditions
9.1	The work space shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.

S. No	EC Conditions
9.2	Workers shall be strictly enforced to wear personal protective equipments 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.
9.3	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.
9.4	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.
9.5	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
9.6	Provision shall be made for the housing of construction labour 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.
9.7	Occupational health surveillance of the workers shall be done on a regular basis.

## 10. Environment Responsibility

S. No	EC Conditions
10.1	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 shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
10.2	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.
10.3	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.
10.4	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

## 11. Miscellaneous



S. No	EC Conditions
11.1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
11.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
11.3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
11.4	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
11.5	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
11.6	The criteria pollutant levels namely; PM2.5, PM10, SO2, NOx (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
11.7	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
11.8	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
11.9	No further expansion or modifications in the project shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
11.10	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11.11	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
11.12	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
11.13	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by

S. No	EC Conditions
	furnishing the requisite data / information/monitoring reports.
11.14	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
11.15	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

## 12. Specific Conditions

S. No	EC Conditions
12.1	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.