DEENDAYAL PORT AUTHORITY
(DPA)

Administrative Office Building, Near Madhuban Hotel, Gandhidham, Kutch, Gujarat.

TENDER DOCUMENT

FOR

PORT PACKAGE AND MARINE HULL INSURANCE POLICIES

2025-26

(TENDER NO.FA/AC/E-3192 Dated 09.07.2025)

TENDER DOCUMENTS FOR
PORT PACKAGE AND MARINE HULL INSURANCE POLICIES 2025-26

Annexure A1 - Port Questionnaire (Kandla Port)

Annexure A2 – Port Questionnaire (Vadinar Port)

Annexure B - Undertaking by the Bidder to agree to all the terms of parameters of insurance cover and comply with tender requirements

Annexure C - Tripartite Service Level Agreement to be signed by Successful Bidder, DPA & M/s Marsh Insurance Brokers Pvt. Ltd

Annexure D - Price Bid

Annexure E – Last 5 years claim details

Annexure F – Marsh Risk Inspection Report

Annexure G – Asset Valuation

Annexure H – Crisis Management Plan

Annexure I – Vessel Specifications

Annexure J – Marine Hull Values

Annexure K – Undertaking to not pay any direct / indirect brokerage, commission and / or any other fees etc. to anybody for the proposed reinsurance transaction thereof of Deendayal Port Authority.

Annexure L – Integrity Pact

Annexure M – Reinsurance Support Letter

To,
The New India Assurance Co. Ltd.
United India Insurance Co. Ltd.
National Insurance Co. Ltd.
The Oriental Insurance Co. Ltd.

Subject: Invitation of quotation for Port Package and Marine Hull Insurance Policies of Deendayal Port Authority (DPA) for the year 2025-26

Dear Sir / Madam,

Port Background and History is as under:

Deendayal Port Authority is one of the major Indian ports and is governed by Major Port Authority Act 2021.

Deendayal Port offers an excellent and vast Dry, Liquid and Gas Cargo handling facilities inside the Custom Bonded area for storage for import and export.

Some of the salient features of the Deendayal Port Authority are as under:

- Highly automated and computerized operations with single window system
- Equipped with latest Vessel Traffic Management System (VTMS) to track/monitor vessels movements ensuring safe navigation.
- ISPS code complaint
- Handles all types of cargo (Bulk, Break Bulk, containerized as well as POL) including Captive cargo of two oil Refineries.

Logistics Facility for Vessels

- Ships of 260 mtrs. LOA and 90000 DWT can be accommodated presently.
- Ships upto 260 mtrs. LOA and container vessels upto 330 mtr under specific condition.
- For safe navigation of vessels Navigational channel having 22 lighted navigational Buoys as per IALA system with Solar lights.
- Fully equipped round the clock Signal Station Chemical Terminals.
- Navigation of channels available round the clock.

Infrastructure Facility at Port

- Railway line available inside the port.
- Dry bulk Terminal for handling dry bulk cargo at Tuna Tekra with Quay
- 16 Dry Cargo berths in straight line with Quay Length of 3150 mtrs
- 8 Oil jetties are in straight line.
- Total custom bounded port area inside custom fencing is about 330 hectares
- Higher capacity cranes for Dry cargo

- Accredited with ISO 9001:2008 & 14001:2004 Certified Port
- Presently Two Cargo moorings in the inner Harbour area for stream handling.
- Two dry Cargo operated by Terminal operator having 4 jetties. Oil jetty No 6 is operated by Terminal operator and Oil jetty No 5 jointly by DPA and terminal operator.

Dry Cargo Storage Facility:

Description	Nos.	Area (Sq. Mt.)	Capacity (Mts)
Warehouses	22	193876	781796
Open Storage Space			
Within Custom Bonded area	96	2774465	6450805
Outside Custom Bonded area			

For Liquid cargo and Gas cargo, Port having Unloading/ Loading facility through pipe line connected to storage facility

- Steel Floating Dry Dock
- Deendayal Port Authority is operating a Steel Floating Dry Dock (SFDD) at Kandla since April, 1986. The existing steel floating dry dock caters to the need of the Port Crafts as well as outside organizations and having a capacity to accommodate vessels of following parameters.
- LOA maximum upto 100 mtrs
- Breadth maximum upto 18.3 mtrs.
- Draft maximum up to 5.5 mtrs.
- Lift displacement maximum upto 2700 tonnes.

Location of the port is as available on Google Maps.

DPA intends to take the following policies as described in the Techno Commercial Bid:

A. Port Package Policy:

To cover the entire set of risks to the PORT along with Business Interruption and Liability under port package policy as described in the Techno Commercial Bid. **Cover for terrorism to be included as per the details in the price bid (Annexure D)**.

The Port Package Policy will cover:

All immovable and movable properties including but not limited to marine buoys, floating dry docks and Assets within the Port Premises against material damage
Wreck & Debris removal: costs and expenses incurred in discharging legal obligations to remove any wreck or debris following an occurrence
Business Interruption (including Port/Channel Blockage/disruption of electricity Accidental damage of Oil/Chemical Pipe lines/ blockage of land access)

Liability arising out of and in course of operations of the Port (including accidental pollution and clean-up cost).
Denial of access
Defense Cost

Please note that:

- Deductibles are mentioned under respective Policy coverage.

Quotation for Premium is invited for insurance of the above policies. The details of coverages, sum insured, excess / deductibles etc. are provided in **Price Bid – Annexure D (for premium quotation)**
The policy period shall be 24th July 2025 to 23rd July 2026.

SUBMISSION OF BIDS:

Bidder should submit the bid in soft copy through email at our email ID facao@deendayalport.gov.in in accordance with the Price Bid document and strictly as per the terms and conditions of the tender document and ensure that the same reaches us latest by **12:00 PM on 18th July 2025**. The authorized signatory of the bidder should sign bid digitally. The file containing duly filled in bid documents should invariably be password protected and should either be in pdf or zip format. Kindly note, no queries from the insurance companies shall be entertained by DPA after **14th of July 2025**. Therefore, all tender related documents that will be uploaded by DPA to be reviewed thoroughly and queries if any to be written to DPA before **EOD 14th July 2025**. The email ID for queries to be noted as: facao@deendayalport.gov.in AND vartika.goel@marsh.com & Darshan.Parikh@marsh.com.

PROCEDURE FOR BID OPENING:

DPA will send an email to the respective insurance companies for sharing the password of the protected bid file at the time of opening of the bid document and insurance companies have to share password by separate email for enabling opening of the bid document. DPA shall send the email seeking password to the same email ID of the insurance company from which the bid is received. It may please be ensured that the copy of the email sending the duly filled in bid file should not be marked to our insurance intermediary M/s Marsh India

Insurance Brokers Pvt Ltd. Also, in case the bid documents are not sent to us in password protected files, or if the terms, quotes are mentioned in the email body, such bids shall be disqualified. **Bid opening procedure will begin at 3:00 PM on 18th July 2025**.
It is to be clearly understood that rates quoted by the bidders are final and are strictly in accordance with applicable rules & regulations and that the insurers/bidders take full responsibility of verifying and evaluating the process parameters and the compliance of the warranties applicable for the rates quoted.

EVALUATION CRITERIA:

Evaluation will be made on the combined lowest rate quoted for Part A i.e. Port Package Policy, Part B i.e. Marine Hull Policy and Part C i.e. Terrorism with the coverage as mentioned in the RFP document. **All the bidders have to offer their rates for all three parts separately. Any bidder quoting rates for only one part or two parts, his bid shall be rejected forthwith. This means that the bidder must provide the quotes for all three parts mandatorily**. It is not obligatory on the part of the DPA to accept the Lowest Tender. DPA reserves the right to reject a Tender without assigning any reason thereof. In case the combined bid value of any two or more bidders is equal i.e. there is a tie, the selection of successful bidder shall be made based on the higher average solvency ratio of bidder during the last three years ending on 31st March 2025.

VALUATION:

Port Assets: The sum Insured of Assets and Handling Equipment under Port Package Insurance Policy is based on reinstatement value. The valuation of assets owned by DPA has been carried out by M/s LSI Financial Services Pvt Ltd in July 2025. The insurance company winning the RFP shall bear the cost of the asset valuation of port assets.

Marine crafts owned by DPA: The condition and Valuation survey of floating crafts has been carried out by A. Aggarwal & Associates in July 2025 on agreed value basis and the reports shall be emailed separately to each of the Public Sector Undertaking Insurers. The insurance company winning the RFP shall bear the cost of the condition and valuation of floating crafts. A letter issued by the surveyor noting sum insured of marine crafts forms a part of the tender.

SERVICING PARAMETERS:

The selected Insurance Company will have to execute a Service Level Agreement (SLA) as per the Annexure C.

The formal SLA is part of the tender and needs to be accepted unconditionally by the bidder.

OTHER TERMS & GUIDELINES:

- **The quote for the insurance policy should be absolute**. No conditions shall be attached with the Bid. Any alternate quote/deviation etc. will render the bid invalid.
- **The quote should be on Gross basis inclusive of all loading (as per IRDA) and discounts if any and GST should be shown separately.**
- **The Re-insurance (RI) support, if any, to be advised separately**. The quality of lead reinsurance support will be ensured by the bidder as per IRDA regulations and should have a minimum of "A" rating of AM Best or Equivalent of other standard rating agencies (except GIC Re) for the last three years.
- The reinsurance leader should have experience of leading Ports and terminals in India or worldwide as the size of or larger than DPA. The support letter from the lead reinsurer needs to be submitted as part of the RFP.
- The decision of Deendayal Port Authority as regards the acceptance or otherwise of the terms and conditions of the policy is final and binding on the Insurance Company. If the successful bidder does not agree with any of the terms and conditions of the policy then, the successful bidder will be disqualified.
- The Port reserves the right to have co-insurance placement along with the Lead insurer. The coinsurance pattern will be solely according to the decision of the Port Authority.

INSTRUCTION TO BIDDERS:

General

- No deviation from the Scope of cover, terms and conditions mentioned herein will be allowed. Bids received on the contrary are liable to be rejected.
- Bidders shall be ranked by appropriately weighing coverage and pricing described in the Commercial Bid.
- Bids received via Telegraph/ fax / envelopes will not be considered. Any bids received after the due date and time will not be considered.
- Bidder must fill up all the schedules and furnish all the required information as per the instructions given in various sections of the tender specification. Each and every page of the Tender Specification must be signed and submitted along with the offer by the insurer in token of complete acceptance thereof.
- Canvassing in any form in connection with the tender is strictly prohibited and the tenders submitted by the bidder who resorts to canvassing are liable to be rejected.
- The detail as called for in the bidding documents shall be filled in and completed by the Bidders in all respects and shall be submitted with requisite information and Annexure.
- If the space in any Pro-forma of bidding document is insufficient, additional pages shall be separately added. These pages shall be numbered and shall also carry the bidding document number and shall be signed by the Bidder.
- The bid document must be signed by the Authorized Signatory of the company stating his capacity.
- Bidder has to give the undertaking to the following effect as mentioned at Annexure K that they will not pay any direct / indirect brokerage, commission and / or any other fees etc. to Marsh for the proposed reinsurance transaction thereof of Deendayal Port Authority.
- M/s Marsh India Insurance Brokers Pvt. Ltd. cannot be engaged as reinsurance broker by the successful bidder for reinsurance of Deendayal Port Authority's port package and marine hull insurance as they have given an undertaking to DPA to the effect that they shall not participate either directly/ indirectly in the reinsurance of DPA port package and marine hull insurance and consequently shall not be entitled for any direct/ indirect brokerage/ commission/ fees on

reinsurance business. M/s Marsh India Insurance Brokers Pvt. Ltd., in their capacity as direct brokers, shall be entitled only to direct brokerage payable to them by the successful bidder as allowed by IRDA.

- If any Public Sector Insurance company who bids for this tender engage M/s Marsh India Insurance Brokers Pvt. Ltd. as re-insurance broker, the offers submitted by the Insurance Company (Insurer) will be outright rejected and will not be considered for further evaluation. For the same the bidder has to submit Letter of Undertaking.

Bid Validity

Bid shall remain valid for acceptance for a period of 60 days from the date of opening of the Commercial Bid. The bidder shall not be entitled to modify, revoke or cancel his bid during the said period.

Rejection of tender and other conditions:

The acceptance of Tender will rest with Deendayal Port Authority and does not bind Deendayal Port Authority to accept lowest tender or any tender and reserves to itself full rights for the following without **assigning any** reasons whatsoever.

- To reject any or all the tenders.
- To share premium amongst two or more insurers as co-insurance.

Cost of bidding

- All direct and indirect cost for production and submission of Bidder's quotation including the condition and valuation survey costs, conducted during the policy year, shall be to Bidder's account.

Bidder's responsibility for quotation

- Although all details presented in this bid document have been compiled with all reasonable care, it is the bidder's responsibility to ensure that the information provided is adequate and clearly understood.
- Site visit, if any must be done by bidder at their own expenses with prior intimation to Deendayal Port Authority
- Bidder's quotation is the responsibility of the bidder and no relief or consideration can be given for errors and omissions.

Bid clarification /amendments

- Deendayal Port Authority may issue clarifications/ amendments in the form of addendum/ corrigendum during bidding period and may also issue amendments subsequent to receiving the bids.
- For the addendum / corrigendum issued during the bidding period, bidders shall confirm the inclusion of addendum / corrigendum in their bid. For clarifications issued by Deendayal Port Authority subsequent to receiving the bids the Bidder shall confirm receipt and for any impact on the quoted prices, the Bidder shall follow the instructions issued along with addendum / corrigendum.
- Bidders shall examine the Bidding documents thoroughly and submit to Deendayal Port Authority any apparent conflict, Discrepancy or error. Deendayal Port Authority shall issue appropriate clarification, or amendment, if required. Any failure by Bidder to comply with the

aforesaid shall not excuse the Bidder from performing the services in accordance with the agreement if subsequently awarded the contract.

- The several documents forming the Contract shall be taken, as mutually explanatory to one another and in case of any discrepancies; the Bill of Quantities shall prevail over the Specifications. In case of any dispute, question or difference either during the execution of the Contract or any other time as to any matter or thing connected with or arising out of this Contract, the decision of the FA & CAO, Deendayal Port Authority, thereon shall be final and binding upon all parties.
- If the bidders find discrepancies or omission or have any doubt as to the meaning or intent of any part thereof, they shall write to FA & CAO, Deendayal Port Authority who will send a written explanation to all bidders.

Confidentiality of documents

Bidders shall treat the bidding documents and contents therein as strictly confidential. If at any time, during the bid preparation period, Bidder decides to decline to bid, all documents must be immediately returned to Deendayal Port Authority.

Currencies of bid and payment

Currencies for bid and payment shall be in Indian Rupees only.

Arbitration

I. Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, designs, drawings and instructions here in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or any other thing whatsoever, in any way arising out of or relating to the contract, design, drawings, specifications, estimates, instructions, orders or to the conditions or otherwise concerning the works or regarding the execution or failure to execute the same whether arising during the progress of work or after the completion thereof as described here in after shall be referred to the an arbitrator appointed by the parties under the Arbitration and Conciliation Act 1996 as amended from time to time.

II. It will be no objection to any such appointment that the arbitrator is an employee of the Board or the Government, that he had to deal with the matter to which the contract relates and that in course of his duties as an employee of the Board or the Government, he had expressed views on all or any of the matters in dispute or of different. The arbitrator, who has been dealing with the arbitration case, being transferred or vacating his office or in the event of his death or being unable to act for any reason, the Chairman then holding the office shall arbitrate himself or appoint any officer to act as arbitrator.

III. It is also a term of the contract that no person other than the Chairman himself or any officer appointed by him shall act as arbitrator.

IV. It is a term of the contract that only such question and disputes as were raised during progress of work till its completion and not thereafter shall be referred to arbitration. However, this would
not apply to the questions and disputes relating to liabilities of parties during the guarantee

period after completion of the work.

V. It is a term of the contract that the party invoking arbitration shall give a list of disputes with amounts of claim in respect of each said disputes along with the notice seeking appointment of arbitrator.

VI. It is also a term of contract that if the contractor does not make any demand for appointment of arbitrator in respect of any claims / disputes in writing, as aforesaid, within 120 days of receiving the intimation from the Nodal Officer or his nominee that the final bill is ready for payment, the claim of the contractor shall be deemed to have been waived and absolutely barred and the Port AUTHORITY shall be discharged and released of all liabilities under the contract in respect of these claims.

VII. It is also a term of the contract that the arbitrator shall adjudicate only such disputes / claims as referred to him by the appointing authority and give separate award against each dispute/claim as referred to him. The arbitrator will be bound to give claim wise detail and speaking award and it should be supported by reasoning.

VIII. The award of the arbitrator shall be final, conclusive and binding on all the parties to the contract.

IX. The arbitrator may from time to time, with the consent of both the parties, enlarge the time for making and publishing the award.

X. Arbitration shall be conducted in accordance with the provision of Indian Arbitration Act, 1996 or any statutory modifications or re-enactment thereof and rules made there under and for the time being in force shall apply to the arbitration proceedings under this clause.

XI. It is also a term of the contract that if any fees are payable to the arbitrator, this shall be paid equally by both the parties.

XII. It is also a term of the contract that the arbitration shall be deemed to have been entered on the reference on the date he issued the first notice to both the parties calling them to submit their statement of claims and counter statement of claims.

XIII. Venue of arbitration shall be such place as may be fixed by the arbitrator at his sole discretion.

Integrity Pact

Successful bidder is required to sign an "INTEGRITY PACT" in the format at Annexure L with Deendayal Port Authority within 7 days of issue of Letter of Intent.

The Central Vigilance Commission (CVC) has been promoting integrity, transparency, equity and competitiveness in transactions by various organizations of the Government of India. Public procurement is an area of concern for the CVC, and many steps have been taken to put proper systems in place.

In this context, Integrity Pact (IP), a tool conceptualized and promoted by Transparency International, an international NGO, aimed at preventing corruption in public contracting, has been found useful. It has been decided by Ministry of Shipping that all organizations under the Ministry will implement IP. IP should cover every tender / procurement above a specified threshold value. The threshold value of contracts / procurements / transactions incorporating IP would be such that it covers 90% by value of all contracts / procurements / transactions of the organization in the last 3 years. Presently the threshold is fixed as Rs.3.00 crore. IP essentially envisages an agreement between prospective vendors / bidders, and DEENDAYAL PORT AUTHORITY, committing the persons / officials of both sides not to resort to any corrupt practice in any aspect of the contract at any stage. Only those vendors / bidders, who commit themselves to

IP with DPA, would be considered competent to participate in the bid process. Any violation would entail disqualification of the bidders and exclusion from future business dealings. IP, in respect of a particular contract should cover all phases of the contract, from the stage of Notice inviting Tender (NIT) / pre-bid stage, till the conclusion of the contract, i.e. final payment or the warranty / guarantee period. IP would be implemented through Independent External Monitor (IEM), who are eminent persons appointed by the organization, with approval of CVC.

The term of appointment for an IEM would be 3 years. Name of the IEM will be mentioned in NIT. The IEM would review independently and objectively assess, as to whether and to what extent parties have complied with their obligations under the IP. IEM would have access to all contract documents, whenever required. The bidders may raise disputes / complaints if any, with the IEM. The IEM would examine complaints received by them and give their recommendations / views to the Chairman of Port Authority. Recommendations of IEM would be in the nature of advice and would not be legally binding. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.

Original hard copy of Pre Contract Integrity Pact Agreement shall be submitted along the with bids.

Shri Amiya Kumar Mohapara, IFoS,(Retd.) and Dr. Gopal Dhawan, Ex-CMD, MECL has been nominated as Independent External Monitor for the Integrity Pact whose address is as under:

1. Shri Amiya Kumar Mohapara, IFoS,(Retd.) Qrs. No 5/9, Unit-9, Bhoi Nagar, Bhubaneshwar-751 022, Mobile No 9437002530 email: amiyaifs@gmail.com	**2. Dr. Gopal Dhawan, Ex-CMD, MECL** House NO 120, Jal Shakti Vihar (NHPC Society) P4, Builders Area, Greate Noida Gutam Budh Nagar, Uttar Pradesh- 201 315 email:gdhawangeologist@gmail.com

Part A: Port Package Policy: Details of Property and Sum Insured are as follows:

2.1 <u>Property/Material damage (including all cargo Handling Equipment, Pipelines)</u>

2.1.1. In respect of all properties as per Valuation report dated July 2025 and owned by/under custody of Deendayal Port Authority and situated anywhere within the Confines of the Port/ Terminals. The properties also include fixed/ floating structures/ objects, submarine pipelines, temporary structures etc.

2.1.2. Clauses as per para 2.11

2.1.3 All Risk including AOG Perils, Earthquake. STFI, Tsunami, Impact Damage etc. by (own/calling vessels, floating crafts etc.)

2.1.4 Total sum insured for properties INR 76,385,269,595
Loss Limit for 2.1.4 during the policy period – INR 6,600,000,000 /-

2.1.5 Deductible:

Section 2 – Real & Personal Property:

- Other than AOG peril & Vessel Impact- 2% of claim amount subject to minimum Rs.3 lakhs
- AOG Peril- 2% of claim amount subject to Minimum Rs. 20 lakhs
- Vessel Impact- 2% of claim amount subject to Minimum Rs. 20 lakhs

<u>Section</u> 3 Handling Equipment:

- 2% of claim amount subject to Minimum Rs. 3 lakhs

2.2 <u>Business interruption</u>

2.2.1 For Business interruption consequent upon Property damage (including cargo handling equipment, machineries, pipelines etc.)

2.2.2 For Business interruption of the Port operation (wholly or partly) due to / consequent upon or arising out of:

2.2.2.1 Accident Damage to Insured berth/ quay/ jetties/ dry dock other insured property/ handling equipment/ machineries
2.2.2.2 Accidental Damage to the pipeline (Submarine/Onshore) (owned by port or not)
2.2.2.3 Interruption of electric supply to insured properties or insured handling Equipment which is beyond the control of the assured.
2.2.2.4 Blockage of Channel/Waterways due to any cause/ **any other external cause**

2.2.2.5 Blockage of any land access within the immediate Vicinity* of the Port/Terminals due to any cause

***(immediate vicinity will mean at least 8 km radii from the entrance Port's operational area applicable for both Kandla as well as Vadinar.)**

2.2.3. Loss Limit under Business Interruption:

1. Annual Revenue (Estimate 2025-26): **INR 27,259,668,218/-**
2. Indemnity Period: **2 months**
3. Time Excess: **7 days**
4. Loss Limit: INR **1,000,000,000**

2.3 For Port Liabilities:

2.3.1. Port Liabilities covering:

Third Party Properties Damage

Third party Death, Bodily Injury, personal injury

Errors & Omissions

Liability to third parties for financial loss, consequential loss, wrongful delivery of cargo,

delay or demurrage arising from an error or omission, pilotage, navigational aids, advice

on approach to terminal.

Fines & Duties

Fines and penalties, provided always that the statute, regulation or law that is breached

relates to the importation or exportation of cargo, the importation or exportation of equipment, immigration, security or anti-terrorism, work place safety, pollution, navigation aids, marine traffic control or pilotage infringement of personal Right

Advice & Information

Defense Cost

2.3.2 Environment Pollution Liability due to accidental damage to pipeline and/or insured equipment's due to any cause other than terrorism covering

Death, Bodily Injury of Third Party.

Third Party Property Damage compensation to third parties for personal injury or physical loss or damage to property arising from a pollution incident cost incurred in removing, preventing, mitigating or cleaning up any pollutant following an occurrence covered under the Policy which causes accidental pollution Cleanup cost

Costs of measures to prevent further insured losses following an insured event.

any fine or penalty that arises from any occurrence unless a competent court or tribunal determines that it is illegal or contrary to public policy to be insured against such liability or loss. Tenant's legal liability

Any reasonable expenses incurred towards mitigation of the loss including any defense costs, disinfection, quarantine, disposal, fumigation for cargo, vessels, containers or equipment following an occurrence.

2.3.3 Overall limit of Liability**- INR 400,000,000**

2.3.4 Sub limits for liability arising out of Removal of Wreckage – **INR 50,000,000**

2.3.5 Deductible: INR 5,00,000 any one accident/ occurrence
2.3.6 Deductible: NIL for wreck removal

2.4 Please confirm that no replacement/ substitution/ in lieu of Port Package policy has been quoted in the Price bid.

2.5 Summary of loss limit & CSL under port package:

2.5.1 Property damage – Sum insured – **INR 76,385,269,595**
2.5.2 Business Interruption
1. Annual Revenue (Estimate 2025-26): **INR 27,259,668,218**
2. Indemnity **Period: 2 Months** with time excess

2.5.3 Combined Single Limit INR **7,600,000,000 (excluding third party liability)**
2.5.4 Liability arising from Ports Operations – Combined Single Limit any one occurrence: **INR 400,000,000**

Total Combined Single limit including liability: INR 8,000,000,000

2.6 Other clauses/terms/add on covers:

The Following add-ons / clauses to be incorporated within the Port Package Policy:

a. Automatic Acquisition up to 10% of the total property sum insured- (as per Asset Valuation report) without any additional premium. The said acquisition will be intimated by Deendayal Port Authority within 90 days of such acquisition.
b. The Policy is subject to Reinstatement Value clause.
c. Average clause: Waiver of underinsurance up to **15%** of the sum insurance under Property and BI section
d. Architect/Surveyors and consulting Engineers fees extension with a sub-limit of **upto 10% of Section 2 & 3.**
e. Business Interruption as stated in para 2.2.2.3 above should be treated as an independent insured peril without any relation to insured's property damage (Non- Damage BI).
f. Electronic Exclusion Clause should be deleted
g. Loss Minimization add on (including Fire Fighting Expenses) cover required up to 10% of Section 2 & 3 over and above the sum insured.
h. In the event of a loss, Express freight including air freight, overtime charges and other sundry expenses up to **Rs.1 crore over** and above the respective sum insured under material damage section to be covered.

2.7 Please confirm that GST has been shown separately in the price bid.

2.8 Please confirm that in your premium calculation and quotation in the Commercial bid, you have not deviated from any of the parameters as stated in the coverage and Sum insured / values/ limits mentioned in the Price Bid.

2.9 Please confirm that you have not given any counter/alternative offer/proposal in the Commercial bid and in case there is any deviation from above or addition of any terms/ conditions which have not been mentioned in your Commercial bid, the same will be disqualified and rejected**.**

2.10 Clauses to be attached:

a. Being a Reinsurance subject to follow in full all terms, conditions, exclusions, settlements and/or payments of whatsoever nature of the reinsured as far as LSW 1001 Several Liability Notice (Reinsurance)
b. The policy is non-cancellable from the insurers side. However, insured reserves the rights to cancel the policy giving a 30- day notice and refund of premium is such case will be on Pro-rata basis.
c. Geographic Limits - India
d. Automatic Increase and/or Acquisition Clause as Original as far as applicable subject not exceeding 10% of Total Sum Insured LSW 90 days
e. Asbestos exclusion Clause
f. NMA 2962 Biological or Chemical Materials Exclusion Clause.
g. Sanction Limitations and Exclusion Clause LMA3100
h. Reinstatement Value Clause
i. Average Clause (85%)

2.11 POLICY FORM: Ports and Terminals Wavelength wording amended as under:

Section 1: Liability

Ports and Terminals Liability LSW 1510 (01/04)
Ports and Terminals Consortium Fire Extension (Liability) (LSW 1511)
Ports and Terminals Consortium Advice and Information Extension (Liability) (LSW1512)
Ports and Terminals Consortium Fines and Duty Extension (Liability) (LSW1513)
Ports and Terminals Consortium Infringement of Personal Rights Extension (Liability) (LSW1514)
Ports and Terminals Consortium Wrongful Delivery of Cargo Extension (Liability) LSW1515:

Section 2: Real & Personal Property and Section 3: Handling Equipment

Ports and Terminals Consortium Section 2 Property Damage Wording, amended 1/04 LSW1516.
Clause 2.1 (Insuring Clause) amended to include electrical and machinery breakdown.
Exclusion 4.9 (Communication Equipment) deleted.
Exclusion 5.2 (Road) deleted.
For the sake of good order, Exclusion 5.4 (Stock) does not apply to stock of spare parts.
Clause 8.1 (Automatic Acquisitions) amended to 90 days.
Clause 8.2 (Automatic Acquisitions) amended to 10%.
Ports and Terminals Consortium Earthquake Extension Clause (Property) Amended, 1/04 LSW151.
Clause A amended to include Tsunami.

Clause B amended to include Tsunami.
48 hours amended to 72 hours.
Ports and Terminals Consortium Section 3, Handling Equipment Wording 1/04 LSW1519.
Clause 2.1 (Insuring Clause) amended to include electrical and machinery breakdown. Clause 2.4 (Removal of Wreck/Debris) included
4.7 (Communication Equipment) deleted.
Exclusion 4.9 (Safe working load) amended.
Exclusion 4.15 (Mechanical or Electrical Breakdown) deleted.
Clause 8 (Protective Maintenance) amended.
Clause 9 (Automatic Acquisitions) amended.
Ports and Terminals Consortium Earthquake Extension Clause (Handling Equipment) Amended 1/04 LSW1520.
Clause A amended to include Tsunami.
Clause B amended to include Tsunami.
48 hours amended to 72 hours.

Section 4 – Business Interruption

Ports and Terminals Consortium Section 4 Business Interruption Wording Amended 1/04 LSW1522,
Clause 2.3 (Interruption to Utility Supply) amended to read as "interruption to electrical, *gas, fuel or water* supply to Insured…".
Additional Clause 2.4 interruption due to damage and/or blockage of pipeline.
Exclusion 4.3 pertaining to strikes and riots deleted

Subject to Minor Works Clause
Professional Accountants Fees Clause
Applicable to Sections 2, 3, & 4
Architects, Surveyors', Legal and Consulting Engineers' Fees Clause,.
Pollution Clean-up Costs Clause.
Public Authority Clause.
Claims Preparation Costs Clause.
Minimization of Loss Clause.
Designation of Property Clause
Listed Perils resulting from seepage and/or pollution and/or contamination clause
Limited seepage &/or pollution &/or contamination resulting from physical damage caused by listed perils clause
Waiver of under-insurance upto 15% of Sum Insured under property damage and BI Sum Insured
Marine Impact Insurance Clause
Specialized / Heavy Lift/ Oversize Lifting clause
Toxic Mould Exclusion Clause
Claims Control Clause
NMA 2919 War and Civil War and Terrorism Exclusion Clause

Applicable to Sections 1, 2, 3, & 4

Ports and Terminals Consortium Wording General Policy Provisions 1/04 LSW1524,
Clause 5 (Radioactive Contamination, etc.) deleted.
Clause 10 (Electronic Exclusion Clause) deleted.
Clause 11 (Notice of Potential Claims) amended.
Clause 18 (Premium Payment Clause) deleted.
Clause 21 (Governing Law) amended.
Employment Practices Clause
Simultaneous Payment Clause (Losses)
Waiver of Subrogation and Additional Assured Clause
On Account Payment Clause.
Institute Radioactive Contamination Chemical Biological Bio-chemical and Electromagnetic Weapons Exclusion Clause (CL370) (10/11/03)
Institute Cyber Attack Exclusion Clause (CL380) (10/11/03)
Sanction Limitations and Exclusion Clause JL2010/005
Unintentional Errors and Omission Clause].
Special Termination Clause.
Continuity Clause

Part B: Marine Hull Policy:

For owned vessels including cover for wreck removal, crew, etc.

Clauses for the Hull and Machinery Insurance of the vessels owned by DPA:

1. ITC Hulls Clause dated 1/10/1983 with Clause 8 amended to include 4/4th collision liability and extended to include Clause 9 of ITC Port Risk dated 20/7/1987.
2. Subject to deductible as per GIPSA circular
3. Institute Radioactive Contamination, Chemical, Biological, Bio-chemical and Electro-magnetic exclusion clause
4. Cancellation returns only- No layup returns
5. All disputes in respect to claims are subject to Indian law and Jurisdiction
6. Trading warranty: Deendayal Port Limit within 12 nm. The port limits shall be applicable for both Kandla as well as Vadinar.
7. Institute Radioactive Contamination, Chemical, Biological, Bio-Chemical and Electromagnetic Exclusion Clause dated 10.11.2003.
8. Institute cyber- attack exclusion clause.
9. IACS Classification/ Other Accepted and Applicable Classification Societies/ Class Certification Exemptions and maintenance of class clause.
10. Subject to Sanction Limitation and Exclusion clause-LMA3100 wordings.
11. Warranted vessel certified and licensed for trading by competent authorities.
12. Warranted vessel holds valid statutory Licenses & Certificates, including certificate of Survey & complies with all statutory & regulatory conditions at all times during policy period.
13. Warranted in case of rough weather warning, the vessel is to be moored/ shifted in sheltered waters and all due diligence measures taken.
14. Warranted the registration certificates and certificate of survey to remain valid at all times.

15. Warranted the vessel should have adequate manning as per MMD regulations/ prevailing (Port/ Government) regulations and crew should be competent as per DG Shipping guidelines.

Part C: Terrorism

Limit:	Combined Single Limit for Property Damage, handling equipment and Business Interruption – **INR 7,600,000,000** Third party liability limit of **INR 40,00,00,000** Combined Single Limit for Property Damage, handling equipment and Business Interruption and liability – INR **INR 8,000,000,000**
Deductibles:	Material damage – 2% claim amount subject to minimum of INR 300,000 Business Interruption – 7 days Third Party Liability – INR 500,000 any one accident / occurrence

PORTS AND TERMINALS ASSURANCE FACILITY QUESTIONNAIRE

In order to obtain a quotation from the facility, please complete this form as fully and as accurately as possible in English.

Insured Name and Address (please enclose port handbook):	
Insured Name:	Deendayal Port Authority
Address:	Administrative Office Buildng, Near Madhuban Hotel, Gandhidham, Kutch, Gujarat.
Website:	www.deendayalport.gov.in
Year founded:	1964

Are you International Ship & Port Facility Security (ISPS) Code Compliant?	Yes	-
If no, please advise status of application:		

Please specify the insurances you require:		
Coverage	**Required**	
Core Coverage		
Port & Terminal Third Party Liability:	Yes	-
Property, Equipment & Business Interruption:	Yes	-
Additional Coverage		
Port Craft including Protection and Indemnity:	Yes Complete Appendix I	-
Political Violence / War on Land::	Yes Complete Appendix II	-
Cyber:		No
Environmental Impairment Liability:	Yes Complete Appendix IV	-

Have you ever had any insurance policy cancelled or refused?	-	No
If yes, please advise reason: -		

Signature: …….. Name: ……

Date: …….. Position: ……

GENERAL RISK INFORMATION

Type of Port:	
Are you a landlord or operational port? Please provide percentage split based on revenue(Based on FY 2024-25)	
Landlord Port:	12.74%
Operational Port:	87.26%

Is the Port or Terminal government or privately owned:		
Government:	Yes(under MoSP&W)	-
Private:	-	No

Insured Location(s) (including postal/zip codes), please include map of locations:
Location Map given to LSI, softcopy being shared, Insured Location addresses as under: 1. Administrative Office Buildng, Near Madhuban Hotel, Gandhidham, Kutch, Gujarat -370201 2. Custom Bounded Area Port of Kandla – 370210. 3. Port Colony, KDLB colony, FCI colony, Residential quarters-400 quarters, Gopalpuri, Gandhidham -370201. 4. Dispensary at Adipur-370205 5. Office Buildings and Residential Quarters outside port area, Kandla – 370210 6. Baba Saheb Ambedkar Convention Centre Gandhidham 7. E Dristi Building at New Kandla (under DPA)

Management experience & years at company:
Copy of Administrative Report attached

Number of Staff:			
Employed:	Yes	-	Number: 1448
Part of Labour Pool:	Yes	-	Number: N/A
Independent Contacting Company:	-	No	Number: ----

Facilities, please enter the number of facilities available:			
Container terminals:	ONE (KICT) PVT (on PPP mode)	Dry bulk terminals:	TUNA TEKRA (on PPP mode)
Ro-Ro terminals:	RO-RO facility at Dahej ,Ghogha and Hazira.	Gas terminals:	NIL
Oil terminals:	8 OIL JETTIES (6 DPA Jetty, 1 IFFCO Jetty, 1 IOCL Jetty)	Passenger terminals:	2 nos. Passenger Jetty at New Kandla and 1 SNA jetty

Facilities, please enter the number of facilities available:			
Breakbulk / general cargo terminals:	16 BERTHS (BREAKBULK, DRY CARGO AND GENERAL CARGO),BUNDER AREA(barge handling facility),IKLL BARGE HANDLING FACILTY & OLD TUNA PORT	Grain terminals:	NIL
Container depots:	NIL	Warehouses:	22
Temperature controlled warehouses:	NIL	Other (please specify):	1. Steel Floating Dry Dock. 2. Barge Jetty 3. Dr. Baba Saheb Ambedkar Convention Centre at Gandhidham 4. Construction of ROB LC 236 at Kutch Salt Junction

Loss Prevention / Risk Management		
Please advise if you have the following in place:		
a) Risk / loss control management procedures:	Yes	----
b) Natural Catastrophe preparedness procedures:	Yes	---
c) Pollution control / environmental impairment control:	Yes	---
d) Maintenance programmes in accordance with manufacturers guidelines:	Yes	---
e) Staff training programmes:	Yes	---
d) Fire detection and sprinkler systems in place in for all property and equipment:	Yes	---
Do you have any of the following Security Precautions in place:		
24 hour security guards?	Yes	---
All buildings / perimeter fences / gates alarmed?	Yes	---
Close Circuit TV (CCTV) / Security Cameras?	Yes	---
Do you maintain records of all security checks?	Yes	---
Distance to police station/check point	1.5.Kilometers from Port (Appx)	
Other? Please advise details:--		

Have there been any labour / worker disputes or any protests / strikes within the last 5 years at the port or terminal?	-----	Observance of Black day on 03.11.2021

Have any of the locations had an independent survey of the property and equipment during the last twenty four months?	See Annexure F	-
If yes, please provide copy of the report and have all recommendations been complied with?	Yes, Valuation Report by LSI Engineering attached	---
If no, please provide details of when the recommendations will be completed: --		

THIRD PARTY LIABILITY

Please provide details of your insurance requirements:		
Requirement	**Currency**	**Amount**
Limit:	INR	As per the slip
Deductible:	INR	As per the slip
Current Premium:	INR	As per the slip

Services:			
Please answer "Y" if performed by you, "S" if performed by your subcontractor and "N" if not provided:			
Stevedoring:	S	Dredging:	Y
Marine terminal operator:	S	Tugs:	Y
Navigational information and aids:	Y	Salvage / ship removal:	Y
Marine traffic control:	Y	Bunkering:	S
Maintained water depths:	Y	Dumpsites / landfill:	Y
Buoys and lighting:	Y	Waste disposal:	S
Pilotage:	Y	Diving:	N
Helicopter landing sites / airport:	N	Advice to other operators:	N
Warehousing:	Y	Security (e.g. Police):	Y
Temperature Controlled Warehousing:	N	Emergency (e.g. Fire Services):	Y
Other (please specify):			

Contracts and Indemnities:		
Do you operate under your own Standard Trading Conditions or do you contract on Individual User Agreements, Port Tariffs, etc?. (Please provide copies)		
Standard Trading Conditions:	Yes	-
Individual User Agreements:	Yes	-
Port Tariff, act, bylaws, etc.:	Yes	-
Please advise your limit under contract with customers:	Limit: N/A	
If you operate under contracts which differ from your Standard Trading Conditions, please provide details of where the contract is wider or more onerous: --		

Contracts and Indemnities:		
Do you have a legal responsibility for any property and/or equipment which you hire, lease or rent?	-	No
If yes, please provide details including but not limited to lease agreement, description, values, age, location including details of construction.---		
Do you waive your rights of recourse under any contracts, agreements, etc.?	-	No
If yes, please provide details: --		

Warehousing (Only answer this question if you provide warehousing services):		
Are you responsible for the cargo stored? **We don't store Cargo on Warehousing Terms**		
No responsibility:	N/A	-
Responsible but no responsibility for force majeure:	-	-
Responsible including force majeure:	-	-
Please provide average and maximum value of good stored at any one time:		
Average value at any one time:	-	
Maximum value at any one time:	-	

Tenants and / or Subcontractors:		
Is there a requirement in your contract with tenants and subcontractors that they have adequate liability insurance?	Yes	---
If yes, what is the minimum limit that you require?	Limit:	
Do you check annually that all tenants and subcontractors maintain and renew their insurance?	Yes	--

Volumes:			
Please advise Cargo throughputs per Policy Year.			
Type	**Last Year (2023-24)**	**Current Year (2024-25)**	**Next Year Estimate(2025-26)**
Dry Containers (TEU's in Lakhs):	4.63	4.75	6.00
Reefer/Tank Containers (TEU's):	NIL	NIL	NIL
Break Bulk (Lakh tonnes):	145.45	182.35	213.67
Dry Bulk (Lakh tonnes):	425.42	511.98	542.03
Liquid cargo (Lakh tonnes) (including haz. & Non. Haz. Wet bulk)	169.96	183.08	180.70
Non-Hazardous Wet Bulk: (Lakh tonnes)			
Autos (Automobiles handled –Ropax) (Lakhs Tonnes)	---	40.12	60.00
Passengers / Transshipment: (Lakh tonnes)	1.89	11.23	11.30
Overall- DPA (Excluding Vadinar)	742.72	928.76	1007.7

What is your annual revenue?		
Currency: (Rs in crores) (Combined Revenue After Tax)		
Last Year	**Current Year**	**Next Year Estimate**
1320.55	1446.18	1212.45

How many vessel calls per annum, please provide figures broken down into size of vessel:			
Vessel Size	**Last Year**	**Current Year**	**Next Year Estimate**
< 30000 grt	1950	2175	2259
30k to 60k grt	741	955	1011
>60k grt	60	43	73
Total at Kandla	**2751**	**3173**	**3343**

Claims History Summary:

Please attach a full itemised claims breakdown by loss (both paid and outstanding and any related fees or expenses including legal fees) for the last 5 complete years from ground up and advise of any deductible applicable.

Year	Claims Paid		Claims Pending		Total
	Number	Amount	Number	Amount	
Nil-					

Notes:

If not included in attached itemized claims breakdown, please provide details here:--

1)Preliminary assessed damage incidents of Mechanical Engineering Dept. intimated on 01.06.2023 –Rs.1.40 Cr

2) Preliminary assessed damage incidents (Biparjoy) of Civil and Mechanical Engineering Dept. totaling to Rs.10.05 Cr intimated on 20.06.2023. of which 7.43 crores pertains to Civil Engineering Dept.

3) Complete loss of buoy No.4 – Report dated 14.06.2024 – preliminary damage assessed for Rs. 0.16 Cr. Cost of positioning and recovery of the rake from the position to be over and above the cost (awaited)

Following any incident(s) have there been any mitigating / loss prevention procedures put in place? If yes, please provide details :--

PROPERTY, EQUIPMENT & BUSINESS INTERRUPTION

Please provide details of your insurance requirements:		
Requirement	**Currency**	**Amount**
Limit:	**INR**	As per the slip
Property Deductible: ▪ Physical Damage ▪ Equipment Damage		
Business Interruption Deductible (Days):		
Business Interruption Indemnity Period (Months):		
Current Premium:		

Please provide a summary of property values broken down as follows (please attach a full itemised schedule with description, values, age, location including details of construction):		
Asset Type	**Currency**	**Asset Value**
Wharves, Docks, Quays and Jetties:	INR	(As per the valuation report provided by LSI)
Buildings:		
Warehouse/Storage Facilities:		
Utilities and miscellaneous property:		
Equipment:		

Please provide details of your top 5 customers or suppliers		
Name	**Services/Cargo**	**Revenue**
Name of the five Custom House Agent.	(All these operators are Multi Service operators , hence bifurcation of revenue is not possible)	
1. Rishi International Logistics		
2. J.M. Baxi		
3. Trinity Shipping & Allied Services Pvt. Ltd.		
4. IOCC Shipping Pvt. Ltd.		
5. Sunrich Logistics Pvt. Ltd.		
stevedores		
1. Rishi Shipping Port Ltd.		
2. Gautam Freight		
3. SHREE ASHAPURA		
4. MIHIR & CO.		
5. TRINITY SHIPPING		
MARINE		
1. Atlantic Global Shipping Pvt. Ltd		
2. Interocean Shipping (India) Pvt. Ltd.		
3. J M BAXI		
4. SAMUDRA MARINE		
5. GAC SHIPPING		

Please provide the Maximum Possible Loss	

Please provide your annual maintenance budget	**Copy of R&M schemes attached**

Power Supply		
Is your electricity supply generated by yourself or through external means?		
Generated by ourselves:	Yes	-
External supplier:	Yes (Indian Energy Exchange& Wind Power WTG)	-

Do you have a back-up / emergency generator?	Yes	-

Is there alternative reserve equipment or means of access available to mitigate any claim?	Yes	-
If yes, please provide details: **Diesel Generator**		

Claims History Summary:

Please attach a full itemised claims breakdown by loss (both paid and outstanding and any related fees or expenses including legal fees) for the last 5 complete years from ground up and advise of any deductible applicable.

Year	Claims Paid		Claims Pending		Total
	Number	Amount	Number	Amount	
2023	Nil	Nil	2	1.Preliminary damage assessed for Rs. 1.40 Cr 2. Preliminary damage assessed for Rs. 10.05 Cr	INR 11.45 Cr
2024	Nil	Nil	1	3.Complete loss of buoy No.4 – preliminary damage assessed for Rs. 0.16 Cr. Cost of positioning and recovery of the rake from the position to be over and above the cost (awaited)	INR 0.16 Cr

Claims History Summary:
Notes:
If not included in attached itemised claims breakdown, please provide details here: --
Following any incident(s) have there been any mitigating / loss prevention procedures put in place? If yes, please provide details:

PORTS AND TERMINALS ASSURANCE FACILITY QUESTIONNAIRE

In order to obtain a quotation from the facility, please complete this form as fully and as accurately as possible in English.

Insured Name and Address (please enclose port handbook):	
Insured Name:	Deendayal Port Authority (OOT Division, Vadinar)
Address:	Administrative Office Buildng, Near Madhuban Hotel, Gandhidham, Kutch, Gujarat. Vadinar: Offshore Oil Terminal, , PO- Vadinar, TA – Khambhadia, Dist. – Devbhumi, Dwarka – 361010.
Website:	www.deendayalport.gov.in
Year founded:	1964

Are you International Ship & Port Facility Security (ISPS) Code Compliant?	Yes	-
If no, please advise status of application:		

Please specify the insurances you require:		
Coverage	**Required**	
Core Coverage		
Port & Terminal Third Party Liability:	Yes	
Property, Equipment & Business Interruption:	Yes	-
Additional Coverage		
Port Craft including Protection and Indemnity:	Yes Complete Appendix I	-
Political Violence / War on Land::	Yes Complete Appendix II	-
Cyber:	-	-
Environmental Impairment Liability:	Yes Complete Appendix IV	-

Have you ever had any insurance policy cancelled or refused?	-	No
If yes, please advise reason: --		

Signature: …….. Name: ……

Date: …….. Position: ……

GENERAL RISK INFORMATION

Type of Port:	
Are you a landlord or operational port? Please provide percentage split based on revenue: **Based on FY 2024-25 (Combined Information of DPT shown in Kandla Questionnaire)**	
Landlord Port:	NA
Operational Port:	NA

Is the Port or Terminal government or privately owned:		
Government:	Yes (Under MoPS&W)	-
Private:	-	-

Insured Location(s) (including postal/zip codes), please include map of locations:
Location Map given to LSI, softcopy being shared, Insured Location addresses as under: 1. Jetty Area, Vadinar-361010 – Latitude : 22 deg 44' N; Longitude 69 deg 67'E 2. Port Colony: Latitude 23 deg 01' N; Longitude 70 deg 13'E

Management experience & years at company:
Copy of administrative report attached.

Number of Staff:			
Employed:	Yes	-	Number: 43
Part of Labour Pool:	Yes	-	Number: NA
Independent Contacting Company:	-	No	Number:

Facilities, please enter the number of facilities available:			
Container terminals:	NIL	Dry bulk terminals:	NIL
Ro-Ro terminals:	1 RORO Jetty	Gas terminals:	NIL
Oil terminals:	NIL	Passenger terminals:	NIL
Breakbulk / general cargo terminals:	L-SHAPE Jetty	Grain terminals:	NIL
Container depots:	NIL	Warehouses:	NIL
Temperature controlled warehouses:	NIL	Other (please specify):	-

Loss Prevention / Risk Management		
Please advise if you have the following in place:		
a) Risk / loss control management procedures:	Yes	-
b) Natural Catastrophe preparedness procedures:	Yes	-
c) Pollution control / environmental impairment control:	Yes	-
d) Maintenance programmes in accordance with manufacturers guidelines:	Yes	-
e) Staff training programmes:	Yes	-
d) Fire detection and sprinkler systems in place in for all property and equipment:	Yes	-
Do you have any of the following Security Precautions in place:		
24 hour security guards?	Yes	-
All buildings / perimeter fences / gates alarmed?	Yes	-

Loss Prevention / Risk Management		
Close Circuit TV (CCTV) / Security Cameras?	Yes	-
Do you maintain records of all security checks?	Yes	-
Distance to police station/check point	11 KM from Port (Approx.)	
Other? Please advise details:		

Have there been any labour / worker disputes or any protests / strikes within the last 5 years at the port or terminal?	-	No

Have any of the locations had an independent survey of the property and equipment during the last twenty four months?	Yes, by Marsh India Ltd and LSI Engineering	-
If yes, please provide copy of the report and have all recommendations been complied with?	attached	-
If no, please provide details of when the recommendations will be completed:		

THIRD PARTY LIABILITY

Please provide details of your insurance requirements:		
Requirement	**Currency**	**Amount**
Limit:	INR	As per the slip
Deductible:	INR	As per the slip
Current Premium:	INR	As per the slip

Services:			
Please answer "Y" if performed by you, "S" if performed by your subcontractor and "N" if not provided:			
Stevedoring:	N	Dredging:	N
Marine terminal operator:	N	Tugs:	Y / S
Navigational information and aids:	Y	Salvage / ship removal:	N
Marine traffic control:	Y	Bunkering:	S
Maintained water depths:	Y	Dumpsites / landfill:	N
Buoys and lighting:	Y	Waste disposal:	S
Pilotage:	Y	Diving:	N
Helicopter landing sites / airport:	N	Advice to other operators:	N
Warehousing:	N	Security (e.g. Police):	Y
Temperature Controlled Warehousing:	N	Emergency (e.g. Fire Services):	S
Other (please specify):			

Contracts and Indemnities:
Do you operate under your own Standard Trading Conditions or do you contract on Individual User Agreements, Port Tariffs, etc?. (Please provide copies)

Contracts and Indemnities:		
Standard Trading Conditions:	Yes	-
Individual User Agreements:	Yes	-
Port Tariff, act, bylaws, etc.:	Yes	-
Please advise your limit under contract with customers:	Limit: NA	
If you operate under contracts which differ from your Standard Trading Conditions, please provide details of where the contract is wider or more onerous:		
Do you have a legal responsibility for any property and/or equipment which you hire, lease or rent?	-	No
If yes, please provide details including but not limited to lease agreement, description, values, age, location including details of construction.		
Do you waive your rights of recourse under any contracts, agreements, etc.?	-	No
If yes, please provide details:		

Warehousing (Only answer this question if you provide warehousing services):		
Are you responsible for the cargo stored? **We don't store Cargo on Warehousing Terms**		
No responsibility:	N/A	-
Responsible but no responsibility for force majeure:	-	-
Responsible including force majeure:	-	-
Please provide average and maximum value of good stored at any one time:		
Average value at any one time:	-	
Maximum value at any one time:	-	

Tenants and / or Subcontractors:		
Is there a requirement in your contract with tenants and subcontractors that they have adequate liability insurance?	Yes	-
If yes, what is the minimum limit that you require?	Limit: no limit	
Do you check annually that all tenants and subcontractors maintain and renew their insurance?	Yes	-

Volumes:			
Please advise Cargo throughputs per Policy Year.			
Type	**Last Year (2023-24)**	**Current Year (2024-25)**	**Next Year Estimate (2025-26)**
Crude Oil (Lakh tonnes) (VADINAR)	474.17	446.21	432
POL (Lakh tonnes) (VADINAR)	106.65	106.60	85
Autos:	-	-	-
Passengers:	-	-	-

What is your annual revenue?		
Currency:		
Last Year	**Current Year**	**Next Year Estimate**
Combined Revenue updated in Kandla Questionnaire, no separate books maintained		

How many vessel calls per annum, please provide figures broken down into size of vessel:			
Vessel Size	**Last Year**	**Current Year**	**Next Year Estimate**
< 30000 grt	144	142	130
30k to 60k grt	153	160	145
>60k grt	272	257	235
Total at Vadinar	**569**	**559**	**510**

Claims History Summary:					
Please attach a full itemised claims breakdown by loss (both paid and outstanding and any related fees or expenses including legal fees) for the last 5 complete years from ground up and advise of any deductible applicable.					
Year	**Claims Paid**		**Claims Pending**		**Total**
	Number	**Amount**	**Number**	**Amount**	
- Nil-					

Notes:
If not included in attached itemised claims breakdown, please provide details here:
Following any incident(s) have there been any mitigating / loss prevention procedures put in place? If yes, please provide details:

PROPERTY, EQUIPMENT & BUSINESS INTERRUPTION

Please provide details of your insurance requirements:		
Requirement	**Currency**	**Amount**
Limit:	INR	As per the slip
Property Deductible: ▪ Physical Damage ▪ Equipment Damage		
Business Interruption Deductible (Days):		
Business Interruption Indemnity Period (Months):		
Current Premium:		

Please provide a summary of property values broken down as follows (please attach a full itemised schedule with description, values, age, location including details of construction):		
Asset Type	**Currency**	**Asset Value**
Wharves, Docks, Quays and Jetties:	INR	(As per the valuation report provided by LSI)
Buildings:		
Warehouse/Storage Facilities:		
Utilities and miscellaneous property:		
Equipment:		

Please provide details of your top 5 customers or suppliers		
Name	**Services/Cargo**	**Revenue**
Indian Oil Corporation Limited	Crude imports- 28MMTPA	132.55 Cr
Nayara Energy Ltd.	Crude imports + POL export 30MMTPA	118.68 Cr.

Please provide the Maximum Possible Loss	

Please provide your annual maintenance budget	Copy of R&M schemes attached

Power Supply		
Is your electricity supply generated by yourself or through external means?		
Generated by ourselves:	-	No
External supplier:	Yes (PGVCL)	-

Do you have a back-up / emergency generator?	Yes	-

Is there alternative reserve equipment or means of access available to mitigate any claim?	Yes	-
If yes, please provide details: **Diesel Generator**		

Claims History Summary:					
Please attach a full itemised claims breakdown by loss (both paid and outstanding and any related fees or expenses including legal fees) for the last 5 complete years from ground up and advise of any deductible applicable.					
Year	**Claims Paid**		**Claims Pending**		**Total**
	Number	**Amount**	**Number**	**Amount**	
2023	-	-	1	Preliminary assessment of ~ Rs.0.13 Cr(Biparjoy	Preliminary assessed damage incidents of OOT department are intimated on 20.06.2023

Claims History Summary:					

Notes:
If not included in attached itemised claims breakdown, please provide details here:) Preliminary assessed damage incidents (Biparjoy) ofl OOT.dept. are intimated on 20.06.2023
Following any incident(s) have there been any mitigating / loss prevention procedures put in place? If yes, please provide details:

ANNEXURE – B
Undertaking by the Bidder
(On the letter head of Bidder)

To
FA& CAO,
Deendayal Port Authority,

This is to certify that Mr./Mrs. .....(Name, Designation and Office address) has been authorized to sign all documents pertaining to your Tender No ..... dated 4th July 2025 (To be approved by FACAO) issued by Deendayal Port Authority.

We confirm that we have understood the requirements and we also confirm that we fully agree to all the terms of parameters of insurance cover. Our Policy wordings will fully comply with all the stated requirements of tender and there will be no condition in the insurance policy contrary to the tender terms &/ or parameters of cover and in any way dilute the said requirements of cover.

Yours faithfully

Signature
(Name: _____)
Designation:

Date: __ July 2025

Office Seal

ANNEXURE- C

Service Level Agreement between Deendayal Port Authority (hereinafter referred to as DPA) and _____, the insurer (herein after referred to as Insurer) on Insurance Program effective 24th July 2025 and confirmed by Marsh India Insurance Brokers Pvt. Ltd, Insurance intermediary of DPA (hereinafter referred to as Marsh)

1. Documentation:

i) Insurer will issue "Held Cover Certificate" within 24 hours of payment of premium towards Risk Cover Commencement stating the period of coverage after receipt of Premium by the Insurer.

ii) Insurer will issue draft (soft copy) of all policy copies to Marsh latest within 45 working days from the date of payment of Premium and after being duly vetted by Marsh, the Insurer will issue final policies in 5 (five) copies within 15 days after receipt of final clearance from Marsh. All these process shall not under any case exceed sixty (60) days from the inception of risk.

iii) All Terms, Conditions as per Tender including clauses, warranties and deductibles shall be attached / incorporated in the Policy Document strictly as per tender terms. No restrictive conditions/warranties etc in deviation from the Tender shall be imposed.

iv) All the Premium quoted by the insurer as per tender & as agreed after due negotiation between DPA & Insurer are fixed and final. No further premium will be asked in future till expiry of the policy subject to unaltered sum insurance and terms as mentioned in the Tender subject, however, that 10% Automatic Acquisition Clause will be applicable during the tenure of the policy and to be covered till that limit without any additional premium till the expiry of the policy. However, this above is subject to any Statutory payment due to legislation.

v) If any discrepancy arises as to the issued documents not being in conformity with the tender terms the rectification, "NIL" Endorsements shall be issued and delivered by the Insurer within 10 (Ten) working days from the date of request.

1. Copy of Held Cover Certificate/Policy /Endorsement or any other communication whatsoever to the Insured will also be copy marked to Marsh.

2. Prompt Communication:

The Insurer will promptly communicate to DPA on any matter having a bearing on insurance cover with copy to Marsh. Insurer shall address any issue raised by DPA or Marsh on any matter on the insurance program within 10 working days.

3. Non Cancellation clause

The insurance policies, issued by the Insurer shall not be cancelled by the insurer.

Claim Management:

a. The Insurance Company agrees to provide the names and contact details of their panel of surveyors to DPA and for effective / speedy settlement of claim Marsh will prepare a panel of surveyors for approval from insurance company.
b. Insurer shall depute surveyor from the panel, latest within 24 hours of reporting of any Claim by DPA/ Marsh.
c. Surveyor should submit his LOR within 3 days of his first visit. Surveyor will submit assessment sheet within 30 days of submission of all required documents by DPA/ Marsh. Such Assessment sheet will be submitted to DPA and Marsh.
d. On confirmation of the Assessment sheet by DPA/Marsh, surveyor shall submit Final Survey Report within 15 days of conveyance of such confirmation with a copy to DPA / Marsh.
e. Surveyor / Insurer shall abide by the relevant IRDA Regulation re: IRDA (Protection of Policyholders' interest) Regulations, 2002.
f. Insurer shall settle the claim within 30 days of the submission of Final Survey Report.

On Account Payment:

For estimated claims over Rs.200 lacs, the Insurer shall pay an "On Account" payment up to a limit of 50% of the total claim and the amount shall be made by the insurer within two months from the date of occurrence of loss subject to satisfaction of Surveyor's interim assessment. Settlement will not be held up on the plea/any reasons of Re-Insurer's concurrence or otherwise

Sd
Deendayal Port Authority

Sd

(Name of the insurance Co.)

Sd
Marsh India Insurance Brokers Pvt Ltd.

Annexure D - PRICE BID 2025-26

PARTICULARS	SUM INSURED	SINGLE LOSS LIMIT/ (INR)	GROSS PREMIUM (INR)	GST (INR)	TOTAL PREMIUM (INR)
A. PORT PACKAGE					
(I) All Third-Party Liabilities including Environmental pollution and Wreck removal sublimit of INR 50,000,000)	-	INR 400,000,000			
(II) Real & Personal Property including handling equipment	INR 67,470,693,560.00	**INR 5,550,000,000**			
(III) Port Handling Equipment	INR 8,914,576,035.00	**INR 1,050,000,000**			
Total Sum Insured (II) + (III)	INR **76,385,269,595.00**				
(IV) Business Interruption - (including due to channel/ waterways blockage/ damage to pipelines and blockage of any land access within immediate vicinity of the port/ terminal)	Indemnity period 2 months Annual Revenue (estimate 2025-26) - **INR 27,259,668,218.00**	INR 1,000,000,000			
COMBINED SINGLE LIMIT UNDER PORT PACKAGE (I+II+III+IV)		**INR 8,000,000,000**			
B. MARINE HULL PACKAGE	As per annexure J	**INR 1,987,622,375**			
C. TERRORISM Combined Single Limit for Property Damage, handling equipment and Business Interruption INR 7,600,000,000. Third party liability INR 400,000,000	**DEDUCTIBLE:** Material Damage: 2% of claim amount subject to minimum of INR 300,000 Business Interruption: 7 days TPL: INR 500,000 any one accident/ occurrence				
GROSS TOTAL premium quoted A+B+C (in figures)	-	-			
GROSS TOTAL premium quoted A+B+C (in words)					

Note:

1) The premium quoted is on Gross basis inclusive of all costs, loading & discounts etc. but excluding GST. GST has to be shown separately.
2) The premium is quote only in India Rupees and no Foreign Exchange is payable under any circumstances.
3) The price includes all the coverage as stated in the tender.
4) Amount to be quoted in Whole rupees.
5) Please see the tender document for deductibles

Authorized Signatory

For and on behalf of the Insurance Co.

Details of claims in the last 5 years

Sr No	Loss details	DOL	Settled amount (INR)	Loss estimate (INR)	Status
1	Damage to ELL Crane due to cyclone	29-May-23	1,48,58,032		Settled
2	Damage to various port properties due to Cyclone Biperjoy	15-Jun-23		5,15,00,000	Assessment being discussed and few supporting documents awaited
3	Damage to Buoys due to cyclone	24-Aug-24		10,00,000	Reinstatement documents awaited

Marsh

Marketing Property Risk Evaluation Report

Address Surveyed: KANDLA, KUTCH,GUJARAT, INDIA

DEENDAYAL PORT TRUST (DPT)

July 04 & 05, 2023

DEENDAYAL PORT TRUST (DPT)	
Location Surveyed	Kandla, Kutch, Gujarat, India
Surveyed By	Varun Suri
Survey Dates	04th & 05th July 2023
Date Last Surveyed	17th to 18th July 2019
Site Contacts	Mr. B. Bhagyanath – Chief Accounts Officer Mr. Prakash Shahdadpuri – Accounts Mr. Kamal – Civil Department Mr. P. Shrinivasu – Electrical Department Mr. Rajdev – Marine Department Mr. Apurva Jdeja – Signaling Department Mr. Kishore – Signaling Department Mr. Aseem – Fire Department
Q/A Review By	Mr. Harish Natarajan
File Name & Rev.	MPRE_DPT_JULY_2023_VER.01

Contents

Section 1

Purpose and Scope

The purpose of this report is to assist M/s Deendayal Port Trust, Kandla with the implementation of a Risk Management Strategy to prioritize risk improvements and mitigation strategies. The analysis carried out is based on data provided by site personal and physical review of the facility situated at Kandla, Gujarat (India) during the site visit on 04th & 05th July 2023.

Scope

This survey was carried out at Deendayal Port Trust (DPT) from 4th & 5th July 2023, and involved a review of building construction, site operations/occupancy, fire protection systems, and external exposures excluding life safety. Updates and status of the recommendations suggested in 2019 are also reflected in the report. The review is in line with International Loss Prevention Standards such as NFPA and FM Global standards. The report relates to the following perils:

- Equipment breakdown
- Fire
- Natural Hazards
  - High Wind Damage
  - Non-structural seismic exposure

This survey also included a review of administrative controls such as crane testing & maintenance, electrical systems testing & maintenance, natural hazard emergency response plans, hot work control, self-inspection survey, fire emergency planning, testing & maintenance of fire protection systems and impairments to these systems, etc., No tests such as fire pump test or hydrant loop tests were witnessed or performed.

The basis for the evaluation is interviews conducted with:

- Mr. Prakash Shahdadpuri – Accounts
- Mr. Kamal – Civil Department
- Mr. P. Shrinivasu – Electrical Department
- Mr. Rajdev – Marine Department
- Mr. Apurva Jdeja – Signaling Department
- Mr. Kishore – Signaling Department
- Mr. Aseem – Fire Department

The visit comprised an inspection of the following areas/structures at the Kandla Port Trust:

- Rail Mounted Quay Crane no 4 (Wraft crane no. 4 – 25 ton) at DPT (Evaluation of one crane on sample basis)
- Rubber Tired Gantry Crane no 1 (HMC no. 1 – 63 ton) at DPT (Evaluation of one crane on a sample basis)
- Rubber Tired Gantry Crane no 3 (HMC no. 3 – 120 ton) at DPT (Evaluation of one crane on a sample basis)
- Coal Storage area (Evaluation of coal storage practices on sample basis)
- Storage sheds - Dome shaped shed & Shed no. 34 (Evaluation of storage practices on sample basis)
- 34 Hectare yard Dust Suppression Sprinkler System. (Evaluation of one pump room on sample basis)
- 66 KV main switch yard, Transformers yard, HT & LT control panel room, Emergency Generators room (Evaluation of electrical systems)
- Fire Station at oil jetty area & its fire pump room no. 2. (Evaluation of fire pump room on sample basis).
- Signaling Station including Vessel Monitoring System.

The visit doesn't comprise an evaluation of following areas • as access to these areas were restricted:

- The container terminals operated by M/s Kandla International Container Terminal.
- Liquid cargo terminal and outdoor liquid tank farm area operated by private entities on build, operate and transfer basis (BOT).
- Tuna Tekra Bulk Terminal operated by Adani Kandla Bulk terminal Ltd.
- Tuna Bunder

Section 2

Executive Summary

Deendayal Port (DPT) is located at the west coast of India. DPT was formulated under the Major Port Trust Act, 1963 in February 1964. DPT, Kandla Port mainly handles Liquid, Dry (bulk and breakup) cargo and Container cargo (operated by M/s Kandla International Container Terminal). DPT have 14 Multipurpose dry cargo berths, 2 container terminal berth which is operated by a third party on a BOT basis there are 7 nos. oil jetties handling liquid cargo (Storage and Material handling by private and public sector woperator such as IFFCO, IOCL etc.) at Kandla creek.

Any loss event at the site will lead to major physical damage followed by major business interruption for DPT and other third parties, which are dependent on DPT.

The port site benefits from system interlocks, equipment protection, devices, and preventive maintenance for the ship-to-shore cranes and shore cranes in accordance with International Property Loss Prevention Standards to mitigate equipment breakdown exposures and to increase the reliability of the cargo handling equipment at the port site. The Site is also provided with a hydrant system as part of fire protection for all the oil jetties and dry cargo handling areas. The main power transformer is provided with nitrogen injection fire protection system. In addition to this, dust suppression sprinklers are provided in the coal pile storage yard. The site is also benefits from Management programs such as electrical maintenance, emergency response, hot work and ignition controls etc. are formalized.

A major risk inherently present at the ports is equipment breakdown hazard associated with the ship to shore cranes shore cranes. Developing testing and maintenance programs for protective interlocks for cranes will help in ensuring the reliability of these protection systems as well.

The port site is located in the 55 m/s wind zone. Though the crane securement aids are provided and port personnel are well trained to implement the crane securement procedures. However, there is no documented “Crane Securement Procedure Manual” (CSPM) in accordance with International Loss Prevention Standards. In absence of documented CSPM the procedures may not be implemented as intended which can result in catastrophic collapse/slide damage to the cranes and extended periods of downtime for port operations. Also as the port lies in the 250 year return period earthquake zone, inadequately anchored transformers, electrical panels, critical rack servers and battery banks can topple leading to a short circuit and subsequent fire starting at the port facility and in turn give rise to extended periods of business interruptions for port operations. With a history of damage at the site due to earthquake and wind it becomes more imperative to frequent mock drills for these natural hazards in order to be more prepared for the event.

Site is not exposed to riverine flood as per Munich Re’s Nathan tool. Site is located in high flash flood zone. As per IMD report, the 100 year 24 rainfall level is 480 mm for surface water

accumulation. Since building`s finished floor level is about 600 mm high from ground surface level, exposure to flash flood is observed to be negligible.

As reported at site the high tide level at Kandla port is 7 m above the mean sea level and Jetty terminal is elevated 14 m above the mean sea level. The reported storm tide for kandla port is 3 m above the high tide level. The finished floor level of storage blocks are about 0.5 m above the ground surface level hence storm surge exposure is considered to be low.

A fire in the 66 KV sub-station can lead to longtime interruption in the power supply till the system is restored. Providing adequate automatic fire protection system for the 66 KV sub-station room along with adequate passive fire protection measures will help in minimizing the loss exposure for this critical area.

Overall, Port Management is committed to loss prevention and is willing to improve the risk at the site. The report provides a detailed analysis of important risks present at the location and means to mitigate those risks. A total of twenty two Opportunities for Improvement are suggested along with five new and seventeen open recommendation in the areas of Management Programs and Physical Protection.

From the past risk evaluation survey conducted in 2019 two recommendations regarding the Emergency response plan - Wind Emergency & Earthquake Emergency Reponses Plan are under finalization.

Changes since Previous Survey

1. Power transformer of 10 MVA installed at the 66 KV substation.
2. New oil jetty number 7 operational in 2023.

Planned Changes / Projects

The site management has planned revamping of fire hydrant system and fire pumps at the dry cargo port and oil jetty area.

Section 3

Opportunities for Improvement

Opportunities for Improvement (OFI) are suggested to mitigate risks. They are intended to create value and manage risk exposures while maintaining relevance to your business objectives. The Opportunities for Improvement addresses either specifically identified Risks to Manage[SM] or they are suggested as general sound risk management to implement at the location.

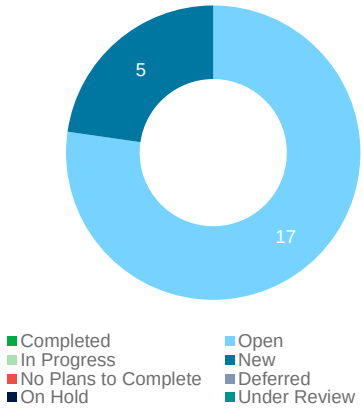
Prioritization of OFI's are classified in line with the following indicative Risk Assessment Matrix (RAM). The relative risk associated with each OFI is measures the estimated consequences of the damage versus the likelihood of occurrence.

Risk Assessment Matrix (RAM)

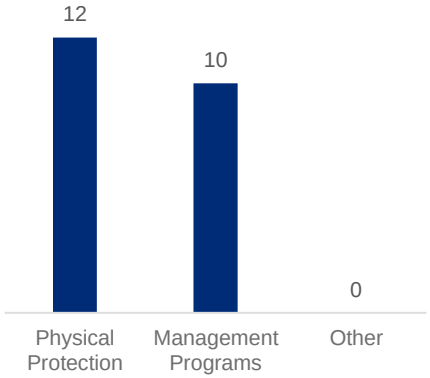
	Consequences				
Likelihood	**Insignificant**	**Minor**	**Moderate**	**Major**	**Catastrophic**
Almost Certain	**Priority 2**	**Priority 2**	**Priority 1**	**Priority 1**	**Priority 1**
Likely	**Priority 3**	**Priority 2**	**Priority 2**	**Priority 1**	**Priority 1**
Possible	**Priority 4**	**Priority 3**	**Priority 2**	**Priority 1**	**Priority 1**
Unlikely	**Priority 4**	**Priority 4**	**Priority 3**	**Priority 2**	**Priority 1**
Very Rare	**Priority 4**	**Priority 4**	**Priority 3**	**Priority 2**	**Priority 2**

A graphical summary of the current opportunities for improvement are shown below:

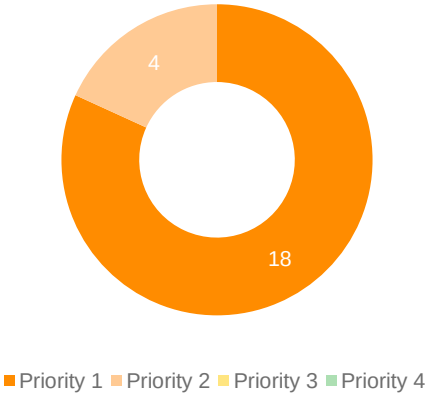
OFI COUNT BY STATUS



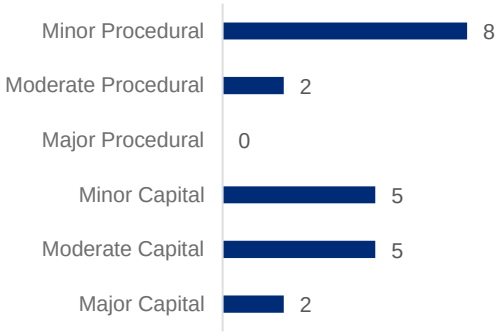
OFI COUNT BY CATEGORY



OFI COUNT BY PRIORITY



OFI COUNT BY EFFORT OF IMPLEMENTATION



Management Programs

2023-001	Business Continuity Plan		
Status	Open	**Issue Date**	05-07-2023
Priority	Priority 2	**Type**	Maintenance Program
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Following suggestions are made in regards to developing the business continuity management: • Develop a business continuity management plan taking into consideration the capacities of each berth and oil jetties along with the availability of the cranes and lifting equipment. • Include the non-availability of the 66 KV incomer switch room along with distribution rooms in the business continuity planning especially the panels in each successive electrical distribution rooms that supplies to the downstream power distribution block in radial configuration. • Include the contingency plan taking into consideration the spares available for the critical equipment and related repair facilities. • Carryout out a table top exercise to understand the likely impact of unforeseen events on the business to ensure the reliability of the developed plan.		
Observation	• The site has no such documented business continuity planning.		
Effort of Implementation	Minor Procedural		

2023-002	Crane Securement Procedures Manual		
Status	Open	**Issue Date**	04-07-2023
Priority	Priority 1	**Type**	Management Program
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Following suggestions are made regarding the cranes securement plan: • Augment the existing crane securement program for the RMQC's and shore cranes by developing a crane securement procedure manual (CSPM) in accordance with FM Global datasheet 1-28. Include procedures for the various cranes, crane configurations, and all applicable operational and non-operational conditions and associated wind speed limits. Verify that the securement plan in conjunction with the existing wind emergency response plan has been tested and proven to demonstrate cranes can be moved to their secured location prior to the onset of damaging winds.		

2023-002	Crane Securement Procedures Manual

	• For proper wind securement of cranes at varying expected wind speeds, implement the necessary securement methods for all operational and non-operational modes, including the following:
	  ○ Operational (in-service) wind speed limits
	  ○ Maintenance or parked wind speed limits
	  ○ Storm-secured (stowed, out-of-service) wind speeds
	• Obtain detailed calculations, prepared by a licensed engineer, for each of the above-mentioned operational modes and securement methods. Keep them on file and readily accessible for help in assessing the adequacy of the securement procedures.
	• Record and track the time needed to secure the cranes.
	• Base the maximum in-service wind velocity on the least-favorable wind effects associated with crane operations (e.g., Hoisting and Slewing).
	• When winds in excess of the maximum in-service wind are forecast within the next 24 hours, secure cranes before the wind velocity reaches the maximum in-service wind speed.
	• Follow the procedures in the CSPM in conjunction with the wind emergency response plan whenever a crane is to be left overnight, stowed, or placed out of service.
	• Provide securement under operational conditions along the crane tracks, spaced so the cranes can be moved to the securement location in time to prevent damage or malfunction from winds in accordance with the wind emergency response plan and CSPM.
	• Ensure that the cranes are provided with adequate means of motorized travel (e.g., gantry wheel motors) to allow the crane to move to its designated securement position in the allotted time per the CSPM and wind emergency response plan. Provide the needed motor capacity based on the assumption that the crane will be travelling into a direct head wind.
	• Record and track the time needed to secure the cranes. Establish an in-house audit procedure to monitor the effectiveness of the manual securement and tie-down procedures in accordance with the CSPM.
	• For each crane, ensure the operator and at least two other individuals are assigned primary responsibility for windstorm securement of the crane.
	• Apply stowage pins, wheel wedges, rail chocks, or other wind-resisting devices in accordance with the CSPM when the crane is not in service.

Observation	• The site has no such documented Crane Securement Procedures Manual for Waft cranes and Harbor Mobile cranes.

2023-002	Crane Securement Procedures Manual
Effort of Implementation	Minor Procedural

2023-003	Thermography Studies		
Status	Open	**Issue Date**	04-07-2023
Priority	Priority 2	**Type**	Maintenance Program
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Formalize a program to carryout annual thermography studies for the electrical network at site. Following suggestions should be taken care of for the thermographic scans: • Defects should be promptly corrected and repeat the scans again to verify defect rectification. • Documentation to include actual photographs of parts scanned, corresponding thermo-graphic image, permissible temperature levels, defect identification, counter measure provided to rectify defect and post rectification thermo-graphic image. • Develop a standard operating procedure for the thermography studies conducted at site and include the following ○ Tolerance limits vis-à-vis the relative temperature difference between the RYB phases and at the end terminations for a system ○ Priority and turnaround time for closure of recommendations provided in the thermography study.		
Observation	• No such Thermography studies conducted at the site till now.		
Effort of Implementation	Moderate Procedural		

2023-004	Electrical Maintenance		
Status	Open	**Issue Date**	04-07-2023
Priority	Priority 1	**Type**	Management Program
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Following suggestions are made in respect to the electrical maintenance: • Consider carrying out Dissolve Gas Analysis for the Power transformer for the period of two consecutive years. Trend the result from the two years to understand if there is any developing abnormalities. If the trending doesn't indicating any abnormality, schedule the next DGA		

2023-004	Electrical Maintenance

test once every three to five years. If there is any indication of increasing Gas rates determine the reason for the increase of the same and attend for the situation. Post rectification of any identified issue carry out the DGA test for another two successive years and proceed as per above enumerated methodology.

- Carryout Furan Analysis and Corrosive Sulphur testing for transformers above 5 MVA capacity once every 3 to 5 years.
- Ensure that all the critical LT circuit breakers (415 V/426 V/440 V) are calibrated with either primary current injection or secondary current injection. The recommended frequency for calibration is once in three years.

Table 1. Electrical Tests for Low-Voltage Circuit Breakers

Test	*Comment*	*Acceptance Criterial*
Low resistance	Measure the resistance of bolted connections using a low-resistance ohmmeter (Ductor®).	Compare resistance readings between similar bolted connections. There should not be any difference greater than 50% between resistance readings. Verify that resistance readings are below the maximum value recommended by the manufacturer.
Contact resistance	Measure the contact resistance of each pole.	Compare to manufacturer's recommended values. There should be no deviation of the contact resistance readings between poles greater than 50% of the lowest value.
Insulation resistance	Measure the phase-to-phase and phase-to-ground insulation resistance of each pole with the circuit breaker in the open and closed positions.	The insulation resistance reading should be at least 100 Mohm.
Trip and close coil voltages (optional)	Measure the voltage required to operate the trip and close coils. Also verify the trip and close coils are functioning properly.	The operating voltages should be within the manufacturer's recommended values.
Primary current injection testing[1, 2]	Verfiy proper operation and response of the protection functions of the breaker.	The protection relays should pick up and operate at currents within the tolerance band specified by the manufacturer.

[1] Circuit breakers with direct tripping can only be tested by primary current injection. Circuit breakers with discrete solid state protection relays may be tested by secondary current injection. A functional test should be included in addition to secondary current testing.

[2] If switchgear is equipped with ground fault protection, this protection should be tested periodically in accordance with the equipment manufacturer's guidelines and results documented as part of the switchgears routine service and test program.

- Refurbish the existing inspection, testing, and maintenance program for the VRLA batteries as per the below schedule and document these:

Weekly Test

- Visual inspection of the battery room and battery system components for identification of any abnormal condition (e.g. room ventilation failure, excessive room temperature).

Monthly Test

- Check and record the float voltage and current at the terminals.
- Check and record charger voltage and current.
- Check ambient temperature and look for evidence of corrosion, leaks, overheating, and distorted cases.
- Check battery monitoring systems to ensure they are operational.

Quarterly Test

2023-004	Electrical Maintenance
	• In addition to checking the individual cell voltage of all cells, check the internal Ohm values and negative terminal temperature of 10 of the cells. **Annual test** • In addition to quarterly inspection, check inter cell resistances and the string AC ripple in the charger waveform must be within the manufacturer's tolerance. • Perform a capacity test every two years for sealed lead acid (VRLA) batteries. When deterioration in capacity is noticed, increase the frequency of testing to once every year. Replace the battery when its measured capacity approaches 80% of its rated capacity.
Observation	• Currently, the BDV test for the transformer oil is being carried out every year. No such DGA was conducted for transformers. • Augmentation reported in UPS Battery Banks.
Effort of Implementation	Moderate Procedural

2023-005	Valve Supervision		
Status	New	**Issue Date**	05-07-2023
Priority	Priority 1	**Type**	Management Program
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Formalize a valve supervision program for all the isolation valves in the fire protection network. • Number each and every isolation valve starting from the suction line to the fire pumps including the valves on the pressure sensing lines and the diesel supply line to the diesel engine driven pump. • Chain and lock all the isolation valves identified in the water based fire protection network as a part of the valve supervision program, in their normally open position (single key for all locks). • Create a checklist for valves identified above to carry out periodical inspections weekly, monthly, and annually) and exercising of all the isolation valves (Butterfly valves and gate valves). – Weekly Inspection • Confirm valve is not mechanically damaged. • Confirm valve is open and locked. For gate valves screw threads should be exposed approximately one pipe diameter. – Annual full exercise of valves • Open the chain and lock.		

2023-005	Valve Supervision
	• Perform full valve operation, open the valve to full open position and re-lock in the full open position. • For gate valves verify the numbers of turns for open/close is appropriate. • Use the impairment management system when full exercising of the isolation vales is performed. • Perform the full exercising of control valves when any of them is closed for planned/emergency maintenance of the fire protection network.
Observation	• No such valve securement was observed at the site.
Effort of Implementation	Minor Procedural

2023-006	On Site Fire Emergency Plan Augmentation		
Status	New	**Issue Date**	24-05-2023
Priority	Priority 1	**Type**	Management Program
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	The following Improvement are suggested: • Update the existing fire emergency response plan with personnel identified for the following roles from a property loss prevention perspective in every shift, off hours and holidays with their back-ups. • Carryout periodic mock drills for personal identified as recommended and train them on the actions expected from the during a fire emergency. **Pump Room Operator** • Personnel who know to start the pump in manual mode if the pump is not running and ensures its operations throughout the emergency situation. The pump should be stopped only if the team leader directs its stoppage. **Control Valve Operator** • Person who knows where all sprinkler system control/ isolation valves are located and is responsible for operating them in the event of a fire. If the valve is safely accessible, this person goes to the valve that controls the sprinklers protecting the fire area, makes sure the valve is open. **Salvage Team** • Personnel who are entrusted with getting the facility back in operation as soon as possible after an emergency, who know how to salvage and clean equipment and stock immediately		

2023-006	On Site Fire Emergency Plan Augmentation
	during and after an emergency. Concentrating on valuable stock and equipment and mopping up to remove dampness and drying out areas wetted by firefighting are typical tasks to handle. **Electrician** • Electrician for isolating affected electrical network and setting up emergency power and lighting as required. **Note:** The draft of the updated Fire Emergency Response Plan can be made available for the Marsh's Review before being formalized at site. This can be taken up as a separate consulting assignment.
Observation	• Emergency response plan is available at the site however certain roles needs to be defined. Roles recommended above can be integrated into the existing plan.
Effort of Implementation	Minor Procedural

2023-007	Weekly Fire Pump Tests		
Status	New	**Issue Date**	05-07-2023
Priority	Priority 1	**Type**	Management Program
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	The following improvements are recommended for the weekly, quarterly and annually inspection & maintenance of fire pumps: **Weekly** • Start the electric motor driven pump in "Auto" mode with a drop in system pressure (by opening the drain valve in the pressure sensing line). Record the pump starting pressure. Repeat the above procedure for the diesel engine driven pump. • Check for excessive vibration, unusual noise, or other signs of malfunction. Make corrections as needed. Discontinue the test if destructive failure appears imminent. Make repairs as soon as possible. If all appears normal continue with the test. • Operate the pump continuously for the appropriate time period; a minimum of 10 minutes for electric motor driven pumps and a minimum of 30 minutes for the diesel engine driven pump in churn condition (no water demand condition at any hydrant point). The electric motor driven pumps should be run as recommended above after providing the circulation relief valve.		

2023-007	Weekly Fire Pump Tests
	Monthly • Inspect and clean the intake strainer or filter to prevent clogging. • Ensure the sea water intake valves are functioning correctly and opening fully. • Verify the proper functioning of control switches, alarms, and indicators. • Conduct a monthly flow test to ensure the pump is delivering the required water flow. • Adjust the pump speed or impeller settings if necessary to achieve desired performance. **Quarterly** • Perform a comprehensive inspection of the entire pump system, including bearings, shafts, impellers, and seals. • Clean and flush the pump internals, including impellers and volute casings, to remove any accumulated debris or sediment. **Annually** • Perform a complete pump overhaul, including disassembly, cleaning, and inspection of all components. • Perform annual pump performance test
Observation	• The fire pumps are kept in manual mode and above augmentation are suggested.
Effort of Implementation	Minor Procedural

2023-008	Hot Work Controls		
Status	New	**Issue Date**	05-07-2023
Priority	Priority 1	**Type**	Management Program
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable

Description	Following improvements are suggested:
	• Include a continuous post hot work fire watch period for one hour when irregular hot work is carried out in the following areas:
	  • Combustible storage area
	  • Flammable storage area
	  • Conveyor belts
	  • Hydraulic oil storage and handling area		

Observation	• The site has documented hot work permit system with Job safety analysis and pre-inspection of the work area.		

2023-008	Hot Work Controls
Effort of Implementation	Minor Procedural

2023-009	Wind Emergency Response Plan Drill		
Status	New	**Issue Date**	05-07-2023
Priority	Priority 1	**Type**	Management Program
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Following improvement are suggested • Conduct a drill for a wind emergency response plan involves careful planning and coordination to ensure the safety of all participants. • Prepare a comprehensive drill plan outlining the objectives, scenario details, timeline, roles and responsibilities of participants, and any specific protocols to be followed during the drill. Share this plan with all relevant stakeholders to ensure everyone is aware of their roles. • Assess the effectiveness of the response plan, identify strengths and weaknesses, and suggest improvements.		
Observation	• The site has documented flood emergency response plan which is under approval stage.		
Effort of Implementation	Minor Procedural		

2023-010	Fire Protection and Detection Impairment Program		
Status	New	**Issue Date**	05-07-2023
Priority	Priority 2	**Type**	Management Program
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Formalize an impairment management program to manage all types of impairments (planned/emergency) to the fire protection and fire detection system at site by drafting a documented policy framework/standard operating procedure. Include the following line items in the policy/ standard operating procedure (as a minimum): • Systems to be managed (e.g. hydrant system, fire pumps and fire pump room auxiliaries)		

2023-010	Fire Protection and Detection Impairment Program
	• What constitutes impairment (e.g. closure of an isolation valve in the fire water network including the fire pump room, breakdown of fire pumps, weekly testing of fire pumps, etc.)? • Internal communication of impairment and escalation matrix (e.g. Reminders to be send concerned department that impairment exists and immediate action needs to be taken to fix the impairment. After the planned date of fixing, the impairment is lapsed) • Protection measures required till the impairment is fixed based on severity of the impairment, area affected and fire hazard exposure (e.g. additional security watch for the area affected by impairment, disallowing hot work at site till impairment is normalized).
Observation	• The site is not having documented fire protection and detection impairment program.
Effort of Implementation	Minor Procedural

Physical Protection

2023-011	Fire Protection and Detection for Crane		
Status	New	**Issue Date**	05-07-2023
Priority	Priority 1	**Type**	Protection
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Following recommendations are suggested: • Provide total gas flooding system for the control panel cabinet room of the waft cranes. Suggested to refer NFPA 2001 as the guiding document in terms design and installation guidelines (e.g. extinguishing concentration, discharge time, etc.,) for the total gas flooding system. • Explore the possibility of providing total gas flooding system for the control panel cabinet room of the HMC Cranes as per NFPA 2001 as termed above. Till such time the above recommendation for total gaseous flooding system is taken up for completion, implement the following measures: • Provide spot type smoke detection for the control panel cabinet rooms and the crane motor-gear and electric distribution room of the ship to shore cranes and shore cranes. The design and installation of the detectors shall conform to the guidelines in NFPA 72/FM Global datasheet 5-48 & 5-40.		

2023-011	Fire Protection and Detection for Crane					
	• Raise an alarm at the operator cabin and at bottom of the crane / manned area location when the initiating devices are triggered.					
Observation	• The machine room and electrical drive panel rooms of Waft cranes and HMC cranes are not equipped with auto fire suppression system and installed smoke detectors at the areas were observed non-operational.					
Client Response	Port Management will explore the recommendations further for possible completion.					
Marsh Advisory Comment	None					
Loss Expectancy (Current – in INR)	**PDLE**	₹799,761,524	**BILE**	9 Months BI	**TOTAL**	₹799,761,524 + 9 Month BI
Loss Expectancy (After Completion)	**PDLE**	₹80,000,000	**BILE**	2 Weeks BI	**TOTAL**	₹80,000,000 + 2 Weeks BI
Effort of Implementation	Moderate Capital					
Loss Scenario	Fire in crane machine room/electrical drive panel room.					

2023-012	Wind Velocity Monitoring and Interlocking of Cranes		
Status	New	**Issue Date**	05-07-2023
Priority	Priority 1	**Type**	Mechanical Integrity
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Following recommendations are suggested for each crane • Install a wind velocity-indicating device mounted at or near the top of the crane. • Install the velocity read-out of the indicating device in the operator's cab. • Provide visible and audible alarms to the cab and to remote control stations when the maximum in-service wind velocity is exceeded. • Establish a program to check the calibration and accuracy of all wind velocity-indicating devices.		
Observation	• Anemometer was installed only at 120 Ton waft crane however was observed not working and other cranes are provided with anemometer and alarming system.		

2023-012	Wind Velocity Monitoring and Interlocking of Cranes					
Client Response	Port Management will explore the recommendations further for possible completion.					
Marsh Advisory Comment	None					
Loss Expectancy (Current – in INR)	**PDLE**	₹5,219,232,885	**BILE**	15 Months BI	**TOTAL**	₹5,219,232,885+ 15 Month BI
Loss Expectancy (After Completion)	**PDLE**	₹0	**BILE**	0	**TOTAL**	₹0
Effort of Implementation	Moderate Capital					
Loss Scenario	Damage of unsecured cranes during heavy wind event					

2023-013	High wind damage Design		
Status	New	**Issue Date**	04-07-2023
Priority	Priority 1	**Type**	Exposure
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Following improvement is suggested for the revamping of damaged sheds from recent cyclone. • For the reinstatement of the metal roof sheets/metal wall cladding and glass windows ensure that the securement (consider 3 second wind gust of 55 m/s wind damage) of these to secondary structural elements are as per Global Best Industry Practices Like FM Global Datasheet 1-28 or ASCE 7 or equivalent international standards. • Consider a safety factor of 2.0 for the corner, perimeter, and field basis Global Best Industry Practices. • Establish a routine maintenance plan to inspect and maintain the buildings regularly. This includes checking for any damage, loose components, or deteriorating materials that could compromise their ability to withstand wind forces.		
Observation	• It is verbally reported that the structures were designed basis the 40m/s wind load. The major of the storage sheds and wind screens were found damaged due to latest cyclone biperjoy with maximum sustained wind speed of 35-38 m/s gusting to 41 m/s.		
Client Response	The site team indicated that this recommendation will be studied for possible completion.		
Marsh Advisory Comment	Marsh can help with the plan review to verify the adequacy of securement for the building envelope as a separate consulting assignment.		

2023-013	High wind damage Design					
Loss Expectancy (Current – in INR)	**PD LE**	₹5,219,232,885	**BI LE**	15 Months BI	**TOTAL**	₹5,219,232,885+ 15 Month BI
Loss Expectancy (After Completion)	**PD LE**	₹0	**BI LE**	0	**TOTAL**	₹0
Effort of Implementation	Major Capital					
Loss Scenario	High wind damage of the structures.					

2023-014	Fire Hydrant Improvement					
Status	New		**Issue Date**	04-07-2023		
Priority	Priority 1		**Type**	Protection		
OFI Issued By	Marsh		**Insurer Rec No.**	Not Applicable		
Description	Following improvements are suggested: • Ensure routine maintenance of filtration system to remove impurities, sediment, and debris from the sea water before it reaches the fire hydrant system. • Implement regular maintenance and inspection programs to detect and address any corrosion issues promptly. • Verify whether the fire hydrant system can meet the intent of IS 13039 (2019 version) and OISD guidance as applicable. Where there is non-conformance modify the system to meet the above intent.					
Observation	• The fire hydrant system was observed to be corroded at dry cargo storage yard and chocking issues were reported at the oil jetty area.					
Client Response	None					
Marsh Advisory Comment	Consulting solution marsh advisory India can help in reviewing the existing fire hydrant system conformance to IS 13039 along with providing the hydraulic calculations as a separate consulting assignment if the as built hydrant system drawing in auto cad format (Scale drawing) is made available.					
Normal Loss Expectancy (Current – in INR)	**PD LE**	₹799,761,524	**BI LE**	9 Months BI	**TOTAL**	₹799,761,524 + 9 Month BI

Normal Loss Expectancy (After Completion)	**PD LE**	₹80,000,000	**BI LE**	2 Weeks BI	**TOTAL**	₹80,000,000 + 2 Weeks BI
Effort of Implementation	Minor Capital					
Loss Scenario	None					

2023-015	**Hydraulic Spray Fire**		
Status	New	**Issue Date**	05-07-2023
Priority	Priority 1	**Type**	Mechanical Integrity
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Following improvement are suggested: • Attend to the hydraulic oil release observed from the 120 Ton HMC 3 crane at and rectify the source of the release at the earliest. • Explore with the original equipment manufacturer of the cranes for the usage of FM Approved industrial fluids for the hydraulic controls. Carryout the following for the smaller hydraulic power packs used in the crane motor-gear and electric distribution room of the ship to shore cranes (e.g. for emergency braking): ○ Install a heavy gauge metal of 2 mm spray hood or barrier over the small power packs till the end use points. Support the barrier on the unexposed side. Provide Heat Actuated Detectors (HAD's) under the spray hood. Wire the detectors to shut off the pumping mechanism of the hydraulic power pack with the activation of the HAD's. Select heat detector settings to avoid spurious alarms in the upper range of expected operating temperatures in the respective areas. Select the detector temperature ratings as specified in FM Global Data Sheet 5-48, Automatic Fire Detection. Provide electronic supervision for fire detection system detection and trouble conditions and annunciate detection/trouble alarms in the crane operator cabin.		

2023-015	Hydraulic Spray Fire
	Table 1. Selection of Detector Temperature Rating Temperature Rating Range of Detector / Maximum Expected Ceiling Temperature °F / °C / °F / °C 135 to 174 / 57 to 79 / 100 / 38 175 to 249 / 79 to 121 / 150 / 66 250 to 324 / 121 to 162 / 225 / 107 325 to 399 / 163 to 204 / 300 / 149 400 to 499 / 204 to 260 / 375 / 191 500 to 575 / 260 to 302 / 475 / 246 **Excerpt from FM Global datasheet 5-48 for selection of heat detectors**
Observation	• Hydraulic oil release was observed from the HMC 3 – 120 Ton crane break arrangement.
Client Response	The site team indicated that this recommendation will be studied for possible completion.
Marsh Advisory Comment	None
Loss Expectancy (Current – in INR)	**PD LE** ₹799,761,524 **BI LE** 9 Months BI **TOTAL** ₹799,761,524 + 9 Month BI
Loss Expectancy (After Completion)	**PD LE** ₹0 **BI LE** 0 **TOTAL** ₹0
Effort of Implementation	Minor Capital
Loss Scenario	Hydraulic Spray fires

2023-016	66 KV substation Room		
Status	Open	**Issue Date**	04-07-2023
Priority	Priority 1	**Type**	Protection
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Following recommendations are provided in regards to the 66 KV substation room:		

2023-016	66 KV substation Room					
	• Provide automatic gaseous fire protection system for the electrical panels installed in the 66 KV substation room as per FM/NFPA standards. • Seal all the cable openings present in the electrical panel room with FM approved/UL listed fire rated material of two hours fire rating. • Provide drainage system at substation room underground cable trench.					
Observation	• 66KV substation panel room is not equipped with any fire detection and protection system.					
Client Response	Port Management will explore the recommendations further for possible completion.					
Marsh Advisory Comment	None					
Loss Expectancy (Current – in INR)	**PDLE**	₹799,761,524	**BILE**	9 Months BI	**TOTAL**	₹799,761,524 + 9 Month BI
Loss Expectancy (After Completion)	**PDLE**	₹80,000,000	**BILE**	2 Weeks BI	**TOTAL**	₹80,000,000 + 2 Weeks BI
Effort of Implementation	Moderate Capital					
Loss Scenario	Fire in 66KV substation panel room.					

2023-017	Server Room Protection		
Status	Open	**Issue Date**	04-07-2023
Priority	Priority 1	**Type**	Protection
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Following improvements are recommended • Provide double interlock pre-action sprinkler system for the Vessel Traffic Control Server Room. The design and installation of the system should be as per FM DS 5-32 and FM DS 2-0. Individual parts of the pre-action sprinkler system shall be of FM Approved/UL Listed make to increase the reliability of the system. • Alternatively provide total gas flooding system for the Vessel Traffic Control Server Room. Ensure that NFPA 2001 is used as the guiding document in terms design and installation guidelines (e.g. extinguishing concentration, discharge time, etc.,) for the total gas flooding system.		

2023-017	Server Room Protection					
	Individual parts of the flooding system shall be of FM Approved/UL Listed make to increase the reliability of the system.					
Observation	• The vessel traffic control server room is not equipped with any auto protection system.					
Client Response	Port Management will explore the recommendations further for possible completion.					
Marsh Advisory Comment	If the above recommendations are taken up for completion, Marsh Risk Consulting can be contacted for support during the design and installation phases of the above systems.					
Loss Expectancy (Current – in INR)	**PD LE**	₹799,761,524	**BI LE**	9 Months BI	**TOTAL**	₹799,761,524 + 9 Month BI
Loss Expectancy (After Completion)	**PD LE**	₹80,000,000	**BI LE**	2 Weeks BI	**TOTAL**	₹80,000,000 + 2 Weeks BI
Effort of Implementation	Moderate Capital					
Loss Scenario	Fire in vessel traffic control room server					

2023-018	Secondary Containment for Flammable liquid		
Status	Open	**Issue Date**	04-07-2023
Priority	Priority 1	**Type**	Construction
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Following suggestions are made in regards to uncontained flammable liquids: • Provide non-combustible secondary containment for the diesel day tanks of the emergency generators, to hold 100% of the contents of the day tank plus 50 mm of freeboard. • Pipe the vent/breather on the day tank to outside the electrical switch room/distribution building. • Provide a non-combustible curb of minimum 76 mm height around the on-site lube oil drums at the Auto Garage Building, such that it is able to hold the highest expected spill from a single lube oil drum.		

2023-018	Secondary Containment for Flammable liquid					
	• Provide anchorage and bracing for support structure of diesel day tanks and engine oil tanks. Provide positive attachment from tank to support structure.					
Observation	• The curbing provided for diesel day tank at the emergency generator area and diesel drums and lube oils are not provided with curbing.					
Client Response	Port Management will explore the recommendations further for possible completion.					
Marsh Advisory Comment	None					
Loss Expectancy (Current – in INR)	**PD LE**	₹799,761,524	**BI LE**	9 Months BI	**TOTAL**	₹799,761,524 + 9 Month BI
Loss Expectancy (After Completion)	**PD LE**	₹10,000,000	**BI LE**	0	**TOTAL**	₹10,000,000
Effort of Implementation	Minor Capital					
Loss Scenario	Pool fire in the emergency generator for diesel day tank.					

2023-019	Seismic Protection to Non-structural Element		
Status	Open	**Issue Date**	05-07-2023
Priority	Priority 1	**Type**	Exposure
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Following improvement are suggested: • Install Earthquake seismic safety shutoff valve for the natural gas pipelines and flammable liquid pipelines. • Provide earthquake protection for the flammable liquid and natural gas pipelines in the jetty area as per FMDS 1-11. • Anchor all the electrical panels in buildings, battery racks and sever racks to the ground for expected ground movement during an earthquake in the port area.		
Observation	• The electrical panel at 66KV substation are observed welded to the baseplate however electrical panel installed at the other buildings are not anchored properly.		

2023-019	Seismic Protection to Non-structural Element					
	• The battery banks and server are not observed anchored to the floor.					
Client Response	The site team indicated that this recommendation will be studied for possible completion.					
Marsh Advisory Comment	Marsh can help with the plan review to verify the adequacy of securement for the building envelope as a separate consulting assignment.					
Loss Expectancy (Current – in INR)	**PD LE**	₹799,761,524	**BI LE**	9 Months BI	**TOTAL**	₹799,761,524 + 9 Month BI
Loss Expectancy (After Completion)	**PD LE**	₹0	**BI LE**	0	**TOTAL**	₹0
Effort of Implementation	Minor Capital					
Loss Scenario	High wind damage of the structures.					

2023-020	Sealing of opening due to Cables Penetration		
Status	Open	**Issue Date**	04-07-2023
Priority	Priority 2	**Type**	Construction
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Following improvements are suggested: • Provide cement plaster / Masonry / Rockwool or Glass wool Insulation Sandwich between Gypsum plaster or POP / FM approved / UL listed fire stopping rated for 2-hours to seal all the cable penetration and utility pipelines penetration through fire rated wall partition and concrete floors. • Replace all PUF sealant used for the fire stopping with above mentioned fire stopping options. • Ensure that there should no opening or void with fire stopping and also ensure fire stopping should be flush with the wall and/or concrete floor on both the sides. • Where FM approved / UL listed fire stops being used ensure that the work is being done by the authorized personal of the supplier and workmanship is adequate as per the guidelines issued by the supplier.		
Observation	• Cable partition pentation through fire rated partition and concrete floor were observed at various buildings such as between 66 KV substation, emergency generator room, Electrical Room etc.		

Client Response	Client has informed that the recommendation will be explored further for possible completion.					
Marsh Advisory Comment	We await the response from site management and plant officials for this suggested improvements.					
Normal Loss Expectancy (Current – in INR)	**PD LE**	₹799,761,524	**BI LE**	9 Months BI	**TOTAL**	₹799,761,524 + 9 Month BI
Normal Loss Expectancy (After Completion)	**PD LE**	₹80,000,000	**BI LE**	2 Weeks BI	**TOTAL**	₹80,000,000 + 2 Weeks BI
Effort of Implementation	Minor Capital					
Loss Scenario	Fire at the electrical rooms					

2023-021	**Automatic Sprinkler protection**		
Status	Open	**Issue Date**	04-07-2023
Priority	Priority 1	**Type**	Protection
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable

Description	Following improvements are suggested:
	• Provide sprinkler protection for the following areas/buildings with combustible loading designed and installed as per NFPA/FM Global standards:
	  ○ Port operations/Signaling building (as per FM Global Data sheets 3-26 and 2-0/ NFPA 13)
	  ○ Administrative Buildings at Port (as per FM Global Data sheets 3-26 and 2-0/ NFPA 13)
	  ○ Nirman Building (as per FM Global Data sheets 3-26 and 2-0/ NFPA 13).
	  ○ Main spares storage building (as per FM Global Data sheets 8-9 and 2-0/ NFPA 13).
	  ○ Fire stations and Fire Pump rooms at the Oil Jetty (as per FM Global Data sheets 3-26 and 2-0/ NFPA 13).
	• Provide bracing and flexibility for the sprinkler system piping in line with guidelines provided FM datasheet 2-8.		

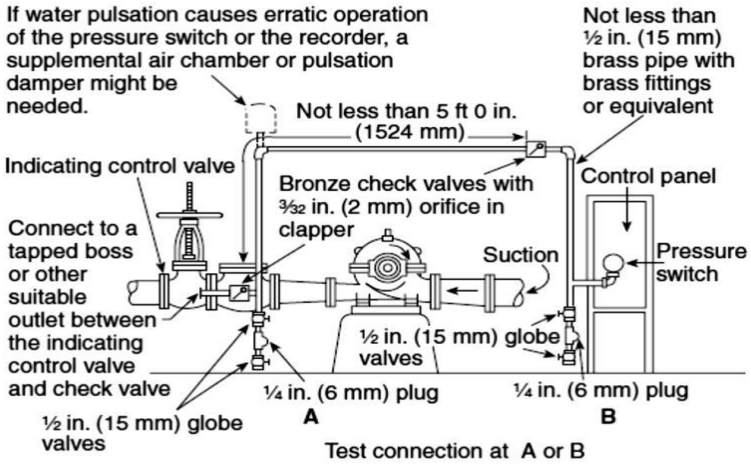
Observation	• The site is not equipped with auto protection system.		
Client Response	None		

Marsh Advisory Comment	None					
Normal Loss Expectancy (Current – in INR)	**PD LE**	₹799,761,524	**BI LE**	9 Months BI	**TOT AL**	₹799,761,524 + 9 Month BI
Normal Loss Expectancy (After Completion)	**PD LE**	₹80,000,000	**BI LE**	2 Weeks BI	**TOT AL**	₹80,000,000 + 2 Weeks BI
Effort of Implementation	Moderate Capital					
Loss Scenario	None					

2023-022	**Fire Water Supply**		
Status	Open	**Issue Date**	05-07-2023
Priority	Priority 1	**Type**	Protection
OFI Issued By	Marsh	**Insurer Rec No.**	Not Applicable
Description	Implement the following for the fire water supply at site: • Provide a FM/UL approved/listed diesel engine driven fire pump for the largest sprinkler demand designed as per NFPA/FM Global standards for the site. • Provide a separate yard main designed for the largest demand of sprinkler system and interconnect the sprinkler main and the existing hydrant mains at two locations with isolation valves. • Design and Install fire water tank in accordance with FM datasheet 3-2 for the largest demand of the sprinkler system designed as per NFPA/FM Global standards at site. • Provide an NFPA 20 controller for the FM/UL approved/listed diesel engine driven fire pump and repeat the impairment signal and common fault signal at a constantly manned location. • Follow the guidelines provided in NFPA 20/FM datasheet 3-7 for the fire pump installation. • Provide earthquake protection for the fire pump installation in accordance FM datasheet 2-8. Till such time the above fire water supply recommendations are taken up for completion, improve the reliability of the existing fire pumping system by carrying out the following: • Ensure that all the fire pumps are always run on “Auto” Mode.		

2023-022	Fire Water Supply

	• Provide dual set of batteries for the diesel engine, connected such that the panel is able to crank the engine from either of the batteries as per the guidance provided in NFPA 20. Crank the diesel engine driven pump by disconnecting one set of batteries and repeat the same for the other set of batteries.
	• Provide pressure relief valve rated for 12 bar and of size 150 mm (inlet) x 200 mm (outlet) located between the discharge flange of the diesel engine driven pump and the check valve. The discharge should be gently slopped outside the pump room. Provide the above pressure relief valve for the electrical driven motor pump if the churn pressure of the pump exceeds 12 bar (unable to test as pump was taken out for repair).
	• Provide NFPA 20 controller for the electrical driven pump and diesel engine driven pump. Repeat the following signals from the controllers at a constantly manned location:
	  ○ Repeat as Impairment Signals for all the pumps
	  ▪ Fire Pumps in Switched Off/Manual Mode of operation
	  ▪ Fire Pumps failed to Start
	  ○ Repeat as common faults for diesel engine driven pump
	  ▪ Battery Charger fault
	  ▪ Battery fault
	  ▪ Engine jacket temperature high
	  ▪ Lube oil pressure low
	  ▪ Engine Over Speed
	• Provide individual pressure sensing line for the fire pumps in line with NFPA 20/FM datasheet 3-7 (an excerpt from NFPA 20 is given below).

2023-022	Fire Water Supply					
	 Notes: (1) Solenoid drain valve used for engine-driven fire pumps can be at A, B, or inside controller enclosure. (2) If water is clean, ground-face unions with noncorrosive diaphragms drilled for 3⁄32 in. orifices can be used in place of the check valves. **FIGURE A.4.30(a) Piping Connection for Each Automatic Pressure Switch (for Electric-Driven and Diesel Fire Pump and Jockey Pumps).** **Individual Pressure Sensing lines – Excerpt from NFPA 20 – for illustration purpose only**					
Observation	Hydraulic oil release was observed from the HMC 3 – 120 Ton crane break arrangement.					
Client Response	The site team indicated that this recommendation will be studied for possible completion.					
Marsh Advisory Comment	None					
Loss Expectancy (Current – in INR)	**PD LE**	₹799,761,524	**BI LE**	9 Months BI	**TOTAL**	₹799,761,524 + 9 Month BI
Loss Expectancy (After Completion)	**PD LE**	₹80,000,000	**BI LE**	2 Weeks BI	**TOTAL**	₹80,000,000 + 2 Weeks BI
Effort of Implementation	Major Capital					
Loss Scenario	None					

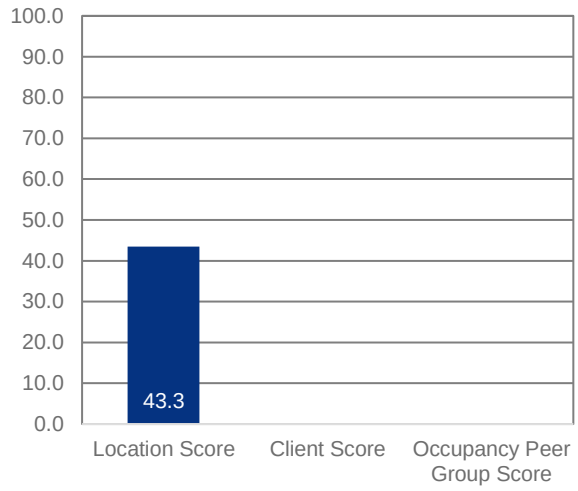
Section 4

Risk Quality Ratings and Comments

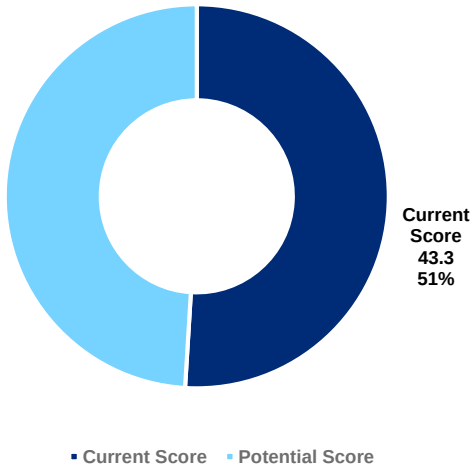
Main Category	Current Score	Potential Score
External Exposure	5	7
Fire Protection	5	9
Occupancy Hazards	6	9
Construction	5	6
Water Supply	6	6
Surveillance	3	8
Management Programs	3	10
Location Risk Quality Score	43.3	85.0
Location Risk Quality Rating	D	A

Rating Legend
A: 85 to 100
B: 70 to 84
C: 51 to 69
D: 36 to 50
E: 0 to 35

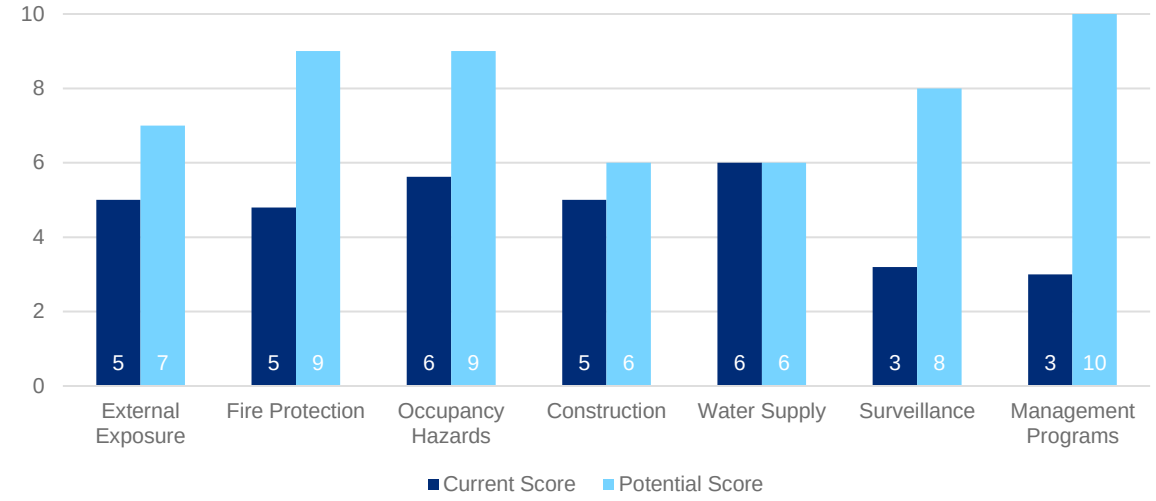
RQR SCORE BENCHMARKING



CURRENT RISK QUALITY SCORE VERSUS % POTENTIAL



RISK QUALITY RATING CATEGORY SUMMARY



Risk Quality Rating Comments

External Exposure: The site has both high wind and seismic exposure and completing the recommendations under this category will help increase the scoring for this category.

Fire protection: The site is equipped with manual firefighting system such as fire hydrant and extinguishers throughout the facility. The Sprinkler protection conformance to Global Best Industry Practices and revamping of fire hydrant system will improve the scoring for this category.

Occupancy Hazard: The overall occupancy hazard is moderate considering the operations and material handling at the site.

Construction: The site has non-combustible construction.

Water supply: The primary source of fire water supply is sea water and domestic purpose water is supplied by tanker.

Surveillance: The site has good surveillance arrangements in terms of round the clock security team & CCTV cameras. There is no auto detection system installed at the site.

Management Programs: Majority of the management programs are formalized at the site. Further improvements are needed to strengthen the emergency plan & testing of the fire protection system & emergency response plan drills for the natural hazard exposure.

Section 5

Loss Estimates

The Loss Estimates presented here are believed to be reasonable, based on industry experience, events postulated, and information provided by the client. The calculation of Loss Expectancies is based on the review of building construction, operations, fire protection systems, and fire protection features at the time of our assessment. The estimates are further based on conditions observed at the time of the visit. By their nature, these estimates contain some element of subjectivity. Accordingly, the estimates cannot be taken as absolutes and could be exceeded due to changes in physical conditions on site, or the initiating event or escalation being more severe than anticipated within the boundaries of the estimate.

All damage and loss potential figures presented pertain exclusively to primary property damage, associated contents damage, and associated business interruption recovery time loss, caused directly by (fire or explosion) as defined in our Loss Estimate.

Values

Date of Values: 07-JUL-23			**Currency: INR**
Property Damage (PD) Values		**Time Element (TE) Values** ***Indemnity Period (Not Provided)***	
Building, Shades & Other Structures	7,382,596,386	Business Interruption {Gross Revenue or Gross Profit}	Values Not Available
Wharves, Roads & Boundaries	17,285,717,019	Loss of Rents	None
Railway & Rolling Stock	2,542,721,153		
Docks, Sea Walls, Navigational Aids	20,326,231,605		
Installations of Water, Electricity, Telecom & Fire Fighting	3,629,677,801		
Oil Installation	391,725,616		
Cranes & Vehicles	3,352,080,645		
Plant & Machinery	933,158,493		
Total Reported Site PD	55,843,908,718	**Total Reported Site TE**	Not Provided
Total Insurable Values (TIV) / Total Sums Insured (TSI)			**55,843,908,718**

The above values for property damage and business interruption has been taken from the draft tender shared by client. Unless stated differently the PD values are assumed to be Replacement Cost Values (RCV), and the financial numbers are deemed to be for a fiscal year.

Loss Estimate Definitions

Level	Definition
Level I	Primary Protection Systems are functioning and manual firefighting available A loss event in which damage is based on the nature of hazards and construction factors, and where: • All fire protection systems are in service and functioning as designed. • Full facility Industrial Fire Brigade (Or Plant Emergency Organization) and Municipal Fire Department response expected. • Credit is given to all properly maintained fire barriers up to their design duration rating • Construction features function as designed.
Level II	Primary Protection System is not functioning and manual firefighting available A level II Loss Event is one which occurs when: • The fire protection system protection the area with the largest PD / BI potential is impaired or is rendered inoperative or ineffective due to the nature of the event. Adjacent fire protection systems are presumed operational unless rendered inoperative or ineffective due to structural failure. Same applies for the use of special extinguishing systems. • Credit can be given for adequate manual emergency response, defined as: — A responding organization that is trained to address the hazards of the facility being evaluated. — Can arrive on site within a reasonable time of being notified to be effective in reducing or limiting impact. — Has up to date preplans or emergency response plans for the facility. • Credit given to minimum adequately maintained (including fire doors and fire penetrations) 3 hour rated walls where the combustible loading is light to ordinary, structural failure is not expected, and roof assembly is a listed or approved noncombustible. • Combustible roof construction (including combustible or unknown metal deck assemblies) results in a contiguous structure loss. Damage may be limited to the area where the impaired protection system is located and the nearby surroundings or may extend to the nearest adequate separation or properly designed and approved construction cutoffs, depending on site conditions.
Level III	Fire Protection Systems are not functioning and no manual firefighting response A level III Loss Event is one which occurs when: • All fire protection systems throughout the entire site or facility are impaired. • No credit is given for manual emergency response.

Level	Definition
	• Damage is limited only by adequate separation and/or free-standing 4-hours rated firewalls or equivalent. (Equivalencies must be well defined and proven.) • Combustible roof construction (including combustible or unknown metal deck assemblies) results in a contiguous structure loss. The size of this loss can approach the value of the buildings of origin or an entire facility, depending on site layout.
Level IV	Catastrophic A catastrophic Loss Event has the potential to effect multiple plant areas or the entire facility. "Catastrophic" as used in this category refers to the initiating event, not the consequences due that event. Typical events falling into this category would be (including, but not limited to the following): • Massive Releases of Hazardous Materials. • Massive Detonation of Explosives. • Natural Hazards (floods, tidal waves, hurricanes, seismic disturbances, tornadoes, etc.) • Falling Aircraft. • Terrorism, War Driven Events.

Assumptions for Loss Estimates:

As informed at site, the above property damage values do not include the assets of the private container terminals, private liquid cargo terminal (including the underground pipelines from the Shallow Water Berth and External Pipelines to the tank farms) and the private external tank farms (DPT only leases land to the external tank farms). Also as informed at site the above property damage values include non-operational assets not limited to township, captive general hospital, guest house, port user building, external container storage building for de-stuffing, etc. As the property risk evaluation survey is an operational study, the non-operational assets of the client were not evaluated for property damage exposures.

The private container terminals and liquid cargo terminal operate on a Build, Operate and Transfer (BOT) basis. The BOT contracts generate operating income for the Port Trust vis-à-vis royalty agreements and revenue sharing basis. As per the informed shared at site, there is a minimum cargo handling throughput mandated from the private container terminals and liquid cargo terminal and loss of operating income via reduction in throughput below the mandated level is secured by contractual agreements.

Property – Level I & II Loss Estimate

A Level 1 estimate will tend to a Level 2 loss estimate due to absence of primary automatic fire protection system in the 66 KV substation building.

Probable Maximum Loss

Definition	Definition: Primary Protection System is not functioning, Manual firefighting available
Scenario	The fire is assumed at the 66 KV substation, electrical panels and battery banks, fire involving any of these equipment will lead to complete damage of these equipment at the block. Since this is a bottle neck for the electrical supply at the site, power distribution will be interrupted at the port area. Emergency power supply from some of the diesel generators are also fed through the 66 KV substation electrical panels and will lead to site operation interruption. 80% damage is being assumed at the substation to the panels and its equipment in the 66 KV substation. The above scenario is expected to result in 9 months of downtime for port operations as it will take at least 6 months to procure and 3 months to install, test and commission the new electrical equipment at the site.
Assumptions	• Smoke generated from the fire will impede manual firefighting at the site. • Fire only in the below mentioned area: • 
Limitations	None

Property Damage	Value (INR)	% Damage	Property Damage (INR)
Building, Shades & Other Structures	7,382,596,386	1%	73,825,964
Wharves, Roads & Boundaries	17,285,717,019	0%	0
Railway & Rolling Stock	2,542,721,153	0%	0
Docks, Sea Walls, Navigational Aids	20,326,231,605	0%	0
Installations of Water, Electricity, Telecom & Fire Fighting	3,629,677,801	20%	725,935,560
Oil Installation	391,725,616	0%	0
Cranes & Vehicles	3,352,080,645	0%	0
Plant & Machinery	933,158,493	0%	0
Total Property Damage Loss 1.4% of Total Site (PD)			**799,761,524**

Business Interruption	Duration	Duration Units	% Impacted	BI Loss (INR)
Recovery time	The captioned fire loss cause site inoperative for 9 months	Months	100%	9 months of BI
Total Business Interruption Loss				**9 months of BI**

Total Level III Property Loss Estimate	**799,761,524 + 9 Months of BI**

Note: No damage is expected to the container handling equipment and other blocks of the site.

Property – Level III Loss Estimate

Maximum Foreseeable Loss

Definition	Definition: Fire Protection Systems are not functioning and no manual firefighting response
Scenario	The level II loss estimate will tend to level III loss estimates because of following reasons: • 66 KV substation building is considered as HC-2 occupancy as per FM Global Datasheet (FMDS) 3-26. • Basis the guidelines in FMDS 1-42 the minimum spacing between 66 KV block and other areas should be 15 m. • The emergency generator building is about 16 m separated from the 66 KV substation building. • 10 MVA transformer and some switchyard equipment will fall under the clear distance of 15 m from the 66 KV Substation building. • The MFL fire loss scenario in the 66 KV substation building will damage the entire substation building and some equipment of switchyard.
Assumptions	None
Limitations	None

Property Damage	Value (INR)	% Damage	Property Damage (INR)
Building, Shades & Other Structures	7,382,596,386	1%	73,825,964
Wharves, Roads & Boundaries	17,285,717,019	0%	0
Railway & Rolling Stock	2,542,721,153	0%	0
Docks, Sea Walls, Navigational Aids	20,326,231,605	0%	0
Installations of Water, Electricity, Telecom & Fire Fighting	3,629,677,801	20%	725,935,560
Oil Installation	391,725,616	0%	0
Cranes & Vehicles	3,352,080,645	0%	0
Plant & Machinery	933,158,493	0%	0
Total Property Damage Loss 1.4% of Total Site (PD)			**799,761,524**

Business Interruption	Duration	Duration Units	% Impacted	BI Loss (INR)
Recovery time	The captioned fire loss cause site inoperative for 9 months	Months	100%	9 months of BI
Total Business Interruption Loss				**9 months of BI**

Total Level III Property Loss Estimate	**799,761,524 + 9 Months of BI**

Property – Level IV Loss Estimate

Catastrophic Loss

Definition	Definition: Property damage at DPT and Shallow Water Berth including the workshops and storage building due to a 55 m/s wind event.
Scenario	A 55 m/s high wind event is expected to lead to collapse/slide damage for all the ship-to-shore cranes (Waft cranes). Damage to the shore cranes (HMC) is also assumed. The damage is also expected to navigational aids equipment such as buoyage and other such equipment. Building envelop of majority of the buildings (GI sheet roof, Asbestos Sheet Roof, Glass windows, Skylights etc.) at the site will damage followed by wind borne debris and rainwater due to the 55 m/s wind event.
Assumptions	None
Limitations	None

Property Damage	Value (INR)	% Damage	Property Damage (INR)
Building, Shades & Other Structures	7,382,596,386	5%	369,129,819
Wharves, Roads & Boundaries	17,285,717,019	0%	0
Railway & Rolling Stock	2,542,721,153	1%	25,427,212
Docks, Sea Walls, Navigational Aids	20,326,231,605	5%	1,016,311,580
Installations of Water, Electricity, Telecom & Fire Fighting	3,629,677,801	10%	362,967,780
Oil Installation	391,725,616	0%	0
Cranes & Vehicles	3,352,080,645	100%	3,352,080,645
Plant & Machinery	933,158,493	10%	93,315,849
Total Property Damage Loss of 9.3 % of Total Site (PD)			5,219,232,885

Business Interruption	Duration	Duration Units	% Impacted	BI Loss (INR)
Recovery time	The captioned loss will cause site inoperative for 15 months	Months	100%	15 months of BI
Total Business Interruption Loss				**15 months of BI**

Total Level III Property Loss Estimate	**5,219,232,885 + 15 Months of BI**

Note: The above scenario is expected to result in 15 months of down time for DPT container handling throughput and the Shallow Water Berth's solid bulk cargo handling throughput. Cleaning, repair/replacement of damaged equipment, installation of new equipment & utility, testing & commissioning and building/structure re-construction/renovation would lead to considerable delay.

Property – Level 0 Loss Estimate

Controlled Fire Loss Estimate

Definition	Definition: All the physical protection recommendation presented by Marsh are completed and the management programs are optimized.
Scenario	Fire started in the 66KV substation panel building manufacturing area which is controlled by adequate fire protection. The site business interruption is estimated for two weeks considering investigation, removal of debris, reinstating and commissioning period.
Assumptions	None
Limitations	None

Property Damage	Value (INR)	% Damage	Property Damage (INR)
Total Property Damage Loss	**55,843,908,718**	**0.14%**	**80,000,000**

Business Interruption	Duration	Duration Units	% Impacted	BI Loss (INR)
Recovery time	Two weeks for cleaning, investigation and revalidation.	Weeks	100%	2 weeks of BI
Total Business Interruption Loss				**2 weeks of BI**

Total Level III Property Loss Estimate	**80,000,000 + 2 weeks of BI**

Section 6

Management Programs

Our site visit, interviews and review of information provided leads us to the following maturity assessment of Management Programs in place to manage the risks at the location.

Program Category	Maturity	Comments
Building Maintenance	**Formalized**	The site has various blocks including pre-fabricated structure storage sheds and RCC constructed buildings. The major of the storage sheds were damaged due to recent western port cyclone (Biporjoy) and various cracks and seepage were also observed on civil structures. As reported the buildings older than 30 years are identified for demolished and restructure.
Electrical Maintenance	**Formalized**	Electrical Maintenance for Transformer includes Oil dehydration, Breakdown Voltage Test conducted for the transformers annually. • Dissolved gas analysis is not formalized. • No such Furan Analysis and Corrosive Sulphur test conducted for the main power transformers. The inspection, testing and maintenance program for the circuit breaker and protection relay conducted as per the schedule. • VCB is installed at the switchyard and current injection testing for relays are conducted on annual basis. • Infrared thermography scans were not conducted till now. • Battery bank maintenance was not formalized The captive diesel generators are inspected and tested as per OEM recommendations. The generators are kick started on weekly basis with 10 minutes loading.
Equipment Maintenance	**Formalized**	The inspection, testing and maintenance for the cargo handling equipment is formalized

		with check lists derived from original equipment manufacturer's recommendation as well as years of experience accumulated by client in handling port operations.
Fire Protection Impairment Management	**Undeveloped**	An impairment management program in accordance with NFPA 25 is not formalized and hence recommended.
Fire Protection System Maintenance & Testing	**Undeveloped**	The routine Inspection, testing and maintenance procedures for the fire pumps and manual firefighting aids are not formalized at site.
Hazardous Materials Handling	**Formalized**	Marsh has not reviewed the storage of flammable and hazardous material at the site. Lube oil, Hydraulic oil and diesel are kept within their dedicated areas such as Lube oil tanks, hydraulic power packs and diesel day tanks respectively. The release was observed for the hydraulic oil at the HMC 3 crane.
Housekeeping	**Established**	Housekeeping at port site from a property loss prevention perspective is established. Housekeeping at the crane machine room and maintenance area needs improvement.
Hot Work Permit System	**Formalized**	Hot work control is formalized in accordance with Good Engineering Practices. Fire watch roles and responsibility are not identified
Emergency Response Planning	**Formalized**	Emergency response plan for the port site for various exigencies including fire, natural hazards and external threats are established followed up with periodical fire mock up drills. The mock drills with respect to natural hazards perils are not conducted. Augmentations to the wind emergency response plan as per FM datasheet 10-3 and augmentations to Crane Securement Procedures have been recommended.
Self-Inspections	**Formalized**	Self-inspection from a property loss prevention perspective is formalized by department wise checklists. No major deviations were observed during the survey.
Smoking Controls	**Optimized**	The facility has a "No Smoking" Policy. No smoking signage provided at specific areas.
Contractor Management	**Not Evaluated**	Not Evaluated
Business Continuity Planning	**Undeveloped**	The site is not having documented Business Continuity Plan.

Environmental, Social & Governance (ESG)	**Not Evaluated**	Not Evaluated

In assessing the maturity of the Management Programs the following maturity scale was applied:

Maturity Rank	Definition
Undeveloped	Informal actions with little or no systematic procedures.
Formalized	Programs and procedures are established. Full familiarity is uncertain.
Established	Programs and procedures are communicated throughout the organization. Orientation is ongoing.
Embedded	Ownership is established at most or all organizational levels. Training and some exercises is conducted.
Optimized	Full ownership with active program maintenance, testing, exercising and continuous improvement.

Section 7

Construction

Construction Narrative

Most of the blocks at port site are of non-combustible construction and except office building and vessel monitoring system room as wooden tiles were fixed on wall.

The site has 37 numbers of storage sheds some of them having GI sheet and some of the sheds having Asbestos cement sheet. Out of 37 storage sheds two sheds have dome shape structure having GI sheet shed and Brick walls.

The maximum height of the storage blocks is about 9 metres. There are no majority basement occupancies at the port site except for sprinkler pump room at coal piled storage yard.

Diesel day tanks for the emergency generator and diesel engine fire pump are not provided with any secondary containment which is not satisfactory.

Compartmentalization and Fire Divisions

Cable penetrations were observed through concrete floors at the electrical distribution building which is not satisfactory.

6.3 MVA power transformers are segregated from the main electrical distribution building by 10 m and separated from each other by 15m distance which is considered satisfactory.

There are no MFL walls/or effective partitions within buildings. The plastered brick panel wall external walls/internal partitions for the buildings can offer two hours of fire rating.

Construction Table

Building Name	Year Built	# Stories	Area (sq.m.)	Roof Const.	Exterior Walls	Structural Frame	Floor Const.	Comb. / Non Comb.	% Sprinkled	% Sprinklers Needed
Administrative Buildings (Nirman, Signaling station, Traffic Control room, Maintenance office etc.)	>30 years	Ground first and second floor	NA	RCC Slab	Brick Wall	RCC Frame	Cemented & Marbled	Non-Combustible	0	100%
Storage Sheds (37 numbers of separate sheds)	>20 years except dome shape sheds	Ground Floor	NA	GI Sheet / Asbestos Sheet	Metallic & Brick wall	Pre-Engineering Building	Cemented	Non-Combustible	0%	0%
Maintenance Blocks (Various blocks)	>15 years	Ground Floor	NA	GI Sheet	Metallic with Wooden cladding	Metal Frame	Metal and Wooden	Light Non-Combustible	0%	100%
Totals			**NA**							**70%**

- NA – Details Not Available

Section 8

Occupancy, Hazards, and Utilities

Occupancy

Ownership: Deendayal Port Trust

Overview

The Deendayal Port Trust, Kandla Port is operates a sea port with the following port terminals:

- Dry Cargo Port Terminal – 14 Berths with Quay Length of 3,187.92 m. for multiple cargos

Cargo Jetty	Berth Length (m)	Draft (m)	Deadweight tonnage (MT)
Cargo Jetty 1	182.93	10	45,000
Cargo Jetty 2	182.93	9.8	45,000
Cargo Jetty 3	182.93	9.8	45,000
Cargo Jetty 4	182.93	9.8	45,000
Cargo Jetty 5	205.79	10	35,000
Cargo Jetty 6	205.79	12	35,000
Cargo Jetty 7	238.64	12	55,000
Cargo Jetty 8	213.64	12	55,000
Cargo Jetty 9	182.93	12	55,000
Cargo Jetty 10	209.41	12	55,000
Cargo Jetty 13	300	14	75,000
Cargo Jetty 14	300	13.5	75,000
Cargo Jetty 15	300	13.5	75,000
Cargo Jetty 16	300	13.5	75,000

- Container Port Terminal – 2 Berth with Quay Length of 546 m. (Cargo loading/unlading and storage activity operated by Private Operator – M/s Kandla International Container Terminal)

Container Jetty	Berth Length (m)	Draft (m)	Deadweight tonnage (MT)
Container Jetty 1	281	13.5	65,000
Container Jetty 2	264	13.5	65,000

- Oil Jetty Port Terminal – 7 Jetty with Quay Length of 1,445.4 m. Berthing facility and pipelines for material transfer (The handling of cargo material – loading / unlading and storage in tack farm are operated by various private and public operators)

Oil Jetty	Berth Length (m)	Draft (m)	Deadweight tonnage (MT)	Material Handled
Nehru Jetty (Oil Jetty 1)	213.4	10	40,000	Edible oils, clean petroleum products and LPG
Shastri Jett (Oil Jetty 2)	183	10	52,000	Chemicals, edible oils and clean petroleum products.
Indira Jetty (Oil Jetty 3)	213.4	9.8	40,000	Chemicals, acids, edible oils and clean petroleum products.
Rajiv Jetty (Oil Jetty 4)	216	10.7	56,000	Chemicals, edible oils and clean petroleum products.
IFFCO Jetty (Oil Jetty 5)	216	9.5	45,000	Chemicals, acids, ammonia and edible oils.
IOCL Jetty (Oil Jetty 6)	216	10.1	45,000	LPG and clean petroleum products
Oil Jetty 7	216	13	45,000	Edible oils

Note:

(a) The Maximum Permissible draft in the channel is 13.50 MTRS. However, Maximum Permissible draft at berth, anchorage, mooring apply individual

(b) The Maximum Permissible LOA for the port is 240.00 MTRS. The Vessel upto 260.00 MTRS LOA can be brought to kandla creak under special condition & port permission.

Key Processes

The DPT, kandla ports is the import and export port at western region of India that include operation of vessels, cargo handling equipment, locomotives, rails, trucks, vehicles, and storage and warehousing facilities related to the transportation of cargo.

Import Facility:

The principal commodities being imported through Kandla Port are:

- Petroleum, Oil, and Lubricants (POL) and acids
- Crude oil
- Edible oil
- Fertilizers
- Scrap, steel coils, containers
- Wooden logs
- Coking coal
- LPG

Export Facility:

The principal commodities being exported from Kandla Port are:

- Food-grains
- Salt
- Extractions
- Coated/Steel Pipes
- POL
- Edible Oil
- Bentonite
- Containers

Storage Facilities

The Port facility handles various Dry cargo, Container cargo, and Liquid cargo

- Dry Cargo: The dry cargo port handles Thermal/coking coal, Rock Phosphate, Sulphur, Various Ores, Salt, Wood logs, food grains, steel and scraps and silica sand/china clay, etc.
    - The Port has developed storage capacity for dry cargo inside the custom bounded area for storage of import and export cargo.
    - 37 storage warehouse sheds for dry cargo storage.
    - 45 Open Stockyard for dry cargo storage.
    - Out of 37 storage sheds Shed no. 34 has mechanized bagging and wagon loading facility for fertilizer with 20 nos. bagging machines. The bagging capacity for entire facility is 1.4 MMTPA fertilizer cargo.
- Liquid Cargo: Oil jetties berth 1 to 4 are common for Petroleum, chemicals, and edible oil. Oil jetty berth 5 is operated by IFFCO, oil jetty berth 6 is operated by IOCL and newly built 7th oil Jetty is for the edible oil.
- Container Cargo: Container stack yard of 138,265 sq. m. with a separate hazardous cargo area of 490 sq. m.

Steel Floating Dry Dock

The existing steel floating dry dock caters to the need of the Port Crafts as well as outside organizations and has the capacity to accommodate vessels of the following parameters:

- LOA maximum up to 95 m.
- Breadth maximum up to 20 m.
- Draft maximum up to 4, 5 m.
- Lift displacement maximum up to 2500 tones.

Railway

- Broad gauge (BG) tracks directly connect the Port at Kandla with the principal cities of Mumbai, Ahmadabad, Surat, Baroda, etc.,
- Kandla Port Trust has its own railway system. The port has a total track length of 15.05 Km.
- The port has railway connectivity inside the cargo jetty area up to Cargo Jetty 16.
- The rail line has the capacity of 18 rakes/day/line

Pilotage and Towage Facilities

- 10 numbers of Harbor Tug boats with 2 nos. of DPT (50 Ton and 35 Ton bollard pull) and remaining 8 nos. are private.
- 3 high speed pilot launches
- One Dry Dock
- 20 Buoy with solar lights
- 1 heave up barge for maintenance of navigational aids
- One Pilot & Oil-cum-debris recovery vessel

Material Handling and Logistics

At the heart of the cargo handling activities at the port site are the ship-to-shore cranes, shore cranes and other handling equipment. The details of material handling equipment are provided in Key Machinery section of the report.

Key Machinery

Material Handling and Logistics	**Ship to Shore Cranes**
	• 8 Nos. of Waft Cranes (Rail Mounted level-luffing crane)
	  ○ 5 Nos. are Mcnally Bharat make cranes of 3x 25 Ton and 2 x 16 ton
	  ○ 3 Nos. are Tractors India Limited make cranes of 25 ton each.
	  ○ The rated capacity of 16 tons cap. Crane is 400 MT/hour while that of 25 Tons cap. Crane is 600 MT/hour.
	• 6 Nos. of Harbor Mobile Cranes (Tire mounted)
	  ○ 2 Nos. are Liebherr make cranes of 120 ton each
	  ○ 4 Nos. are ITALGRU make cranes of 2 x 120 ton and 2 x 63 ton.
	
	Weighbridges
	Nine weighbridges inside the port, which includes:
	• Two Weighbridges of 40 MT capacities
	• One Weighbridge of 50MTcapacity.
	• One Weighbridge of 60MTcapacities.
	• Two Weighbridges of SOMT capacity.
	• Three Weighbridges 100 MT capacity.
	Other Support Equipment at port

	• Various support loading equipment such as Forklifts, Tractor, Trailors, and Pay-loaders of various capacities. • Private handling, equipment like Mobile Cranes, Top litters, pay-loaders, Forklifts, Heavy-duty Trailers etc. available on hire. **Barge handling facilities** • Bunder Area and Tuna Port (5.11 MMTPA) • 7 Floating Cranes capacity of 1 MMT each for stream handling of cargo to overcome draft restrictions. **Data Processing and Control Systems** • Operations data storage and processing server • Physical backup in hard drive plus remote back up in VTC. • Server is connected to cloud for the online data storage.
Equipment Hazards	**Cranes at Captive Terminal and Shallow Water Berth:** The ship-to-shore cranes and shore cranes have been provided with the following safety interlocks and equipment protection devices in accordance with FM Global datasheet 1-62 (as a minimum): • Anti-Collision devices on the boom to prevent collision with container cargo during handling (for waft cranes). • Load indicators with excess limit interlock. • Travel limit switches for the hoist, trolley and rail (forward, backward, upward and down ward movements with rate of acceleration and deceleration interlocks). • Friction clutches on the slewing gears to prevent weathervane. • Proximity sensor based interlock for cranes in same rail. • Skew switch interlock for the bridge. • Fail safe motorized braking system and electro-hydraulic emergency brakes. • Positive-locking device to prevent unintentional lowering of the boom. • Fail safe electrical motors with “Reset” option. • Provision of locking mechanism for power supplies to cranes during idle condition /unattended condition. • Wheel wedges for idle cranes. The mechanical and electrical checks for the cranes are in accordance with the OEM’s recommendation and International Loss Prevention Standards. All the cranes are periodically (Monthly, Quarterly, Half yearly and Annually) maintained by OEM and breakdown maintenance is also conducted by OEM except for Mcnally Bharat cranes which are maintained by AMC under open tender. All mandatory spares for the cranes are kept at site for routine usage and critical spares inventory maintained by OEM as per the AMC contract (e.g. motor with shaft and gear box – complete spare). The safety interlocks and relays are not calibrated regularly which

	is being recommended. Reportedly there are no outdated control system at the site. Statutory tests like comprehensive visual inspections are carried out an annual basis. Structural Stability test is carried out once in five years (load testing and calibration). As informed at site there are no abnormalities from the above tests. **Life Extension and Non-Destructive Examination:** Port Management has decided to carry out the life extension studies along with non-destructive examination of some cranes in 2025 as recommended by OEM. **Hydraulic Spray Fire Hazard for Cranes:** The ship-to-shore cranes and shore cranes are provided with on-board hydraulic power packs supplying to various hydraulic controls. Capacity of individual oil tank was informed to be minimum of 400 L. The hydraulic controls expose the cranes to a hydraulic spray fire hazard. No automatic fire protection and containment is being provided for the hydraulic oil mechanism and storage. Recommendations have been presented to provide automatic shut off mechanism for the hydraulic fluid transfer pumps in accordance with FM datasheet 7-98. **Control Systems:** The control system for the cranes is of Programmable Logic Controllers (PLC) and drive motor control is through variable frequency drives (VFD). Remote monitoring is provided for the RMQC's from the individual control cabinets.

Combustible & Hazardous Materials

Combustible materials:

The site has storage of various combustible materials such as Coal, Wood logs, sulphur in open plots and storage of solid fertilizers and other materials were found under the shed storage. Total 37 storage sheds and 45 open stock yard provided at the site.

Majorly coal and Sulphur stored at 34 hector and 40 Hector storage yard which is provided with fire hydrant system and dust suppression sprinkler system with individual dust suppression sprinkler (DSS) system pump rooms having two electrical and one diesel operated pumps. The DSS System operated for one hour in morning and one hour in evening shift on non-rainy season. The system is also provided with 3 x 500 KL sweet water storage tanks.

Location	Method of Storage	Commodity/ Class	Array	Form	Storage Height (units)
Open Storage	Solid Piled	Other	Open	Free-flowing	8m
Shed Storage	Solid Piled	Other	Closed	Free-flowing	8m

Flammable Material

At oil jetty liquids are transferred form tankships is handed by pipelines to the liquid terminal tank yard facility. The pipelines laid from jetty head to Y junction are of varied diameters and around 23 lakh KL storage capacity of liquid material are being owned by different private/ PSU companies. Since the handling and storage of liquid and Gaseous cargoes are operated by other companies these area are out of the scope for the survey and Marsh's has not evaluated the flammable liquid and gases handling & storage activities at oil jetties.

The DPT is handling following hazardous materials for their operations which are evaluated and described below:

Flammable Material	Application	Type	Quantity/Volume	Containment
Lube Oil/Hydraulic Oil Drums	Crane and Other Hydraulic Equipment	Class IIIB liquid	On side 230 liters metal drums.	Not provided and hence recommended
Engine Oil	Crane operation	Class IIIB liquid	Above Ground Metal tanks less than 1 cu. m.	Not provided and hence recommended
Diesel	Emergency Generator	Class II liquid	Above Ground Metal tanks less than 1 cu. m.	Not provided and hence recommended

Utilities and Infrastructure

Power

Particulars	Details
Primary Supply to Site	Two independent feeders supply • Ajnar substation about 30 Km from port • Free Trade Zone (FTZ) substation about 10 Km from port
Site Feed	Double feeder supply at 66KV substation
Incoming Voltage	66KV / 11KV
Distribution on Site	Radial/Loop
Details	Sanction load from Ajnar Substation is 7 MW and from FTZ substation is 4 MW.
Back-up Power	Emergency power is supplied by diesel generators located at generator block near to 66KV substation. Two diesel generators of 1,000 KVA capacity each are installed for the emergency lightning purpose only. One diesel generator of 63 KV is installed for emergency supply at 66KV switchyard.

Transformer details

Name	Location	Purpose	Manufacturer	Type	Rating (MVA)	Primary Voltage (KV)	Phase
Power Transformer	66 KV Substation	Step Down	Siemens	Oil Cooled	10	66	3-Phase
Power Transformer	66 KV Substation	Step Down	Voltamp	Oil Cooled	6.3	66	3-Phase
Distribution Transformer	40 Ha. Substation	Step Down	Voltamp	Oil Cooled	1	11	3-Phase
Distribution Transformer	40 Ha. Substation	Step Down	Voltamp	Oil Cooled	1	11	3-Phase
Distribution Transformer	7th Berth Substation	Step Down	Power Volt	Oil Cooled	0.5	11	3-Phase

Name	Location	Purpose	Manufacturer	Type	Rating (MVA)	Primary Voltage (KV)	Phase
Distribution Transformer	7th Berth Substation	Step Down	Power Volt	Oil Cooled	0.5	11	3-Phase
Distribution Transformer	Old NDA Substation	Step Down	Voltamp	Oil Cooled	1.5	11	3-Phase
Distribution Transformer	Old NDA Substation	Step Down	Petson	Oil Cooled	1	11	3-Phase
Distribution Transformer	New NDA Substation	Step Down	Danke	Oil Cooled	1	11	3-Phase
Distribution Transformer	New NDA Substation	Step Down	Danke	Oil Cooled	1	11	3-Phase
Distribution Transformer	6th Berth Substation	Step Down	Petson	Oil Cooled	1	11	3-Phase
Distribution Transformer	6th Berth Substation	Step Down	Siemens	Oil Cooled	0.75	11	3-Phase
Distribution Transformer	TS 4 Substation	Step Down	Voltamp	Oil Cooled	1.5	11	3-Phase
Distribution Transformer	TS 4 Substation	Step Down	Voltamp	Oil Cooled	1.5	11	3-Phase
Distribution Transformer	TS 4 Substation	Step Down	Danke	Oil Cooled	1	11	3-Phase
Distribution Transformer	Cargo Jetty Substation	Step Down	Voltamp	Oil Cooled	1.5	11	3-Phase
Distribution Transformer	Cargo Jetty Substation	Step Down	Voltamp	Oil Cooled	1.5	11	3-Phase
Distribution Transformer	15th Berth Substation	Step Down	Voltamp	Oil Cooled	0.63	11	3-Phase
Distribution Transformer	13th Berth Substation	Step Down	Voltamp	Oil Cooled	1.5	11	3-Phase
Distribution Transformer	Marine unloader Substation	Step Down	Rajasthan Switchgear	Oil Cooled	0.25	11	3-Phase
Distribution Transformer	Power House Substation	Step Down	Voltamp	Oil Cooled	1	11	3-Phase

Name	Location	Purpose	Manufacturer	Type	Rating (MVA)	Primary Voltage (KV)	Phase
Distribution Transformer	Power House Substation	Step Down	Voltamp	Oil Cooled	0.5	11	3-Phase
Distribution Transformer	Dry Dock Substation	Step Down	Kirloskar	Oil Cooled	0.5	11	3-Phase
Distribution Transformer	Dry Dock Substation	Step Down	Crompton	Oil Cooled	0.5	11	3-Phase
Distribution Transformer	Estate Office Substation	Step Down	Voltamp	Oil Cooled	0.75	11	3-Phase
Distribution Transformer	Estate Office Substation	Step Down	Bharat Bijli	Oil Cooled	0.75	11	3-Phase
Distribution Transformer	Estate Office Substation	Step Down	Kirloskar	Oil Cooled	0.5	11	3-Phase
Distribution Transformer	Water Tower 1 Substation	Step Down	Crompton	Oil Cooled	0.5	11	3-Phase
Distribution Transformer	Water Tower 2 Substation	Step Down	Power Volt	Oil Cooled	0.5	11	3-Phase
Distribution Transformer	Water Tower 3Substation	Step Down	Kirloskar	Oil Cooled	0.25	11	3-Phase
Distribution Transformer	Oil Jetty 1 Substation	Step Down	Voltamp	Oil Cooled	1	11	3-Phase
Distribution Transformer	Oil Jetty 1 Substation	Step Down	Voltamp	Oil Cooled	1	11	3-Phase
Distribution Transformer	Oil Jetty 2 Substation	Step Down	Jayshree	Oil Cooled	0.5	11	3-Phase
Distribution Transformer	Oil Jetty 2 Substation	Step Down	Jayshree	Oil Cooled	0.5	11	3-Phase
Distribution Transformer	VTMS Substation	Step Down	Patson	Oil Cooled	0.125	11	3-Phase
Distribution Transformer	Gopalpuri Substation	Step Down	Voltamp	Oil Cooled	0.5	11	3-Phase

Name	Location	Purpose	Manufacturer	Type	Rating (MVA)	Primary Voltage (KV)	Phase
Distribution Transformer	Gopalpuri Substation	Step Down	Crompton	Oil Cooled	0.5	11	3-Phase
Distribution Transformer	Gopalpuri Substation	Step Down	Power Volt	Oil Cooled	0.5	11	3-Phase
Distribution Transformer	AO building Substation	Step Down	Merlin Gerin	Oil Cooled	0.5	11	3-Phase
Distribution Transformer	AO building Substation	Step Down	Merlin Gerin	Oil Cooled	0.5	11	3-Phase

Boilers

None

Refrigeration / Chillers / Cooling towers

Cooling towers for emergency generator – Details not available

Fuels and energy supplies

Fuel Type	Source	Purpose	Reliability	Capacity (units)	Back-up Capabilities
Diesel	Multiple	Power generation – Back Up Emergency Generator	High	990 Liters - multiple units	Complete

Compressed air

Name	Purpose	Manufacturer	Type	Units	Capacity
Air Compressor	Compressed air	Details Not Available	Details Not Available	Multiple Units	Details Not Available

Waste and effluent treatment

None

Other site services

None

Section 9

Fire Protection

Automatic Sprinkler Protection

The site is not equipped with automatic sprinkler protection.

Special Extinguishing Systems

None

Water Supply Details

The site has three pump rooms, at oil jetty pump room no. 1, 2 & 4 are catering yard main for oil Jetty no.1 to 4. The yard main installed at the dry cargo terminal is catered by pump room no. 1 installed near the dry cargo jetty berth no. 1. These pumps and yard main are maintained by DPT. Oil Jetty no. 5 & 6 belongs to IFFCO and IOCL respectively and their yard main is laid and maintained by respective owners. For the oil jetty no. 7 the yard main was under installation.

The source of water for the yard main is supplied from intake from the sea water through vertical turbine pumps (fire pumps).

The supply header is sized at 300 mm. The supply header is equipped with strainer and mesh arrangement to avoid debris intake from the sea water.

DPT has appointed consultant (MECON) for upgrading the system to meet the latest OISD-156 (October 2017) guidelines and PESO requirements.

Water Supply Test Results

Supply Tested	Static Pressure (psi)	Residual Pressure (psi)	Flow (lpm)	Flow / Residual Location	Date Tested	Tested By
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Comments

Since the fire water supply source is captive and pumped water supply tests for public water supply network is not applicable in this case.

Fire / Booster Pump Details

Pump Name	Manufacturer	Engine Type	Pump Type	Supply Source	Flow (m3/h)	Pressure (bar)	Speed (rpm)	Rated Head (m)	Performance Test Rating
Pump Room No. 1 at Oil Jetty									
Fire Pump	NA	Electrical Driven Pump	Vertical Turbine Pump	Sea Water	500	NA	NA	NA	Not performed
Fire Pump	NA	Electrical Driven Pump	Vertical Turbine Pump	Sea Water	500	NA	NA	NA	Not performed
Fire Pump	NA	Diesel Engine Driven Pump	Vertical Turbine Pump	Sea Water	500	NA	NA	NA	Not performed
Pump Room No. 2 at Oil Jetty									
Fire Pump	NA	Diesel Engine Driven Pump	Vertical Turbine Pump	Sea Water	820	NA	NA	NA	Not performed
Fire Pump	NA	Diesel Engine Driven Pump	Vertical Turbine Pump	Sea Water	820	NA	NA	NA	Not performed
Pump Room No. 4 at Oil Jetty									
Fire Pump	NA	Electrical Driven Pump	Vertical Turbine Pump	Sea Water	500	NA	NA	NA	Not performed
Fire Pump	NA	Electrical Driven Pump	Vertical Turbine Pump	Sea Water	500	NA	NA	NA	Not performed

Pump Name	Manufacturer	Engine Type	Pump Type	Supply Source	Flow (m3/h)	Pressure (bar)	Speed (rpm)	Rated Head (m)	Performance Test Rating
Fire Pump	NA	Diesel Engine Driven Pump	Vertical Turbine Pump	Sea Water	500	NA	NA	NA	Not performed
Pump Room no. 1 at Cargo Jetty									
Fire Pump	NA	Electrical Driven Pump	Vertical Turbine Pump	Sea Water	360	NA	NA	NA	Not performed
Fire Pump	NA	Diesel Engine Driven Pump	Vertical Turbine Pump	Sea Water	360	NA	NA	NA	Not performed
Fire Pump	NA	Diesel Engine Driven Pump	Vertical Turbine Pump	Sea Water	360	NA	NA	NA	Not performed

Comments

The pump room no. 4 at Oil Jetty area is under the revamping stage and revamping of other pump rooms are proposed to revamp as per OISD recommendation.

Pump Flow Test Data

Pump Name	Date Tested	Tested By	Test Data (Corrected Net Pressure and Flow)					Assessment
			Flow Rate (gpm)	Speed (rpm)	Suction Pressure (psi)	Discharge Pressure (psi)	Net Pressure (psi)	
Not Applicable								

Comments

Annual pump performance test is not formalized at the site.

Manual Firefighting Features

Distance to Fire Department	12 KM's (Gandhidham)
Fire Department Type	Public
Response Time (minutes)	30 Minutes
Hydrant Coverage	Entire Oil Jetty and Liquid Storage area is covered with fire hydrant system and Coal & other combustibles storage sections have hydrant system for the dry cargo storage area. Hydrant Layout and details of fire hydrant system was not available for Marsh's Review.
Fire Hydrant Type	Double headed hydrant
Industrial Fire Brigade	Own 11 Fire Tenders 1 no. Multipurpose fire tender having 5000 L water, 1000 L foam, 600 Kg DCP and 22.5 Kg CO2. 6 no. water fire tenders having 6000 L capacity each 3 no. Foam type fire tenders having 5000 L water and 1000 L foam capacity each. 1 no. DCP type fire tender having 2 x 1000 Kg capacity.
Portable Extinguishers	The site is equipped with ABC and CO2 type fire extinguishers around the facility.
Hose Stations / Reels	No details available

Other Manual Firefighting Comments

Inspection and maintenance of fire extinguishers are done by an AMC contractor.
Inspection and maintenance details of fire hydrant were not available for the Marsh's Review.

Fire Alarm Monitoring

Alarm Signaling Services	Local, Fire panel is provided in maintenance office.			
Fire Panel Model / Manufacturer	Not Available			
Alarm Signals Monitored	☐ Waterflow	☐ Valve Tamper	☐ Building Temp	☐ DPV Supervisory
	☒ Smoke Detection	☐ Heat Detection	☐ Pull Stations	☐ Special Ext. Sys.
	☐ Pump Running	☐ Pump Trouble	☐ Tank Level	☐ Tank Temperature
	☐ Intrusion	☐ Other		

Comments

Smoke detectors are installed at the crane drive room however the smoke detectors are not operational.

Main fire panel is installed at the maintenance office which is reportedly manned round the clock.

Smoke and heat alarms are tested on monthly basis. Fire panel battery voltage tested on monthly basis.

Section 10

External Exposures

Location Details

Latitude	23°00'28.3"N
Longitude	70°13'20.0"E
Point where geo coding was taken	Cargo Jetty Berth No. 1
Ground Elevation (above mean sea level)	8 m
Ground Elevation Datum	Digital elevation model (DEM)
Ground Elevation Source	Google Earth
Building Finished Floor Elevation (above mean sea level)	8.6 m The main buildings are observed to be above 600mm from ground elevation
Building FFE Datum	Digital elevation model (DEM)
Building FFE Source	Visual Assessment

Boundary Exposures

Direction	Exposure Rating	Distance	Comments
North	Light	NA	Access Roads and Vacant Land > 100 m
East	Light	NA	Kandla Creek
South	Light	NA	Kandla Creek
West	Light	NA	Vacant Land

Natural Catastrophe Exposures

Peril	Source	Exposure Rating	Comments
Pluvial Flood (Heavy Rain / Flash Flood)	MunichRe NATHAN	High	Zone 5: Basis the evaluation at site, The finished flood elevations is above the level of the internal site terrain about 600. As per IMD report, 480mm surface water accumulation is observed for 100 year 24 rainfall. Hence ponding is not expected at site.

Peril	Source	Exposure Rating	Comments
Hail	MunichRe NATHAN	Low	Zone 1: Low exposure from Hailstorm.
Tornado	MunichRe NATHAN	Low	Zone 1: Moderate Exposure.
Tropical Cyclone	MunichRe NATHAN	High	Zone 1: 142 - 184km/h The site is in 55 m/s wind speed as per FM Global Data Sheet 1-28. The recent cyclone Biperjoy with maximum sustained wind speed of 35-38 m/s gusting to 41 m/s causes damage at the site.
Extra-Tropical Storm	MunichRe NATHAN	Low	No Hazard
River (Inland) Flood	MunichRe NATHAN	Low	Zone 0: Low riverine flood exposure.
Storm Surge / Coastal Flooding	MunichRe NATHAN	High	Zone 100 year return period. The estimated Storm surge for Biparjoy cyclone was estimated 2-3m above the astronomical tide.
Tsunami	MunichRe NATHAN	High	Zone 100 year return period. As the facility is a sea port and on the west coast of India, exposure to Tsunami cannot be rules out.
Lightning	MunichRe NATHAN	Low	Zone 2: 1-4 The facility is provided with lightning and surge protection as per local standard / guidelines requirement. The adequacy of the lighting and surge protection was not evaluated by Marsh.
Earthquake	MunichRe NATHAN	High	Zone 3: MM VIII, The site lies in the 250 year return period earthquake zone as per FMDS 1-2. Past history of damage at the site to buildings and jetties have been informed during 2001 Kutch earthquake.
Volcanic	MunichRe NATHAN	Low	No Exposure
Wild Fire	MunichRe NATHAN	Low	Zone 1; Moderate Exposure however forest land is about 10m separated from site at North and 33m from south

Section 11

Security

Site Perimeter	
Vehicle Access	Yes
Perimeter Fencing	Yes, 2m metallic fencing around the facility
Entry Provisions Posted	Yes
No Trespassing Signage	Yes, provided
Fencing Height	2m
Exterior Lighting	Yes, Provided

Building Physical Features	
Ground Level Windows Secure	Yes
Lock and Key Control	Yes

Security Staff / Guards	
On-Site Guards	Yes, Security is managed by CISF
Visiting Patrols	Yes
Police Surveillance	Yes
Recorded Rounds	Not Evaluated
Rounds Frequency	Not Evaluated
CCTV	Yes

Intruder Detection	
Motion Sensors	No
Beams	Yes
Door Contacts	No
Access Monitored	Yes

Intruder Detection	
ID Cards / Badges	Yes
Visitors Monitored	Yes

Other Security Programs / Controls	
Emergency Response	Yes
Employee Screening	Yes
Safe / Vaults	Not Evaluated
Mobile Equipment Storage	Not Evaluated
Bomb Threat	Yes
Cash / Check Management	Not Evaluated
Parking	Yes

Section 12

Business Interruption

Site	
Business Features	Handling Cargo and Storage Facility is the primary source of revenue generation.
Rebuilding Time	Basis the Engineering Judgement the rebuilding time for cranes and cargo handling system equipment is about 12 months.
Available Alternatives	None
Denial of Access	North Gate for Man movement and West gate for material movement.

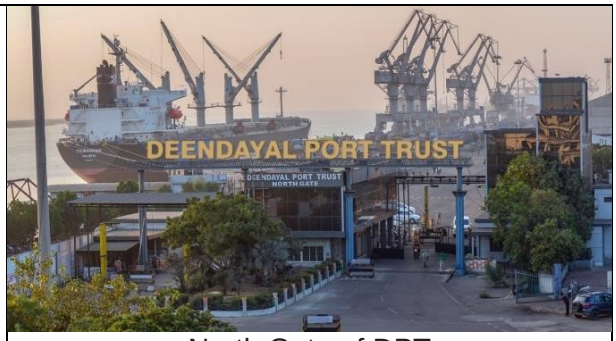
Operations, Plant & Processes	
Operational Features	The site has • 14 numbers Dry cargo jetty berth • 2 Container cargo and operated by Kandla International Container Terminal. • 7 oil jetty terminals and storage facilities are operated under private and public sector ownership. 
Seasonality of Operations	As reported the port is all season operated port.
Bottlenecks	The Power supply from 66KV switchyard is the single source for the Kandla Port power distribution and any physical damage to the substation may cause interruption for the port operations.
Available Alternatives	The site has two independent feeders with two separate power transformers and entire power system. The 66KV substation is

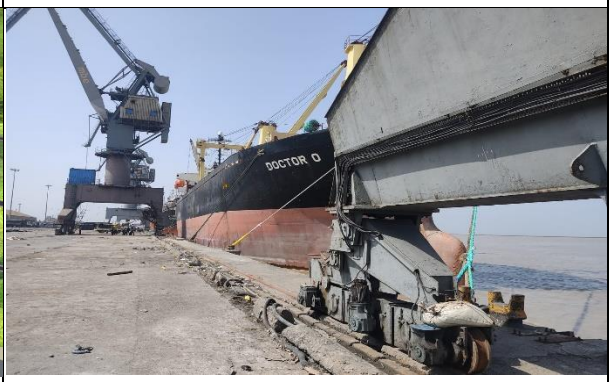
Operations, Plant & Processes	
	supplying power to distribution transformer substation with an Line in Line out (LILO) arrangement.
Critical Spares	Identified critical spare inventory for power equipment and cranes are maintained at the site and managed by OEM.
Subcontracting Options	The port storage activities for Liquid cargo is managed by private and public operators. Shore to storage yard / shed movement of dry cargo are conducting by private operators. The Cargo terminal loading/unloading and storage is operated by private operator.
Special Licensing Issues	None
Research & Development	None
Utilities, Infrastructure & Services	Power: Two independent feeders supply [one from Ajnar substation and another from Free Trade Zone (FTZ) substation] Water: Multiple water tankers and storage available Air: No Major application
IT / Communications Systems	Data backup for the DCS process control system is taken for a year in hard drive and trade data is uploaded to cloud.
Critical Suppliers	None
Key Customers	Multiple
Contractual Penalties	Details are not available

Business Continuity / Disaster Recovery Planning	
Emergency Response Procedures	No such documented/written Business Recovery Plan as reported by site management team.
Business Continuity Plans available?	Not Evaluated
Scope / Strategy / Scenarios Covered	Not Evaluated
Last Reviewed / Updated	Not Evaluated
Last Tested / Exercised	Not Evaluated

Appendix A
Site Photos

<table>
<tr><td> 

Kandla Creek</td><td> 

North Gate of DPT</td></tr>
<tr><td> 
Container Port Terminal</td><td> 

Cargo Berth</td></tr>
<tr><td> 
Custom jetty</td><td> 
Salvage and Nevigation Aid Jetty</td></tr>
</table>

66 KV switchyard

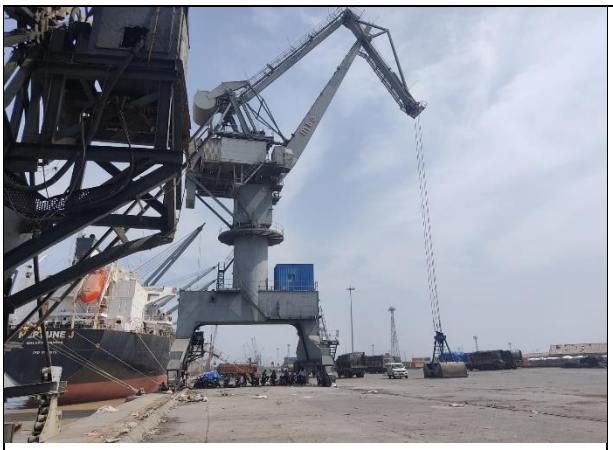
10 MVA transformer with NIFPS

Cable Passage Opening

Inadequate curbing for diesel day tank

Water accumulation in Cable cellar

Battery Bank – Not Anchored to floor



Waft Crane

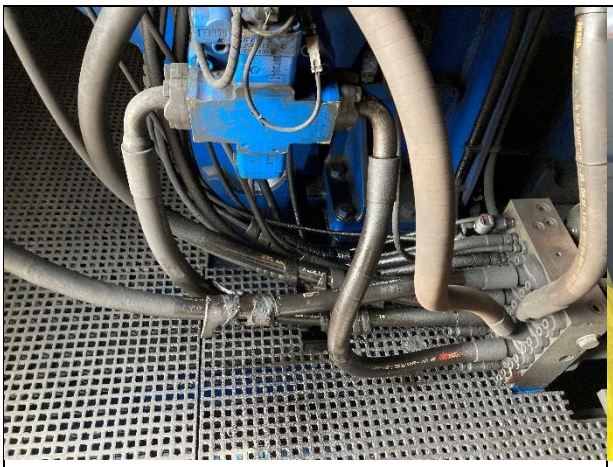
Stowage Pin at waft crane

Wheel Wedge for waft cranes

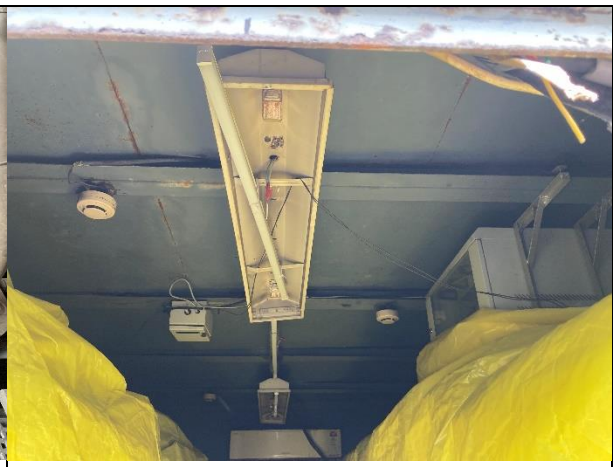
Hydraulic Break for MHC cranes

Lower Boom of MHC – Parked

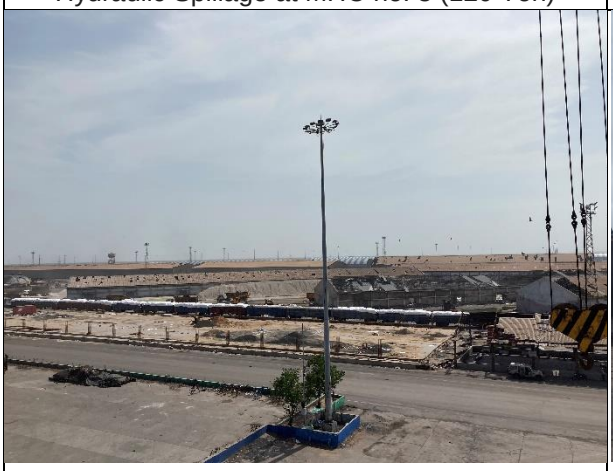
MHC Crane Panel at Operator Panel Room



Hydraulic Spillage at MHC no. 3 (120 Ton)



Smoke detectos at waft crane no. 5- not working



Storage Sheds

Dome Shape Storage Shed

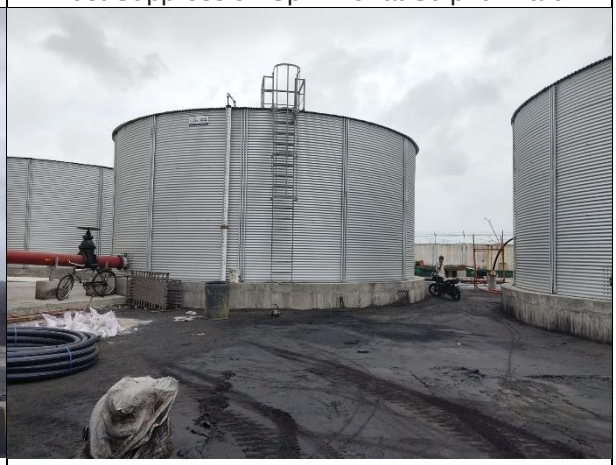
Sulphur Storage Plot

Coal Storage Pile

Dust Suppression System Pump Room 34 Ha

Dust Suppression Sprinkler at Sulphur Yard

Dust Suppresion Sprinkler at Coal Yard



Dust Suppression System Water Tanks

Bagging Plant at Shed No. 34

Conveyor belt for Bagging Machine

Wagon Loading from Storage shed – 40 Ha plot

Oil Jetty Entry Gate

LPG Pipeline from Oil Jetty to IOCL

No curbing for diesel tank Oil Jetty pump room 2

Nirman Building

	
UPS and Battery Bank at Vehicle Traffic Managemement Building	Fire Tender at the Oil Jetty Fire Station

Appendix B

Loss History

Year	Cause of Loss	Quantum of Loss
1st June 2023	Damage incidents of Mechanical Engineering Dept. due to cyclone Biparjoy	INR 1.4 Cr.
20th June 2023	Damage incident of Civil and Mechanical Engineering Dept. due to cyclone - Biparjoy	INR 9.2 Cr.
	Total	INR 10.6 Cr.

Marsh

Consulting Solutions, Marsh Advisory

Marsh India Insurance Brokers Private Limited
4th Floor, Vatika Triangle,
A Block, Sushant Lok Phase - I,
Sector 28, Gurugram, Haryana-122002

ASSETS VALUATION REPORT

FOR

DEENDAYAL PORT AUTHORITY

Date of Valuation : 31st March' 2025

Conducted By

LSI Financial Services Private Limited

SEBI Registered Category – I Merchant Banker
Merchant Banker Registration No – INM000011468

Tel: 033 2486-3815
Website: www.lsifinance.com
Email: info@lsimails.com & rpalit@lsimails.com
CIN: U65999WB1997PTC082841

Date of Report : 3rd July' 2025

Table of Contents

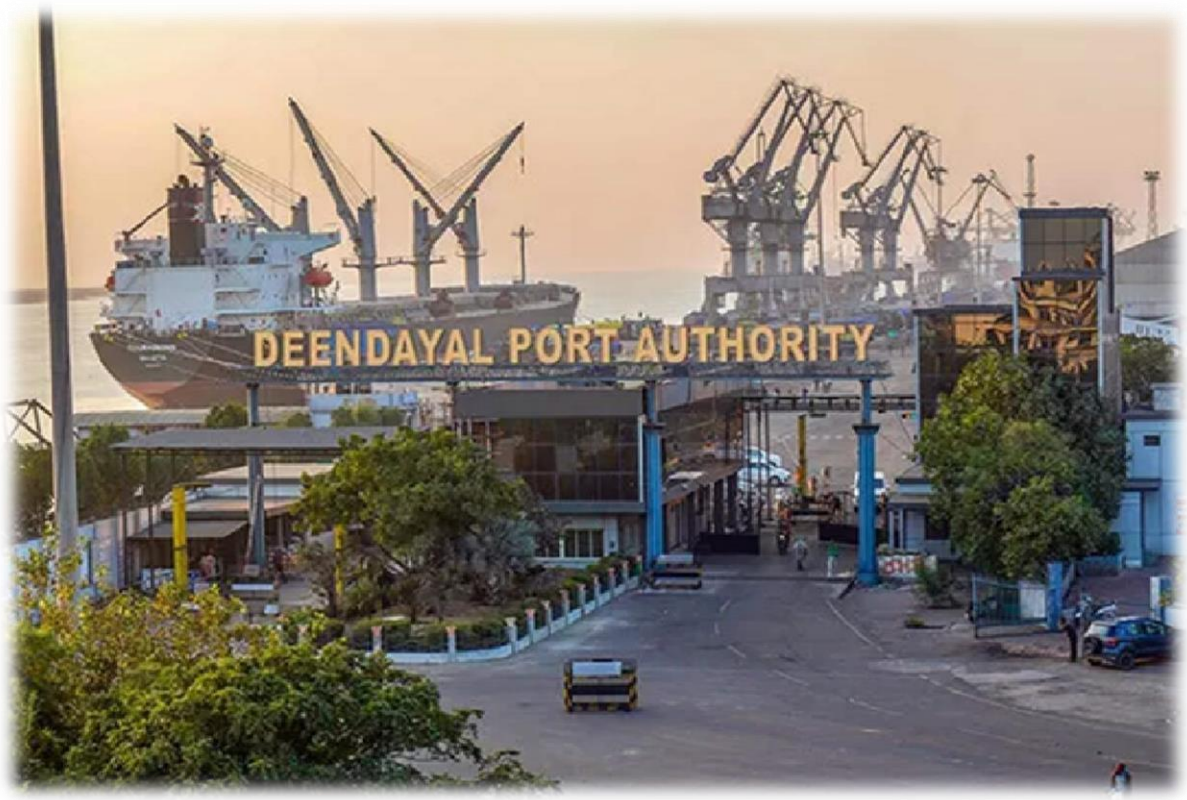
1. Mandate & Purpose:

In accordance with the email dated 1st July' 2025, received from Marsh India Insurance Brokers Pvt ltd., LSI Financial Services Pvt Ltd ("LSI" or "We") undertook the assignment to compute the Estimated Reinstatement Value and Estimated Fair Market Value of the Fixed Assets of Deendayal Port Authority ("DDPA"), as on 31st March' 2025.

We have been given to understand that Deendayal Port Authority is planning to take insurance coverage against all kinds of perils/hazards/risks to safeguard the assets. In view of the same, we have undertaken the valuation assignment.

2. Assets Under Valuation:

Overview of the Port:



Kandla Port, officially known as **Deendayal Port Authority** (formerly Deendayal Port Trust), is a major sea port located in the Kutch district of Gujarat, near Gandhidham, on the **Gulf of Kutch**. Established in the 1950s to serve western India after the partition. Positioned 256 nautical miles from Karachi and 430 nautical miles from Mumbai, the port handled **150.16 million tonnes of cargo in 2024-25.** It has witnessed 13.43% increase from the previous year.

DEENDAYAL PORT AUTHORITY

NAVIGATIONAL FACILITITES

- Safe navigation of vessels round the clock.
- Permissible draft of 13 m.
- Ships of 240 meters LOA I6650 ODWT can be accommodated presently and ships up to 255 rrDWT under specific conditions.*
- Safe protected port and anchorage for waiting and lighterage at oute harbour.
- 22 Lighted Navigational Buoys as per IAl a system in the navigational channel with solar lights

OPERATING CONDITIONS

- All weather port.
- Tropical and dry climatic conditions.
- Temperature varies from 25°C to 44°C during summer and from 10°C to 25°C during winter.

OFF-SHORE OIL TERMINA (Oot) – Vadinar

- Two Crude Oil Tanker Berths (CTB) & (.Tus available.
- Oil & debris recovery vessel commissioned in 1978
- On-shore Jetty available since 1906
- Draft up to 33 meters ad Singte tormrings| rdr cruide oil and petroleum product handling
- Handling capacity of 36 million DWT per anum.
- Facilities to receive oil for refineriesnlOCL, HPCL & BPCL and Essar Oil near
- Two Crude Oil completed in 1978 commissioned in 1978
- S&T for Essar Oil completed in 2006

Assets Being Valued:

Based on the Fixed Assets Register of Kandla Port Authority including Kandla & Vadinar, we have indicated the valuation of the below-mentioned assets in the report.

The FAR also includes Land, being non-depreciable asset may not qualify for the purpose of Insurance. Therefore, we have not considered the same for our valuation assessment.

3. Valuation Standards:

Valuation exercise has been performed as per the provisions of IVS 103 of International Valuation Standard (IVS), effective from 31st January' 2025. There are several commonly used and accepted methods for determining the Fair Value of the Movable & Immovable assets of a company, and Valuation Report has been prepared as per provisions of IVS 106 of International Valuation Standard (IVS), effective from 31st January' 2025.

4. Terminology:

Market Value	▪ As per para 10.18 of the Glossary to IVS: defines the Market Value as "The estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm's length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion." ▪ The same is also defined under para-A.10 of the IVS 102: Bases of Value: Appendix.
Fair Value	▪ As per para A70.01 of the IVS 102 Bases of Value: Appendix "IFRS 13 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date." ▪ According to the Para 9 of Ind AS 113 defines Fair Value as "The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date". ▪ Further according to Para 11 of Ind AS 113 describes the measurement of Fair value as "A fair value measurement is for a particular asset or liability. Therefore, when measuring fair value an entity shall take into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Such characteristics include, for example, the following: a) the condition and location of the asset; and b) restrictions, if any, on the sale or use of the asset

5. Approaches & Methodology Adopted for Valuation:

In terms of the prescribed regulatory provisions, this report has been prepared in accordance with the Valuation Methodologies, Approach & Premises prescribed under the International Valuation Standard (IVS), effective from 31st January' 2025, together with the provisions prescribed under Companies (Registered Valuers and Valuation) Rules 2017

Valuation Approaches & Methods Adopted			
Assets Under Valuation	**Premise of Value (IVS 102)**	**Approaches to Valuation (IVS 103)**	**Methods of Valuation (IVS 103 Appendix)**
Land Assets	**Non Insurable Asset**	**Non Insurable Asset**	**Non Insurable Asset**
Building & Structures	**Current Use/ Existing Use** (Para A-100 of IVS 102 Appendix))	**Cost Approach** (Para 40 of IVS 103)	**Replacement Cost Method** (Para A-30.02 of IVS 103 Appendix)
Plant & Machinery and Other Assets	**Current Use/ Existing Use** (Para A-100 of IVS 102 Appendix))	**Cost Approach** (Para 40 of IVS 103)	**Replacement Cost Method** (Para A-30.02 of IVS 103 Appendix)

In accordance with Appendix A10 of IVS 104 - Data and Inputs, we have appropriately considered the impact of significant ESG factors, if any, in determining the value of the assets (i.e. the asset).

A. IVS 400 - "Real Property Interests":

This standard provides guidance on the valuation of Real Property Interests, encompassing a broad spectrum of assets from Land and Buildings to more complex interests such as leaseholds, development potential, and partial interests, etc. This standard addresses the key considerations specific to Real Property Valuation, including:

a) identification of relevant characteristics,

b) application of appropriate valuation approaches, and

c) treatment of factors such as location, zoning, and market conditions.

B. IVS 300 - "Plant & Machinery":

This standard provides guidance on the specific considerations and methodologies applicable to valuing these tangible assets, which can range from individual pieces of equipment to complex industrial installations. This standard outlines the key principles, definitions, and valuation methods relevant to plant and machinery, aiming to ensure consistent and reliable valuations.

Given the diverse nature of plant and machinery, encompassing factors like age, condition, technological obsolescence, and market conditions, IVS 300 emphasizes the importance of a thorough and well-reasoned valuation approach.

6. Disclosure of Valuer's Interest & Conflict, if any:

We, LSI Financial Services Pvt Ltd, hereby declare that; we are not related to the above-mentioned Company or to the management of the Company in any manner. Also, we do not have any personal interest in the financial performance of the Company.

7. Important Dates:

Date of Appointment	**:**	**01-07-2025**
Date of Inspection	**:**	**Not Inspected.** **In compliance with the mandate, valuation done under Desktop Basis.**
Date of Valuation	**:**	**31-03-2025**
Date of Report	**:**	**03-07-2025**

8. Nature/Sources of Information Relied Upon:

- Fixed Assets Register for the period ended 31-03-2025.
- Data/ Information's provided by Company.
- Information available over public portals.

9. Consolidated Valuation Summary of 'Deendayal Port Authority':

(Amount in ₹)

Sr. No.	Grouping	Name	Acquisition Value	Book Value	Estimated Reinstatement Value	Estimated Fair Market Value
A	**KANDLA**					
A.1	Land	Land	3,44,83,32,180	3,44,83,32,180	-	-
	Total - Land		**3,44,83,32,180**	**3,44,83,32,180**	**-**	**-**
A.2	Capital Dredging	Capital Dredging	4,93,80,81,872	1,33,57,33,670	1,33,57,33,670	1,33,57,33,670
	Total - Capital Dredging		**4,93,80,81,872**	**1,33,57,33,670**	**1,33,57,33,670**	**1,33,57,33,670**
A.3	Building, Shades & Other Structures	Transit Shed	1,93,82,601	54,61,515	7,93,99,001	1,71,71,001
A.3		Ware House	1,50,16,65,274	1,01,09,32,408	3,17,97,52,001	2,16,99,73,001
A.3		Non-Residential Building	1,27,39,20,867	97,52,37,879	2,64,93,30,034	1,72,38,44,034
A.3		Residential Building	62,95,10,757	44,56,80,182	1,57,46,36,012	92,23,27,012
A.3		Other Structure	88,96,61,340	73,24,66,097	1,19,25,42,012	1,02,27,67,012
A.3		Minor Structures	23,64,31,761	12,02,62,786	38,54,85,015	23,76,71,015
	Total - Building, Shades & Other Structures		**4,55,05,72,601**	**3,29,00,40,866**	**9,06,11,44,075**	**6,09,37,53,075**
A.4	Wharves, Roads & Boundaries	Wharves, Quays, Pays	8,63,55,09,296	6,95,23,63,855	14,03,12,76,023	9,72,88,17,023
A.4		Boundary Wall & Fences	44,17,44,592	27,88,50,294	85,01,98,017	54,09,68,017
A.4		Roads	4,05,70,54,886	2,59,05,01,556	6,82,27,15,123	4,81,36,68,123
A.4		Drains Culverts	48,96,63,858	23,93,42,459	1,09,20,96,070	64,74,32,070
A.4		Bridges	2,74,16,34,902	2,62,13,09,075	2,91,07,80,001	2,84,10,36,001
	Total - Wharves, Roads & Boundaries		**16,36,56,07,534**	**12,68,23,67,239**	**25,70,70,65,234**	**18,57,19,21,234**
A.5	Floating Craft	Floating Craft	1,39,39,66,443	79,89,39,012	-	-
	Total - Floating Craft		**1,39,39,66,443**	**79,89,39,012**	**-**	**-**
A.6	Railway & Rolling Stock	Wagons	1,600	1,600	6,000	-
A.6		Rly. Permanent Way	3,41,74,62,567	2,47,12,56,741	4,74,57,91,002	4,11,32,27,002
A.6		Signling Interlocking	11,404	1	1	1

(Amount in ₹)

Sr. No.	Grouping	Name	Acquisition Value	Book Value	Estimated Reinstatement Value	Estimated Fair Market Value
	Total - Railway & Rolling Stock		**3,41,74,75,571**	**2,47,12,58,342**	**4,74,57,97,003**	**4,11,32,27,003**
A.7	Docks, Sea Walls, Navigational Aids	Dock,Wall,Pier,Jetty	8,76,36,56,913	6,89,78,92,607	22,22,96,48,004	15,51,86,41,004
A.7		Dry Dock	5,79,69,899	29,25,714	-	-
A.7		Fender Duoy Mooring	15,34,05,661	4,44,05,261	43,30,82,001	31,38,02,001
A.7		Nav.Aids & Structure	2,16,78,426	45,69,419	12,01,49,000	1,82,96,000
A.7		Nav.Aids Equipment	6,47,28,922	60,66,104	17,31,56,032	4,38,14,032
	Total - Docks, Sea Walls, Navigational Aids		**9,06,14,39,821**	**6,95,58,59,104**	**22,95,60,35,037**	**15,89,45,53,037**
A.8	Cranes & Vehicles	Mobile Cranes	2,98,00,52,148	2,19,88,63,943	3,57,59,54,000	3,07,20,07,000
A.8		Wharf Cranes	1,20,68,75,010	20,27,97,666	2,68,06,83,000	1,31,96,70,000
A.8		vehicles	5,02,26,028	1,10,88,122	15,33,74,002	2,22,26,002
	Total - Cranes & Vehicles		**4,23,71,53,186**	**2,41,27,49,731**	**6,41,00,11,002**	**4,41,39,03,002**
A.9	Plant & Machinery	Workshop Machine Tools	48,40,382	3,92,157	4,81,98,005	24,10,005
A.9		Winches Captans	1,94,535	9,727	20,06,000	2,43,000
A.9		Other Machinery	1,94,28,90,317	1,13,09,85,896	2,31,31,17,026	1,54,68,25,026
A.9		Water Coolers	35,15,339	5,91,779	38,49,001	27,75,001
A.9		Wiegh Bridges	4,28,88,295	1,19,02,077	10,56,17,001	4,06,16,001
	Total - Plant & Machinery		**1,99,43,28,868**	**1,14,38,81,636**	**2,47,27,87,033**	**1,59,28,69,033**
A.10	Installations of Water, Electricity, Telecom & Fire Fighting	Electric Supply Etc.	97,27,28,244	39,70,34,535	2,01,39,75,074	1,20,75,07,074
A.10		Telephone & Telecom	1,25,87,693	6,37,197	3,61,92,008	18,10,008
A.10		Water Supply	20,96,03,094	5,72,07,332	55,08,87,059	21,77,75,059
A.10		Fire Fighting	38,66,90,432	11,45,40,542	71,04,34,031	23,70,51,031
A.10		Mis. Unclassified	11,70,63,978	2,49,432	97,24,012	4,87,012
A.10		Computers	2,10,72,602	1,10,62,362	1,87,31,005	83,65,005
	Total - Installations of Water, Electricity, Telecom & Fire Fighting		**1,71,97,46,043**	**58,07,31,399**	**3,33,99,43,189**	**1,67,29,95,189**

(Amount in ₹)

Sr. No.	Grouping	Name	Acquisition Value	Book Value	Estimated Reinstatement Value	Estimated Fair Market Value
A.11	Oil Installation	Oil Installation	6,55,52,216	26,91,565	11,77,83,007	1,22,10,007
	Total - Oil Installation		**6,55,52,216**	**26,91,565**	**11,77,83,007**	**1,22,10,007**
	TOTAL - KANDLA (A)		**51,19,22,56,335**	**35,12,25,84,745**	**76,14,62,99,250**	**53,70,11,65,250**
B	**VADINAR**					
B.1	Land	Land	46,74,769	46,74,769	-	-
	Total - Land		**46,74,769**	**46,74,769**	**-**	**-**
B.2	Building, Shades & Other Structures	Non-Residential Building	7,19,62,217	3,33,19,795	34,07,72,000	13,96,83,000
B.2		Residential Building	5,79,85,510	2,46,52,196	37,27,47,000	13,15,26,000
B.2		Minor Structures	8,84,900	3,35,840	70,66,000	11,69,000
	Total - Building, Shades & Other Structures		**13,08,32,628**	**5,83,07,830**	**72,05,85,000**	**27,23,78,000**
B.3	Wharves, Roads & Boundaries	Boundary Wall & Fences	94,68,646	49,28,714	4,12,08,000	1,33,18,000
B.3		Roads	3,90,32,579	1,61,71,990	6,63,03,010	4,50,65,010
B.3		Drains Culverts	8,22,832	1,88,933	70,87,000	9,48,000
	Total - Wharves, Roads & Boundaries		**4,93,24,057**	**2,12,89,637**	**11,45,98,010**	**5,93,31,010**
B.4	Floating Craft	Floating Craft	11,04,800	1,14,720	-	-
	Total - Floating Craft		**11,04,800**	**1,14,720**	**-**	**-**
B.5	Docks, Sea Walls, Navigational Aids	Dock,Wall,Pier,Jetty	3,50,63,865	1,12,85,792	42,09,00,000	19,03,81,000
B.5		Fender Duoy Mooring	1,32,78,390	1	1	1
B.5		Nav.Aids & Structure	3,13,841	31,384	48,55,000	2,43,000
B.5		Nav.Aid Equipment	2,08,45,460	1,24,47,158	2,97,78,000	2,13,34,000
	Total - IDocks, Sea Walls, Navigational Aids		**6,95,01,555**	**2,37,64,335**	**45,55,33,001**	**21,19,58,001**
B.6	Cranes & Vehicles	vehicles	19,43,352	11,43,487	25,84,000	15,03,000
	Total - Cranes & Vehicles		**19,43,352**	**11,43,487**	**25,84,000**	**15,03,000**
B.7	Plant & Machinery	Workshop Machine Tools	7,14,357	71,436	69,27,000	3,46,000

(Amount in ₹)

Sr. No.	Grouping	Name	Acquisition Value	Book Value	Estimated Reinstatement Value	Estimated Fair Market Value
B.7		Winches Captans	54,661	5,466	7,29,000	36,000
B.7		Other Machinery	1,03,55,814	35,24,116	2,01,77,000	80,95,000
B.7		Water Coolers	10,58,400	4,53,324	13,61,000	9,71,000
	Total - Plant & Machinery		**1,21,83,232**	**40,54,342**	**2,91,94,000**	**94,48,000**
B.8	Installations of Water, Electricity, Telecom & Fire Fighting	Electric Supply Etc.	2,15,55,972	49,41,652	7,43,03,000	3,13,85,000
B.8		Telephone & Telecom	32,89,150	4,02,593	1,07,91,000	6,46,000
B.8		Water Supply	3,52,82,801	1,26,67,850	16,57,05,003	3,11,51,003
	Total - Installations of Water, Electricity, Telecom & Fire Fighting		**6,01,27,923**	**1,80,12,095**	**25,07,99,003**	**6,31,82,003**
B.9	Oil Installation	Oil Installation	6,21,06,226	10,26,382	14,11,001	8,75,001
	Total - Oil Installation		**6,21,06,226**	**10,26,382**	**14,11,001**	**8,75,001**
	TOTAL - VADINAR (B)		**39,17,98,543**	**13,23,87,598**	**1,57,47,04,015**	**61,86,75,015**
	GRAND TOTAL (A+B)		**51,58,40,54,878**	**35,25,49,72,343**	**77,72,10,03,265**	**54,31,98,40,265**
	Amount INR Cr.		**5,158**	**3,525**	**7,772**	**5,432**

Notes to Valuation Summary:

a) ***In compliance to the mandate received from the client, we have carried out the valuation exercise on desktop basis. No physical / virtual site inspection has been carried out by us***.

b) For the purpose of our valuation of the assets (except for Land and Capital Dredging), we have relied upon the "Fixed Assets Register" for the period ended 31-03-2025.

c) Land, being non-depreciable asset may not qualify for the purpose of Insurance. Therefore, we have not considered the same for our valuation assessment, and hence, not indicated in the summary.

d) For Capital Dredging, we have considered the Book Value being the Estimated Reinstatement Value and Estimated Fair Value, considering the below-mentioned facts:

- Dredging is the process of removing and relocating material from a body of water, typically to increase its depth or recover valuable materials. It is essential for the functioning of a port.
- From an accounting perspective, the initial cost of dredging is treated as an intangible asset and is capitalized, despite being a revenue-type expenditure that does not create a physical asset.
- The document notes that under Indian Accounting Standards (IND-AS 38), an intangible asset is only recognized if it's likely to generate future economic benefits and its cost can be reliably measured. ***However, it also concludes that the IND-AS framework is not applicable to Port Trust Authorities***.
- Because dredging is considered an intangible asset, it may not be suitable for revaluation to determine its fair market value. Therefore, the Written Down Value (WDV) as of March 31, 2025, amounting to ₹133.57 Crores, is considered and indicated in the summary, based on FAR provided.

e) To ascertain the Estimated Reinstatement Value of the Assets (except for Land & Capital Dredging), we have considered "***Cost Inflation Index***" to estimate the price escalation over the Acquisition Cost of the Assets.

f) To arrive at the Estimated Fair Value of the assets (except for Land & Capital Dredging), we have eliminated the estimated amount of Depreciation from the Estimated Reinstatement Value of assets.

'Deendayal Port Authority' not being a Company, falls outside the purview of the Companies Act, 2013. Further, it had complied with the notifications of the ***Tariff Authority for Major Ports***, instead of Schedule – II of the Companies Act,2013. Hence, we have considered the Useful Lives of the different asset classes, as suggested by the Tariff Authority for Major Ports for the purpose of estimating the depreciation.

10. Caveats, Limitations and Disclaimer:

The valuation exercise has been carried out in accordance with the terms of the engagement and subject to the following caveats, limitations, and disclaimers

i) Restriction on Use of Valuation Report

This valuation report is intended solely for the purpose stated in the report and/or the engagement letter. The use of this report by any person other than the client for any other purpose is unauthorized. While the client may share the report with third-party advisors for purposes consistent with its intended use, we assume no responsibility for any third-party reliance or unauthorized use of this report.

ii) Responsibility of Registered Valuer (RV)

We, as the appointed Registered Valuer(s), owe our duty of care solely to the appointing authority/client as per the terms of our engagement. We accept no responsibility or liability to any other person. Further, we shall not be liable for any loss or damage arising from acts of omission, reliance, misrepresentation, or wilful default on the part of the client, their representatives, or any other third party.

iii) Accuracy of Information Provided

The valuation analysis has been based on data, records, and information provided by the client or obtained from reliable secondary sources. Our procedures did not constitute an audit or assurance engagement under any statutory or regulatory framework. Therefore, we do not express any audit opinion or provide assurance on the accuracy or completeness of such information.

iv) Achievability of Forecast Results

This valuation may incorporate forecasted financials, plans, or projections provided by the management/owners. We do not provide any assurance regarding the achievability of such forecasts, as actual results may differ materially due to unforeseen events and market dynamics. No opinion is expressed on the accuracy or feasibility of management's assumptions or achievability of forecast results.

v) Post-Valuation Date Events

This valuation reflects the value as on the specified valuation date. No adjustments have been made for events or circumstances arising after the valuation date unless otherwise stated. The reader is advised to consider the potential for significant changes in value resulting from market volatility or other events subsequent to the valuation date.

vi) Range of Value Estimate

The valuation of assets involves judgment and is based on facts, assumptions, and circumstances available as on the valuation date. Despite applying standard and scientific valuation approaches, there is no single indisputable value. While we believe this estimate to be reasonable based on the information available, alternative views may result in different conclusions.

vii) No Responsibility to the Actual Price if Sold/Transferred/Exchanged

The actual price at which the subject asset or company may be sold, transferred, or exchanged could differ from our valuation due to several transaction-specific factors, including negotiation strategies, competitive bidding scenarios, strategic benefits, or buyer motivations.

The valuation conclusion should therefore not be assumed to represent the final transaction price in the open market.

viii) Reliance on Representations of Owners/Clients and Others

The accuracy and completeness of the valuation depend significantly on the information provided by the client, management, and other third parties. The client/owner and its management have confirmed that such information is complete and accurate to the best of their knowledge. We have relied on these representations without performing independent verification, unless explicitly mentioned. Consequently, we shall not be liable for any losses resulting from misrepresentations, omissions, or wilful defaults by the client or their agents.

ix) No Procedure to Corroborate Information from External Sources

Where applicable, we have also relied on data obtained from external sources deemed reliable. However, no independent procedures were performed to verify such data. While reasonable care was exercised to ensure the proper use and contextual accuracy of external data, no assurance is given regarding their ultimate truthfulness or reliability.

x) Compliance with Relevant Laws

This valuation assumes full compliance by the company/business/assets with applicable laws and regulations, unless otherwise stated. No legal due diligence was undertaken as part of this assignment. The report does not comment on legal title, ownership disputes, or any litigations unless such issues were specifically brought to our notice and documented.

xi) Multiple Factors Affecting Valuation

The valuation report reflects the RV's judicious discretion, considering relevant factors beyond the Balance Sheet—such as management capability, competition, market sentiment, and comparable yields—that may significantly influence value.

xii) Future Services Including Testimony

The scope of this assignment does not include any obligation on our part to provide testimony or attend any court, tribunal, or authority in connection with this valuation. However, if required to provide evidence or professional opinion based on this report, such services will be rendered upon separate arrangements and the requesting party shall bear the costs and fees associated with such appearances, subject to applicable legal provisions.

Date: 03-07-2025

Place: Kolkata

CONOLIDATED VALUATION SUMMARY OF ASSETS

(Amount in ₹)

Sr. No.	Grouping	Name	Acquisition Value	Book Value	Estimated Reinstatement Value	Estimated Fair Market Value
A	**KANDLA**					
A.1	Land	Land	3,44,83,32,180	3,44,83,32,180	-	-
	Total - Land		**3,44,83,32,180**	**3,44,83,32,180**	**-**	**-**
A.2	Capital Dredging	Capital Dredging	4,93,80,81,872	1,33,57,33,670	1,33,57,33,670	1,33,57,33,670
	Total - Capital Dredging		**4,93,80,81,872**	**1,33,57,33,670**	**1,33,57,33,670**	**1,33,57,33,670**
A.3	Building, Shades & Other Structures	Transit Shed	1,93,82,601	54,61,515	7,93,99,001	1,71,71,001
A.3		Ware House	1,50,16,65,274	1,01,09,32,408	3,17,97,52,001	2,16,99,73,001
A.3		Non-Residential Building	1,27,39,20,867	97,52,37,879	2,64,93,30,034	1,72,38,44,034
A.3		Residential Building	62,95,10,757	44,56,80,182	1,57,46,36,012	92,23,27,012
A.3		Other Structure	88,96,61,340	73,24,66,097	1,19,25,42,012	1,02,27,67,012
A.3		Minor Structures	23,64,31,761	12,02,62,786	38,54,85,015	23,76,71,015
	Total - Building, Shades & Other Structures		**4,55,05,72,601**	**3,29,00,40,866**	**9,06,11,44,075**	**6,09,37,53,075**
A.4	Wharves, Roads & Boundaries	Wharves,Quays,Pays	8,63,55,09,296	6,95,23,63,855	14,03,12,76,023	9,72,88,17,023
A.4		Boundary Wall & Fences	44,17,44,592	27,88,50,294	85,01,98,017	54,09,68,017
A.4		Roads	4,05,70,54,886	2,59,05,01,556	6,82,27,15,123	4,81,36,68,123
A.4		Drains Culverts	48,96,63,858	23,93,42,459	1,09,20,96,070	64,74,32,070
A.4		Bridges	2,74,16,34,902	2,62,13,09,075	2,91,07,80,001	2,84,10,36,001
	Total - Wharves, Roads & Boundaries		**16,36,56,07,534**	**12,68,23,67,239**	**25,70,70,65,234**	**18,57,19,21,234**
A.5	Floating Craft	Floating Craft	1,39,39,66,443	79,89,39,012	-	-
	Total - Floating Craft		**1,39,39,66,443**	**79,89,39,012**	**-**	**-**
A.6	Railway & Rolling Stock	Wagons	1,600	1,600	6,000	-
A.6		Rly. Permananet Way	3,41,74,62,567	2,47,12,56,741	4,74,57,91,002	4,11,32,27,002
A.6		Signling Interlocking	11,404	1	1	1
	Total - Railway & Rolling Stock		**3,41,74,75,571**	**2,47,12,58,342**	**4,74,57,97,003**	**4,11,32,27,003**
A.7	Docks, Sea Walls, Navigational Aids	Dock,Wall,Pier,Jetty	8,76,36,56,913	6,89,78,92,607	22,22,96,48,004	15,51,86,41,004
A.7		Dry Dock	5,79,69,899	29,25,714	-	-
A.7		Fender Duoy Mooring	15,34,05,661	4,44,05,261	43,30,82,001	31,38,02,001
A.7		Nav.Aids & Structure	2,16,78,426	45,69,419	12,01,49,000	1,82,96,000
A.7		Nav.Aids Equipment	6,47,28,922	60,66,104	17,31,56,032	4,38,14,032
	Total - Docks, Sea Walls, Navigational Aids		**9,06,14,39,821**	**6,95,58,59,104**	**22,95,60,35,037**	**15,89,45,53,037**

A.8	Cranes & Vehicles	Mobile Cranes	2,98,00,52,148	2,19,88,63,943	3,57,59,54,000	3,07,20,07,000
A.8		Wharf Cranes	1,20,68,75,010	20,27,97,666	2,68,06,83,000	1,31,96,70,000
A.8		vehicles	5,02,26,028	1,10,88,122	15,33,74,002	2,22,26,002
	Total - Cranes & Vehicles		**4,23,71,53,186**	**2,41,27,49,731**	**6,41,00,11,002**	**4,41,39,03,002**
A.9	Plant & Machinery	Workshop Machine Tools	48,40,382	3,92,157	4,81,98,005	24,10,005
A.9		Winches Captans	1,94,535	9,727	20,06,000	2,43,000
A.9		Other Machinery	1,94,28,90,317	1,13,09,85,896	2,31,31,17,026	1,54,68,25,026
A.9		Water Coolers	35,15,339	5,91,779	38,49,001	27,75,001
A.9		Wiegh Bridges	4,28,88,295	1,19,02,077	10,56,17,001	4,06,16,001
	Total - Plant & Machinery		**1,99,43,28,868**	**1,14,38,81,636**	**2,47,27,87,033**	**1,59,28,69,033**
A.10	Installations of Water, Electricity, Telecom & Fire Fighting	Electric Supply Etc.	97,27,28,244	39,70,34,535	2,01,39,75,074	1,20,75,07,074
A.10		Telephone & Telecom	1,25,87,693	6,37,197	3,61,92,008	18,10,008
A.10		Water Supply	20,96,03,094	5,72,07,332	55,08,87,059	21,77,75,059
A.10		Fire Fighting	38,66,90,432	11,45,40,542	71,04,34,031	23,70,51,031
A.10		Mis. Unclassified	11,70,63,978	2,49,432	97,24,012	4,87,012
A.10		Computers	2,10,72,602	1,10,62,362	1,87,31,005	83,65,005
	Total - Installations of Water, Electricity, Telecom & Fire Fighting		**1,71,97,46,043**	**58,07,31,399**	**3,33,99,43,189**	**1,67,29,95,189**
A.11	Oil Installation	Oil Installation	6,55,52,216	26,91,565	11,77,83,007	1,22,10,007
	Total - Oil Installation		**6,55,52,216**	**26,91,565**	**11,77,83,007**	**1,22,10,007**
	TOTAL - KANDLA (A)		**51,19,22,56,335**	**35,12,25,84,745**	**76,14,62,99,250**	**53,70,11,65,250**
B	**VADINAR**					
B.1	Land	Land	46,74,769	46,74,769	-	-
	Total - Land		**46,74,769**	**46,74,769**	**-**	**-**
B.2	Building, Shades & Other Structures	Non-Residential Building	7,19,62,217	3,33,19,795	34,07,72,000	13,96,83,000
B.2		Residential Building	5,79,85,510	2,46,52,196	37,27,47,000	13,15,26,000
B.2		Minor Structures	8,84,900	3,35,840	70,66,000	11,69,000
	Total - Building, Shades & Other Structures		**13,08,32,628**	**5,83,07,830**	**72,05,85,000**	**27,23,78,000**
B.3	Wharves, Roads & Boundaries	Boundary Wall & Fences	94,68,646	49,28,714	4,12,08,000	1,33,18,000
B.3		Roads	3,90,32,579	1,61,71,990	6,63,03,010	4,50,65,010
B.3		Drains Culverts	8,22,832	1,88,933	70,87,000	9,48,000
	Total - Wharves, Roads & Boundaries		**4,93,24,057**	**2,12,89,637**	**11,45,98,010**	**5,93,31,010**
B.4	Floating Craft	Floating Craft	11,04,800	1,14,720	-	-

	Total - Floating Craft		**11,04,800**	**1,14,720**	**-**	**-**
B.5	Docks, Sea Walls, Navigational Aids	Dock,Wall,Pier,Jetty	3,50,63,865	1,12,85,792	42,09,00,000	19,03,81,000
B.5		Fender Duoy Mooring	1,32,78,390	1	1	1
B.5		Nav.Aids & Structure	3,13,841	31,384	48,55,000	2,43,000
B.5		Nav.Aid Equipment	2,08,45,460	1,24,47,158	2,97,78,000	2,13,34,000
	Total - IDocks, Sea Walls, Navigational Aids		**6,95,01,555**	**2,37,64,335**	**45,55,33,001**	**21,19,58,001**
B.6	Cranes & Vehicles	vehicles	19,43,352	11,43,487	25,84,000	15,03,000
	Total - Cranes & Vehicles		**19,43,352**	**11,43,487**	**25,84,000**	**15,03,000**
B.7	Plant & Machinery	Workshop Machine Tools	7,14,357	71,436	69,27,000	3,46,000
B.7		Winches Captans	54,661	5,466	7,29,000	36,000
B.7		Other Machinery	1,03,55,814	35,24,116	2,01,77,000	80,95,000
B.7		Water Coolers	10,58,400	4,53,324	13,61,000	9,71,000
	Total - Plant & Machinery		**1,21,83,232**	**40,54,342**	**2,91,94,000**	**94,48,000**
B.8	Installations of Water, Electricity, Telecom & Fire Fighting	Electric Supply Etc.	2,15,55,972	49,41,652	7,43,03,000	3,13,85,000
B.8		Telephone & Telecom	32,89,150	4,02,593	1,07,91,000	6,46,000
B.8		Water Supply	3,52,82,801	1,26,67,850	16,57,05,003	3,11,51,003
	Total - Installations of Water, Electricity, Telecom & Fire Fighting		**6,01,27,923**	**1,80,12,095**	**25,07,99,003**	**6,31,82,003**
B.9	Oil Installation	Oil Installation	6,21,06,226	10,26,382	14,11,001	8,75,001
	Total - Oil Installation		**6,21,06,226**	**10,26,382**	**14,11,001**	**8,75,001**
	TOTAL - VADINAR (B)		**39,17,98,543**	**13,23,87,598**	**1,57,47,04,015**	**61,86,75,015**
	GRAND TOTAL (A+B)		**51,58,40,54,878**	**35,25,49,72,343**	**77,72,10,03,265**	**54,31,98,40,265**
	Amount INR Cr.		**5,158**	**3,525**	**7,772**	**5,432**

Sum Insured details of assets to be insured under Port Package basis the Kandla & Vadinar Working Sheets provided by DPA

all numbers in INR

Particulars	Kandla 2025-26	Vadinar 2025-26	Total 2025-26
Building, Shades & Other Structures	9,06,11,44,075	72,05,85,000	9,78,17,29,075
Wharves, Roads & Boundaries	25,70,70,65,234	11,45,98,010	25,82,16,63,244
Railway & Rolling Stock	4,74,57,97,003	0	4,74,57,97,003
Docks, Sea Walls, Navigational Aids	22,95,60,35,037	45,55,33,001	23,41,15,68,038
Cranes & Vehicles	6,41,00,11,002	25,84,000	6,41,25,95,002
Plant & Machinery	2,47,27,87,033	2,91,94,000	2,50,19,81,033
Installations of Water, Electricity, Telecom & Fire Fighting	3,33,99,43,189	25,07,99,003	3,59,07,42,192
Oil Installation	11,77,83,007	14,11,001	11,91,94,008
			-
TOTAL	**74,81,05,65,580**	**1,57,47,04,015**	**76,38,52,69,595**

Port Package Asset bifurcation between section 2 and section 3

Section 2: Real and Personal Property

Particulars	Kandla 2025-26	Vadinar 2025-26	Total
Building, Shades & Other Structures	9,06,11,44,075	72,05,85,000	9,78,17,29,075
Wharves, Roads & Boundaries	25,70,70,65,234	11,45,98,010	25,82,16,63,244
Railway & Rolling Stock	4,74,57,97,003	-	4,74,57,97,003
Docks, Sea Walls, Navigational Aids	22,95,60,35,037	45,55,33,001	23,41,15,68,038
Installations of Water, Electricity, Telecom & Fire Fighting	3,33,99,43,189	25,07,99,003	3,59,07,42,192
Oil Installation	11,77,83,007	14,11,001	11,91,94,008
TOTAL	**65,92,77,67,545**	**1,54,29,26,015**	**67,47,06,93,560**

Section 3: Handling Equipment

Particulars	Kandla 2024-25	Vadinar 2024-25	Total
Cranes & Vehicles	6,41,00,11,002	25,84,000	6,41,25,95,002
Plant & Machinery	2,47,27,87,033	2,91,94,000	2,50,19,81,033
TOTAL	**8,88,27,98,035**	**3,17,78,000**	**8,91,45,76,035**

दीनदयाल पत्तन प्राधिकरण
DEENDAYAL PORT AUTHORITY

IMPORTANT NOTE

The Crisis Management Plan (CMP) outlines the steps required for the management of emergency contingencies responses to the natural and other emergency crisis occurring within DPA ports.

The CMP would provide guidance for quick response in case of an emergency & is a document covering identified Hazards, Risk and Vulnerability analysis and provides actions, roles, delegation of authority and responsibility of each involved team member in the organization.

This document should be read/ referred to in conjunction with the DPA- more comprehensive Disaster Management plan, OSCP and NDMA Guidelines.

Table of Contents

1. AIM OBJECTIVE

1.1 AIM

The aim of this plan is commitment to the safety and to define the roles and actions necessary to prepare for and respond to any crisis situation in an effective and coordinated manner. This plan will enable the DPA to minimize or avoid the potential losses from hazards caused due to human error or natural phenomena in the Port and adjoining waters (Port limits), through the implementation of rapid, effective and appropriate response procedures and effective recovery.

CMP is intended to provide guidance to all concerned departments within the port with a general concept of potential emergency assignments before, during and following emergency situations.

1.2 OBJECTIVE

The primary objectives of the CMP are to:

a. Protect the lives of the DPA employees, contractors, stakeholders, visitors and neighbouring population,
b. Protect the environment,
c. Limit damages of port assets,
d. Safely restore operations back to normal as quickly as possible after occurrence of any accident,
e. To establish a robust Response mechanism,
f. To initiate Off-site emergency plan in-case of necessity.

2. SCOPE OF THE PLAN

The scope covers

- the identification of emergencies;
- the mitigation measures that attempt to reduce the risk;
- the preparedness to develop plans for actions when disaster or emergencies occur;
- the responses that mobilize the necessary emergency services including responders like fire service, police service, medical service including ambulance, government as well as non-governmental agencies;
- the initiation of Off-site emergency plan, should the situation escalate to call for support of civic administrations (district and/or state) and their resources;
- Post disaster recovery with aim to restore the affected area to its original conditions.

3. CRISIS CONTINGENCY PLANS IN ACTION

Immediately on the occurrence of a Crisis, the local Internal Action Plan under the Disaster Management Act, 2005 would be put into effect by the local/District and the state authorities. If the situation has wider ramifications and warrants response at the State/National level, the Chairman/ Deputy Chairman will contact the Nodal Ministry of the State / Central Government and seek the required help. The concerned authorities would activate its control room, call for a meeting of the Crisis Management Group and put into operation its contingency Plan.

3.1. FIRST INFORMATION

As and when a critical crisis situation develops, the first information would be sent by the Chairman/Deputy Chairman to the State/Central Nodal Ministry through Wireless/Cellular Mobile Phone/Fax/e-mail or any other quickest possible means.
Security measures at Vital Installations are inspected by I.B. periodically. The Deputy Conservator and Traffic Manager shall implement the recommendations of I.B. with the help of CISF, made from time to time for beefing up/strengthening the security at important vital installations.

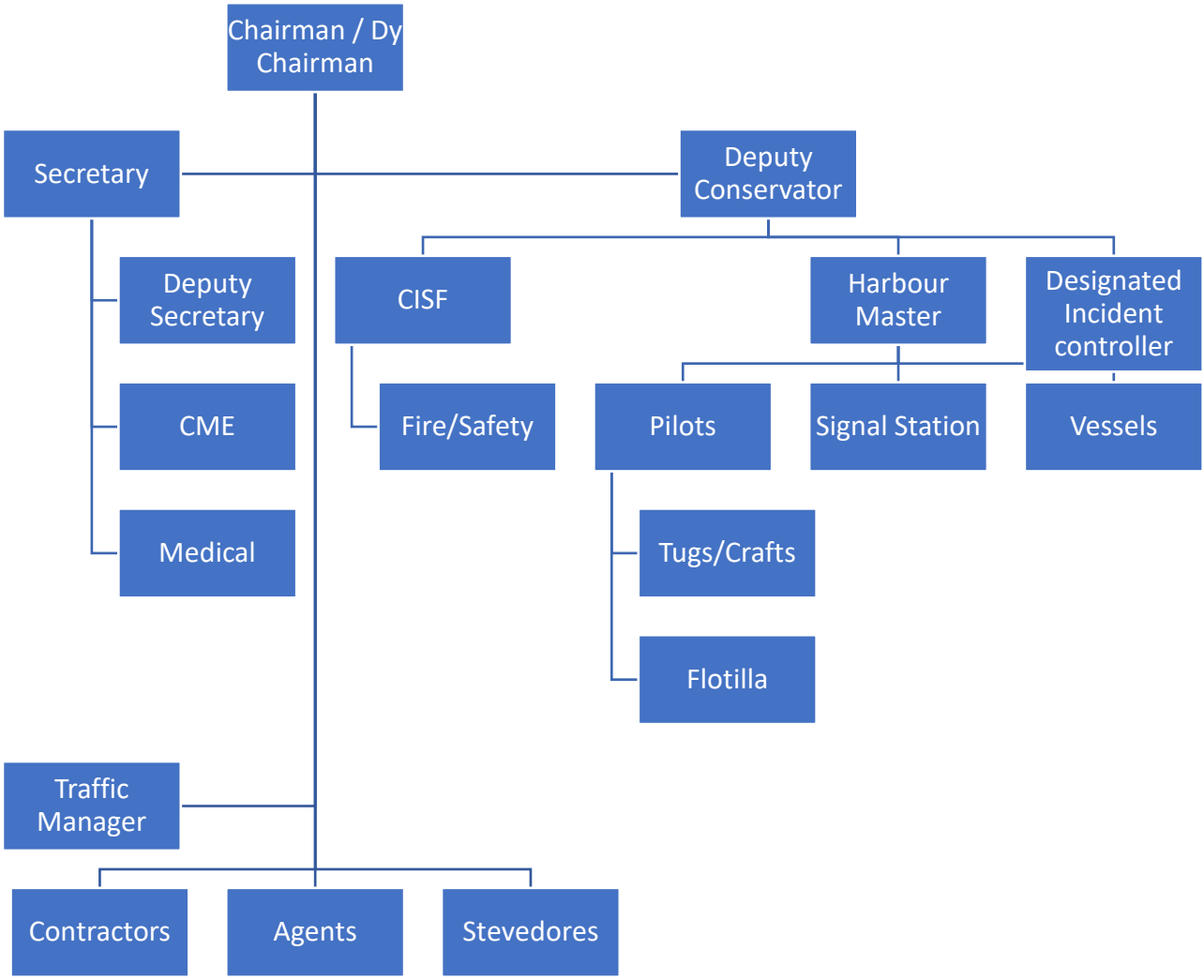
3.2. PROCEDURE FOR CO-ORDINATION

The overall responsibility of the Emergency management lies with the Chairman, Deendayal Port. He assumes the responsibility of Chief Site Controller on receipt of the information of an emergency or an impending emergency.
Some of the critical functions are:

Activation of the emergency response organization

- An ongoing emergency assessment, including upgrading or downgrading of the emergency alarm level
- Notification of outside governmental agencies
- The decision to ask for outside help and resources
- The decision to evacuate the people
- Decisions involving the safety of off-site vulnerable points (e.g. recommendations to evacuate or take shelter, in the case of a toxic vapour release).
- Decisions to shut down/restart the Port.

The Chairman / Deputy Chairman shall be responsible for designating the Incident Controller, Secretary and deputy conservator will further assist accordingly. Following flow chart for line of actions will be as per action plans of various scenarios of crisis.


Chairman / Dy Chairman
Secretary
Deputy Conservator
Deputy Secretary
CME
Medical
CISF
Fire/Safety
Harbour Master
Pilots
Signal Station
Designated Incident controller
Vessels
Tugs/Crafts
Flotilla
Traffic Manager
Contractors
Agents
Stevedores

3.3. AREA COVERED

This plan covers the entire DPA administered port areas.

3.4. BASIC DEFINITIONS

ON-SITE PLANS- address incidents originating within the port area

OFF-SITE PLANS- incidents originating outside the port area but affecting the port operations or from port to outside

RISK - The chance of an adverse event occurring in a specific circumstance.

HAZARD - A phenomenon which may cause disruption to persons and Their infrastructure; and is an undesirable outcome in the process of engaging in an activity

DISASTER - An event which can cause immense damage and disruption to the (Port and its) infrastructure causing loss to lives and property;

CRISIS - Unstable situation of extreme danger. and may lead to the following elements; - Surprise- -Rapid flow of events-Lack of or insufficient information-Internal conflict-confusion

PREPAREDNESS - Measures undertaken in advance to ensure that individuals and agencies will be ready to react, such as emergency plans, logistical support and resource, inventories, and emergency information & communications systems

RESPONSE - Those measures undertaken immediately after a disastrous or hazardous event has occurred and for a limited period of time thereafter, primarily to save human life, property, treating the injured, prevent further injury and other forms of property loss and to mitigate disruption. They include response plan activation, declaration and communication of emergency to the concerned potential population and facilities at risk, opening and staffing of emergency operation centres, mobilization of resources, issuance of warnings and directions and provision of aid.

MITIGATION - Those measures and activities aimed at reducing or eliminating hazards or lessening the impact of the event.

PREVENTION - Mitigation of hazard effects through public education, early warning or detection systems, safety systems, building and land- use codes and regulation.

RECOVERY - Those measures undertaken to restore normal conditions. The time frame for recovery begins as soon as a reduction in critical response activities permits the re-allocation of resources. and could include physical restoration and reconstruction.

ALL CLEAR – Direction given by the incident coordinator (or authorised person) that the emergency situation has been revoked and that there is no further damage.

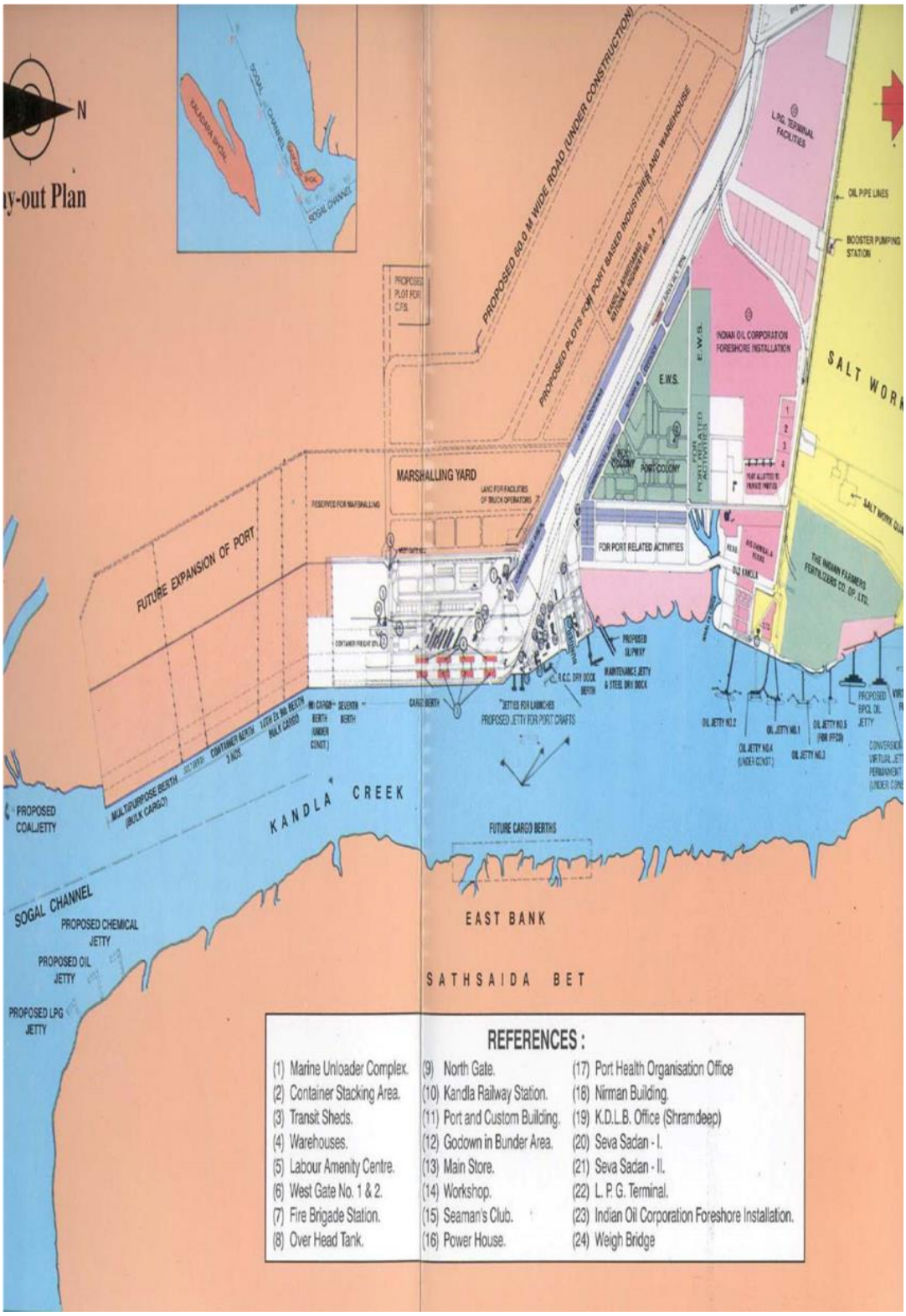
ASSEMBLY AREAS – On decision of evacuation, the place where people will move first to assembly area where further instruction will be given.

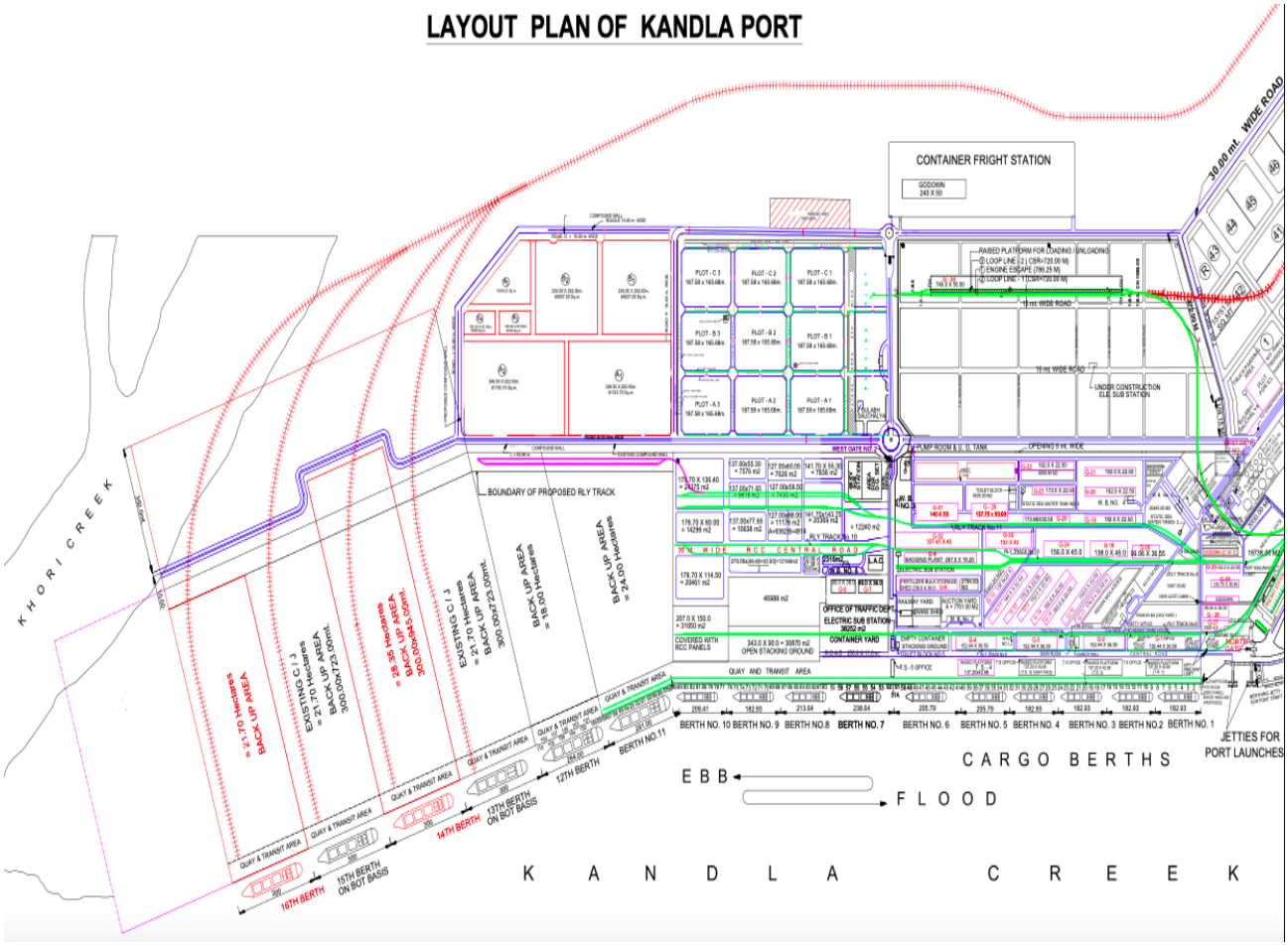
SUSPECT DEVICE – Any item that contains an explosive or mechanical device designated to explode by means of timer, touching, impact or by remote control

a suspect device may appear suspicious by its placement, the circumstances surrounding its location or other information that may cause any person to become suspicious and decide that further investigation is necessary.

4. DEENDAYAL PORT AUTHORITY (KANDLA) INTRODUCTION:

Kandla (DPA) Port is a natural harbour situated in Kandla Creek and is 49 Nautical Miles from the mouth of Gulf of Kutch. Geographically, the port is spread in three locations, Kandla, Vadinar and Tuna Tekra. Reference charts & site locations are as shown in the following images including satellite images below.




LAYOUT PLAN OF KANDLA PORT
CONTAINER FRIGHT STATION
GODOWN
240 X 90
30.00 mt. WIDE ROAD
15 mt WIDE ROAD
UNDER CONSTRUCTION
ELE SUB STATION
PUMP ROOM & U. G. TANK
OPENING 9 mt. WIDE
BOUNDARY OF PROPOSED RLY TRACK
KHORI CREEK
BACK UP AREA = 21.70 Hectares
EXISTING C / J BACK UP AREA = 21.70 Hectares 300.00x723.00mt.
BACK UP AREA = 28.35 Hectares 300.00x945.00mt.
EXISTING C / J BACK UP AREA = 21.70 Hectares 300.00x723.00mt.
BACK UP AREA = 18.00 Hectares
BACK UP AREA = 24.00 Hectares
RCC CRANE TRACK
RLY TRACK NO.10
OFFICE OF TRAFFIC DEPT.
ELECTRIC SUB STATION
CONTAINER YARD
OPEN STACKING GROUND
QUAY AND TRANSIT AREA
BERTH NO. 10 BERTH NO. 9 BERTH NO.8 BERTH NO. 7 BERTH NO. 6 BERTH NO. 5 BERTH NO. 4 BERTH NO. 3 BERTH NO.2 BERTH NO. 1
JETTIES FOR PORT LAUNCHES
CARGO BERTHS
EBB
FLOOD
16TH BERTH
15TH BERTH ON BOT BASIS
14TH BERTH
13TH BERTH ON BOT BASIS
12TH BERTH
BERTH NO.11
K A N D L A C R E E K


Kandla
Kandla Port
Kandla Creek


Tuna Tekra

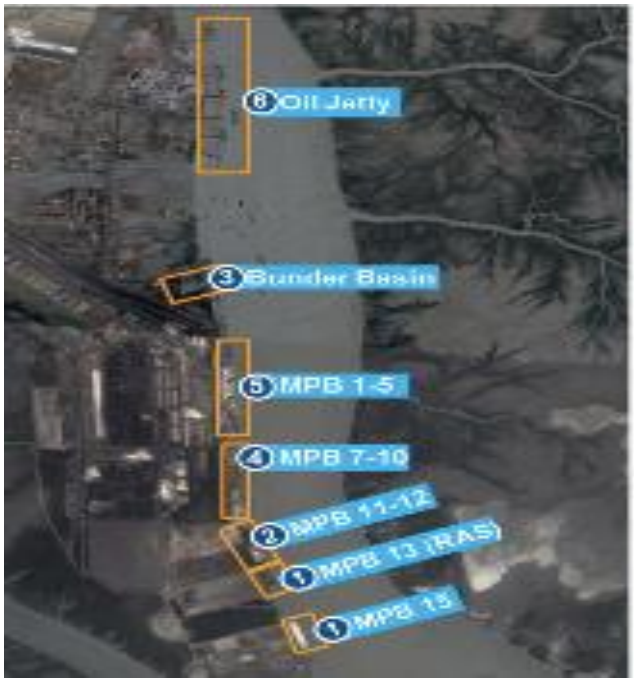
Port is well connected by the network of rail and road. It caters to the trade requirements and provides gateway port for export and import of traffic of one of the most highly productive granary and industrial belt of the country stretching across the hinterland states of northern India.

Kandla Port is the busiest port of India and serves as the gateway for the trade generating from/to the entire Northern India. In the terms of cargo handling, Kandla Port has achieved the first position among all the Major Ports of India.

Kandla is a natural, all weather harbour, protected from swell /waves during the monsoon period which has grown to become one of the most economical major ports & #1 major port in terms of cargo volumes handled in India. It has an location advantage of port facilities.

Kandla port is a natural tidal harbour and is connected to deep water by a dredged channel. The generic locations of the berths are shown in the following images.

Kandla CJ & OJ **Tuna Tekra**



Tuna Barge Jetties

Vadinar

4.1. CLIMATE & WINDS:

The climate at Kandla is governed by the monsoons. Predominantly during the months May / June-September, the south-west monsoon occurs. The later period is often indicated as the post-monsoon period, followed by North East Monsoon. Non cyclonic maximum winds (25-30 knots) occur during May-August. Wind speeds are relatively less during North East Monsoon.

4.2. Tides:

The tides at Kandla are semi-diurnal with tidal levels, relative to the Chart Datum, as follows:

	Kandla Creek	**Tuna Tekra**
Highest High Water	+ 7.59m	+6.5m
Mean High Water Spring (MHWS)	+6.66m	+5.8m

Mean High Water	+ 6.185m	+5.2m
Mean High Water Neap (MHWN)	+5.71m	+4.6m
Mean Sea Level (MSL)	+3.884m	+3.4m
Mean Low Water Neap (MLWN)	+1.8m	+2.1m
Mean Low Water	+ 1.3m	+1.55m
Mean Low Water Spring (MLWS)	+0.8m	+1.0m
Lowest Low Water	+ 0.4m	+0.5m
Average Spring Range	5.86m	4.8m
Average Neap Range	3.91m	2.5m
Mean Range	4.885m	3.65m

4.3. Topography:

Topography at the port site is flat. Kandla Port has been developed from the area at Kandla creek by raising the area which was marshy land to the current level. To the west of Kandla creek is Khori creek with salt pans where salt activities are carried out. To the east of the creek is completely marshy land, which is underwater most of the time and are generally exposed during low tidal conditions.

5. CRISIS PERILS CLASSIFICATION

When severe weather is predicated or threatened preparation is made by site personnel.

The most probable severe weather events at the Kandla Port will involve High winds, Heavy rains, Cyclone, Storm, Tsunami, and Lightning & Earthquake.

- Man-Made: Chemical Disaster; Biological Disaster.
- Natural Disasters: Cyclone; Earthquake ; Tsunami; Flood; Landslides; Urban Floods; Heat wave.

6. PRIMARY ROLES & RESPONSIBILITIES FOR VARIOUS CRISIS.

CRISIS	AUTHORITIES RESPONSIBLE FOR REPORTING	REMARKS
Natural Disasters	District Magistrate or District Collector Indian Meteorological Department State/Central Water Commission	Information relating to forecasting/warning of the natural calamity will be sent by the IMD, State/Central Water Commission to the Relief Commissioner as laid down in the contingency Action Plan of the State/Central Ministry.
Chemical/Biological Disasters	Chairman / Deputy Chairman	The Chief of the Public Sector/Undertakings would be equally responsible to send the first information through his channel to the Nodal Ministry.

Major Disaster having off-site implications	Chairman/Deputy Chairman	
Break-down in Power Generation/Supply	Chief Mechanical Engineer and Executive Engineer (Electrical) through Gujarat Electricity Board Authority.	
Major Fire/ Oil Spill	Chief or In-charge of the Oil Installation through his channel to the Nodal Ministry.	
Hijack of an Indian Merchant ship or Indian Crew in a Foreign ship	Chairman/Deputy Chairman	Commandant of CISF, Traffic Manager, Deputy Conservator would inform to Chairman/Dy.Chairman immediately.

6.1. Department wise primary action plan (for detailed action matrics refere to section 21 SOP)

6.1.1. General Administration Department

The overall incharge for setting up control room at Gandhidham will be the Secretary. He shall ensure setting up the control room at AO Building within two hours of warning and the matter reported to the Chairman/Dy. Chairman. Two telephones should be kept in the control room, one for receiving and the other for **outward calls. Tel. No. 238055** will be used for **incoming calls and 239055** for outgoing calls.
Labour Officer and Head Master (Secondary) and Head Master (Primary) of BVM School shall reach and open the schools/community hall etc, and keep them ready for accommodating the shifted people.

The SE (Land Section) should ring up major salt leaseholders and advising them to evacuate their labourers and report the action to the Chairman within two hours. Action taken should be confirmed in writing thereafter, Sr. Dy. Secretary will guide them and will do the overall supervision of this job.

Law Officer shall ring up all the private/public sector companies of the area and inform them about their situation and tell them to evacuate their people and take necessary steps.

Personnel Officer, Labour Officer along with Executive Engineer (R) and Head Masters of BVM School shall ensure that temporary evacuation centers are established in the school/community center of Gandhidham-Kandla area.

Sr. Dy. Secretary shall ensure that the telephones of all the Head of Departments and other responsible officers of different Department are functioning properly; and in case telephone is not functioning, matter has to be taken with the Higher Authority of Telephone Department.

The staff attendance on days when the Action Plan is in operation shall be collected from PA to HoDs and compiled by Sr. Asstt. Secretary and reported to Chairman/Dy.Chairman every day with separate list of absentees.
Secretary will do the overall supervision of the work and report compliance to the Chairman/Dy. Chairman within two hours of the warning received.

Secretary will be the overall incharge for liaison work with central/state government officials/IMD, Ahmedabad/Pune Laboratory/ Delhi Laboratory in which he can take the help of Sr. Dy. Secretary and Dy. Hydraulic Engineer and report the matter to the Chairman/Dy.Chairman immediately. They shall remain present in all the meetings relating to the Action Plan and report the proceedings of the meetings to the Chairman/Dy.Chairman. They shall also communicate the action to be taken to the concerned Head of Departments.
All Head of Department shall have to send Action taken report to the Secretary/Control Rooms in writing by fax or on telephone with regard to the action required of them as per the Action Plan. If the report is not received from any of the HoDs, the Officer Incharge,

Control Room shall obtain the information, compile it and submit the same to the Chairman/Dy.Chairman on 12 hourly bases i.e. twice a day.

6.1.2. Marine Department

As soon as the message on anticipated cyclone/flood/natural calamity is received from the State Government Authority/Indian Meteorological Department/Cyclone Warning Centre/Indian Navy, etc. by any official of the Port Trust, the same shall immediately be informed to the Deputy Conservator (Nodal Officer), who in turn shall get such message confirmed from the above sources and apprise the Chairman and Dy. Chairman accordingly. On approval of Chairman, the Action Plan as stipulated hereunder shall be put into operation for which the Deputy Conservator shall inform all the officers-in-charge of the Control Rooms as well as the Heads of Departments, including Chief Operation Manager, OOT, Vadinar about the decision of the Chairman.
Dy. Conservator shall ensure that all ships are moved out of the Harbour at the earliest. All pilots shall immediately report at Kandla and stay there till the Action Plan is in operation. Dy. Conservator/Harbour Master shall immediately plan removal of vessels to the OTB as soon as the Action Plan is put into operation irrespective of the Signal number, which must be hoisted. If, it is impossible to remove them, all other steps should be taken to ensure safety of the vessels at the Port as also it would not cause any damage to the Port. Dy. Conservator shall also ensure adequate stock of fuel for all crafts.

As soon as warning of Cyclone Signal No. 5 or above is received, following measures shall be taken:

- Setting up of Control Room at Signal Station.
- Pilots and other Supervisory personnel in Flotilla Section should reach Kandla to tackle emergency, if any.
- Evacuation of Ships and securing all Port Crafts at Shortest possible time on direction of Deputy Conservator.
- No leave shall be granted to Pilots, Flotilla Superintendent, Fire-Cum-Safety-Officer, 2nd Officer, BS, AFS and similar other supervisory staff.
- Essential Staff (Fire Brigade) will not be given any kind of leave.
- The following personnel of Marine Department will not be granted any leave and they shall report for duty including holidays, during such time when Action Plan is put into operation.

⇒ All Operational Staff in Flotilla Section and Signal Station.
⇒ Ministerial Personnel apart from P. A.

- For dewatering, if required, Fire-Cum-Safety-Officer will make arrangements by operating the Fire Pumps available with him.

<u>Actions For Ships In The Port</u>

⊛ All the Pilots of the Port should reach Kandla immediately in case of emergency.
⊛ Dy. Conservator/H.M./Pilots should be availble at Kandla during emergency.
⊛ Removal of vessels whenever the cyclone is located in close proximity to the danger line plotted between 65 degree E longitude 18.2 degree

N latitude and 73 degree E longtude 18.2 degree N latitude.
Under such a situation the ships shall be removed during 1st/next availble tide. It will be the duty of Harbour Master and DC to ensure that the ships are removed during 1st/next available tide as soon as the storm reaches to close proximity to the danger line as defined above without seeking any further instruction from the higher authorities. This action shall be taken automatically and suo-moto without any confusion and for which purpose Traffic Manager shall stop all loading and unloading operations immeidately upon instructions from Dy. Conservator, so as to enable him to remove the vessels in time. The removal shall be done with the help of all the available Pilots plus all empanelled Pilots together at one go in the shortest possible time, so as to ensure that all the vessels cross the bar before the tide restriction sets in.
Dy. Conservator shall ensure that all ships are moved out of the Harbour at the earliest. All pilots shall immediately report at Kandla and stay there till the Action Plan is in operation.
Dy. Conservator/Harbour Master shall immediately plan removal of vessels to the OTB as soon as the Action Plan is put into operation irrespective of the Signal number, which must be hoisted. If, it is impossible to remove them, all other steps should be taken to ensure safety of the vessels at the Port as also it would not cause any damage to the Port. Dy. Conservator shall also ensure adequate stock of fuel for all crafts.

Securing Of All Crafts

Dy. Conservator /Harbour Master shall immediately arrange for securing all the Port Crafts at safer places, so that there is no loss to the Port and send a report to the Chairman/Dy. Chairman as early as possible after operation of this Action Plan. Flotilla Supdt. shall be overall incharge of each craft for ensuring their safety.
For placement of Port crafts on Cyclone Warning are mainly identified, viz. Bunder Basin, Launch Jetty and Maintenance Jetty.

1) Maximum number of crafts such as mooring launches, GS lauches and pilot launches will be placed in **Bunder Basin**.
2) In the inner side of **Passenger Jetty**, one pilot launch and one G S launch will be kept.
3) Three tugs will be kept in the inner side of **maintenance jetty.**

Priority will be given to the Port crafts for parking in the bunder basin and other areas. Rest of the places available in the Northern side of bunder basin area will be allowed to the self propelled barges and private crafts. Dumb barges will be allowed on the beach between maintenace jetty and oil jetty area.
Mr. Sreekumar,BS will render all possible assistance to FS, being the over all incharge of the crafts. The flotilla staff will take care of the crafts.

Private Barges/Crafts

The parties who have been Harbour Crafts License by the DC have to keep their barges and crafts inside the port limits being earmarked for the purpose.
Necessary instructions shall be issued to all these people having valid license immediately. The work of informing these parties will be carried out by the Office Supdt. of Dy. Conservator's office and will personally ensure that the instructions are carried out and reported to Harbour Master within two hours of the Action Plan coming into operation. The representatives of the above parties shall reach Kandla at once, failing which the Dy.

Conservator will cancel the license granted to them and take over the barges/crafts of the party who violates the instructions.
The position shall be appraised to Chairman/Dy.Chairman within two hours of the receipt of warning and at frequent intervals.

Sections

Sr. No.	*Name*
1	***Flotilla Section***
2	***F/S***
3	***Signal Station***
4	***Fire Station***

Fire Station

The Port Fire Brigade has its Head Quarter at Old Kandla Oil Jetty area with two Sub-Stations at Dry Cargo Jetty at New Kandla.

Designation
Main Station (Emergency Response Centre)
Cargo Jetty West Gate No. 1 (Tilak Fire Stn.)
Cargo Jetty (Azad Fire) Nr. Berth No. 8
Fire cum Safety Officer
Dy. Fire cum Safety Oficer

The Resources Availability Is Given Below

A. MAN POWER.

1)	FcSO		-	1
2)	Dy. Fire Officer		-	1
3)	Station Officer		-	15
4)	Leading Fireman	-	27	
5)	Pump Operation-cum-Drive	r	-	24
6)	Fireman		-	42

B. EQUIPMENTS

1)	Safety Jeep		-	1
2)	Water Tender	-	5	
3)	Foam Tender	-	3	
4)	DCP Tender		-	-
5)	Multi-purpsoe Fire Tender		-	1
6)	Fire Float (Agnishanti)	-	-	
7)	Ambulance		-	1
8)	Portable Pump		-	8
9)	Trailor Pump		-	6

In case of any fire, or other crisis an information is received through telephone - or VHF channel - Fire Station Control Room, the Duty telephone attendant raises the fire alarm bell and lights the vehicle indicating light (turn-out bell and Turn out light)
The Duty Station Officer proceeds to the scene of fire with fire Tenders and crew. Station Telephone Attendant should inform other officers like Fire-cum-Safety-Officer, Dy.

Conservator and Port Control. Telephone Attendant should inform hospital and if fire is in wharf should inform Traffic Manager. Fire cum Safety Officer after apprising the situation should inform Deputy Conservator directly or through the Telephone Attendant immediately.

Fire Dewatering Pumps

There are 10 Nos. of Dewatering Fire Pumps available with Fire-Cum-Safety Officer at various points. The details of which are as under:-

Dewatering Pump	Old Kandla Fire Stn.	Tilak Fire Station (West Gate-I)	Azad Fire Station (West Gate -II)
Portable Fire Pump :270 LPM	04	01	01
Trailer Fire Pump :1800 LPM	-	01	01
Trailer Fire Pump:2250 LPM	02	-	-

All the above Fire Pumps will be operated by the Fire-Cum-Safety-Officer. The maintenance of major nature and breakdown will be attended by Executive Engineer (Mechanical).
In case of Natural Calamity, first start with rescue operations, restoration activities on war footing on the advice of Chairman/Dy.Chairman, Dy. Conservator/ Harbour Master/Fire-Cum-Safety-Officer/Flotilla Supdt as the case may be.

6.1.3. Traffic Department

After, the warning of Cyclone or any other Natural calamity is issued at the Port, Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation. Traffic Manager should also ensure that responsible persons make announcements in a proper way, so as not to create any misunderstanding/panic.
Notwithstanding above, Traffic Manager shall stop all loading and unloading operations immediately upon instructions from Dy. Conservator, so as to enable the latter to remove the vessels in time.
The responsibility of evacuating the Port Shore Workers and Private Shore Labourers rest with Traffic Manager. He along with Sr. Dy. Traffic Manager, Safety Officer and Dy. Commandant, CISF should ensure that the Port is completely evacuated and there is no fresh entry in the Custom bounded area. Sr. Dy. Traffic Manager should get in touch with the Main Contractors in the regard.
Traffic Manager shall render necessary help to procure requisite number of Trucks for Public Announcement and evacuation.
Traffic Manager shall inform all the Stevedores.

6.1.4. CISF

Commandant, CISF with the help of Police shall ensure that all incoming traffic to the Port is stopped except those which are coming for rescue operations and essential services at three places i.e. KASEZ Junction, Railway crossing and Kharirohar Road. He shall

immediately erect two temporary tents and post sufficient number of personnel of CISF in coordination with Police, who shall identify which person has to be allowed. Commandant, CISF shall also ensure that those allowed do not cause any hindrance for those who are supposed to function as per the Internal Action Plan.
Commandant shall ensure that Public Address System is fitted on Jeeps provided to CISF. He will make arrangements for announcements, with the coordination of Police through Public Address System mounted on atleast 03 Vehicles. The CISF Personnel will procure truck with the help of TM.

6.1.5. Medical Department

Two Casualty Emergency Wards, one at Gopalpuri and other at Kandla Hospital shall start functioning as soon as warning of Cyclone is received. Chief Medical Officer will ensure that no Doctor is given leave during the emergency period. These casualty emergency wards will function round the clock with posting of Doctors and Staff round the clock and the functioning of casualty emergency wards at Gopalpuri and Kandla. A Register shall be maintained at both the places wherein the record of patients attended would be maintained. Adequate number of chlorine pills should be distributed after Cyclone to avoid epidemic from spreading. Chief Medical Officer shall submit a report every evening to Chairman/Dy. Chairman.

During Crisis

(1) Maximum alertness of staff members for their safety.
(2) Ambulances/vehicles with Drivers to be kept standby awaiting further orders.
(3) Liaison with: - Control Room, Crisis Site/Spot, P.A.s to all HoDs, New Kandla Hospital.

(Action : P.A. to CMO)

Post Disaster Phase:

I. TACKLING OF PATIENTS :

(1) Use of ambulance will be purely on priority basis. The A.C. Ambulance can be used as an Emergency Mobile Van for carrying medicines alongwith a doctor and other essential Para-medical staff, to the site of crisis.

(**Action: SMO)**

(2) Line of treatment to be decided by attending Doctors, such as Indoor/Outdoor/Under observation etc.

(Action : All Doctors)

(3) Cases will be attended depending upon the gravity of injury/condition of case, i.e. very serious, stable.

(Action : All Doctors)

(4) To ensure supply of adequate medicines and any other items.

(Action : SMO)

(5) Dead bodies to be shifted to Govt. Hospital, Rambaug promptly for identification, disposal, issue of death certificate etc.

(Action: Mamlatdar/PSI/Medical Supdt., Rambaug Hospital/PAtoCMO)

(6) If needed be, liaison with local Medical Practitioners, Local Hospitals, etc..

(Action: **P. A. to CMO.)**

(7) If need be, to arrange for outside ambulance, in consultation with FA&CAO to whom details have been submitted earlier.

(Action: P. A. to CMO.)
Transfer of serious patients to Govt. Hospital, Bhuj/ Rajkot/ Jamnagar be made but such transfer to be restricted.
(Action: All Docotors on approval by CMO)
(8) To mobilize additional nursing /para-medical staff to cope with additional workload.
(Action: Sr. Dy. CMO)
(9) Re-deployment of Manpower from Gopalpuri Port Hospital to Kandla Hospital and vice versa.
(Action: C.M.O.)

Prevention Of Epidemics
1) Chlorination of drinking water at source.
(Action: Sr.Engr.(P/L)& Estate office In-charge)
2) Mass Survey of residents of Port Colonies at Kandla and adjoining areas.
(Action : Doctor & Volunteers)
3) To get chlorine tablets from DHO-Bhuj and arrange for distribution thereof.
(Action : SMO and Volunteers)
4) To educate residents/public to promote hygienic condition in and around their dwelling place, use boiled water
(Action : Doctor, S.M.O. and Volunteers)
5) To shift cases afflicted by contagious or infectious diseases to Govt. Hospital and notify such cases to the notice of State Authorities.
(Action : Doctor, S.M.O.)
6) To ensure hygienic condition/cleanliness in both hospitals and colony in coordination with concerned staff of respective Estate Office.
(Action : SMO, Doctor with In charges of respective Estate Officers)
7) In Rehabilitation Centre, Medical care will be looked after by Doctors besides supply of Chlorine Tablets.
8) To provide on the spot medical-aid at New/Old Kandla Port colonies.
(Action : Sr. Dy. CMO)
9) Antidotes of all the poisonous gases to be kept ready.
(Action : Sr. Dy. CMO/ Safety Officer)
10) Any further actions depending upon the conditions and restoration in the matter being decided by Administration.
11) Re-deployment on services as mentioned before.
12) In life threatening condition of Staff members - their evacuation.

6.1.6. Finance Department
As soon as the Calamity/Cyclone warning Signal No. 5 is hoisted the Sr. Dy. Director (EDP) should monitor it through Internet and give two hourly printouts to Dy. Conservator, Secretary, Chief Engineer, FA&CAO, Dy. Chairman and Chairman. And Dy. Director (EDP) will monitor the website in the A O Building, Gandhidham.

Designated person along with Sr. Hydraulic Surveyor will monitor the weather report through website at Kandla and Designated persons, JSA (Met) will assist and send the daily bulletin to Harbour Master, Traffic Manager, Chief Mechanical Engineer, Executive Engineer (Harbour) and Senior Commandant, CISF.

All Head of Departments would make a judicious assessment regarding the requirement of funds by them to meet with the different exigencies, which they may have to handle on account of the Cyclone/Calamity situation. The Head of Departments would inform the FA&CAO on telephone or in writing or through a Messenger regarding the requirement of advances. The FA&CAO in turn would examine the advances sought by the Head of Departments and sanction the advances early without any further delay. The FA&CAO would keep the Chairman and Dy. Chairman informed about the amount released by him and seek approval.

6.1.7. Mechanical Engineering Department

Chief Mechanical Engineer I/C , XEN (E) shall ensure that all Generator Sets are properly functioning at A.O. Building, Seva Sadan-III, P&C Building, Hospitals, and Guest House. They will ensure quick restoration of Power supply arrangements by keeping close liaison with the officials of Pachim Gujarat Vija Co. Ltd. They will report to the Chairman / Dy. Chairman every day.

After the warning of Cyclone or any other Natural Calamity is issued at the Port, Chief Mechanical Engineer shall ensure immediately that the cranes are secured and properly locked as per procedure and report submitted to the Chairman/Deputy Chairman after the operation of the Action Plan.

The responsibility of evacuating all concerned Mechanical & Electrical workers from port premises rests with Chief Mechanical Engineer with the assistance of respective Executive Engineers.
The maintenance of major nature and fire pumps operated by Fire-Cum-Safety-Officer will be attended by Superintending Engineer (Mech).
XEN (M)/(DD) and AE(FC) shall ensure that the Steel Floating Dry Dock and Electric Wharf Cranes at the maintenance jetty are properly secured as per the procedure and compliance reported to the Chief Mechanical Engineer i/c immediately. XEN (M)/(DD) shall monitor the safety of Steel Floating Dry Dock.

- Marine Engineer/Engineer Incharge should be available in emergency cell and remain in constant touch with Chief Mechanical Engineer I/C / Signal Station and Assistant Engineers posted on Shipping Tugs.
- All Assistant Engineers (D/T & F/C) should be available on operational tugs irrespective of their duties. They should keep main engines and associated equipment in readiness all the times.

- Assistant Engineers posted in tugs Kalinga, Heera, Jyestha and Kritika should contact M E Gr. I/ Engineer In-charge for all technical & personal problems.
- Assistant Engineer (F/C) will be responsible for timely supply of food packets and drinking water to officers and staff of tugs.
- Executive Engineer (Mech.) will be responsible for Securing all ELL AND HMCs at Cargo Jetty. He may, if need be inform about requirement of advance and to draw accordingly SE (M)/XEN (M). He will be responsible to run 2 X 1000 KVA Generator Sets at Cargo Jetty Area in case of Power failure and also maintain additional Generator sets required

at Kandla/Gopalpuri and Attending work of maintenance of major nature and breakdown.

- XEN (M) and AEN (Mech) will be responsible for timely supply of Drinking Water/Food Packets to the staff of Mechanical Engineering Department during operation of the action plan.
- AXEN (Mech.) will be responsible to attend breakdown of Fire Fighting Pumps. AE (M) will be responsible to attend break down/manning/utilisation of DG Sets of 2 X 1000 KVA at Kandla.
- Steel Floating Dry Dock and one Electric Wharf Crane at maintenance jetty are to be properly secured by Executive Engineer (Dry Dock) with help of his team mentioned below, as per prescribed procedure and concerned officers shall constantly monitor the safety of the Steel Floating Dry Dock and Electric Wharf Cranes in side Bunder Area. He shall ensure all the required wedges, wire ropes, shackles etc.. and other fixtures as required to be kept ready so that the same can be fixed without loss of time & to check the site for the requirement, from time to time.

Action: XEN (D/D) and Asstt. Engineer (FC) will lead the team of AEN (Mech) and will be in contact with Executive Engineer (Mech) and Chief Mechanical Engineer/Deputy Chief Mechanical Engineer.

- All the V.H.F. and other Wireless Sets, and other required equipments of VHF Unit, including the sets kept at S.F.D.D. should be kept in perfectly working condition and the batteries are fully charged and to be kept in ready position and staff will remain in touch with control room till the emergency is called off to attend all communication equipments. It shall be responsibility of the Control Room Staff to ensure that timely information is passed on and timely and proper monitoring is done.

Action: Assistant Engineer (F/C) and Technician will render all possible assistance to Ex. Engineer(DD) during the course of calamity period.

- All the vehicles belonging to the Mechanical Engineering Department to be kept in perfectly working condition and sufficient stock of fuel and lubricant to be kept in ready position.

Action: Assistant Executive Engineer (Mech.) with the help of Assistant Engineer (M).

- During the course of calamity all the vehicles lying inside the premises of Auto Workshop should be kept in the parking ways meant for parking the individual vehicles and inside the shed. No vehicle is to be parked under any tree or under any such structure where there is possibility of falling such structure or tree over the vehicles. All the concerned drivers to be informed accordingly well advance to avoid such possible damage to vehicles and to remain present at duty place in consultation, Vehicle –in-charge of Pipeline Division.

Action: Assistant Executive Engineer (Mech) with the help of A E (M).

- Record of attendance of the employees during these periods to be kept ready and to be fed to the Control Room or any official responsible for such duties.

Action: XEN (D/D), Assistant Engineer (Mech) with the help of Head Clerk (Mechanical Division) and Divisional Accountant for all the remaining sections.

- Assistant Engineer (F/C) to remain in Control Room at New Kandla to attend the communications with help of Technician.
- M E Gr. II is to be associated with S E (M) to constantly monitor the safety of the Port Crafts.
- The heave up water barge "BHIMSEN" is shifted to Bunder Area and secured properly in Naval Aid Salvage Section and Floating Craft. Absent/Present report of the above staff will be reported to the concerned section immediately on starting of each shift and maintenance of major and breakdown etc…

Action: A E (Mech)

- All the telephones and intercom telephones and their allied communication systems and equipments should be kept in perfect working condition to ensure that timely information is passed on and timely and proper monitoring done till the emergency is called off. He will ensure quick restoration of telephones by keeping close liaison with the concerned personnel. He will report to the Executive Engineer (Electrical) every day and to carry out all work assigned by the Executive Engineer (E) in case of emergency.

Action: Assistant Executive Engineer (E).

- Executive Engineer (E) shall be responsible for liaison with the PGVCL for receiving power in case of power failure. In the event of disturbance in the distribution network necessary arrangements shall be made by them as per the requirement depending upon the situation.
- If any additional Generator Sets are required at Kandla or Gopalpuri, the following officers shall be contacted who shall immediately hire/procure or provide in whatever manner the DG Sets giving preference to the operational area.

1	XEN (D/D)
2	XEN (Elect.)
3	AXEN (Elect.)
4	AXEN (E)

The above officers shall also be responsible for operation and maintenance of Generators provided at various locations and submit daily report to the Chief Mechanical Engineer I/C about the working of Generators.
Additional requirements, if any, will be assessed by S E (E) and the same shall be submitted to Chief Mechanical Engineer I/C for hiring, well in advance so that XEN(E) can take necessary action for hiring, installation etc…

- After the warning of Cyclone or any other Natural Calamity is issued at the Port, Chief Mechanical Engineer shall ensure immediately that the cranes are secured and properly locked as per procedure and report submitted to the Chairman/Deputy Chairman after the operation of the Action Plan.

The following officers shall constantly monitor the safety of the cranes;

1	S E (E)
2	XEN (Mech.)

The responsibility of evacuating all concerned Mechanical/Electrical workers rests with Chief Mechanical Engineer I/C with the assistance of respective Executive Engineers.
The maintenance of major nature and fire pumps operated by Fire-Cum-Safety-Officer will be attended by Mr. B. J. Solanki, Superintending Engineer (Mech).
The following staffs have to report for duty even if it is a public holiday to actively participate in the Action Plan and they shall be responsible for record keeping of attendance, preparation, and submission of reports etc.

1	Office Superintendent
2	Divisional Accountant
3	Sr. Stenographer
4	Junior Clerk

6.1.8. Civil Engineering Department

Based on the practical experience and seriousness of the two Natural Calamities - the devastating Cyclone in 9th June, 1998 and the Earthquake in 26th January, 2001, the following Action Plan for Civil Engineering Department, is proposed to be implemented.
As soon as the message on anticipated Cyclone/Natural Calamity is received from concerned authorities, the same will be intimated to all the concerned under the Civil Engineering Department and will be instructed to be alert. All the staff members/officers should note that they will come into action on their own as soon as the Warning is issued without waiting for any further instructions. Failure on the part of any employee/officer to carry out the earmarked Action Plan shall attract severe consequences.
Immediately after receiving the information on the Natural Calamity, nobody will be granted any kind of leave and the persons who are already on leave will be called back after canceling the leave.
Absent/Present report of the staff and the officers will be reported to the concerned Section immediately on starting of each shift for this purpose, Sectional Heads of all Divisions will be responsible to report the matter to P. A. to Chief Engineer for compilation of the information and onward transmission to General Administration Department.
The Engineering Department will assist in shifting of the persons to safe places in the event of such action is required.
Water Supply arrangements will be made to various colonies/sites of work/camps where the workers are shifted, etc. The ***Superintending Engineer (Pipeline)*** will be the incharge for supply of water to various destinations.
Sufficient number of vehicles will be arranged for transportation workers/staff/officers. This arrangement will also be made by the ***Sr. Deputy Secretary.***
The Engineering Department will ensure that all Road blockades are got cleared as also blockades caused in Port Quarters due to failing of trees, walls, shed, etc. are got removed immediately. Further, it will be ensured that the colonies are got cleared and whatever logging of water is found is pumped out and disinfected. A report will also be submitted to Chairman/Dy. Chairman.

The following officers are to be contacted in the event of any such problems:

Area	***Designation***

New Kandla Gopalpuri	***S.E.(Road)*** ***XEN (TD)***
Old Kandla	***S.E. (Pipe Line)***
Cargo Jetty	***Executive Engineer (Harbour)***

List Of Duty Roster Of Civil Engineering Department

Designation
Chief Engr.
Dy. Chief Engineer
Supdt. Engr.(C)
PA To CE (T)
P.A. To CE
Exe. Engr (TD)
Exe. Engr. (H)

Periodical Meetings will be conducted with the Executive Engineer's/ DSOs/Staff Member to assess the progress made during the day and to instruct further course of action in the matter.

Generators Sets

Generators of following capacities have been installed at Kandla, Gandhidham, and Gopalpuri to supply power to various installations in case of power failure:

1) Cargo Jetty Area - 2 Nos of 1000 KVA EACH:

These Generators can cater power inside Cargo Jetty Area, Seva Sadan-III, Nirman Building, and Old C.D.C. Building restricted up to 2000 KVA.

2) Kandla Hospital - 25 KVA
3) A O Building - 200 KVA
4) Gopalpuri Hospital - 45 KVA
5) Guest House - 25 KVA
6) Old Kandla Fire Brigade - 5 KVA

In addition to above, small portable generators have been provided in the following locations to cater power need in case of emergency: -

1) Signal Station in Seva Sadan - III - 5 KVA
2) Floating Craft Section - 1.5 KVA
3) ATM's Office inside Cargo Jetty - 1.5 KVA
4) Control Room in A. O. Building - 2 KVA

In addition to above, if any additional Generator Sets are required at Kandla or Gopalpuri, the following officers shall be contacted who shall immediately hire/procure or provide in whatever manner the D.G. Sets giving preference to the operational area.

(i) Executive Engineer (Electrical)
(ii) Executive Engineer (Mechanical)
(iii) Asstt. Executive Engineer (Electrical)

The above officers shall also be responsible for operation and maintenance of Generators provided at various locations and submit daily report to the Chief Mechanical Engineer I/C about the working of Generators.

Additional requirement will be assessed to Chief Mechanical Engineer I/C for approval. Necessary Fuel (POL) shall be procured and stored in advance by the concerned officials of Mechanical Engineering Departments.

6.1.9. Press Management

A Cell shall be created and headed by TP&PRO. The following staff member shall remain in the Press Cell.
(1) TP&PRO
(2) PRA
(3) Sr. Clerk (PR Section)
(4) Photographer

The Press Room shall come into operation immediately in the chamber of TP & PRO. The Press Cell shall issue Daily Bulletin at 2:00pm and 07:00 pm every day. The photographer should collect photos and develop every day, which will depict the situation as well as the work done by the Officers. Sr. Clerk (PR Section) will accompany the photographer and bring the photos to the Cell every evening. He shall also bring daily Paper cuttings of reports. All Media people, Press, Journalists, etc. shall be attended to by the PRO (Spoke person).
PR Section will hire videographers and keep them standby for videography. They will accompany Chairman and Dy. Chairman also. One videographer will be placed at Kandla and another at Gandhidham. Similarly, PR section will also ensure to keep one additional photographer at Kandla for taking photographs and these people should be hired as soon as Signal No. 5 is hoisted.

Secretary will be the overall In-charge of Liaison work with the Central / State Government officials / IMD, Ahmedabad / Pune Laboratory / Delhi Laboratory in which he can take the help of Dy. Secretary, Assistant Secretary and report the matter to Chairman / Dy. Chairman immediately. They shall remain present in all the meetings relating to the Action Plan and report the proceedings of the Meeting to the Chairman/Dy. Chairman. They shall also communicate the action to be taken to the concerned Head of Departments.

7. PERIODICAL REPORTING BY ALL HODS

All Head of Departments shall have to send Action Taken Report to the Secretary / Control Rooms in writing by Fax or through telephone with regard to the action taken by them as per the Action Plan. If the report is not received from the Head of Departments, the Officer In-charge, Control Room shall obtain the information, compile it and submit the same to the Chairman / Dy. Chairman on 12 hourly basis i.e. twice a day.

8. ASSEMBLY POINTS & ESCAPE ROUTES

There are two main escape routes from the port side i.e. by land:

Kharirohar road.
Main NH 8 i.e. leading to Gandhidham.

- The sea route would be the Kandla creek and other creeks i.e. Phang creek, Sara Creek or Rohar Creek or Nakti Creek connecting the same.
- Air evacuation can be undertaken by Helicopter or from Kandla Aerodrome.
- KPT to prepare list of all the personnel in their port colony and have it posted at the assembly area.
- The assembly points in the Cargo Dock for the workers in the area between the North Gate and the Berth No.3 would be the area opposite Passenger Jetty No.2, behind Marine Bhavan.
- The assembly point for the port township (Gopalpuri) could be Sports Complex and Kandla Colony could be Football Ground.
- The assembly point for each of the adjoining berth would be on the road i.e. used for moving between Godown No. 1 & 2.
- However, for the workers working in the godowns as mentioned above the assembly point would be the central road.
- The workers working in open storage the assembly point would be the area at West Gate No. 2.
- The Back-up Area of 60 hectares area, the staging area would be used as CDC Building.
- The Back-up Area of 40 hectares area, the staging area would be used at West Gate No.II.
- The Back-up Area of 34 hectares area, the staging area would be used at West Gate No.III.
- Computer should be installed in the rooms connected to the time office for a list of people inside the port and the same should be made available at CDC Building (Viewers Gallery) (Control Room)
- Assembly Point for 11 & 16 cargo berths in front of Main Gate.
- The PA system at the assembly area should be used to announce “do not carry any luggage or belongings just carry as much is bare essential in clothing”.
- The point of departure from the Dry cargo area would be West Gate 1,2,3,13, 14 ,15 & 16 as well as North Gate and in an extreme case one would have to use the jetty being used by the pilots for evacuation by sea.

9. CYCLONES

Cyclones are caused by atmospheric disturbances around a low-pressure area distinguished by swift and often destructive air circulation. Cyclones are usually accompanied by violent storms and bad weather. The air circulates inward in an anticlockwise direction in the Northern hemisphere and clockwise in the Southern hemisphere.

It causes damage to port infrastructures, passenger waiting halls, ships, jetties and launches/boats etc.

Cyclones are classified by:

- Strength of associated winds,
- Storm surges
- Exceptional rainfall occurrences.

10. INDIAN METEOROLOGICAL DEPARTMENT CRITERIA

The criteria below have been formulated by the Indian Meteorological Department (IMD), which classifies the low pressure systems in the Bay of Bengal and the Arabian Sea on the basis of capacity to damage, which is adopted by the WMO.

10.1. Criterion of classification of type of Disturbance

Type of Disturbances	Wind Speed km/hr	Wind Speed Knots
Low Pressure	Less than 31	Less than 17
Depression	31-49	17-27
Deep Depression	49-61	27-33
Cyclonic Storm	61-88	33-47
Severe Cyclonic Storm	88-117	47-63
Super Cyclone	More than 221	More than 120

10.2. Cyclone categories

Cyclones are classified into five different levels on the basis of wind speed. They are further divided into the following categories according to their capacity to cause damage:

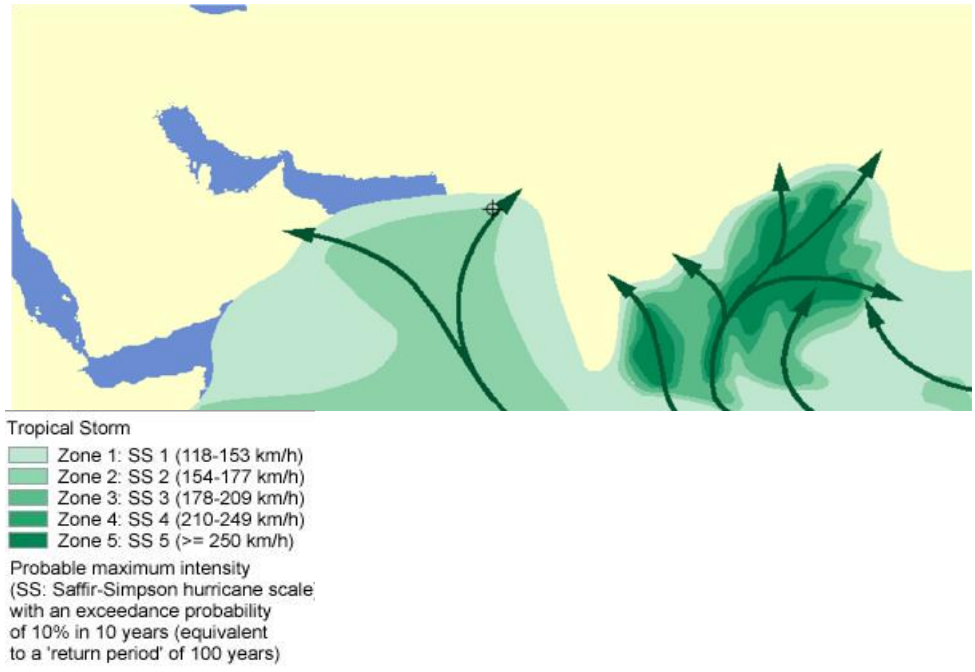
Category of Cyclone

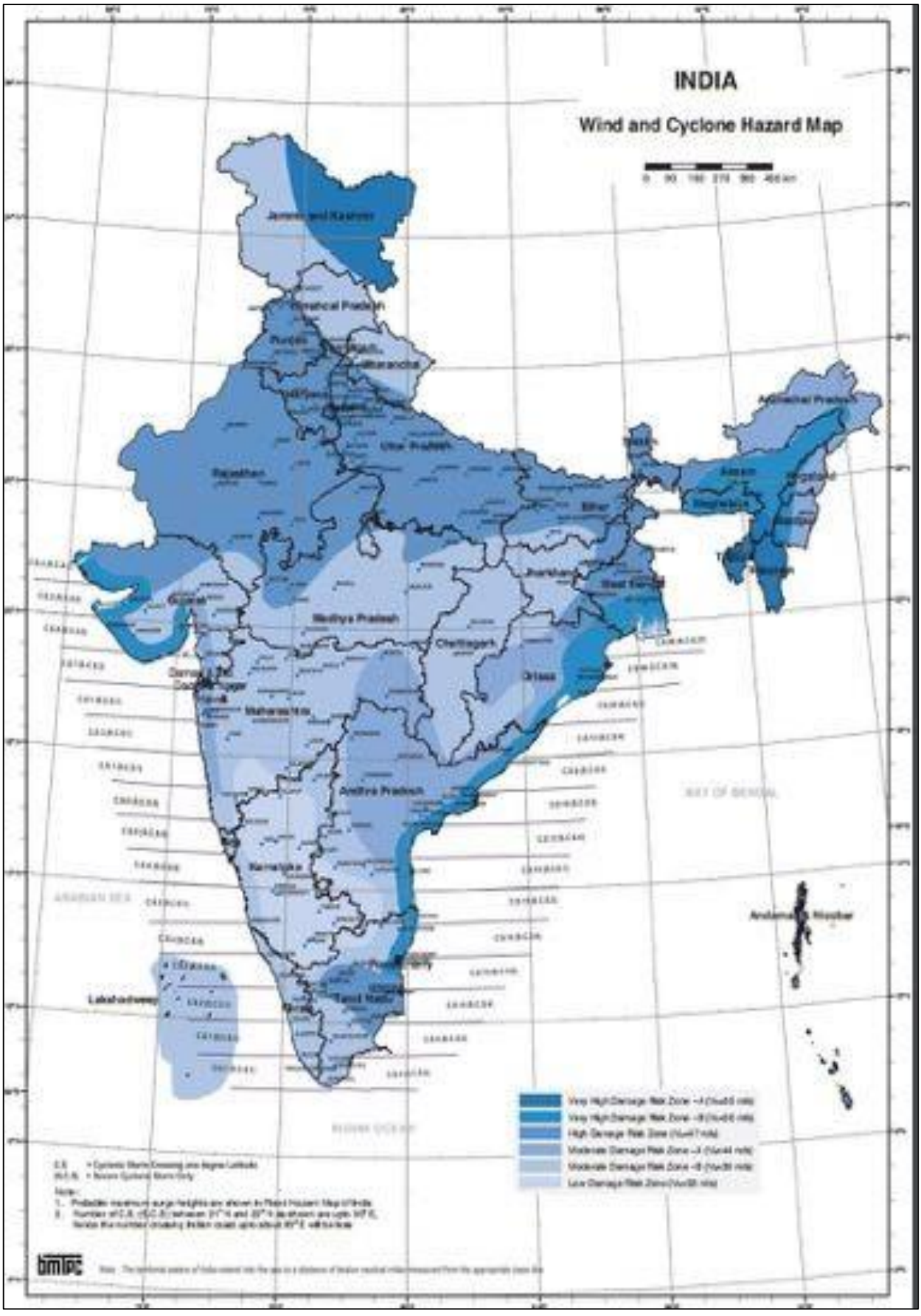
Cyclone Category	Wind Speed in km/h	Damage Capacity
01	120-150	Minimal
02	150-180	Moderate

03	180-210	Extensive
04	210-250	Extreme
05	250 and above	Catastrophic

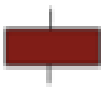
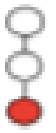
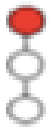
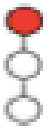
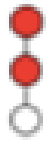
Even though Kandla is within the cyclone area of storms originating in the Arabian Sea and those that enter across the Indian Peninsula from the Bay of Bengal, cyclones are not as severe or frequent as in the Bay of Bengal. Historically, there has been major cyclone in the region in the year 1998.

Hence the exposure to this peril is High.





Wind and Cyclone Hazard Map

PORT WARNING SIGNALS					
Signal/ Flag No.		NAME	Symbols		Description
			Day	Night	
1.	Distant bad weather	DC1			Depression far at sea. Port NOT affected.
2.		DW2			Cyclone for at sea. Warning for vessels leaving port.
3.	Local bad weather	LC3			Port Threatened by local bad weather like squally winds.
4.		LW4			Cyclone at sea. Likely to affect the port later.
5.	Danger	D5			Cyclone likely to cross coast keeping port to its left
6.		D6			Cyclone likely to cross coast keeping port to its right.
7.		D7			Cyclone likely to cross coast over/near to the port.
8.	Great danger	GD8			Severe cyclone to cross coast keeping port to its left
9.		GD9			Severe cyclone to cross coast keeping port to its right
10.		GD10			Severe cyclone to cross over /near to the port.
11.		XI			Communication failed with cyclone warning office.

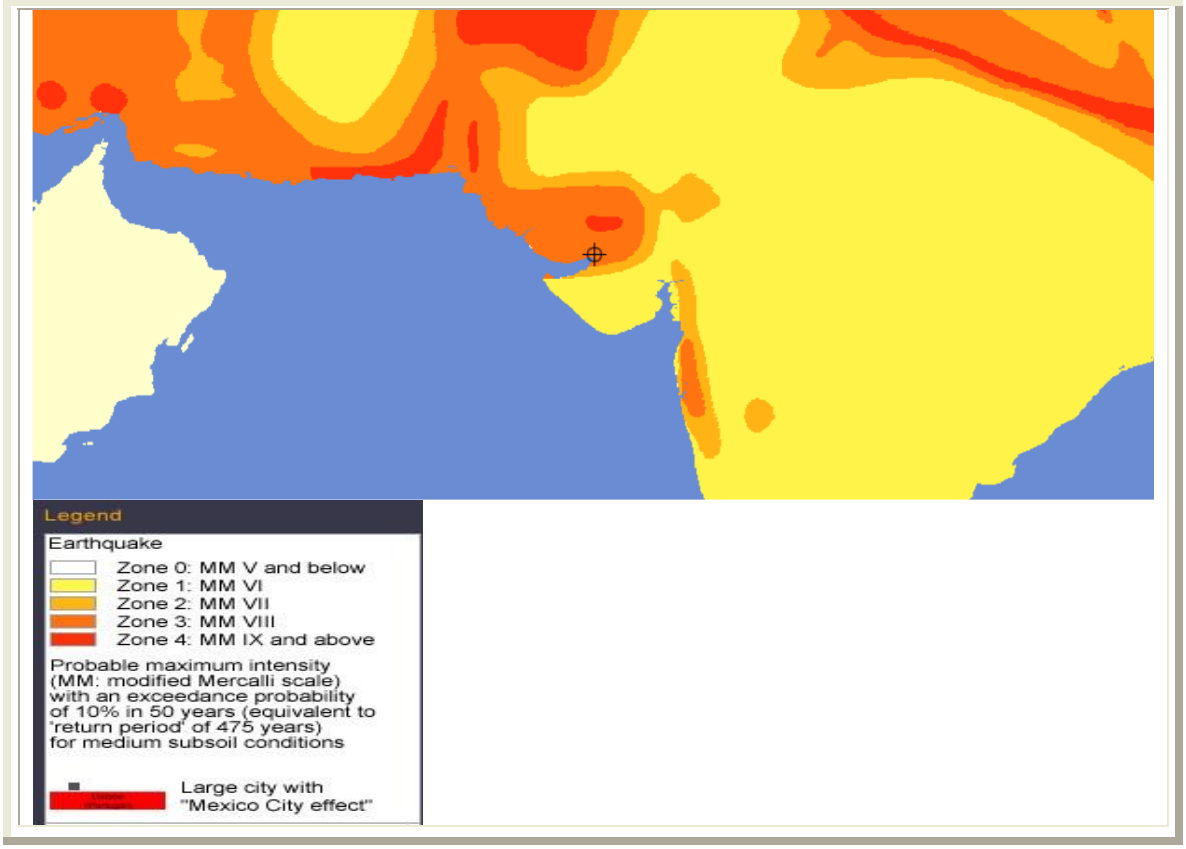
10.3 Earthquake

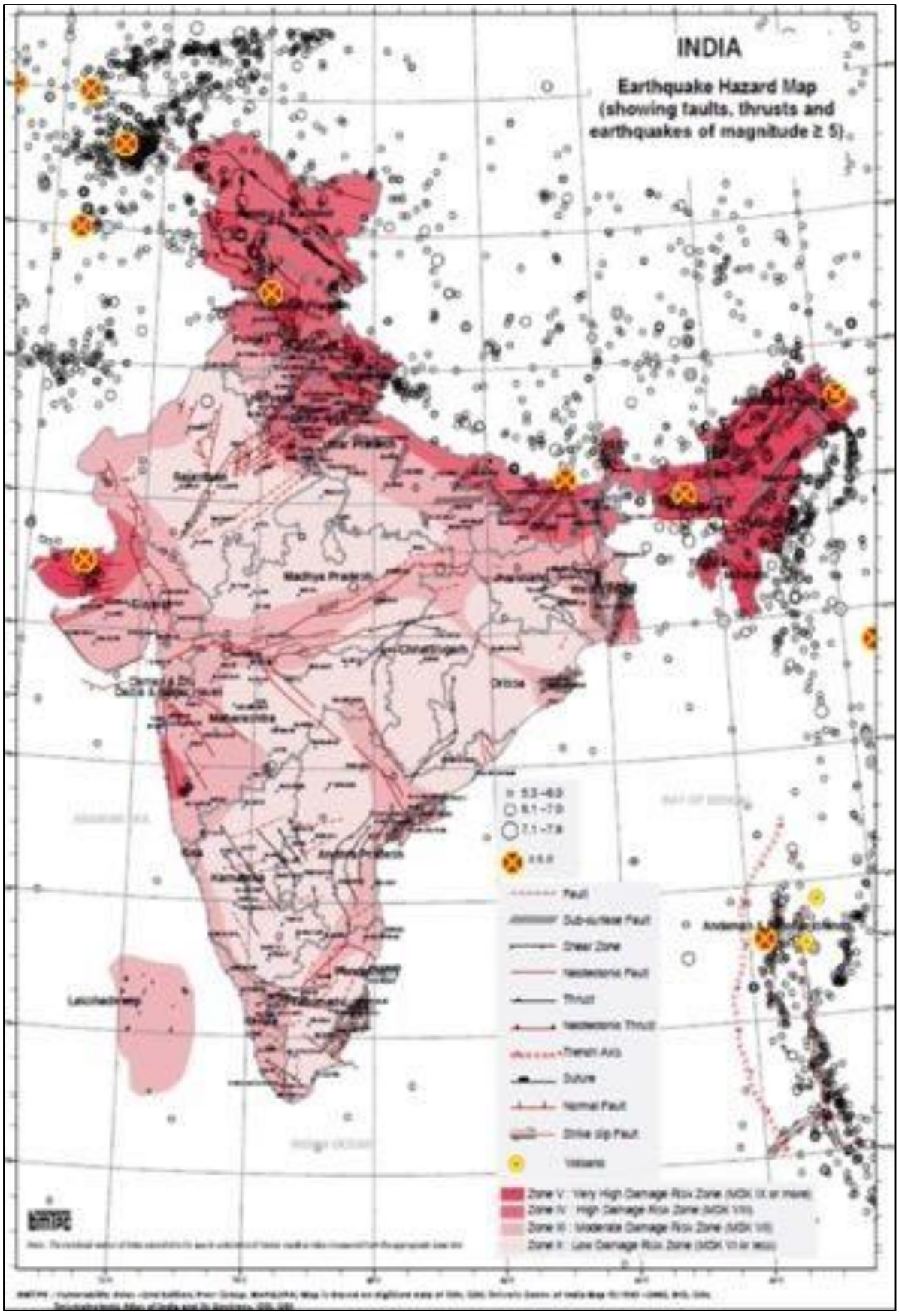
Gandhidham region comes under the Zone III of the earthquake classification as per Indian Standards which is relatively high. However, seismic experts have opined that the Indian land mass is being constantly compressed between the sea and Himalayas and thus the developed stresses are being released in the form of earthquakes in the least expected areas.

The occurrence of an earthquake in a populated area may cause numerous casualties and injuries as well as extensive damage to property.

Classification of Earthquakes

Class	Magnitude
Great	8 or more
Major	7-7.9
Strong	6-6.9
Moderate	5-5.9
Light	4-4.9
Minor	3-3.9





Earthquake Hazard Map

10.4. Tsunami

Gujarat is prone to tsunami risk due to its long coastline and probability of occurrence of near and offshore submarine earthquakes in the Arabian Sea. Makran Subduction Zone (MSZ) - South West of Karachi is an active fault area which may cause a high magnitude earthquake under the sea leading to a tsunami. In past, Kandla coast was hit by a Tsunami of 12 mtrs height in 1945, due to an earthquake in the Makran fault line. Tsunami prone areas in the State include coastal villages of Kutch, Jamnagar, Rajkot, Porbandar, Bhavnagar, Anand, Ahmedabad, Bharuch, Surat, Navsari and Valsad districts.

There is a possibility of surface water accumulation and ingress into buildings and equipment. In addition the above severe hazard conditions can create significant personnel hazards loss of power.

It damages/ collapses port infrastructures, passengers jetties & waiting halls, ships, launches/boats etc.

The Government of India has put in place an Early Warning System for mitigation of such oceanogenic disasters under the control of Indian National Center for Ocean Information Services (INCOIS), Hyderabad, that enables reception of real-time data from sensors, analysis of the data, generation and dissemination of tsunami advisories following a standard operating procedure.

10.5. Floods

The monsoon rain and sometimes cyclones cause flood in the rivers of the state which may create scouring of foundation of water front structures such as jetties, approach road.

Floods are a recurrent phenomenon, which cause huge loss of lives and damage to livelihood systems, property, infrastructure and public utilities. It is a cause for concern that flood related damages show an increasing trend.

11. FIRE / EXPLOSION/TOXICITY

These can be caused due to loss of containment of hazardous cargo (LPG, Naphtha, etc.) handled in the Port. Fire incidents can also occur in the admin building, craft etc. This type of hazard can be due to both Man-Made and Natural Disasters.
Risk Assessment has been carried out for the various scenarios.

12. VARIOUS HAZARDOUS SCENARIOS (INCLUDING SPILLS & POLLUTION)

Gas leak and or Fire
Chemical leak and or Fire
Toxic substance leak and or Fire
Grounding
Collision

Fire on vessel
Fire in port
Natural disasters

13. OIL SPILL CONTINGENCY

Oil spill from terminal, operational spills and in the event of Collision or Grounding accidents, the oil spill response will be as per DPA Oil Spill Contingency Plan (OSCP) and Risk Assessment.

14. CIVIL DISTURBANCE

1. War
2. Terrorist attack

15. CONSEQUENCE & FREQUENCY ASSESSMENT

The above identified incidents at DPA have the potential to cause damage.
Assessment of consequence is basis considering the effect of potential accidents on -

- Life (e.g. personal injury, fatality, etc),
- Property damage (e.g. damage to port, damage to ship),
- Environment (Oil pollution, Air pollution, soil contamination etc),
- Port Business (reputation, financial loss, etc).

Consequence Categorization

Scale	People	Property	Environment	Port Business
C0	No injury	No	Negligible environmental Negligible damage impact	
C1	Minor (Single slight injury)	Minor damage	Minor Tier 1 oil spill, Minimal environmental harm	Minor
C2	Slight (multiple minor or single major injury)	Local damage	Moderate Tier 2 (limited outside assistance) oil spill or environmental amenity impaired, Moderate environmental impact	Moderate Bad local publicity or short term loss of dues, revenue, etc.

C3	Serious (multiple major injuries or single fatality)	Major damage	Serious Tier 2 (regional assistance) oil spill, localized flooding or multiple amenities impaired, Long term or serious	Serious Bad widespread publicity, temporary port closure or prolonged
			environmental damage	restriction of navigation
C4	Major (More than one fatality)	Total loss	Major Tier 3 (national assistance) oil spill, widespread flooding or extensive damage to amenities, Major environmental harm. e.g. major pollution incident causing significant damage or potential to health or the environment	Major Port closes, navigation seriously disrupted for more than 1-2 days. Long term loss of trade

Table 2.21: Frequency Matrix

Category	Descriptive term	Definition
F1	Frequent	An event occurring once a week to once an operating year
F2	Likely	An event occurring once a year to once every 10 operating years
F3	Remote	An event occurring once every 10 operating years to once in 100 operating years
F4	Unlikely	An event occurring less than once in 100 operating years
F5	Rare	Considered to occur less than once in 1000 operating years

16. HAZARD ASSESSMENT

Identified hazards have been assessed considering the history of incidents, vulnerability, risk assessment.

17. RISK ESTIMATION

17.1. Risk Assessment Matrix

For each identified hazard, risk quantification is done based on a scale of 1 (low risk) to 10 (high risk) as described in the Table 2.22 as below:

Risk Assessment Matrix

Consequence	C4	5	6	7	8	10
	C3	4	5	6	7	9
	C2	3	3	4	6	8
	C1	1	2	2	3	6
	C0	0	0	0	0	0
Frequency		F5	F4	F3	F2	F1

Where: -

0 & 1 - Negligible Risk
2 & 3 - Low Risk
4, & 5 - Assessed to be in ALARP region
6 - Heightened Risk
7, 8 & 9 - Significant Risk
10- High Risk

17.2. Risk Ranking:

The risk score of each of the four categories (People, Property, Environment and Business) is analyzed to obtain four indices for each hazardous scenario as follows:

a) The average risk value of the four categories in the most likely set.
b) The average risk value of the four categories in the worst credible set.
c) The maximum risk value of the four categories in the most likely set.
d) The maximum risk value of the four categories in the worst credible set.

The hazardous scenarios list is then sorted in order of the aggregate of the four indices to produce an Assessed Risk Ranking List, in descending order, with the highest risk scenario prioritized at the top.

Risk ranking for DPA for identified hazards

Scenario No.	Rank No.	Area	Category	Hazard Detail	Assessed Risk							
					Most Credible				Worst Credible			
					People	Property	Environment	Business	People	Property	Environment	Business
1,2	1	4	**Leakage-Fire/ Explosion**	Fire /Explosion due to LPG/POL/ Chemical leakage	7	7	3	3	7	7	6	6
3	2	5	**Leakage-Fire/ Explosion**	Fire/explosion on board ship and ashore in the vicinity due to leakage at Jetty during loading/unloading operation	7	7	3	3	7	7	6	6
10.7	3	3	**Collision**	Collision passing vessel in outer harbour (un-regulated traffic)	3	6	0	3	7	6	4	6
14, 15	4	8	**Civil Disturbance**	Fire/Explosion (War and Terrorism, Bomb Threat)	5	5	5	6	5	5	5	5
16.1	5	18	**Natural Disaster**	Cyclone	7	6	3	7	6	6	3	6
16.2	6	4 -	**Natural Disaster**	Flood	4	4	2	6	6	5	3	6
		8										
16.3	7	18	**Natural Disaster**	Tsunami	6	6	2	6	5	5	3	5
4	8	4	**Toxic**	Propylene Oxide leak during operation on Ship or Ashore	6	0	3	3	7	2	2	6
6	9	6	**Fire/Leak**	Crane Accidents (Container drop/crane fall) at Container terminals	6	6	0	3	7	2	2	6
10.11	10	1/2/3	**Fire**	Fire on vessel in navigational channel anchorage/berth	6	3	0	3	6	6	3	6
12	11	8	**Fire/Explosion/Leakage**	Emergency/Disaster in tank farm	6	3	0	3	6	5	3	6

16.4	12	48	**Natural Disaster**	Earthquake	**4**	**4**	**0**	**6**	**5**	**5**	**3**	**5**
10.2	13	2	**Collision**	Collision between two vessels in navigational channel (Regulated)	**4**	**4**	**2**	**4**	**6**	**6**	**3**	**6**
13	14	7	**Fire** MLT	Fire in the Admin building/ Control Room/ **7** room/Port Signal Station	**3**	**3**	**0**	**3**	**7**	**6**	**0**	
	15	1	10.3 Contact/ assisted Allision	Tanker/Container/BC tug berthing **3** Contact/Allision with jetty	**3**	**6**	**0**	**3**	**2**	**5**	**2**	
7	16	3	**Fire**	Fire in Container on container vessel at Anchorage	**4**	**4**	**2**	**2**	**5**	**5**	**3**	**5**
11	17	2	**Blockage of Navigational Channel**	Blockage of Navigational Channel due to Grounding/Sinking of vessel (Wreckage).	**0**	**2**	**0**	**4**	**5**	**5**	**3**	**6**
10.1	18	2	**Collision**	Collision with small craft Tanker/Container/BC in harbour approach	**3**	**3**	**0**	**0**	**6**	**7**	**2**	**2**
10.10	19	2	**Collision**	Collision with channel marking buoys	**0**	**3**	**0**	**3**	**5**	**6**	**5**	**5**
10.9	20	1	**Contact**	Contact During operations in turning circle (large vessels)	**0**	**3**	**0**	**3**	**4**	**6**	**4**	**6**
9	21	1	**Fire**	Fire in Engine room of floating craft	**3**	**3**	**0**	**0**	**6**	**6**	**2**	**2**
10.6	22	2	**Collision**	Collision with dredger within the navigational channel	**0**	**2**	**0**	**2**	**6**	**6**	**3**	**6**
10.4	23	2	**Grounding**	Grounding Tanker/Container/BC transiting in channel	**0**	**4**	**0**	**0**	**2**	**5**	**5**	**5**
5	24	4	**Corrosion**	Acetic acid leakage at MLT	**3**	**3**	**3**	**3**	**4**	**4**	**4**	**4**
10.8	25	3	**Collision**	Collision Anchor dragging	**2**	**2**	**0**	**2**	**5**	**5**	**5**	**5**
8	26	1,	**Fall**	Containers falling into water in case of vessel motion due	**2**	**2**	**0**	**2**	**3**	**5**	**2**	**5**
		2, 3		to extreme weather, vessel collision or grounding.								
10.5	27	2	**Grounding**	Grounding During pilotage of deep draft vessel	**0**	**2**	**0**	**0**	**3**	**5**	**3**	**5**

18. PREVENTION & MITIGATION

18.1. MONITORING OF HAZARDS AND THREATS

Control strategy

Various control strategies can be as follows:

1. Compliance with Legislative and Statutory obligations,
2. Oil Spill Contingency Plan (OSCP),
3. Disaster Management Plan (DMP),
4. Standard Operating Procedures (SOPs),
5. Incident Action Plan,
6. Training and awareness,
7. Drills and Exercise,
8. Incident report and analysis,
9. Safety committee meetings,
10. Periodic Maintenance and Inspections,
11. Security Plan,
12. Ensuring that operators have sufficient information and training on safe industry practices including
    a. Storage and handling of dangerous goods,
    b. OHS compliance,
    c. Management accountability,
13. Speed limits for vehicles,
14. Regular testing of plans, procedures and personnel.

18.2. Control of hazards

- Following Standard Operating Procedures,
- Safety briefings,
- Equipment surveys and inspections,
- CCTV coverage,
- Permits to work/operate,
- Aids to Navigation,
- Proper communication,
- Oil/Chemical Spill response/combat equipment,
- Firefighting equipment,
- Use of appropriate Personal Protective Equipment.

18.3. Monitoring of hazards

For control of vessel movements within the port, two-way communication facility between port personnel ashore and vessels using the harbour is in place.

Also, a number of other methods are used to monitor the movement of traffic within port areas including:

- Visual observation,
- Basic surveillance,
- VTS assisted automatic tracking,
- Closed circuit television (CCTV),

- Automatic Identification System (AIS).

A person managing traffic movements in a port has the option to utilize the following means to communicate with vessels:

- Visual signaling equipment (signal lights, shapes, etc.),
- Sound signals,
- Telephones (fixed and mobile),
- VHF radio,
- Email.

In port, communications links are needed in addition to links provided for communication with calling vessels, e.g.:

- VHF communications with tugs, pilot and other harbour crafts,
- Computer networks, and
- Personal mobile phones.

18.4. PREVENTIVE AND MITIGATION MEASURES

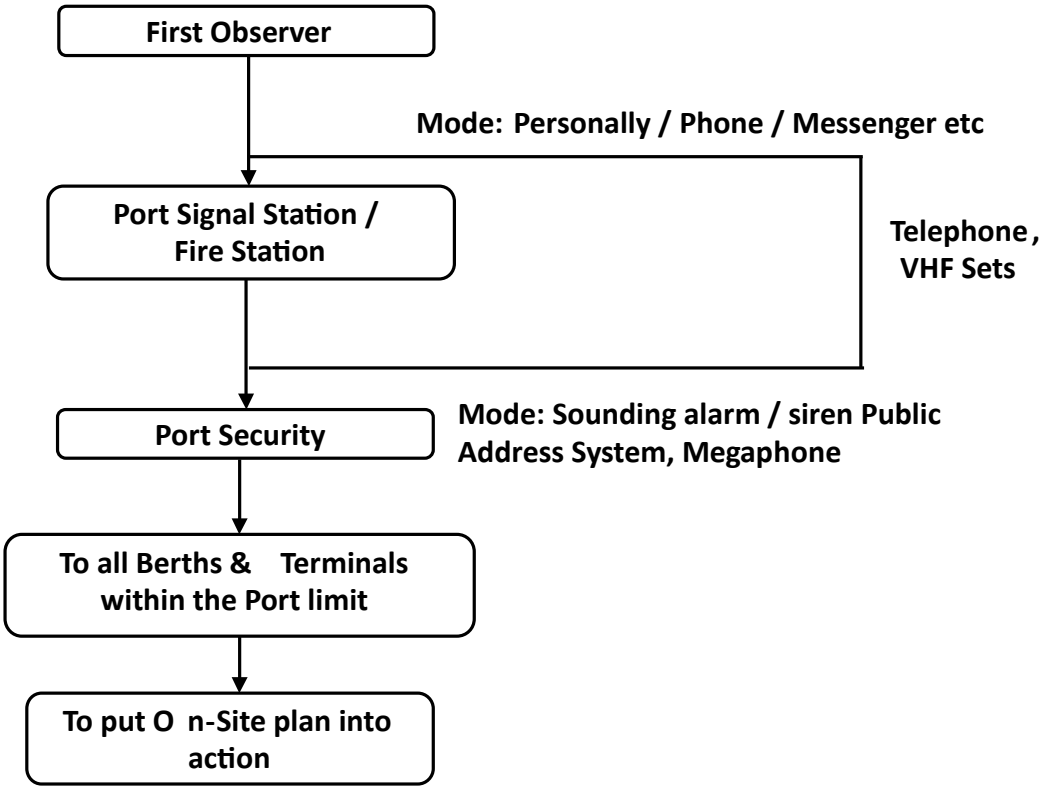
18.4.1. Prevention/ Protection action

Port has a preventive response system for the incidents taking place in the Port premises. Firefighting and oil spill response equipment are located in suitable locations.

18.4.2. Prevention/Protection action include:

- Passage abort procedures (For navigational channel),
- Master/Pilot exchange
- Master to Pilot (The Pilot card),
- Passage plan,
- Patrolling,
- Conduct investigation of the incidents and identify the short-comings
- Warning Signboards,
- Restricted zones.

18.4.3. Prevention/Protection action implementation plan *Following is the typical Prevention/Protection action plan.*



Implementation Plan

The person who observes the emergency first is called as the First Observer. The First Observer, noticing an unusual occurrence like a fire /gas release /collapse of structure etc., should immediately notify the Port Signal Room with available means of communication and also contact the concerned Officer of the area in person.

He would:

1. Raise alarm

2. Call fire station and pass on following information:

   - Introduce himself
   - State briefly the type of emergency
   - Give the location of the incident.

3. Proceed to a safe place. However, he would return to the location of the incident and place himself in a safe area cross-wind to the wind direction and standby to give assistance if he is part of the action group.

After receiving information from the First Observer, the Signal Station would notify all the key personnel of the Port and also direct the security personnel to activate alarm and will subsequently announce on the available means of Public Address System as follows:

- Location of the emergency,
- Type of the emergency,
- Severity of emergency.

19. PREPAREDNESS

19.1. EMERGENCY ACTION CENTRE (EAC)

Emergency Action Centre - Port Signal Station or Chamber of Deputy conservator AO building block or CISF control room or as directed by the Chairman.

19.1.1 Emergency Action Room Equipment

As a general guideline the following equipment should be catered to

- Charts or Maps of areas should be available including a digitized map on the computer,
- Details of terminals storing toxic chemicals and terminals storing flammable chemicals,
- Transportation map depicting transportation route for LPG and chemical tankers by road,
- Map showing sensitive areas,
- Map depicting densely populated areas,
- Emergency lights and torches,
- Computer,
- Fax,
- Printer,
- Telephone,
- Portable PA Sets,
- Walkie talkies / mobile telephone,
- Chemical protective suit,
- Loud hailer,
- VHF sets,
- Binoculars,
- Copy of Disaster Management plan,
- Reference books-chemicals
- Table-seating,
- Chairs,
- Stationery,
- Gas masks with canisters,
- Safety goggles,
- Self-contained breathing apparatus.

19.1.2. MECHANISM FOR ACCESS CONTROL AND ISOLATION OF THE DANGER AREA

1. All gates of the jetties should be guarded,
2. Unauthorized person should not be allowed to the restricted area,
3. Authorized person will be entering the zone with all the necessary PPEs,
4. The area should be cordoned off during operation,
5. Proper signage board and warning should be displayed at the place of the operation,
6. Firefighting facilities and other required resources should be available till the operation is terminated,
7. The restricted areas should be under surveillance at all times.

20. DRILLS & EXERCISES

Emergency drills and integrated exercises have the following objectives. These constitute another important component of emergency preparedness. They refer to the re-enactment, under the assumption of a mock scenario, of the implementation of response actions to be taken during an emergency.

1. To test the adequacy of the effectiveness, timing, and content of the plan and implementing procedures.
2. To ensure that the emergency organization personnel are familiar with their duties and responsibilities by demonstration.
3. Provide hands-on experience with the procedures to be implemented during emergency.
4. Maintain emergency preparedness.

The frequency of the drills should vary depending on the severity of the hazard. However, drills may be conducted and announced at a decided interval Scenarios may be developed accordingly.

1. **Notification exercises**
   - Test communication systems, frequency, Public Warning system

2. **Tabletop exercises**
   - To check availability of participants and check response time

3. **Equipment deployment exercises**
   - Alarm systems to be tested,
   - Frequent tests of firefighting and other response equipment.

4. **Incident management exercises**
   - Simulated emergencies like fire, gas leakage, oil spillage, cyclone and vessel related emergencies like grounding, collusion, leakage, Pollution etc., to be conducted and monitored and feedback to be documented. • Evacuation practice
   - Deployment of Machineries

21. STANDARD OPERATING PROCEDURE HAZARD SPECIFIC

21.1. LPG leakage &/or Fire/Explosion

This plan relates to the Fire/explosion due to LPG leakage during operation on Ship or Ashore.

Aim and Objectives
DC/HM or designated incident controller will have control of the incident. He should confer with the Master of the Vessel and Terminal Manager regarding plans to stop the leakage, precautions to be taken to preserve the safety of the terminal in the interim, and measures should be taken for the prevention of fire/explosion/dispersion.

Immediate Action
In the event of such an incident occurring, the following actions should be considered:

- The port control should be informed of the incident by the Master of the Vessel and Terminal Manager.
- The port control will inform the DC/HM or designated incident controller of the incident.
- To confirm appropriate response measures are in place or standby and inform all authorities as necessary.

The **DPA** will then carry out the following actions:

- The movement of all other vessels into or out of the port should be stopped and alternative orders issued as necessary.
- The Fire station should be informed and advised for the required action.
- Communications should be maintained and events are to be recorded, as appropriate.
- Ascertain details of the incident, including the location of the incident, the vessel's particulars, direction of the wind, and extent of damage to the Jetty or Vessel, prevailing and predicted weather conditions and damage to vehicles, if any.
- DPA vessels on security duty should be directed to proceed to the location of the incident and clear the area.
- Confer with the Terminal Manger regarding plans for need for an alternative berth.
- Advise the District Authority, and determine the need for assistance from any functional services, if necessary.
- Determine whether any form of pollution of the sea has occurred or is likely to occur. The pollution containment equipment should be deployed as necessary. In the event of pollution refer to the DPA-OSCP.
- The vessel's agent should be informed of the incident.

Safety Issues

- The need to evacuate workers should be discussed with the Terminal Manager.
- The need to evacuate crew and passengers should be discussed with the Master of the Vessel.

All authorities to be informed

Post Emergency Actions

- Arrange for a preliminary inquiry into the causes of the incident to be commenced as soon as possible.
- Review the effectiveness.
- Inform the authorities about the termination of the response.

Action Plan

1.1 Scenario- Fire/explosion due to LPG leakage at jetty during operation on Ship or Ashore

1.2 Precautions: Continuous weather (wind) monitoring, MSDS, SOP of LPG terminal and Berthing and un-berthing procedures.

Leaks from LPG pump glands, pipes flanges or pipeline ruptures or from vent emissions due to cargo tank over-pressure or relief valve failure will initially produce vapour. This vapour will not ignite immediately but, if the vapour production is large, there is a hazard of the resultant cold and dense vapour cloud of LPG spreading to a source of ignition before it is diluted below the lower explosive limit. Therefore, in case of release of large quantity of flammable vapour cloud, immediate effort should be directed to eliminate such source of ignition. In such event, eliminate all sources of ignitions i.e. open flames, welding, cutting, operation etc. in the entire port area.

1.3 Impact Zone.

Consequence analysis indicates that the LPG (Propane/Butane) leak from unloading arm would cover approx. 1700 meters for Vapor cloud explosion (VCE) scenario.

1.4 Resources required: Organizational setup and major material and equipment resources.

The vessel upon berthing at the LPG berth will follow standard procedures. However, in a less likely scenario, a leak from the pipeline system may occur at the jetty leading to self-detection by vessel personnel or by the terminal automatic alarm and detection system. Further in a more unlikely situation, due to a possible ignition the leakage might catch fire and lead to explosion. The following actions will be required

The Master of the Ship (Alternate: Chief Officer)

- Should raise ships emergency alarm and activate ship board emergency action plan.
- Having raised the alarm, the Master will be responsible for taking all immediate steps to safeguard his ship.
- Stop LPG transfer operation (as per SOP of the ship) and inform terminal loading manager and ship owner of the vessel.
- Terminal, Vessel in the vicinity and Port should be informed of any incident on the ship without delay.
- Coordinate with Signal Station and provide the Port Authority with details of the vessel.
- Personnel to remain stand by to disconnect metal arms.

- Shall be responsible for fighting the fire with ships own resources as well as with the available support.
- Also, to remain prepared to un-berth the ship to the safe area (high sea).
- The siren should be continued till the ship is taken to a safe location as per DPA instructions.
- On arrival of port fire services & response team, coordinate with them.
- The Master will follow the instruction of the DPA and be in continuous liaise with the Signal Station.

DC/HM or designated incident controller

- Assess the level of disaster and activate the CMP.
- Establish EAC and be stationed to review & assess possible developments to determine the most necessary course of action.
- Give necessary instructions to incident controller and Signal Station & arrange for external aid as necessary.
- Review the situation and accordingly inform to the Chairman / Deputy chairman.
- Assess the condition of site and of potential affected area and take decision on evacuation.
- Organize tugs, mooring boats and Pilots for rescue.
- Hire additional crafts, as necessary.
- Plan movements of vessels such that the vessels are cleared in shortest possible time.
- Coordinate with external agencies/authorities such as Indian Navy and Coastguard at the earliest and extent possible.
- Be in constant touch with District and Local Administration for rescue and relief operation.
- Terminate the response and debrief before allowing normal operation.

Signal Station

- Gather information related to the weather conditions. Monitor the wind directions and accordingly convey the message to DC/HM and Safety Officer.
- Liaise with Master of the Vessel/Pilot.
- Ensure that telephones, one VHF and one walkie-talkie all are operational. Listening watch to be maintained on VHF.
- Notify to all concerned and the vessels moving into, through and inside the port. Keep DC/HM informed of all the messages received by telephone, VHF or by messenger.
- Notify the other Authorities and stakeholders as per instructions of DC/HM.
- On behalf of DPA, the Signal Station should liaise with Revenue/Police/Health/ District Administration for additional assistance.

Designated Incident Controller

- During Emergency shall proceed to the scene & communicate & collect all information from the Master of the Tanker and Terminal Manager.
- Conduct initial Briefing.
- Report the situation to the DC/HM and assist in assessing the incident.
- Initiate CMP.

- Alert vessels within the vicinity.
- Assess the condition of site and of potential affected area and take decision on evacuation in consultation with DC/HM.
- Extend all necessary help to the Master of the vessel to fight the fire.
- Instruct the Safety Officer to keep the fixed firefighting installation and firefighting tugs in a state of readiness & activate if required.
- Instruct Survey & Dredging Officer to keep tugs ready for un-berthing of vessel.
- Coordinate with all functional heads to take actions.
- Ensure that the operations are brought back to normal after the termination of the emergency procedure.

Fire Fighting Personnel • Raise Alarm (siren).
- Start the pumps as per the requirement.
- Use water sprays and portable nozzles to maintain curtain and to disperse LPG vapors.
- Ensure the gas leak has been stopped. Allow the gas to burn rather than extinguishing.
- Open the water curtain valve to protect shore installations from heat radiation.
- Request fire officers to arrange for fire-fighting vessel and Survey & Dredging officer to arrange for tugs , as required
- Ensure all the ignition sources in the vicinity are extinguished if fire has not occurred.
- If the fire is under control and extinguished, give all clear signal

Duty Pilot
- Be ready on site for taking the ship out of berth and be ready for providing any assistance on site.

Master of Tug/Pilot Launches And Other Launches
- Masters of respective crafts will notify their staff to remain on board and on standby until they are relieved by next shift staff or Pilot releases them from duty.
- Masters/Engineers will keep the engines of their crafts ready to proceed at short notice as per the instructions.
- Extra fenders and mooring ropes will be kept ready on board the Tug for use as required.
- Tugs will be manned as per Marine Department s requirement in that situation and as per the instruction.

Safety Officer
- Lead the firefighting team and mobilize fire tenders, personnel & firefighting equipment to the scene & extend all necessary support to the Master of the vessel/Terminal Manager for firefighting.
- Inform all concerned and take necessary guidance.
- Ensure responsible actions for containing the run-off fire water and other water from the damaged units.
- Assist in evacuation of the personnel to the assembly point or as directed.
- Conduct clean- up work during and after the emergency as quick as possible.

- Inform for arrangement of additional equipment as required.
- Liaise with State Fire brigade for any assistance.

Civil Engineer
- Liaise with Marine dept. and Traffic Manager..
- Carry out urgent civil works as required.
- Form a task force to attend to any emergency.
- Diesel engines for raw water and clean water, all pump house equipment and all generator sets meant for water supply shall be secured, tried out and kept ready.
- As soon as the contingency plan is made operational all the water tanks should be filled up and standby arrangement for supply of water to be made.

Mechanical Engineer
- Ensure water supply to the hydrants.
- Arrange for specialized equipment if required as per the instruction.

Electrical Engineer
- Ensure uninterrupted electrical supply to vital equipment and utility at the berth.
- Remain alert on duty for any electrical isolation of equipment during emergency.

Traffic Manager
- Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation.

Sr. Commandant CISF / Dy. Commandant CISF
- Cordon off the area.
- Control & direct gate security and traffic in the area.
- Facilitate and supervise evacuation, transport, first aid and rescue of personnel from the scene at the time of emergency.
- Control the entry of unauthorized persons and vehicles.
- Check for entry of emergency vehicles.
- Liaise with the State Police.
- Carry out head count of the personnel.

Medical Officer
- Organize and keep ready the first aid team with ambulance & necessary medicines to attend to any injured person at the site of the accident.
- Keep sufficient doctors on duty during emergency.
- Coordinate with the local hospitals and arrange for medical assistance from empanelled hospitals as and when required.

21.2. POL/Chemical / Toxic / Corrosive leakage &/or Fire/Explosion

This plan relates to incident due to POL/Chemical / Toxic / Corrosive leakage &/or Fire/Explosion.

Aim and Objectives

DC/HM or designated incident controller will have control of the incident. He should confer with the Master of the Vessel and Terminal Manager regarding plans to stop the leakage, precautions to be taken to preserve the safety of the terminal in the interim, and measures should be taken for the prevention of fire/explosion/dispersion.

Immediate Action

In the event of such an incident occurring, the following actions should be considered:

- The port control should be informed of the incident by the Master of the Vessel and Terminal Manager.
- The port control will inform the DC/HM or designated incident controller of the incident.
- To confirm appropriate response measures are in place or standby and inform all authorities as necessary.

The **DPA** will then carry out the following actions:

- The movement of all other vessels into or out of the port should be stopped and alternative orders issued as necessary.
- The Fire station should be informed and advised for the required action.
- Communications should be maintained and events are to be recorded, as appropriate.
- Ascertain details of the incident, including the location of the incident, the vessel's particulars, direction of the wind, and extent of damage to the Jetty or Vessel, prevailing and predicted weather conditions and damage to vehicles, if any.
- DPA vessels on security duty should be directed to proceed to the location of the incident and clear the area.
- Confer with the Terminal Manger regarding plans for need for an alternative berth.
- Advise the District Authority, and determine the need for assistance from any functional services, if necessary.
- Determine whether any form of pollution of the sea has occurred or is likely to occur. The pollution containment equipment should be deployed as necessary. In the event of pollution refer to the DPA-OSCP.
- The vessel's agent should be informed of the incident.

Safety Issues

- The need to evacuate workers should be discussed with the Terminal Manager.
- The need to evacuate crew and passengers should be discussed with the Master of the Vessel.

All authorities to be informed

Post Emergency Actions

- Arrange for a preliminary inquiry into the causes of the incident to be commenced as soon as possible.
- Review the effectiveness.
- Inform the authorities about the termination of the response.

Action Plan

2.1. Scenario: Fire/Explosion due to leakage of POL/Chemical / toxic / corrosive substance at jetty on ship or ashore.

2.2. Precautions: MSDS, SOP of terminal and berthing and un-berthing procedures.

2.3. Impact Zone: Consequence analysis indicates that the MS leak from pipeline would cover approx. 2300 meters for Vapor cloud explosion (VCE) scenario.

2.4. Resources required: Organizational setup and major material and equipment resources.

The vessel upon berthing at the berth will follow standard procedures. However, in a less likely scenario, a leak from the pipeline system may occur at the jetty leading to self-detection by vessel personnel or by the terminal automatic alarm and detection system. Further in a more unlikely situation, due to a possible ignition the leakage might catch fire and lead to explosion. The following actions will be required

The Master of the Ship (Alternate: Chief Officer)

- Should raise ships emergency alarm and activate ship board emergency action plan.
- Having raised the alarm, the Master will be responsible for taking all immediate steps to safeguard his ship.
- Stop POL/Chemical transfer operation (as per SOP of the ship) and inform terminal loading manager and ship owner of the vessel.
- Terminal, Vessel in the vicinity and Port should be informed of any incident on the ship without delay.
- Coordinate with Signal Station and provide the Port Authority with details of the vessel.
- Personnel to remain stand by to disconnect metal arms.
- Shall be responsible for fighting the fire with ships own resources as well as with the available support.
- Also, to remain prepared to un-berth the ship to the safe area (high sea).
- The siren should be continued till the ship is taken to a safe location as per DPA instructions.
- On arrival of port fire services & response team, coordinate with them.
- The Master will follow the instruction of the DPA and be in continuous liaise with the Signal Station.

DC/HM or designated incident controller

- Assess the level of disaster and activate the CMP.

- Establish EAC and be stationed to review & assess possible developments to determine the most necessary course of action.
- Give necessary instructions to incident controller and Signal Station & arrange for external aid as necessary.
- Review the situation and accordingly inform to the Chairman / Deputy chairman.
- Assess the condition of site and of potential affected area and take decision on evacuation.
- Organize tugs, mooring boats and Pilots for rescue.
- Hire additional crafts, as necessary.
- Plan movements of vessels such that the vessels are cleared in shortest possible time.
- Coordinate with external agencies/authorities such as Indian Navy and Coastguard at the earliest and extent possible.
- Be in constant touch with District and Local Administration for rescue and relief operation.
- Terminate the response and debrief before allowing normal operation.

Signal Station

- Gather information related to the weather conditions. Monitor the wind directions and accordingly convey the message to DC/HM and Safety Officer.
- Liaise with Master of the Vessel/Pilot.
- Ensure that telephones, one VHF and one walkie-talkie all are operational. Listening watch to be maintained on VHF.
- Notify to all concerned and the vessels moving into, through and inside the port. Keep DC/HM informed of all the messages received by telephone, VHF or by messenger.
- Notify the other Authorities and stakeholders as per instructions of DC/HM.
- On behalf of DPA, the Signal Station should liaise with Revenue/Police/Health/ District Administration for additional assistance.

Designated Incident Controller

- During Emergency shall proceed to the scene & communicate & collect all information from the Master of the Tanker and Terminal Manager.
- Conduct initial Briefing.
- Report the situation to the DC/HM and assist in assessing the incident.
- Initiate CMP.
- Alert vessels within the vicinity.
- Assess the condition of site and of potential affected area and take decision on evacuation in consultation with DC/HM.
- Extend all necessary help to the Master of the vessel to fight the fire.
- Instruct the Safety Officer to keep the fixed firefighting installation and firefighting tugs in a state of readiness & activate if required.
- Instruct Survey & Dredging Officer to keep tugs ready for un-berthing of vessel.
- Coordinate with all functional heads to take actions.
- Ensure that the operations are brought back to normal after the termination of the emergency procedure.

Fire Fighting Personnel

- Raise Alarm (siren).
- Start the pumps as per the requirement.
- Use water sprays and portable nozzles to maintain curtain and to disperse LPG vapors.
- Ensure the leak has been stopped.
- Open the water curtain valve to protect shore installations from heat radiation.
- Request fire officers to arrange for fire-fighting vessel and Survey & Dredging officer to arrange for tugs , as required
- Ensure all the ignition sources in the vicinity are extinguished if fire has not occurred.
- If the fire is under control and extinguished, give all clear signal

Duty Pilot

- Be ready on site for taking the ship out of berth and be ready for providing any assistance on site.

Master of Tug/Pilot Launches And Other Launches

- Masters of respective crafts will notify their staff to remain on board and on standby until they are relieved by next shift staff or Pilot releases them from duty.
- Masters/Engineers will keep the engines of their crafts ready to proceed at short notice as per the instructions.
- Extra fenders and mooring ropes will be kept ready on board the Tug for use as required.
- Tugs will be manned as per Marine Department s requirement in that situation and as per the instruction.

Safety Officer

- Lead the firefighting team and mobilize fire tenders, personnel & firefighting equipment to the scene & extend all necessary support to the Master of the vessel/Terminal Manager for firefighting.
- Inform all concerned and take necessary guidance.
- Ensure responsible actions for containing the run-off fire water and other water from the damaged units.
- Assist in evacuation of the personnel to the assembly point or as directed.
- Conduct clean- up work during and after the emergency as quick as possible.
- Inform for arrangement of additional equipment as required.
- Liaise with State Fire brigade for any assistance.

Civil Engineer

- Liaise with Marine dept. and Traffic Manager..
- Carry out urgent civil works as required.
- Form a task force to attend to any emergency.
- Diesel engines for raw water and clean water, all pump house equipment and all generator sets meant for water supply shall be secured, tried out and kept ready.
- As soon as the contingency plan is made operational all the water tanks should be filled up and standby arrangement for supply of water to be made.

Mechanical Engineer

- Ensure water supply to the hydrants.
- Arrange for specialized equipment if required as per the instruction.

Electrical Engineer

- Ensure uninterrupted electrical supply to vital equipment and utility at the berth.
- Remain alert on duty for any electrical isolation of equipment during emergency.

Traffic Manager

- Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation.

Sr. Commandant CISF / Dy. Commandant CISF

- Cordon off the area.
- Control & direct gate security and traffic in the area.
- Facilitate and supervise evacuation, transport, first aid and rescue of personnel from the scene at the time of emergency.
- Control the entry of unauthorized persons and vehicles.
- Check for entry of emergency vehicles.
- Liaise with the State Police.
- Carry out head count of the personnel.

Medical Officer

- Organize and keep ready the first aid team with ambulance & necessary medicines to attend to any injured person at the site of the accident.
- Keep sufficient doctors on duty during emergency.
- Coordinate with the local hospitals and arrange for medical assistance from empanelled hospitals as and when required.

21.3. Crane Accidents (Container Drop/Crane Fall) &/or Fire/Leakage

This plan relates to the Fire/leakage due to Crane Accidents (Container drop/crane fall) at Container Terminal and / or cargo jetties.

Aim and Objectives

DC/HM or designated incident controller will have control of the incident. He should confer with the Master of the Vessel and Terminal Manager regarding plans to stop the fire / leakage, precautions to be taken to preserve the safety of the terminal in the interim, and measures should be taken for the prevention of fire/explosion/dispersion.

Immediate Action

In the event of such an incident occurring, the following actions should be considered:

- The port control should be informed of the incident by the Master of the Vessel and Terminal Manager.
- The port control will inform the DC/HM or designated incident controller of the incident.
- To confirm appropriate response measures are in place or standby and inform all authorities as necessary.

The **DPA** will then carry out the following actions:

- The movement of all other vessels into or out of the port should be stopped and alternative orders issued as necessary.
- The Fire station should be informed and advised for the required action.
- Communications should be maintained and events are to be recorded, as appropriate.
- Ascertain details of the incident, including the location of the incident, the vessel's particulars, direction of the wind, and extent of damage to the Jetty or Vessel, prevailing and predicted weather conditions and damage to vehicles, if any.
- DPA vessels on security duty should be directed to proceed to the location of the incident and clear the area.
- Confer with the Terminal Manger regarding plans for need for an alternative berth.
- Advise the District Authority, and determine the need for assistance from any functional services, if necessary.
- Determine whether any form of pollution of the sea has occurred or is likely to occur. The pollution containment equipment should be deployed as necessary. In the event of pollution refer to the DPA-OSCP.
- The vessel's agent should be informed of the incident.

Safety Issues

- The need to evacuate workers should be discussed with the Terminal Manager.
- The need to evacuate crew and passengers should be discussed with the Master of the Vessel.

All authorities to be informed

Post Emergency Actions

- Arrange for a preliminary inquiry into the causes of the incident to be commenced as soon as possible.
- Review the effectiveness.
- Inform the authorities about the termination of the response.

Action Plan

3.1. Scenario Fire/leakage due to Crane Accidents (Container drop/crane fall) at Container Terminal-&/or cargo jetty.

3.2. Precautions: Trained personnel for operation of crane, SOP of the terminal.

3.3. Impact Zone: Surrounding area.

3.4 Resources required: Organizational setup and major material and equipment resources.

The crane operator should raise emergency alarm and inform Terminal Manager and Signal Station.

Terminal & Jetty Personnel
Take personal precautions, protective equipment and follow emergency procedures. Wear respiratory protection.
Environmental precautions: Prevent further leakage or spillage if safe to do so.

- Inform port signal station and ask for assistance.
- Area should be cordoned off.
- Stop transfer operations at the berth.
- Manage Truck movements.
- Assist and provide all necessary equipment.
- Ensure that the operations are brought back to normal after the termination of the emergency procedure.

The Master of the Ship (Alternate: Chief Officer)
- Should raise ships emergency alarm and activate ship board emergency action plan.
- Having raised the alarm, the Master will be responsible for taking all immediate steps to safeguard his ship.
- Stop cargo operation (as per SOP of the ship) and inform terminal loading manager and ship owner of the vessel.
- Coordinate with Signal Station and provide the Port Authority with details of the vessel.
- The Master will follow the instruction and be in continuous liaise with the Signal Station.

DC/HM or Designated Incident Controller
- Will be stationed at the EAC to review & assess possible developments to determine the most necessary course of action.
- He will give necessary instructions to arrange for external aid as necessary.
- Review the situation and accordingly inform to the Chairman.
- Provide assistance to the Terminal.
- Terminate the response and debrief before allowing normal operation.

Signal Station
- Gather information regarding the incident and accordingly convey the message to DC/HM and Safety Officer.
- Liaise with Master of the Vessel/Pilot.
- Ensure that telephones, one VHF and one walkie-talkie all are operational in the Port control centre. Listening watch to be maintained on VHF.
- Notify to DC/HM and the vessels moving into, through and inside the port. Keep DC/HM informed of all the messages received by telephone, VHF or by messenger.
- Notify the other Authorities and stakeholders as per instructions of DC/HM.

Designated Incident Controller

- During Emergency shall proceed to the scene & communicate & collect all information from the crane operator/terminal manager.
- He will assess and report the situation to the DC/HM.
- He will instruct the Designated Incident controller / Safety Officer to keep the port fire team in a state of readiness.
- Conduct initial Briefing.
- Report the situation to the DC/HM and assist in assessing the incident.
- Extend all necessary help to the terminal.
- Shall prepare vessels to vacate from berth (if required).
- Organize tugs, mooring boats and Pilots for rescue, if required.
- Hire additional crafts, as necessary.
- Maintain log of events.

Duty Pilot

- Be ready on site for taking the ship out of berth and be ready for providing any assistance on site.

Master of Tug/Pilot Launches & Other Launches

- Masters of respective crafts will notify their staff to remain on board and on standby until they are relieved by next shift staff or HM/ Pilot releases them from duty.
- Masters/Engineers will keep the engines of their crafts ready to proceed at short notice as per the instructions.
- Extra fenders and mooring ropes will be kept ready on board the Tug for use as required.
- Tugs will be manned as per Marine Department s requirement in that situation and as per the instruction.

Safety Officer

- Shall take orders from DC/HM.
- Investigate the incident and provide necessary guidance.
- Assist the terminal in rescue operation as per the instruction of DC/HM.
- He will mobilize fire tenders/tugs, personnel & firefighting equipments to the scene & extend all necessary support in case of fire, if required.

Civil / Executive Engineer)

- Liaise with the DC/HM, terminal managers and Traffic Manager.
- Carry out urgent civil works as required.

Mechanical Engineer

- Arrange for specialized equipment if required as per the instruction.

Electrical Engineer

- Shall be responsible for Electrical supply to vital equipment and systems if required as per the instruction.
- Coordinate and provide support to the terminal as per the instruction.
- Liaise with DC/HM and assist Terminal Manager.

Traffic Manager

- Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation.

Sr. Commandant CISF / Dy. Commandant CISF

- Provide assistance to the terminal and controls & directs traffic in the area.
- Shall supervise evacuation of personnel from the scene at the time of emergency.

Medical Officer

- Organize and keep ready the first aid team with ambulance & necessary medicines to attend to any injured person at the site of the accident as per the instructions.
- Keep sufficient doctors on duty during emergency.
- Coordinate with the local hospitals and arrange for medical assistance from empanelled hospitals as and when required.

21.4 Fire on vessel in port or at Anchorage

This plan relates to the Fire on vessel in port or at anchorage.

Aim and Objectives

DC/HM or designated incident controller will have control of the incident. He should confer with the Master of the Vessel and Terminal Manager regarding plans to stop the fire, precautions to be taken to preserve the safety of the terminal in the interim, and measures should be taken for the prevention of fire/explosion/dispersion.

Immediate Action

In the event of such an incident occurring, the following actions should be considered:

- The port control should be informed of the incident by the Master of the Vessel and Terminal Manager.
- The port control will inform the DC/HM or designated incident controller of the incident.
- To confirm appropriate response measures are in place or standby and inform all authorities as necessary.

The **DPA** will then carry out the following actions:

- The movement of all other vessels into or out of the port should be stopped and alternative orders issued as necessary.
- The Fire station should be informed and advised for the required action.
- Communications should be maintained and events are to be recorded, as appropriate.
- Ascertain details of the incident, including the location of the incident, the vessel's particulars, direction of the wind, and extent of damage to the Jetty or Vessel, prevailing and predicted weather conditions and damage to vehicles, if any.

- DPA vessels on security duty should be directed to proceed to the location of the incident and clear the area.
- Confer with the Terminal Manger regarding plans for need for an alternative berth.
- Advise the District Authority, and determine the need for assistance from any functional services, if necessary.
- Determine whether any form of pollution of the sea has occurred or is likely to occur. The pollution containment equipment should be deployed as necessary. In the event of pollution refer to the DPA-OSCP.
- The vessel's agent should be informed of the incident.

Safety Issues

- The need to evacuate workers should be discussed with the Terminal Manager.
- The need to evacuate crew and passengers should be discussed with the Master of the Vessel.

All authorities to be informed

Post Emergency Actions

- Arrange for a preliminary inquiry into the causes of the incident to be commenced as soon as possible.
- Review the effectiveness.
- Inform the authorities about the termination of the response.

Action Plan

4.1. Scenario Fire on vessel at Anchorage..

4.2. Precautions: Navigational Aid, Continuous monitoring and communication with the Signal Station and Pilot.

4.3. Impact Zone: Anchorage area in vicinity of the vessel connected with incident.

4.4 Resources required: Organizational setup and major material and equipment resources. Port tugs for firefighting and evacuation and medical teams.

The Master of the Ship (Alternate: Chief Officer)

- Should raise ships emergency alarm and activate ship board emergency action plan.
- Having raised the alarm, the Master will be responsible for taking all immediate steps to safeguard his ship.
- Vessel in the vicinity and Port should be informed of incident on the ship without delay.
- Shall be responsible for fighting the fire with ships own resources as well as with the available support.
- Coordinate with Signal Station and provide the Port Authority with details of the vessel.
- The Master will follow the instruction of the DC/HM and be in continuous liaise with the Signal Station.

DC/HM or Designated Incident Controller

- Assess the level of disaster and activate the CMP.
- Establish EAC and be stationed to review & assess possible developments to determine the most necessary course of action.
- Give necessary instructions to Signal Station & arrange for external aid as necessary.
- Review the situation and accordingly inform to the Chairman.
- Decide on clearing of ships in close proximity to the incident location.
- Assess the condition of site a take decision on evacuation.
- Coordinate with external agencies/authorities such as Indian Navy and Coastguard at the earliest and extent possible.
- Be in constant touch with District and Local Administration for rescue and relief operation.
- Terminate the response and debrief before allowing normal operation.

Signal Station

- Gather information regarding the incident and accordingly convey the message to DC/HM and Safety Officer.
- Liaise with Master of the Vessel/Pilot.
- Ensure that telephones, one VHF and one walkie-talkie all are operational in the Port control centre. Listening watch to be maintained on VHF.
- Notify to DC/HM and the vessels moving into, through and inside the port. Keep DC/HM informed of all the messages received by telephone, VHF or by messenger.
- Notify the other Authorities and stakeholders as per instructions of DC/HM.

Fire Fighting Personnel

- Investigate the incident and provide necessary guidance.
- Assist Master in fighting fire as per Masters Instructions.
- He will mobilize firefighting tugs, personnel & firefighting equipments to the scene & extend all necessary support in case of fire, if required.
- Assist in evacuation of the personnel as directed by DC/HM /Safety Officer.
- Inform Safety Officer for arrangement of any additional equipment as required.

Designated Incident Controller

- During Emergency shall proceed to the scene & communicate & collect all information.
- He will assess and report the situation to the DC/HM.
- He will instruct the Designated Incident controller / Safety Officer to keep the port fire team in a state of readiness.
- Conduct initial Briefing.
- Report the situation to the DC/HM and assist in assessing the incident.
- Extend all necessary help to the terminal.
- Shall prepare vessels to vacate from berth (if required).
- Organize tugs, mooring boats and Pilots for rescue, if required.
- Hire additional crafts, as necessary.
- Maintain log of events.

Duty Pilot

- Be ready on site for taking the ship out of berth and be ready for providing any assistance on site.

Master of Tug/Pilot Launches & Other Launches

- Masters of respective crafts will notify their staff to remain on board and on standby until they are relieved by next shift staff or HM/ Pilot releases them from duty.
- Masters/Engineers will keep the engines of their crafts ready to proceed at short notice as per the instructions.
- Extra fenders and mooring ropes will be kept ready on board the Tug for use as required.
- Tugs will be manned as per Marine Department s requirement in that situation and as per the instruction.

Safety Officer

- Shall take orders from DC/HM.
- Investigate the incident and provide necessary guidance.
- Assist the terminal in rescue operation as per the instruction of DC/HM.
- He will mobilize fire tenders/tugs, personnel & firefighting equipments to the scene & extend all necessary support in case of fire, if required.

Civil / Executive Engineer)

- Liaise with the DC/HM, terminal managers and Traffic Manager.
- Carry out urgent civil works as required.

Mechanical Engineer

- Arrange for specialized equipment if required as per the instruction.

Electrical Engineer

- Shall be responsible for Electrical supply to vital equipment and systems if required as per the instruction.
- Coordinate and provide support to the terminal as per the instruction.
- Liaise with DC/HM and assist Terminal Manager.

Traffic Manager

- Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation.

Sr. Commandant CISF / Dy. Commandant CISF

- Provide assistance to the terminal and controls & directs traffic in the area.
- Shall supervise evacuation of personnel from the scene at the time of emergency.

Medical Officer

- Organize and keep ready the first aid team with ambulance & necessary medicines to attend to any injured person at the site of the accident as per the instructions.

- Keep sufficient doctors on duty during emergency.
- Coordinate with the local hospitals and arrange for medical assistance from empanelled hospitals as and when required.

21.5 Container Falling Overboard In Water

This plan relates to the Containers falling into water in case of vessel motion due to Stability issue, extreme weather, vessel collision or grounding.

Aim and Objectives

DC/HM or designated incident controller will have control of the incident. He should confer with the Master of the Vessel and Terminal Manager regarding plans to recover container, precautions to be taken to preserve the safety & pollution of the terminal in the interim, and measures should be taken for the prevention navigational hazard and pollution.

Immediate Action

In the event of such an incident occurring, the following actions should be considered:

- The port control should be informed of the incident by the Master of the Vessel and Terminal Manager.
- The port control will inform the DC/HM or designated incident controller of the incident.
- To confirm appropriate response measures are in place or standby and inform all authorities as necessary.

The **DPA** will then carry out the following actions:

- The movement of all other vessels into or out of the port should be stopped and alternative orders issued as necessary.
- Communications should be maintained and events are to be recorded, as appropriate.
- Ascertain details of the incident, including the location of the incident, the vessel's particulars, direction of the wind, and extent of damage to the Jetty or Vessel, prevailing and predicted weather conditions and damage to vehicles, if any.
- DPA vessels on security duty should be directed to proceed to the location of the incident and clear the area.
- Confer with the Terminal Manger regarding plans for need for an alternative berth.
- Advise the District Authority, and determine the need for assistance from any functional services, if necessary.
- Determine whether any form of pollution of the sea has occurred or is likely to occur. The pollution containment equipment should be deployed as necessary. In the event of pollution refer to the DPA-OSCP.
- The vessel's agent should be informed of the incident.

Safety Issues

- The need to evacuate workers should be discussed with the Terminal Manager.
- The need to evacuate crew and passengers should be discussed with the Master of the Vessel.

All authorities to be informed

Post Emergency Actions

- Arrange for a preliminary inquiry into the causes of the incident to be commenced as soon as possible.
- Review the effectiveness.
- Inform the authorities about the termination of the response.

Action Plan

5.1. Scenario ± Containers falling into water in case of vessel motion due to extreme weather, vessel collision or grounding.

5.2. Precautions: Navigational Aid, Designated Pilots, Continuous monitoring and communication with the Signal Station and Pilot. Depending on the level of incidents involving containers falling and their recovery will require a team of tugs and floating cranes apart from measures such as medical assistance to the stricken vessel. Offsite plan in terms of alerting the fishing vessels and normal shipping traffic, Coast guard and Indian navy will have to be activated. Port will remain in touch with vessel and provide assistance within its jurisdiction. Near coastal villages and township authorities need to be alerted. The type of cargo hazardous/ non-hazardous is to be ascertained and communicated by the concerned vessel to the port. Temporary closure of navigation in vicinity of the incident may be required. Radars deployed for monitoring and reporting the floating containers by nearby vessels in port zone. Wreck marking in case of sinking of container will be required.

5.3. Impact Zone: Incident location and vicinity of the coastline involved.

5.4. Resources required: Organizational setup and major material and equipment resources

The Master of the Ship (Alternate: Chief Officer)

- Should raise ships emergency alarm and activate ship board emergency action plan.
- Having raised the alarm, the Master will be responsible for taking all immediate steps to safeguard his ship.
- Vessel in the vicinity and Port should be informed of incident on the ship without delay.
- Shall be responsible for fighting the fire with ships own resources as well as with the available support.
- Coordinate with Signal Station and provide the Port Authority with details of the vessel.
- The Master will follow the instruction of the DC/HM and be in continuous liaise with the Signal Station.

DC/HM or Designated Incident Controller

- Assess the level of disaster and activate the CMP.
- Establish EAC and be stationed to review & assess possible developments to determine the most necessary course of action.

- Give necessary instructions to Signal Station & arrange for external aid as necessary.
- Review the situation and accordingly inform to the Chairman.
- Decide on clearing of ships in close proximity to the incident location.
- Assess the condition of site a take decision on evacuation.
- Coordinate with external agencies/authorities such as Indian Navy and Coastguard at the earliest and extent possible.
- Be in constant touch with District and Local Administration for rescue and relief operation.
- Terminate the response and debrief before allowing normal operation.

Signal Station

- Gather information regarding the incident and accordingly convey the message to DC/HM and Safety Officer.
- Liaise with Master of the Vessel/Pilot.
- Ensure that telephones, one VHF and one walkie-talkie all are operational in the Port control centre. Listening watch to be maintained on VHF.
- Notify to DC/HM and the vessels moving into, through and inside the port. Keep DC/HM informed of all the messages received by telephone, VHF or by messenger.
- Notify the other Authorities and stakeholders as per instructions of DC/HM.

Designated Incident Controller

- During Emergency shall proceed to the scene & communicate & collect all information.
- He will assess and report the situation to the DC/HM.
- He will instruct the Designated Incident controller / Safety Officer to keep the port fire team in a state of readiness.
- Conduct initial Briefing.
- Report the situation to the DC/HM and assist in assessing the incident.
- Extend all necessary help to the terminal.
- Shall prepare vessels to vacate from berth (if required).
- Organize tugs, mooring boats and Pilots for rescue, if required.
- Hire additional crafts, as necessary.
- Maintain log of events.

Duty Pilot

- Be ready on site for taking the ship out of berth and be ready for providing any assistance on site.

Master of Tug/Pilot Launches & Other Launches

- Masters of respective crafts will notify their staff to remain on board and on standby until they are relieved by next shift staff or HM/ Pilot releases them from duty.
- Masters/Engineers will keep the engines of their crafts ready to proceed at short notice as per the instructions.
- Extra fenders and mooring ropes will be kept ready on board the Tug for use as required.
- Tugs will be manned as per Marine Department s requirement in that situation and as per the instruction.

Safety Officer

- Shall take orders from DC/HM.
- Investigate the incident and provide necessary guidance.
- Assist the terminal in rescue operation as per the instruction of DC/HM.
- He will mobilize fire tenders/tugs, personnel & firefighting equipments to the scene & extend all necessary support in case of fire, if required.

Civil / Executive Engineer)

- Liaise with the DC/HM, terminal managers and Traffic Manager.
- Carry out urgent civil works as required.

Mechanical Engineer

- Arrange for specialized equipment if required as per the instruction.

Electrical Engineer

- Shall be responsible for Electrical supply to vital equipment and systems if required as per the instruction.
- Coordinate and provide support to the terminal as per the instruction.
- Liaise with DC/HM and assist Terminal Manager.

Traffic Manager

- Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation.

Sr. Commandant CISF / Dy. Commandant CISF

- Provide assistance to the terminal and controls & directs traffic in the area.
- Shall supervise evacuation of personnel from the scene at the time of emergency.

Medical Officer

- Organize and keep ready the first aid team with ambulance & necessary medicines to attend to any injured person at the site of the accident as per the instructions.
- Keep sufficient doctors on duty during emergency.
- Coordinate with the local hospitals and arrange for medical assistance from empanelled hospitals as and when required.

21.6. Grounding/Collision Of Ship

This plan relates to the Ship Grounding/Collision within DPA port limit.

Aim and Objectives of the plan

DC/HM will have control of the incident. should confer with the Master of the vessel regarding plans to refloat the vessel or stop the leakage, precautions to be taken to

preserve the safety of the vessel in the interim, and measures should be taken for the prevention of pollution/fire/explosion.

Immediate Action

In the event of such an incident occurring, the following actions should be considered:

- The Signal station of port control should be informed of the incident by the master of the vessel.
- The Signal station of port control will inform the DC/HM of the incident.
- The Signal station will inform the respective Terminal manager.
- To confirm appropriate pollution control and response measures are in place or standby and inform Coastguard, as necessary.

The DPA will then carry out the following actions:

- The movement of all other vessels into or out of the port should be stopped and alternative orders issued as necessary.
- The tug owner's representative should be promptly advised, and tugs requested to be placed on standby.
- The Fire station should be informed and advised for the required action.
- Communications should be maintained and events are to be recorded, as appropriate.
- Ascertain details of the incident, including the location of the incident, the vessel's particulars, direction of the vessel's head, height of tides, and extent of damage to vessel and port, prevailing and predicted weather conditions and damage to navigational aids.
- DPA vessels on security duty should be directed to proceed to the location of the incident and clear the area of fishing and other traffic.
- Confer with the Master regarding plans for the refloating the vessel and the subsequent need for an alternative berth.
- Advise the District Authority, and determine the need for assistance from any functional services if necessary.
- Determine whether any form of pollution of the sea has occurred or is likely to occur. The pollution containment equipment should be deployed as necessary. In the event of pollution refer to the DPA-OSCP.
- The vessel's agent should be informed of the incident.

Safety Issues

The need to evacuate passengers and/or crew should be discussed with the Ship’s Master.

Authorities to be informed

Post Emergency Actions

- Arrange for a preliminary inquiry into the causes of the incident to be commenced as soon as possible.
- Review the effectiveness of action plans.
- Inform the informed Authorities about the termination of the response.

Action Plan

6.1. Scenario: Ship Grounding/Collision within port limit.

6.2. Precautions: Navigational Aid, Designated Pilots, Continuous monitoring and communication with the Port Control Centre and Pilot.

6.3. Impact Zone: Navigational Channel, Inner/Outer Harbour, Anchorage area.

6.4. Resources required: Organizational setup and major material and equipment resources

Master of Vessel (Alternate Officer: Chief Officer)

- Should raise ships emergency alarm and activate ship board emergency action plan including evacuation of the personnel.
- Having raised the alarm, the Master will be responsible for taking all immediate steps to safeguard his ship.
- Vessel in the vicinity, Terminal and Port should be informed of any incident without delay.
- Shut down transfer operation (if at berth).
- Take appropriate damage control measures in case of flooding including leak stoppage and pumping out, vessel list correction etc.
- Estimate the extent of under water damage, sounding of tanks and actions for the refloating of the vessel.
- Shall be responsible for fighting the fire (in case of fire) with vessels own resources as well as with the available support.
- Coordinate with Signal Station and provide the Port Authority with details of the vessel.
- Notify port of the any need/difficulty.
- On arrival of port fire services, coordinate with them.
- Remain alert for un-berthing (if incident at berth) , if required.
- The Master will follow the instruction of the DC/HM and be in continuous liaise with the Signal Station.

Signal Station

- Liaise with Master of the Vessel/Pilot and gather the information about the type of vessels involved in the incident, cargo and location of the incident and convey the message to DC/HM.
- Gather information related to the weather conditions. Monitor the wind directions and accordingly convey the message to DC/HM and Safety Officer.
- Ensure that telephones, one VHF and one walkie-talkie all are operational in the Port control centre. Listening watch to be maintained on VHF.
- If possible, accompany DC/HM/Pilot & Survey & Dredging Officer to inspect the vessel.
- Plot exact location of the incident.
- Notify to DC/HM and the vessels moving into, through and inside the port. Keep DC/HM informed of all the messages received by telephone, VHF sets or by messenger.
- Notify the other Authorities and stakeholders, if any, as per instructions of DC/HM.
-

DC/HM or Designated Incident Controller

- Assess the level of disaster and activate the CMP.
- Establish EAC and be stationed to review & assess possible developments to determine the most necessary course of action.
- Give necessary instructions to Signal Station & arrange for external aid as necessary.
- Review the situation and accordingly inform to the Chairman.
- Decide on clearing of ships in close proximity to the incident location.
- Assess the condition of site a take decision on evacuation.
- Coordinate with external agencies/authorities such as Indian Navy and Coastguard at the earliest and extent possible.
- Be in constant touch with District and Local Administration for rescue and relief operation.
- Terminate the response and debrief before allowing normal operation.

Designated Incident Controller

- During Emergency shall proceed to the scene & communicate & collect all information.
- He will assess and report the situation to the DC/HM.
- He will instruct the Designated Incident controller / Safety Officer to keep the port fire team in a state of readiness.
- Conduct initial Briefing.
- Report the situation to the DC/HM and assist in assessing the incident.
- Extend all necessary help to the terminal.
- Shall prepare vessels to vacate from berth (if required).
- Organize tugs, mooring boats and Pilots for rescue, if required.
- Hire additional crafts, as necessary.
- Maintain log of events.

Duty Pilot

- Be ready on site for taking the ship out of berth and be ready for providing any assistance on site.

Master of Tug/Pilot Launches & Other Launches

- Masters of respective crafts will notify their staff to remain on board and on standby until they are relieved by next shift staff or HM/ Pilot releases them from duty.
- Masters/Engineers will keep the engines of their crafts ready to proceed at short notice as per the instructions.
- Extra fenders and mooring ropes will be kept ready on board the Tug for use as required.
- Tugs will be manned as per Marine Department s requirement in that situation and as per the instruction.

Safety Officer

- Shall take orders from DC/HM.
- Investigate the incident and provide necessary guidance.
- Assist the terminal in rescue operation as per the instruction of DC/HM.

- He will mobilize fire tenders/tugs, personnel & firefighting equipments to the scene & extend all necessary support in case of fire, if required.

Civil / Executive Engineer)
- Liaise with the DC/HM, terminal managers and Traffic Manager.
- Carry out urgent civil works as required.

Mechanical Engineer
- Arrange for specialized equipment if required as per the instruction.

Electrical Engineer
- Shall be responsible for Electrical supply to vital equipment and systems if required as per the instruction.
- Coordinate and provide support to the terminal as per the instruction.
- Liaise with DC/HM and assist Terminal Manager.

Traffic Manager
- Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation.

Sr. Commandant CISF / Dy. Commandant CISF
- Provide assistance to the terminal and controls & directs traffic in the area.
- Shall supervise evacuation of personnel from the scene at the time of emergency.

Medical Officer
- Organize and keep ready the first aid team with ambulance & necessary medicines to attend to any injured person at the site of the accident as per the instructions.
- Keep sufficient doctors on duty during emergency.
- Coordinate with the local hospitals and arrange for medical assistance from empanelled hospitals as and when required.

21.7. Blockage Of Navigational Channel

This plan relates to the Blockage of Navigational Channel due to Grounding/Sinking of vessel (Wreckage).

Aim and Objectives of the plan
CIC/SIC will have control of the incident. He should confer with the Master of the vessel regarding plans to refloat the vessel or wreckage, precautions to be taken to preserve the safety of the vessel in the interim, and measures should be taken for the prevention of pollution.

Immediate Action

In the event of such an incident occurring, the following actions should be considered:

- The Signal station of port control should be informed of the incident by the Master of the vessel.
- The Signal station will inform the DC/HM of the incident.
- The Signal station will inform the respective Terminal manager.
- To confirm appropriate pollution control and response measures are in place or standby and inform Coastguard, as necessary.

The DPA will then carry out the following actions:

- The movement of all other vessels into or out of the port should be stopped and alternative orders issued as necessary.
- The tug owner's representative should be promptly advised, and tugs requested to be placed on standby.
- The Fire station should be informed and advised for the required action.
- Communications should be maintained and events are to be recorded, as appropriate.
- Ascertain details of the incident, including the location of the incident, the vessel's particulars, direction of the vessel's head, height of tides, and extent of damage to vessel and port, prevailing and predicted weather conditions and damage to navigational aids.
- DPA vessels on security duty should be directed to proceed to the location of the incident and clear the area of fishing and other traffic.
- Confer with the Master regarding plans for the refloating the vessel and the subsequent need for an alternative berth.
- Advise the District Authority, and determine the need for assistance from any functional services if necessary.
- Determine whether any form of pollution of the sea has occurred or is likely to occur. The pollution containment equipment should be deployed as necessary. In the event of pollution refer to the DPA-OSCP.
- The vessel's agent should be informed of the incident.

Safety Issues

The need to evacuate passengers and/or crew should be discussed with the Ship’s Master.

Authorities to be informed

Post Emergency Actions

- Arrange for a preliminary inquiry into the causes of the incident to be commenced as soon as possible.
- Review the effectiveness of action plans.
- Inform the informed Authorities about the termination of the response.

Action Plan

7.1. Scenario: Blockage of Navigational Channel due to Grounding/Sinking of vessel (Wreckage).

Note: It is assumed in this case all actions to rescue safely the vessel in approach channel have not been successful and the vessel has touched bottom inside the approach channel.

7.2. Precautions: Navigational Aid, Designated Pilots, Continuous monitoring and communication with the Signal Station and Pilot.

7.3. Impact Zone: Navigational Channel.

7.4. Resources required: Organizational setup and major material and equipment resources.

Note: Under the Indian Ports Act, 1908, if a ship is wrecked, stranded or sunk within the port limits, the Conservator of the Ports or in the absence of such an office, the Harbour master may give notice to the owner of the vessel to raise, remove or destroy the vessel within such period as may be specified in the notice and to furnish such adequate security to the satisfaction of the Conservator to ensure that the vessel shall be raised, removed or destroyed within the said period . If the owner does not comply and act upon the notice, the Conservator may raise, remove or destroy the property and claim the compensation from the owner. Mostly, the salvage activity will be done by private salvors in agreement with the Port Trust. Within the port limits, the capacity of the party to carry out salvage, the methods used to raise or remove or destroy the vessel is subjected to the expert opinion of the Deputy Conservator of the port. Normally, the court will not interfere with these technical decisions.

Master of Vessel and Craft In Port (Alternate Officer: Chief Officer)

- Should raise ships emergency alarm and activate ship board emergency action plan.
- Vessel in the vicinity, Terminal and Port should be informed of any incident without delay.
- Having raised the alarm, the Master will be responsible for taking all immediate steps to safeguard his ship. As soon as possible he has to establish the extent of grounding and damage to the vessel. He has to ascertain whether the hull has been breached and likely risk of pollution and flooding.
- The Master will provide the Port Authority with details of the incident as quickly as possible and will make regular and frequent reports on the progress of the incident. This is to include position of grounding, damage sustained, pollution or risk of pollution, draft of the vessel prior to grounding and soundings at grounding area, cargo on board and location, and any further information that may be at hand.
- Coordinate with Signal Station and provide the Port Authority with details of the vessel.
- Notify port of the any need/difficulty.
- The Master will follow the instruction of the DC/HM and be in continuous liaise with the Signal Station.

Signal Station

- Liaise with Master of the Vessel/Pilot and gather the information about the type of vessels involved in the incident, cargo and location of the incident and convey the message to DC/HM.

- Gather information related to the weather conditions. Monitor the wind directions and accordingly convey the message to DC/HM.
- Ensure that telephones, one VHF and one walkie-talkie all are operational in the Port control centre. Listening watch to be maintained on VHF.
- If possible, accompany Survey & Dredging Officer to inspect the vessel.
- Plot exact location of the incident.
- Notify to Dc/HM and the vessels moving into, through and inside the port. Keep DC/HM informed of all the messages received by telephone, VHF sets or by messenger.
- Allow vessels directly involved in rescue operations within the vicinity.
- Notify the other Authorities and stakeholders, if any, as per instructions of DC/HM.
- Notify the information to the owner of the vessel as per the instruction of DC/HM/ Master of the Vessel.
- Signal Station should liaise with Police/Health/District Administration for additional assistance.

DC/HM or Designated Incident Controller

- Assess the level of disaster and activate the CMP.
- Establish EAC and be stationed to review & assess possible developments to determine the most necessary course of action.
- Give necessary instructions to Signal Station & arrange for external aid as necessary.
- Review the situation and accordingly inform to the Chairman.
- Decide on clearing of ships in close proximity to the incident location.
- Assess the condition of site a take decision on evacuation.
- Coordinate with external agencies/authorities such as Indian Navy and Coastguard at the earliest and extent possible.
- Be in constant touch with District and Local Administration for rescue and relief operation.
- Terminate the response and debrief before allowing normal operation.
- Launches and rescue craft will be sent to scene of Emergency. If required they will bring necessary personnel and equipment to site.

Oil Pollution: Will be responsible to activate the Port OSCP on receipt and assessment of the information gathered. Instruct response team and Master of Vessel about the precautionary measures and necessary actions to limit the extent of pollution.

Evacuation: Assessment of condition of site of potential affected area and decision taken for evacuation should be taken in consultation with SIC and Master of Vessel.

Salvage and or floating of the vessel will be controlled either by him or person assigned by him. All operations will have to be sanctioned by him before implementation.

Coordinate with external agencies/authorities such as Indian Navy and Coastguard at the earliest and extent possible.

Be in constant touch with District and Local Administration for rescue and relief operation.

Once the CMP is activated and underway, he will ensure, at frequent intervals, through Radio and via the telephone and Media, issue of situation reports and information updates.

Press Liaison: A press office will be set up and regular briefings organized and promulgated. He and representatives from each emergency service will attend as circumstances permit to brief media concerns.

Where necessary, the Public Relation team from Port will be alerted to ensure fullest briefings on all aspects of the emergency.

Terminate the response and debrief before allowing normal operation.

NOTES ON SALVAGE:

- If required inform a reputable Salvage Company;
- Thoughts should be given to adding ballast to secure vessel in bad weather;
- Secure topside openings;
- Topside survey;
- Underwater survey with a diver noting all damage on plan of vessel;
- Information on the seabed using diver and soundings;
- Based on survey, draft, stability, condition of vessel openings, cargo, fuel, water etc,;
- Other removable weights;
- Refloating plan must be agreed taking into consideration, draft, stability, a clear passage off (may have to dredge a channel); safety of personnel, fire, pollution (may have to remove bunkers and cargo);
- Availability of tugs, bunkering vessels, divers, salvage companies;
- To be in control of salvage, Salvor in command, all plans approved by DC/HM.

Designated Incident Controller

- During Emergency, proceed to the affected location & communicate & collect all necessary information s from the Master of the ship.
- Discuss with the Master or owner for refloating or salvaging of the vessel.

Endeavour to obtain from owners/agents a General Arrangement Plan of the vessel and, if appropriate the Cargo Plan.

- Gather information from Signal Station regarding position and time. Obtain information regarding stability and hull stress of the vessel.
- He will report the situation to the DC/HM.
- Initiate Port CMP and OSCP.
- Commence search and rescue operation immediately.
- He will instruct Survey & Dredging Officer to keep tugs ready.
- Alert other vessels within the vicinity and the movement of other vessels into, through and near the location should be stopped. Ascertain oil pollution- leak source, if any.
- Assistance may be sought from other suitable and available vessels.
- Inform Salvage association and instruct Survey & Dredging Officer to coordinate.
- In the case of a capsized vessel, make arrangements to hold the vessel in position if drifting would place her in grave danger and, on completion of rescue operations, secure the vessel in position or remove and secure her at some other safe location,

whichever is safest and possible, until such time as salvage operations can be undertaken.

- When clear to do so, arrange for the capsized or sunken vessel to be marked with appropriate buoy(s) and lights, to warn other vessels of her position.
- Discuss with the Master, owner or agent plans for righting, refloating or salvaging the vessel. Action in this regard is particularly important where the vessel is obstructing fairways, channels or approaches to berths.
- Ascertain oil pollution- leak source, if any.
- Inform the approved private parties for safe disposal and providing reception facilities for Oil/Sludge.
- Ensure that the operations are brought back to normal after the termination of the emergency procedure.
- Responsible for organizing tugs for search and rescue.
- Arrange for the marking arrangements with appropriate buoy(s) and lights.
- Assist Salvage association.
- Coordinate with the party involved in disposal of the Oil/sludge in a safe manner.
- Liaise with the OSRO team and coordinate with the team in combating the disaster by taking necessary actions as per the OSCP.
- Hire additional crafts as necessary.

Duty Pilot

- Shall be ready for taking the instructions from DC/HM and evacuate/move/shift the vessel from the area.
- He will maintain Log of events.

Master of Tug/Pilot Launches & Other Launches

- Masters of respective crafts will notify their staff to remain on board and on standby until they are relieved by next shift staff or HM/ Pilot releases them from duty.
- Masters/Engineers will keep the engines of their crafts ready to proceed at short notice as per the instructions.
- Extra fenders and mooring ropes will be kept ready on board the Tug for use as required.
- Tugs will be manned as per Marine Department s requirement in that situation and as per the instruction.

Safety Officer

- Shall take orders from DC/HM.
- Make arrangements for oil pollution combat personnel and equipment.
- Instruct the oil pollution response team to maintain a state of readiness and standby.
- Liaise with the OSRO team and coordinate with the team in combating the disaster by taking necessary actions as per the OSCP.
- Extend all necessary support to the Master of the vessel for search and rescue operation.
- Coordinate with the party involved in disposal of the Oil/sludge in a safe manner.
- Supervise and direct personnel to follow the instructions given.

Civil / Executive Engineer)

- Liaise with the DC/HM, terminal managers and Traffic Manager.
- Carry out urgent civil works as required.
- Instruct the contractors to carry out urgent civil works as required.
- Hire the barges for collecting the spilled oil and coordinate with the parties involved in the safe disposal of the oil/sludge.
- Coordinate with Survey & Dredging Officer.

Mechanical Engineer

- Arrange for specialized equipment if required as per the instruction.

Electrical Engineer

- Shall be responsible for Electrical supply to vital equipment and systems if required as per the instruction.
- Coordinate and provide support to the terminal as per the instruction.
- Liaise with DC/HM and assist Terminal Manager.

Traffic Manager

- Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation.

Sr. Commandant CISF / Dy. Commandant CISF

- Provide assistance to the terminal and controls & directs traffic in the area.
- Shall supervise evacuation of personnel from the scene at the time of emergency.

Medical Officer

- Organize and keep ready the first aid team with ambulance & necessary medicines to attend to any injured person at the site of the accident as per the instructions.
- Keep sufficient doctors on duty during emergency.
- Coordinate with the local hospitals and arrange for medical assistance from empanelled hospitals as and when required.

21.8. Emergency/Disaster / Fire within Port Facility, Port Administration Building Signal

This plan relates to the Emergency/Disaster/Fire within the port facility inside the port in Port Administration building/ Signal Station.

Aim and Objectives of the plan

DC/HM / Fire Safety officer will have control of the incident. should confer with the duty personnel for precautions to be taken to preserve the safety of the personnel, environment and property.

Immediate Action

The DPA will then carry out the following actions:

- Communications should be maintained and events are to be recorded, as appropriate.
- Ascertain details of the incident, including the location of the incident, direction of the wind, and predicted weather conditions and damage, if any.
- The Fire station should be informed and advised for the required action.
- Authorities to be informed

Post Emergency Actions

- Arrange for a preliminary inquiry into the causes of the incident to be commenced as soon as possible.
- Review the effectiveness
- Inform the Authorities about the termination of the response.

Action Plan

8.1. Scenario: Emergency/Disaster/Fire within the port facility inside the port in Port Administration building/ Signal Station.

8.2. Precautions: Contingency plan, Smoke and Fire Detection system, Firefighting system, trained personnel to combat fire, No Smoking zone, and Protected/covered Electrical installations. Good housekeeping and First aid measures.

8.3. Impact Zone: Port facility / Administration building/ Signal Station.

8.4. Resources required: Organizational setup and major material and equipment resources as.

The Observer/ Building-Fire team/ Action Group member

- Shout emergency and / or Fire Fire Fire and should raise alarm.
- Signal Station should be informed of any incident without delay.
- If fire is in the Signal Station, inform Safety Officer and DC/HM.

If trained, try to deal with emergency situation and / or extinguish the fire and try to evacuate people.

Signal Station

- Shall monitor the communication on VHF/any other communication medium & convey and relay messages on the advice from DC/HM.
- Gather information about the weather (wind) and notify DC/HM.
- Ensure that telephones, one VHF and one walkie-talkie all are operational in the Port control centre. Listening watch to be maintained on VHF.
- Maintain Log of events.

DC/HM or Designated Incident Controller

- Assess the level of disaster and activate the CMP.

- Establish EAC and be stationed to review & assess possible developments to determine the most necessary course of action.
- Give necessary instructions to Signal Station & arrange for external aid as necessary.
- Review the situation and accordingly inform to the Chairman.
- Assess the condition of site a take decision on evacuation.
- Coordinate with external agencies/authorities
- Be in constant touch with District and Local Administration for rescue and relief operation.
- Terminate the response and debrief before allowing normal operation.

Designated Incident Controller

- During Emergency shall proceed to the scene & communicate & collect all information.
- He will assess and report the situation to the DC/HM.
- He will instruct the Designated Incident controller / Safety Officer to keep the port fire team in a state of readiness.
- Conduct initial Briefing.
- Report the situation to the DC/HM and assist in assessing the incident.
- Extend all necessary help to the terminal.
- Maintain log of events.

Fire Fighting Personnel

- Raise Alarm (siren)
- Collect the information about the exact location of the fire and people trapped in the building. Ensure safe evacuation of the people in the affected area to a safe location.
- He will lead the team and mobilize fire tenders, personnel & firefighting equipments to the scene & extinguish the fire.
- If the fire is out of control, convey the message to DC/HM and seek assistance from Mutual aid partners or other organizations.
- Open the water curtain valve to protect shore installations from heat radiation.
- Control clean-up work during and after the emergency as quick as possible.
- If the fire is under control and extinguished, give all clear signal.
- Mobilize firefighting tugs (if required), personnel & firefighting equipments to the scene & extend all necessary support in case of fire, if required.
  Assist in evacuation of the personnel as directed by Safety Officer.
- Inform HSE-Manager/Safety Officer for arrangement of any additional equipment as required.

Duty Pilot

- Shall be ready for providing any assistance on site.

Safety Officer

- Shall take orders from DC/HM.
- Investigate the incident and provide necessary guidance.
- Assist the terminal in rescue operation as per the instruction of DC/HM.

- Lead the firefighting team and mobilize fire tenders/tugs, personnel & firefighting equipments to the scene & extend all necessary support in case of fire, if required.
- Liaise with the State Police and Fire Brigade.

Engineer/Master of Tug/Pilot Launches And Other Launches
• Shall be ready for providing any assistance on site.

Civil / Executive Engineer)
- Liaise with the DC/HM, terminal managers and Traffic Manager.
- Carry out urgent civil works as required.

Mechanical Engineer
- Arrange for specialized equipment if required as per the instruction.

Electrical Engineer
- Shall be responsible for Electrical supply to vital equipment and systems if required as per the instruction.
- Coordinate and provide support to the terminal as per the instruction.
- Liaise with DC/HM and assist Terminal Manager.

Traffic Manager
- Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation.

Sr. Commandant CISF / Dy. Commandant CISF
- Provide assistance to the terminal and controls & directs traffic in the area.
- Shall supervise evacuation of personnel from the scene at the time of emergency.

Medical Officer
- Organize and keep ready the first aid team with ambulance & necessary medicines to attend to any injured person at the site of the accident as per the instructions.
- Keep sufficient doctors on duty during emergency.
- Coordinate with the local hospitals and arrange for medical assistance from empanelled hospitals as and when required.

21.9. War And Terrorism

This plan relates to the War and Terrorism.

Aim and Objectives of the plan
When war like situation is developed or during the declaration of war the priority is to be given to all important/critical areas to remain vigilant to prevent sabotage, to remain ready to combat emergency and to keep normal operation going.

Prior Emergency Situation (after warnings/inputs)

- Set up Crisis Management Centre and manned continuously.
- Chairman to declare plan/guideline to be followed which could be based on CISF Contingency Plan/Government of India/Statutory bodies/Indian Navy/Air Force/State Government etc. instructions.
- Chairman to ensure utmost vigilance in identified area to ensure the adequate resources in terms of security personnel, experts in handling equipment, trained manpower, and flood lights, earth moving equipment, mobile cranes, and rescue crafts are available to guard all gates, roads etc. In case of any unidentified/unauthorized person is found, he must be handed over to police.
- Chairman to ensure that evacuation plan is prepared and backup systems such as power generator, communication equipment, and safety systems are working. CMG should also ensure that all required manpower such as electricians / technicians / laborer are available at all time.
- All terminals should be informed.
- No movement of the vessels in the port vicinity will be allowed.

During Emergency

- Chairman to adopt relevant CMP to combat the emergency.
- In case of an enemy attack inform relevant authorities & internal security to defend installations till the external support arrives.
- When additional security (army/BSF) arrives, situation is to be handled jointly.
- Chairman to ensure sufficient supply of food and water.
- All vessels inside the port and at the anchorage will observe blackout as per the instructions.
- Authorities to be informed

Post Emergency Actions

- Undertake restorative measure and repairs.
- Arrange for a preliminary inquiry into the causes of the incident to be commenced as soon as possible.
- Review the effectiveness.
- Inform the informed Authorities about the termination of the response.

Action Plan

9.1. Scenario: War and Terrorism

9.2. Precautions: Trained Security Personnel, CCTV, and Continuous Vigilance including radioactive detectors and intelligence from designated local and national agencies.

9.3.Impact Zone: Entire port.

9.4. Resources required: Intelligence inputs from agencies and organizational setup and major material and equipment resources.

DC/HM or Designated Incident Controller

- Assess the level of disaster and activate the CMP.
- Establish EAC and be stationed to review & assess possible developments to determine the most necessary course of action.
- Give necessary instructions to Signal Station & arrange for external aid as necessary.
- Review the situation and accordingly inform to the Chairman.
- Be in constant touch with CISF and District and Local Administration for rescue and relief operation.
- Assess the condition of site a take decision on evacuation.
- Coordinate with external agencies/authorities
- Terminate the response and debrief before allowing normal operation.

Sr. Commandant CISF / Dy. Commandant CISF

- Provide assistance to the terminal and controls & directs traffic in the area.
- Shall supervise evacuation of personnel from the scene at the time of emergency.
- Review & assess possible developments to determine the most necessary course of action.
- Act as per the CISF Contingency plan.
- Review the situation and accordingly.
- Be in constant touch District and Local Administration for rescue and relief operation.
- Terminate the response and debrief before allowing normal operation.

Designated Incident Controller

- During Emergency shall proceed to the scene & communicate & collect all information.
- He will assess and report the situation to the DC/HM.
- He will extend all necessary help to CISF as and when required.
- He will ensure that there is blackout at the port and the vessels at the anchorage area as per the guidance and instruction.
- Report the situation to the DC/HM and assist in assessing the incident.
- Maintain log of events.

Safety Officer

- Ensure all employees (port and contract) within port shifted to safe locations.
- He will keep the firefighting installation in a state of readiness and be in continuous liaise with DC/HM.
- Controls & directs traffic in the area.
- Shall supervise evacuation of personnel from the scene at the time of emergency.

Master of Vessel (Alternate Officer: Chief Officer)

- He will coordinate and will be responsible for shutting down all cargo operation on board.
- Be ready to take the vessel out of the port as per the instructions .

Duty Pilot

- Shall be ready on site for taking the ship out of berth and be ready for providing any assistance on site.

Engineer/Master of Tug/Pilot Launches And Other Launches
• Shall be ready for providing any assistance on site.

Civil / Executive Engineer)
- Liaise with the DC/HM, terminal managers and Traffic Manager.
- Carry out urgent civil works as required.

Mechanical Engineer
- Arrange for specialized equipment if required as per the instruction.

Electrical Engineer
- Shall be responsible for Electrical supply to vital equipment and systems if required as per the instruction.
- Coordinate and provide support to the terminal as per the instruction.
- Liaise with DC/HM and assist Terminal Manager.

Traffic Manager
- Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation.
- Shall be responsible of shutting down of cargo operation & coordinating and rendering necessary assistance
- Arrange to protect cargo in vicinity from damage.
- Submits consolidated list of dangerous goods in port Vessels in port.
- Coordinates with ship in-charge/C & F agents/stevedores.

Medical Officer
- Organize and keep ready the first aid team with ambulance & necessary medicines to attend to any injured person at the site of the accident as per the instructions.
- Keep sufficient doctors on duty during emergency.
- Coordinate with the local hospitals and arrange for medical assistance from empanelled hospitals as and when required.

General Functions of All Departments
- Follow the instruction.
- All the equipment shall be properly secured and kept at safe locations.
- Safety of workmen on duty shall be given priority during action and all efforts shall be made to evacuate departmental held up workmen.
- Doors and windows of permanent buildings must be properly shut.
- Important documents/files/records must be stored properly

21.10. Bomb Threat

This plan relates to the Bomb Threat.

Prior Emergency Situation (after warnings/inputs)

- Set up Crisis Management Centre and manned continuously.
- Chairman to declare plan/guideline to be followed which could be based on CISF Contingency Plan/Government of India/Statutory bodies/Indian Navy/Air Force/State Government etc. instructions.
- Chairman to ensure utmost vigilance in identified area to ensure the adequate resources in terms of security personnel, experts in handling equipment, trained manpower, and flood lights, earth moving equipment, mobile cranes, and rescue crafts are available to guard all gates, roads etc. In case of any unidentified/unauthorized person is found, he must be handed over to police.
- Chairman to ensure that evacuation plan is prepared and backup systems such as power generator, communication equipment, and safety systems are working. Chairman should also ensure that all required manpower such as electricians/ technicians/ laborer is available at all time.
- All terminals should be informed.
- No movement of the vessels in the port vicinity will be allowed.

During Emergency

- Chairman to adopt relevant CMP to combat the emergency.
- When additional security (army/BSF) arrives, situation is to be handled jointly.
- Chairman to ensure sufficient supply of food and water.
- All vessels inside the port and at the anchorage will observe blackout as per the instruction of Chairman.
- Authorities to be informed

Post Emergency Actions

- Undertake restorative measure and repairs.
- Arrange for a preliminary inquiry into the causes of the incident to be commenced as soon as possible.
- Review the effectiveness.
- Inform the authorities about the termination of the response.

Action Plan

10.1. Scenario: Bomb Threat

10.2. Precautions: Trained Security Personnel, CCTV, and Continuous Vigilance including radioactive detectors.

10.3. Impact Zone: Entire port.

10.4. Resources required: Organizational setup and major material and equipment resources.

DC/HM or Designated Incident Controller

- Assess the level of disaster and activate the CMP.
- Establish EAC and be stationed to review & assess possible developments to determine the most necessary course of action.
- Give necessary instructions to Signal Station & arrange for external aid as necessary.
- Review the situation and accordingly inform to the Chairman.
- Be in constant touch with CISF and District and Local Administration for rescue and relief operation.
- Assess the condition of site a take decision on evacuation.
- Coordinate with external agencies/authorities
- Terminate the response and debrief before allowing normal operation.

Sr. Commandant CISF / Dy. Commandant CISF

- Provide assistance to the terminal and controls & directs traffic in the area.
- Shall supervise evacuation of personnel from the scene at the time of emergency.
- Review & assess possible developments to determine the most necessary course of action.
- Act as per the CISF Contingency plan.
- Review the situation and accordingly.
- Be in constant touch District and Local Administration for rescue and relief operation.
- Terminate the response and debrief before allowing normal operation.

Designated Incident Controller

- During Emergency shall proceed to the scene & communicate & collect all information.
- He will assess and report the situation to the DC/HM.
- He will extend all necessary help to CISF as and when required.
- He will ensure that there is blackout at the port and the vessels at the anchorage area as per the guidance and instruction.
- Report the situation to the DC/HM and assist in assessing the incident.
- Maintain log of events.

Safety Officer

- Ensure all employees (port and contract) within port shifted to safe locations.
- He will keep the firefighting installation in a state of readiness and be in continuous liaise with DC/HM.
- Controls & directs traffic in the area.
- Shall supervise evacuation of personnel from the scene at the time of emergency.

Master of Vessel (Alternate Officer: Chief Officer)

- He will coordinate and will be responsible for shutting down all cargo operation on board.
- Be ready to take the vessel out of the port as per the instructions .

Duty Pilot

- Shall be ready on site for taking the ship out of berth and be ready for providing any assistance on site.

Engineer/Master of Tug/Pilot Launches And Other Launches
• Shall be ready for providing any assistance on site.

Civil / Executive Engineer)
- Liaise with the DC/HM, terminal managers and Traffic Manager.
- Carry out urgent civil works as required.

Mechanical Engineer
- Arrange for specialized equipment if required as per the instruction.

Electrical Engineer
- Shall be responsible for Electrical supply to vital equipment and systems if required as per the instruction.
- Coordinate and provide support to the terminal as per the instruction.
- Liaise with DC/HM and assist Terminal Manager.

Traffic Manager
- Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation.
- Shall be responsible of shutting down of cargo operation & coordinating and rendering necessary assistance
- Arrange to protect cargo in vicinity from damage.
- Submits consolidated list of dangerous goods in port Vessels in port.
- Coordinates with ship in-charge/C & F agents/stevedores.

Medical Officer
- Organize and keep ready the first aid team with ambulance & necessary medicines to attend to any injured person at the site of the accident as per the instructions.
- Keep sufficient doctors on duty during emergency.
- Coordinate with the local hospitals and arrange for medical assistance from empanelled hospitals as and when required.

General Functions of All Departments
- Follow the instruction.
- All the equipment shall be properly secured and kept at safe locations.
- Safety of workmen on duty shall be given priority during action and all efforts shall be made to evacuate departmental held up workmen.
- Doors and windows of permanent buildings must be properly shut.
- Important documents/files/records must be stored properly

21.11. Natural Disasters

As soon as the message on anticipated cyclone/flood/natural calamity is received from the State Government Authority/Indian Meteorological Department/Cyclone Warning Centre/Indian Navy, etc. by any official of the Port Trust, the same shall immediately be informed to the Deputy Conservator (Nodal Officer), who in turn shall get such message confirmed from the above sources and apprise the Chairman and Dy. Chairman accordingly. On approval of Chairman, the Action Plan as stipulated hereunder shall be put into operation for which the Deputy Conservator shall inform all the officers-in-charge of the Control Rooms as well as the Heads of Departments, including Chief Operation Manager, OOT, and Vadinar about the decision of the Chairman.

Cyclone

This plan relates to the Natural Disaster-Cyclone within DPA Port waters and land including where its occurrence has potential to interrupt the Port operations.

Aim and Objectives of the plan

DC/HM will have the control. He should confer with the Master of the vessel regarding plans, precautions to be taken to preserve the safety of the vessel and the Port in the interim, and measures should be taken for the prevention of pollution.

Immediate Action

Before the event

- Communication with the IMD and other agencies should be maintained,
- Continuous weather monitoring should be done,
- Should continuously keep track of the conditions on social media, TV channels etc.

Precautions before the event

DPA will then carry out the following actions:

- The movement of all other vessels into or out of the port should be stopped and alternative orders issued as necessary.
- The tug owner's representative should be promptly advised, and tugs requested to be placed on standby and secured.
- The Fire station should be informed and advised for the required action.
- Communications should be maintained and events are to be recorded, as appropriate.
- Ascertain that there are no unsafe conditions due to loosely secured equipment • All operations at the port should be stopped.
- Confer with the Master regarding plans for the taking the vessel to the anchorage area.
- Advise the District Authority, and determine the need for assistance from any functional services, if necessary.
- Inform all contractors to remove all their equipment from jetty area and safely park at shore.
- Stop loading/unloading of ship and measure the ship cargo quantities along with client s surveyor and communicate Marine department/Shipping agencies to take the ship to anchorage area.

In the event of an incident occurring due to Cyclone, the following actions should be considered:

- The Signal station should be informed of the incident by the Master of the vessel.
- The Signal station will inform the DC/HM of the incident.
- The Signal station will inform all concerned.
- To confirm appropriate pollution control and response measures are in place or standby and inform Coastguard, if necessary.

Ascertain details of the incident (if any), including the location of the incident, the vessel's particulars, direction of the vessel's head, height of tides, and extent of damage to vessel and port, prevailing and predicted weather conditions and damage to navigational aids. Determine whether any form of pollution of the sea has occurred or is likely to occur. The pollution containment equipment should be deployed as necessary and if possible. In the event of pollution refer to the DPA-OSCP.

- The vessel's agent should be informed of the incident.
- Response team will work as per the instructions of the DC/HM.
- Authorities to be informed

Post Emergency Actions

- Undertake restorative measure and repairs.
- Arrange for a preliminary inquiry into the causes of the incident to be commenced as soon as possible.
- Review the effectiveness.
- Inform the authorities about the termination of the response.

Action Plan

11.1. Scenario: Natural Disaster - Cyclone

11.2. Precautions: Continuous weather monitoring, Early warning system.

11.3. Impact Zone: Entire port.

11.4. Resources required: Organizational setup and major material and equipment resources.

DC/HM or Designated Incident Controller

- Activate the CMP.
- Establish EAC and be stationed to review & assess possible developments to determine the most necessary course of action.
- Give necessary instructions to Signal Station & arrange for external aid as necessary.
- Review the situation and accordingly inform to the Chairman.
- Consult with Chairman and decide on clearing of ships as soon as the cyclone is confirmed to pass in close proximity to the Port.
- Plan movements of vessels such that the vessels are cleared in shortest possible time.

Coordinate with external agencies/authorities such as Indian Navy and Coastguard at the earliest and extent possible.
Be in constant touch with District and Local Administration for rescue and relief operation.
Terminate the response and debrief before allowing normal operation.

Designated Incident Controller

- Proceed to the scene & communicate & collect all information.
- Take over the charge of Signal Station and ensure the action plan is promulgated as per the instructions of DC/HM.
- Inform and ask Masters to keep their ships ready to proceed to the sea at short notice as per the instructions.
- Ensure port hoists appropriate storm signal as per the situation.
- He will report the situation to the DC/HM & the Chairman.
- Keep rescue team ready with rubber boats, Life jackets etc.
- Ensure that the hazardous cargoes are shifted out of the port or secured/stored in a safe manner.
- Ensure that the operations are brought back to normal after the termination of the emergency procedure.
- Ensure that the tugs are on standby.
- Organize tugs and work boats and/or ensure that tugs and work boats are secured.
- Hire additional crafts as necessary.

Signal Station

- Gather information related to the vessel type and position in the port limit. Gather information related to the weather conditions by liaising with competent agencies for issuing warnings.
- Monitor the weather map either through Internet or Television and record approximate position of the weather and information about its movement as given in the news.
- Liaise with Master of the Vessel/Pilot.
- Ensure that telephones, one VHF and one walkie-talkie all are operational in the Port control centre. Listening watch to be maintained on VHF.
- Notify to DC/HM and the vessels moving into, through and inside the port. Keep DC/HM informed of all the messages received by telephone, VHF or by messenger.
- Notify the other Authorities and stakeholders as per instructions.
- Notify the information to all concerned as per the instruction of DC/HM. Pass the information to various Port departments and other port related organizations such as operators through telephones and VHF.

Inform the Survey & Dredging team /Pilot of the any buoys or crafts or any port installations is seen adrift.

Hoist signals or raise alarms, as per the warnings received by the competent agencies for issuing warnings.

Signal Station should liaise with Police/Health/District Administration for additional assistance.

Duty Pilot

- Shall be ready on site for taking the ship out of berth or will not bring the ship to berth as per the instruction given by DC/HM.
- He will inform the Masters of all vessels at the berths to double the moorings and to keep engine ready to proceed out to sea if situation warrants.
- Decision regarding moving ships to the anchorage will be taken depending on the strength of the wind likely to be encountered and number of vessels in the Port.
- He will maintain a close liaison and co-ordination with the Operations Incharge.

Master Of Tug/Pilot Launches And Other Launches

- Masters of respective crafts will notify their staff to remain on board and on standby until they are relieved by next shift staff or Pilot releases them from duty.
- Masters will secure their respective crafts at safe places as directed with additional moorings.
- Masters/Engineers will keep the engines of their crafts ready to proceed at short notice as per the instructions.
- Extra fenders and mooring ropes will be kept ready on board the Tug for use as required.
- If any craft is seen adrift or any other port installation is seen in danger, the Master of the crafts will immediately inform the signal station. Continuous listening watch will be maintained on VHF.
- Engine room entrance doors, sky lights etc. of all the floating crafts to be kept shut.
- Engineers in Charge of all tugs on receiving the cyclone warning must ensure that tugs are in readiness for operation.
- Tugs will be manned as per Marine Department s requirement in that situation and as per the instruction.

Master of Vessel and Craft In Port.

- Should raise ships emergency alarm and activate ship board emergency action plan.
- Having raised the alarm, the Master will be responsible for taking all immediate steps to safeguard his ship.
- Coordinate with Signal Station and provide the Port Authority with details of the vessel.
  Stops cargo operation & informs terminal loading manager and ship owner of the vessel. Notify port of the any need/difficulty.
- On arrival of port fire services & response team coordinate with them.
  Remain alert for un-berthing, if required.
- The Master will follow the instruction and be in continuous liaise with the C Signal Station.

Safety Officer

- Ensure workers within perimeter of safety dangerous / chemical tank farms shifted to safer perimeters. All other workers to move out of port area.
- He will keep fire tenders and pumps on standby. Mobilize fire tenders, personnel & fire-fighting equipment to the scene & extend all necessary support, if required.
- Assist in shifting of hazardous cargo out of the port or to a safe place.
- During cyclonic season sufficient stock of stores like AC sheets, J.Hooks, screw hinges, gunny bags, tarpaulins, ropes and wires for Port Crafts, diesel oil, kerosene

oil, hurricane lantern, kerosene lamps, torch lights with batteries and bulbs, electrical items etc. to be kept.

- Liaise with State Fire brigade for any assistance.

Civil Engineer

- Liaise with the terminal managers and DC/HM.
- Arrange for equipment and local contractors -manpower required for cutting and removing debris in case of emergency or for securing equipment and shifting them.
- The Contractors, if any, already engaged in some site works shall be intimated about the warning issued and directed to take necessary precautionary measures to prevent loss of life and damage to machineries/equipment and Port assets.
- Keep enough number of cement bags ready. Form a task force to attend to any emergency.
- Diesel engines for raw water and clean water, all pump house equipment and all generator sets meant for water supply shall be secured, tried out and kept ready.
- As soon as the contingency plan is made operational all the water tanks should be filled up and standby arrangement for supply of water to be made.

Mechanical Engineer

- Ensure water supply to the hydrants. Arrange for pumps and submersible pumps.
- All types of cranes, forklifts, heavy earth moving equipment to be secured in a safe manner.
- Arrange for specialized equipment if required as per the instruction.

Electrical Engineer

- Shall be responsible for making arrangements for electrical supply to vital equipment and systems at the berth.
- All Sub Stations, Power Control rooms will be manned round the clock. All the electrical equipment to be properly secured.

Traffic Manager

- Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation.
- Shall be responsible of shutting down of cargo operation & coordinating and rendering necessary assistance
- Arrange to protect cargo in vicinity from damage.
- Submits consolidated list of dangerous goods in port Vessels in port.
- Coordinates with ship in-charge/C & F agents/stevedores.
- Submit consolidated list of dangerous goods in port-tank farms in port area.
- Coordinates with the tank truck contractors. Liaise with cargo handling agents to arrange for pay loaders to remove debris and fallen trees.
- Controls traffic in the area.
- The Manager will make announcement in the adjoining habitats area indicating the precautionary measures to be taken.

- Shall mobilize and dispatch sufficient number of vehicles to the site of emergency or as required.
- Ensure that all the materials and equipment which are likely to get damaged are secured and covered with tarpaulin.

Sr. Commandant CISF

- Controls & directs traffic in the area.
- Shall supervise evacuation of personnel from the scene at the time of emergency.
- Ensure that all barges / small vessels are directed to go to the sheltered area.
- The fishing trawlers and fishing crafts to be sent to safer place.
- Till normality is restored, arrangement will be made for thorough checks on all out-going vehicles to guard against pilferage.
- Round the clock patrolling duty shall be introduced along the electric lines to guard against the removal of copper wires which are likely to be grounded during cyclone.
- A special task force to be set up by the CISF for the rescue operation.

Medical Officer

- Shall be responsible to organize and keep first aid team ready with ambulance & necessary medicines to attend to any injured person at the site of the accident.
- Keep sufficient doctors on duty during emergency.
- Arrange for medical assistance from empanelled hospitals as and when required.

General Functions Of All Departments

- All the equipment shall be properly secured and kept at safe locations. Safety of workmen on duty shall be given priority during action and all efforts shall be made to evacuate departmental held up workmen.
- Operator s cabin doors of all the equipment and vehicles shall be kept shut.
- Doors and windows of permanent buildings must be properly shut.
- Important documents/files/records must be stored well above the floor.
- Power supply to be switched off before leaving the building.

Immediately on the occurrence of a Crisis, the local Internal Action Plan under the Disaster Management Act, 2005 would be put into effect by the local/District and the state authorities. If the situation has wider ramifications and warrants response at the State/National level, the Chairman/ Deputy Chairman will contact the Nodal Ministry of the State / Central Government and seek the required help. The concerned authorities would activate its control room, call for a meeting of the Crisis Management Group and put into operation its contingency Plan.

Dy. Conservator/Harbour Master/Pilots should be available at Kandla during emergency. All the Pilots of the Port should reach Kandla immediately in case of emergency. Any Pilot not traceable in emergency shall be liable for disciplinary action.

whenever the Cyclone is located in close proximity to the danger line plotted between 65-degree E Longitude 18.2 degree N Longitude and 73 degree E Longitude 18.2 degree N Longitude, the following should be ensured.

i. Under such a situation, the ships shall be removed during the first/next available tide. It will be the duty of Harbour Master and Dy. Conservator to ensure that the ships are removed during the first/next available tide as soon as the storm

approaches in the close proximity to the danger line as defined above without seeking any further instructions from higher authorities. This action shall be taken automatically and suo-motto without any confusion and for this purpose Traffic Manager shall stop all loading and unloading operations immediately upon instructions from Dy. Conservator so as to enable him to remove the vessels in time. The removal shall be done with the help of all the available pilots plus all contract/empanelled pilots together at one go in the shortest possible time so as to ensure that all the vessels cross the bar before the tide restriction sets in.

ii. Dy. Conservator shall ensure that all ships are moved out of the Harbour at the earliest. All pilots shall immediately report at Kandla and stay there till the Action Plan is in operation. Dy. Conservator/Harbour Master shall immediately plan removal of vessels to the OTB as soon as the Action Plan is put into operation irrespective of the signal number, which must be hoisted. If it is impossible to remove them, then all other steps should be taken to ensure safety of the vessels at the Port, as also it would not cause any damage to the Port.

iii. M E Gr. II shall enlist the Engine side staff of the Floating crafts to be kept stand by for shifting of crafts to safer places. He will be the in charge of manning these crafts as per the requirement.

For shipping tugs, Marine Engineer / Engineer In charge (Tugs) / will be the in charge for manning the engine side staff for operation of the shipping tugs as per the requirement. Assistant Engineer (DT) and, Assistant Engineer (FC) shall co-ordinate with Marine Engineer / Engineer In charge (Tugs).

iv. After the Cyclone warning Signal No. 5 or above is hoisted at the Port Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships' derricks properly secured and all labourers evacuated from the port area. Public address system shall be installed at the cargo jetty area, which shall be under the charge of TM. He shall use it for necessary arrangements relating to the evacuation. Senior Commandant, CISF shall ensure that Public Address System is fitted on jeeps provided to CISF.

Traffic Manager should ensure that responsible persons make announcements in a proper way so as not to create any misunderstanding / panic.

Immediate Stopping of Operations At The Port

All the Pilots of the Port should reach Kandla immediately in case of emergency. Any Pilot not traceable in emergency shall be liable for disciplinary action.

Dy. Conservator/Harbour Master/Pilots should be available at Kandla during emergency. (i) Removal of vessels whenever the Cyclone is located in close proximity to the danger line plotted between 65 degree E Longitude 18.2 degree N Longitude and 73 degree E Longitude 18.2 degree N Longitude.

v. Under such a situation, the ships shall be removed during the first/next available tide. It will be the duty of Harbour Master and Dy. Conservator to ensure that the ships are removed during the first/next available tide as soon as the storm approaches in the close proximity to the danger line as defined above without seeking any further instructions from higher authorities. This action shall be taken automatically and suo-motto without any confusion and for this purpose Traffic Manager shall stop all loading and unloading operations immediately upon instructions from Dy. Conservator so as to enable him to remove the vessels in time.

The removal shall be done with the help of all the available pilots plus all contract/empanelled pilots together at one go in the shortest possible time so as to ensure that all the vessels cross the bar before the tide restriction sets in.

vi. Dy. Conservator shall ensure that all ships are moved out of the Harbour at the earliest. All pilots shall immediately report at Kandla and stay there till the Action Plan is in operation. Dy. Conservator/Harbour Master shall immediately plan removal of vessels to the OTB as soon as the Action Plan is put into operation irrespective of the signal number, which must be hoisted. If it is impossible to remove them, then all other steps should be taken to ensure safety of the vessels at the Port, as also it would not cause any damage to the Port.

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For shipping tugs, Marine Engineer / Engineer In charge (Tugs) / will be the in charge for manning the engine side staff for operation of the shipping tugs as per the requirement. Assistant Engineer (DT) and, Assistant Engineer (FC) shall co-ordinate with Marine Engineer / Engineer In charge (Tugs).

viii. After the Cyclone warning Signal No. 5 or above is hoisted at the Port Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships' derricks properly secured and all labourers evacuated from the port area. Public address system shall be installed at the cargo jetty area, which shall be under the charge of TM. He shall use it for necessary arrangements relating to the evacuation. Senior Commandant, CISF shall ensure that Public Address System is fitted on jeeps provided to CISF.

Traffic Manager should ensure that responsible persons make announcements in a proper way so as not to create any misunderstanding / panic.

Evacuation Of People From Kandla Area Action Plan

On Hoisting of No. 5 Signal or above in Kandla Port, immediately action shall have to be initiated for evacuation of people in the following areas by the persons responsible as mentioned hereunder: -

The evacuation of the inhabitants of the following areas at Kandla is to be done as these areas are sensitive and prone to natural calamities like cyclone, high-tide and other Crisis like Gas Leak, etc..

Traffic Manager/Deputy Traffic Manager shall arrange to inform all the Stevedores / Agents and other Stakeholders to remove their workers from the operational areas at Kandla.

On Hoisting of No. 5 Signal or above in Kandla Port, immediately action shall have to be initiated for evacuation of people in the following areas by the persons responsible as mentioned hereunder:-

The evacuation of the inhabitants of the following areas at Kandla is to be done as these areas are sensitive and prone to natural calamities like cyclone, high-tide and other Crisis like Gas Leak, etc..

SE (Land) and Asstt. Executive Engineer should ring up major salt leaseholders and advising them to evacuate their labourers and report the action to the Chairman within two hours.

Safety Officer & Librarian shall inform the Public/Private Sector Tank Farms in Kandla about the situation and advise them to shif their people out ht respective areas to safe places.

Traffic Manager/Deputy Traffic Manager shall arrange to inform all the Stevedores / Agents and other Stakeholders to remove their workers from the operational areas at Kandla.

Core Team: -

Asstt. Commandant-CISF, OSD (Estate), ***Ex. Engineer (Harbour),*** Executive Magistrate of State Govt. of Gujarat i.e. the Mamlatdar, Gandhidham and Police Inspector, Kandla shall jointly ensure evacuation of people from Kandla areas. The persons entrusted with the evacuation programme as indicated herebelow will have to report the progress in evacuation to the Dy. Secretary (E) who shall apprise all developments in this regard to Chairman and Deputy Chairman over telephone time to time.

In Kandla Area, there is Residential Habitation in the following areas:

I) ***Places Of Habitation: -***

(I) ***Saltpan Units: -***

Considerable numbers of Salt Workers are engaged in the following Salt Manufacturing Units.

(a) Kutch Salt Works.
(b) New Kandla Salt Works.
(c) Vijay Salt Works.
(d) Friends Salt Works.
(e) United Salt Works on KPT Land.
(f) United Salt Works on State Government Land.
(g) Small Salt Works of State Government, Near Nakti Creek.

The approximate number of Salt Workers that are being engaged/residing in these Salt Works will be around 2575.

(ii) Sirva Labour Camp: -

Plots in Shirva Labour Camps (Near Mosque) have been allotted by Deendayal Port Trust on Leave & License Basis, wherein there are 350 hutments. (approx,)

(iii) Sirva Railway Hutments: -

The Shirva Railway Hutments (alongside J.N. Road/ 2 mile road) is a cluster of Hutments erected on the Railway Land, located near Mobile Towers, Gurudwara and opposite Bapat Bazar: **2500 hutments (approx),** which includes 600 hutments erected on DPT land. Deendayal Port Trust has allotted land to Two Housing Societies known as Kandla Port Workers Co-operative Society and Dr. Jayant Khatri Co-operative Housing Society in Kandla area. Also, there is 1 society namely Dafda Society/Harijan Co-op Housing Society.

(v) ***New Kandla Port Colony, P&T, Customs Colonies:***

The DPT employees, CISF Personnel, Customs employees etc are residing in these areas.

(vi) ***Thermal Hutments: -***

These is a cluster of 180 hutments (approx..) unauthorized Hutments to the Northern side of Whaiyya creek and 35 hutments (approx..), on southern side of GETCO Power House Electric Sub-station/M/s INEOS ABS (1) Ltd., and this land belongs to PGVCL.

(vii) ***Banna Fishermen Hutments: -***

This is an unauthorized Fisherman Colony situated on the Bank of Kandla Creek towards Southern side of (ex-lessee)-NDDB/Mother's Dairy, Old Kandla, wherein 190 hutments (approx.) are erected.

(viii) STP, Fishermen hutments

There are about 200 hutments located near Sewage Treatment Plant, near link road at Kandla, behind New Custom House and near Barge Handling Plots.

(ix) ***Iffco Hutments: -***

There is a cluster of 120 (approx.) unauthorized hutments near IFFCO Plant, opp. M/s. Vopak.

(ix) Mitha Port Hutments

There are 60 hutments erected on DPT land and about 470 hutments are located on State Government Land, near M/s. Ahir Salt & Allied Products Pvt. Ltd., KK Road, Old Kandla.

II) ***Population Of Kandla :-***

The population of Kandla Area is basically a mixture of people from various places and they can generally divided in the following three groups;

(a) People belonging to nearby villages like (i) Tuna (ii) Kharirohar (iii) Mithirohar (iv) Chirai and (v) Gandhidham City.

(b) People belonging to other States like (i) Andhra Pradesh (ii) Rajasthan (iii) Uttar Pradesh, (iv) Bihar and Orissa.

(c) People working in Government establishments residing in the colonies of their organizations.

Most of the people residing in Shirva Labour Camp, Shirva Railway Hutments and Thermal Hutments etc are engaged as Private Labours in the Port and Port related ancillary activities and petty business.

III) ***Shifting Of People To Safer Places: -***

(a) People Of Nearby Villages: -People belonging to nearby villages like (i) Tuna (ii) Kharirohar (iii) Mithirohar (iv) Chirai and (v) Gandhidham City will have to be sent back to their respective village by providing them Trucks and/or ST Bus facilities.

(b) People Of Other States: -People belonging to other States like (i) Andhra Pradesh (ii) Rajasthan (iii) Uttar Pradesh (iv) Bihar and Orissa may not have any relatives or other accommodations facilities in the nearby places like Gandhidham, Adipur. Hence, they will have to be provided Temporary Shelter in the following places at **New Kandla**.

(i) Staff Club, New Kandla. (ii) Officers Club, New Kandla.

(iii) Community Hall, New Kandla.

(iv) Schools and other places at Gandhidham as may be declared as Temporary Shelters in Emergency by Mamlatdar, Gandhidham.

The evacuation of people from different areas at Kandla shall be looked after by the officers named below :-

(a) ***Banna Fishermen Colony***

ACTION BY: Junior Engineer (Civil) and CISF

(b) ***Saltpans (Including Major And Minor)***

ACTION BY: Labour Officer and CISF.

(c) ***Sirva Colony & Sirva Railway Hutmetns***

Action By: SE (Land), Estate Inspector and CISF

(d) ***New Kandla, DPA Colonies, Customs And Thermal Colony:***

ACTION BY: Executive Engineer (C) / (Inspector-Vigilance) with CISF

(e) ***Iffco Hutments And Thermal Hutments:***

Action By: Junior Engineer (Pipeline) and CISF

(f) ***Cargo Jetty And Oil Jetty Areas:***

Action By: Traffic Manager: Private Workers/Shore workers

Administrative / Officer / CHD Workers

HOD: The employees of their respective deptt.

The Traffic Manager/Commandant CISF shall ensure that the Cargo/Oil Jetties are completely evacuated and there is no fresh entry into the operational areas.

V) ***Public Announcement: -***

The Public Announcement for faster evacuation is to be made by (a) CISF on behalf of Kandla Port Trust and (b) Police Inspector, Kandla Police Station.

VI) ***Temporary Shelters : -***

The Temporary Evacution Centres (TEC) will be set up in the Gandhidham area in places like Schools /Community centres etc. as may be decided in consultation with the State Govt. Officials.

Executive Engineer (TD) will have to ensure the following;

Opening, clearing and providing water facility in the Temporary Shelters at (a) Staff Clubs, (b) Officers Club, (c) Community Hall and (d) School Buildings. The toilet blocks attached to these buildings are to be kept in usable condition.

Executive Engineer (Electrical) shall ensure providing of lights and continuous electric supply in the Temporary Shelters as mentioned above.

Labour Officer and the Head Masters of BVM School shall have to ensure opening of the Schools and shifting of school furniture as may be required.

The requirement of amenities / medical aid etc. in the Temporary Evacution Centres will be taken care of by the Executive Engineer(TD)/, Senior Engnieer(PL), and Sr. Medical Officer.

VII) ***Transport Facility: -***

The Traffic Manager shall provide sufficient number of Trucks and Dumpers as may be requested by O.S.D.(Estate) for evacuation purpose.

The hired buses of KPT shall be deployed for evacuation. In case of additional requirement, the Dy. Secretary will co-ordinate with Mamlatdar, Gandhidham for obtaining sufficient number of ST Buses for evacuation purpose.

Secretary shall co-ordinate the above activities.

Ensuring The Functioning Of Telephones

The name and telephone No. of the Officer Telephone Department to be contacted in case of any problem:

1. General Manager, Bhuj
2. District Engineer, Bhuj
3. SDO (P), Gandhidham

Dy. Secretary (Personnel) shall ensure that the telephone of all the Head of Departments and other responsible officers of different Departments are functioning properly by ringing personally. In case any of the telephones does not function or give satisfactory service, he shall take up the matter with the higher authorities immediately.

VEHICLE POOL

As soon as this Action Plan comes into force, the vehicle pool stands formed; the vehicle pool shall be controlled by Senior Engineer (Pipeline) and Senior Labour Officer. There will be vehicles in the Pool

Contact With The Railway & Gsrtc Secretary, Sr. Dy. Secretary & P O I/C should ensure for the smooth movement of workers/employees for which he may get in touch with the following officers of Western Railway/GSRTC and apprise them about the situation so that the movement of Staff is not suffered.

Transport	Contact Person

Western Railway	Area Manager
	Control Room
	Enquiry
GSRTC, Anjar	Depot Manager
GSRTC, Bhuj	Depot Manager
GSRTC, G'dham	Depot Manager

Monitoring Through Internet
As soon as the cyclone warning Signal No. 5 or above is hoisted, the HM and Pilot should monitor it through internet and give two hourly print out to Dy. Conservator, Secretary, Chief Engineer, FA & CAO, Dy. Chairman and Chairman. Dy. Director (EDP) along with Junior Engineer (PMC) and Exe. Engineer (Design) will monitor the website in the A. O. Building, Gandhidham. Website for monitoring - **www.imd.gov.in**

Plotting Of Information On Map
The HM, Pilot and Signal Suptdt. shall be deputed in the Control Room immediately on starting of the control room with relevant charts.

The above persons shall immediately reach the Control Room and stay there till the emergency is called off. They shall plot the movement of cyclone on hourly basis and bring the position to the notice of Traffic Manager, Chief Mechanical Engineer, Dy. Conservator and Dy. Chairman/Chairman.

After scrutinizing the movement of Cyclone on the Charts, Dy. Conservator shall, in consultation with Chairman / Dy. Chairman, if required, take a decision for evacuation of ships immediately as soon as the Cyclone is in close proximity to the danger line as defined above.

All pilots should remain stand by as soon as the warning of Cyclone No. 5 level and above is received. All pilots shall be stationed at Kandla and shall not leave the port without prior permission.
Dy. Conservator shall station himself at Control Room at Kandla and remain continuously in touch with the pilots. The pilots should be in a position to mobilize themselves for evacuation of vessels and securing all Port crafts at shortest possible time.

21.12. Earthquake

This plan relates to the Natural Disaster-Earthquake within DPA Port land where its occurrence has potential to interrupt the Port operations.

Aim and Objectives of the plan
DC/HM will have the control. He should confer with the Master of the vessel regarding plans, precautions to be taken to preserve the safety of the vessel and the Port in the interim, and measures should be taken for the prevention of pollution.

Immediate Action

Before the event

- Communication with the IMD/INCOIS and other agencies should be maintained,
- Continuous weather monitoring should be done,
- Should continuously keep track of the conditions on social media, TV channels etc.

Precautions before the event

DPA will then carry out the following actions:

- The movement of all other vessels into or out of the port should be stopped and alternative orders issued as necessary.
- The tug owner's representative should be promptly advised, and tugs requested to be placed on standby and secured.
- The Fire station should be informed and advised for the required action.
- Communications should be maintained and events are to be recorded, as appropriate.
- Ascertain that there are no unsafe conditions due to loosely secured equipment
- All operations at the port should be stopped.
- Confer with the Master regarding plans for the taking the vessel to the anchorage area.
- Advise the District Authority, and determine the need for assistance from any functional services, if necessary.
- Inform all contractors to remove all their equipment from jetty area and safely park at shore.
- Stop loading/unloading of ship and measure the ship cargo quantities along with client s surveyor and communicate Marine department/Shipping agencies to take the ship to anchorage area.

In the event of an incident occurring due to Earth Quake, the following actions should be considered:

- The Signal station should be informed of the incident by the Master of the vessel.
- The Signal station will inform the DC/HM of the incident.
- The Signal station will inform all concerned.
- To confirm appropriate pollution control and response measures are in place or standby and inform Coastguard, if necessary.

Ascertain details of the incident (if any), including the location of the incident, the vessel's particulars, direction of the vessel's head, height of tides, and extent of damage to vessel and port, prevailing and predicted weather conditions and damage to navigational aids. Determine whether any form of pollution of the sea has occurred or is likely to occur. The pollution containment equipment should be deployed as necessary and if possible. In the event of pollution refer to the DPA-OSCP.

- The vessel's agent should be informed of the incident.
- Response team will work as per the instructions of the DC/HM.
- Authorities to be informed

Post Emergency Actions

- Undertake restorative measure and repairs.

- Arrange for a preliminary inquiry into the causes of the incident to be commenced as soon as possible.
- Review the effectiveness.
- Inform the authorities about the termination of the response.

Action Plan

12.1. Scenario: Natural Disaster - Earth Quake

12.2. Precautions: Continuous weather monitoring, Early warning system.

12.3. Impact Zone: Entire port.

12.4. Resources required: Organizational setup and major material and equipment resources.

DC/HM or Designated Incident Controller
- Activate the CMP.
- Establish EAC and be stationed to review & assess possible developments to determine the most necessary course of action.
- Give necessary instructions to Signal Station & arrange for external aid as necessary.
- Review the situation and accordingly inform to the Chairman.
- Consult with Chairman and decide on clearing of ships as soon as the cyclone is confirmed to pass in close proximity to the Port.
- Plan movements of vessels such that the vessels are cleared in shortest possible time.

Coordinate with external agencies/authorities such as Indian Navy and Coastguard at the earliest and extent possible.
Be in constant touch with District and Local Administration for rescue and relief operation.
Terminate the response and debrief before allowing normal operation.

Designated Incident Controller
- Proceed to the scene & communicate & collect all information.
- Take over the charge of Signal Station and ensure the action plan is promulgated as per the instructions of DC/HM.
- Inform and ask Masters to keep their ships ready to proceed to the sea at short notice as per the instructions.
- Ensure port hoists appropriate storm signal as per the situation.
- He will report the situation to the DC/HM & the Chairman.
- Keep rescue team ready with rubber boats, Life jackets etc.
- Ensure that the hazardous cargoes are shifted out of the port or secured/stored in a safe manner.
- Ensure that the operations are brought back to normal after the termination of the emergency procedure.

- Ensure that the tugs are on standby.
- Organize tugs and work boats and/or ensure that tugs and work boats are secured.
- Hire additional crafts as necessary.

Signal Station

- Gather information related to the vessel type and position in the port limit. Gather information related to the weather conditions by liaising with competent agencies for issuing warnings.
- Monitor through Internet or Television and record information as given in the news.
- Liaise with Master of the Vessel/Pilot.
- Ensure that telephones, one VHF and one walkie-talkie all are operational in the Port control centre. Listening watch to be maintained on VHF.
- Notify to DC/HM and the vessels moving into, through and inside the port. Keep DC/HM informed of all the messages received by telephone, VHF or by messenger.
- Notify the other Authorities and stakeholders as per instructions.
- Notify the information to all concerned as per the instruction of DC/HM. Pass the information to various Port departments and other port related organizations such as operators through telephones and VHF.

  Inform the Survey & Dredging team /Pilot of the any buoys or crafts or any port installations is seen adrift.

  Hoist signals or raise alarms, as per the warnings received by the competent agencies for issuing warnings.

  Signal Station should liaise with Police/Health/District Administration for additional assistance.

Duty Pilot

- Shall be ready on site for taking the ship out of berth or will not bring the ship to berth as per the instruction given by DC/HM.
- He will inform the Masters of all vessels at the berths to double the moorings and to keep engine ready to proceed out to sea if situation warrants.
- Decision regarding moving ships to the anchorage will be taken depending on the strength of the wind likely to be encountered and number of vessels in the Port.
- He will maintain a close liaison and co-ordination with the Operations Incharge.

Master Of Tug/Pilot Launches And Other Launches

- Masters of respective crafts will notify their staff to remain on board and on standby until they are relieved by next shift staff or Pilot releases them from duty.
- Masters will secure their respective crafts at safe places as directed with additional moorings.
- Masters/Engineers will keep the engines of their crafts ready to proceed at short notice as per the instructions.
- Extra fenders and mooring ropes will be kept ready on board the Tug for use as required.
- If any craft is seen adrift or any other port installation is seen in danger, the Master of the crafts will immediately inform the signal station. Continuous listening watch will be maintained on VHF.
- Engine room entrance doors, sky lights etc. of all the floating crafts to be kept shut.

- Engineers in Charge of all tugs on receiving the cyclone warning must ensure that tugs are in readiness for operation.
- Tugs will be manned as per Marine Department s requirement in that situation and as per the instruction.

Master of Vessel and Craft In Port.

- Should raise ships emergency alarm and activate ship board emergency action plan.
- Having raised the alarm, the Master will be responsible for taking all immediate steps to safeguard his ship.
- Coordinate with Signal Station and provide the Port Authority with details of the vessel.
  Stops cargo operation & informs terminal loading manager and ship owner of the vessel. Notify port of the any need/difficulty.
- On arrival of port fire services & response team coordinate with them.
  Remain alert for un-berthing, if required.
- The Master will follow the instruction and be in continuous liaise with the C Signal Station.

Safety Officer

- Ensure workers within perimeter of safety dangerous / chemical tank farms shifted to safer perimeters. All other workers to move out of port area.
- He will keep fire tenders and pumps on standby. Mobilize fire tenders, personnel & fire-fighting equipment to the scene & extend all necessary support, if required.
- Assist in shifting of hazardous cargo out of the port or to a safe place.
- Sufficient stock of stores like AC sheets, J.Hooks, screw hinges, gunny bags, tarpaulins, ropes and wires for Port Crafts, diesel oil, kerosene oil, hurricane lantern, kerosene lamps, torch lights with batteries and bulbs, electrical items etc. to be kept.
- Liaise with State Fire brigade for any assistance.

Civil Engineer

- Liaise with the terminal managers and DC/HM.
- Arrange for equipment and local contractors -manpower required for cutting and removing debris in case of emergency or for securing equipment and shifting them.
- The Contractors, if any, already engaged in some site works shall be intimated about the warning issued and directed to take necessary precautionary measures to prevent loss of life and damage to machineries/equipment and Port assets.
- Keep enough number of cement bags ready. Form a task force to attend to any emergency.
- Diesel engines for raw water and clean water, all pump house equipment and all generator sets meant for water supply shall be secured, tried out and kept ready.
- As soon as the contingency plan is made operational all the water tanks should be filled up and standby arrangement for supply of water to be made.

Mechanical Engineer

- Ensure water supply to the hydrants. Arrange for pumps and submersible pumps.

- All types of cranes, forklifts, heavy earth moving equipment to be secured in a safe manner.
- Arrange for specialized equipment if required as per the instruction.

Electrical Engineer

- Shall be responsible for making arrangements for electrical supply to vital equipment and systems at the berth.
- All Sub Stations, Power Control rooms will be manned round the clock. All the electrical equipment to be properly secured.

Traffic Manager

- Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation.
- Shall be responsible of shutting down of cargo operation & coordinating and rendering necessary assistance
- Arrange to protect cargo in vicinity from damage.
- Submits consolidated list of dangerous goods in port Vessels in port.
- Coordinates with ship in-charge/C & F agents/stevedores.
- Submit consolidated list of dangerous goods in port-tank farms in port area.
- Coordinates with the tank truck contractors. Liaise with cargo handling agents to arrange for pay loaders to remove debris and fallen trees.
- Controls traffic in the area.
- The Manager will make announcement in the adjoining habitats area indicating the precautionary measures to be taken.
- Shall mobilize and dispatch sufficient number of vehicles to the site of emergency or as required.
- Ensure that all the materials and equipment which are likely to get damaged are secured and covered with tarpaulin.

Sr. Commandant CISF

- Controls & directs traffic in the area.
- Shall supervise evacuation of personnel from the scene at the time of emergency.
- Ensure that all barges / small vessels are directed to go to the sheltered area.
- The fishing trawlers and fishing crafts to be sent to safer place.
- Till normality is restored, arrangement will be made for thorough checks on all out-going vehicles to guard against pilferage.
- Round the clock patrolling duty shall be introduced along the electric lines to guard against the removal of copper wires which are likely to be grounded during cyclone.
- A special task force to be set up by the CISF for the rescue operation.

Medical Officer

- Shall be responsible to organize and keep first aid team ready with ambulance & necessary medicines to attend to any injured person at the site of the accident.

- Keep sufficient doctors on duty during emergency.
- Arrange for medical assistance from empanelled hospitals as and when required.

General Functions Of All Departments

- All the equipment shall be properly secured and kept at safe locations. Safety of workmen on duty shall be given priority during action and all efforts shall be made to evacuate departmental held up workmen.
- Operator s cabin doors of all the equipment and vehicles shall be kept shut.
- Doors and windows of permanent buildings must be properly shut.
- Important documents/files/records must be stored well above the floor.
- Power supply to be switched off before leaving the building.

21.13. Flood

This plan relates to the Natural Disaster-Flood within DPA Port land where its occurrence has potential to interrupt the Port operations.

Aim and Objectives of the plan

DC/HM will have the control. He should confer with the Master of the vessel regarding plans, precautions to be taken to preserve the safety of the vessel and the Port in the interim, and measures should be taken for the prevention of pollution.

Immediate Action

Before the event

- Communication with the IMD/INCOIS and other agencies should be maintained,
- Continuous weather monitoring should be done,
- Should continuously keep track of the conditions on social media, TV channels etc.

Precautions before the event

DPA will then carry out the following actions:

- The movement of all other vessels into or out of the port should be stopped and alternative orders issued as necessary.
- The tug owner's representative should be promptly advised, and tugs requested to be placed on standby and secured.
- The Fire station should be informed and advised for the required action.
- Communications should be maintained and events are to be recorded, as appropriate.
- Ascertain that there are no unsafe conditions due to loosely secured equipment
- All operations at the port should be stopped.
- Confer with the Master regarding plans for the taking the vessel to the anchorage area.
- Advise the District Authority, and determine the need for assistance from any functional services, if necessary.
- Inform all contractors to remove all their equipment from jetty area and safely park at shore.
- Stop loading/unloading of ship and measure the ship cargo quantities along with client s surveyor and communicate Marine department/Shipping agencies to take the ship to anchorage area.

In the event of an incident occurring due to Earth Quake, the following actions should be considered:

- The Signal station should be informed of the incident by the Master of the vessel.
- The Signal station will inform the DC/HM of the incident.
- The Signal station will inform all concerned.
- To confirm appropriate pollution control and response measures are in place or standby and inform Coastguard, if necessary.

Ascertain details of the incident (if any), including the location of the incident, the vessel's particulars, direction of the vessel's head, height of tides, and extent of damage to vessel and port, prevailing and predicted weather conditions and damage to navigational aids. Determine whether any form of pollution of the sea has occurred or is likely to occur. The pollution containment equipment should be deployed as necessary and if possible. In the event of pollution refer to the DPA-OSCP.

- The vessel's agent should be informed of the incident.
- Response team will work as per the instructions of the DC/HM.
- Authorities to be informed

Post Emergency Actions

- Undertake restorative measure and repairs.
- Arrange for a preliminary inquiry into the causes of the incident to be commenced as soon as possible.
- Review the effectiveness.
- Inform the authorities about the termination of the response.

Action Plan

13.1. Scenario: Natural Disaster - Flood

13.2. Precautions: Continuous weather monitoring, Early warning system.

13.3. Impact Zone: Entire port.

13.4. Resources required: Organizational setup and major material and equipment resources.

DC/HM or Designated Incident Controller

- Activate the CMP.
- Establish EAC and be stationed to review & assess possible developments to determine the most necessary course of action.
- Give necessary instructions to Signal Station & arrange for external aid as necessary.
- Review the situation and accordingly inform to the Chairman.
- Consult with Chairman and decide on clearing of ships as soon as the cyclone is confirmed to pass in close proximity to the Port.

- Plan movements of vessels such that the vessels are cleared in shortest possible time.

Coordinate with external agencies/authorities such as Indian Navy and Coastguard at the earliest and extent possible.
Be in constant touch with District and Local Administration for rescue and relief operation.
Terminate the response and debrief before allowing normal operation.

Designated Incident Controller

- Proceed to the scene & communicate & collect all information.
- Take over the charge of Signal Station and ensure the action plan is promulgated as per the instructions of DC/HM.
- Inform and ask Masters to keep their ships ready to proceed to the sea at short notice as per the instructions.
- Ensure port hoists appropriate storm signal as per the situation.
- He will report the situation to the DC/HM & the Chairman.
- Keep rescue team ready with rubber boats, Life jackets etc.
- Ensure that the hazardous cargoes are shifted out of the port or secured/stored in a safe manner.
- Ensure that the operations are brought back to normal after the termination of the emergency procedure.
- Ensure that the tugs are on standby.
- Organize tugs and work boats and/or ensure that tugs and work boats are secured.
- Hire additional crafts as necessary.

Signal Station

- Gather information related to the vessel type and position in the port limit. Gather information related to the weather conditions by liaising with competent agencies for issuing warnings.
- Monitor through Internet or Television and record information as given in the news.
- Liaise with Master of the Vessel/Pilot.
- Ensure that telephones, one VHF and one walkie-talkie all are operational in the Port control centre. Listening watch to be maintained on VHF.
- Notify to DC/HM and the vessels moving into, through and inside the port. Keep DC/HM informed of all the messages received by telephone, VHF or by messenger.
- Notify the other Authorities and stakeholders as per instructions.
- Notify the information to all concerned as per the instruction of DC/HM. Pass the information to various Port departments and other port related organizations such as operators through telephones and VHF.

  Inform the Survey & Dredging team /Pilot of the any buoys or crafts or any port installations is seen adrift.

  Hoist signals or raise alarms, as per the warnings received by the competent agencies for issuing warnings.

  Signal Station should liaise with Police/Health/District Administration for additional assistance.

Duty Pilot

- Shall be ready on site for taking the ship out of berth or will not bring the ship to berth as per the instruction given by DC/HM.
- He will inform the Masters of all vessels at the berths to double the moorings and to keep engine ready to proceed out to sea if situation warrants.
- Decision regarding moving ships to the anchorage will be taken depending on the strength of the wind likely to be encountered and number of vessels in the Port.
- He will maintain a close liaison and co-ordination with the Operations Incharge.

Master Of Tug/Pilot Launches And Other Launches

- Masters of respective crafts will notify their staff to remain on board and on standby until they are relieved by next shift staff or Pilot releases them from duty.
- Masters will secure their respective crafts at safe places as directed with additional moorings.
- Masters/Engineers will keep the engines of their crafts ready to proceed at short notice as per the instructions.
- Extra fenders and mooring ropes will be kept ready on board the Tug for use as required.
- If any craft is seen adrift or any other port installation is seen in danger, the Master of the crafts will immediately inform the signal station. Continuous listening watch will be maintained on VHF.
- Engine room entrance doors, sky lights etc. of all the floating crafts to be kept shut.
- Engineers in Charge of all tugs on receiving the cyclone warning must ensure that tugs are in readiness for operation.
- Tugs will be manned as per Marine Department s requirement in that situation and as per the instruction.

Master of Vessel and Craft In Port.

- Should raise ships emergency alarm and activate ship board emergency action plan.
- Having raised the alarm, the Master will be responsible for taking all immediate steps to safeguard his ship.
- Coordinate with Signal Station and provide the Port Authority with details of the vessel.
  Stops cargo operation & informs terminal loading manager and ship owner of the vessel. Notify port of the any need/difficulty.
- On arrival of port fire services & response team coordinate with them.
  Remain alert for un-berthing, if required.
- The Master will follow the instruction and be in continuous liaise with the C Signal Station.

Safety Officer

- Ensure workers within perimeter of safety dangerous / chemical tank farms shifted to safer perimeters. All other workers to move out of port area.
- He will keep fire tenders and pumps on standby. Mobilize fire tenders, personnel & fire-fighting equipment to the scene & extend all necessary support, if required.
- Assist in shifting of hazardous cargo out of the port or to a safe place.
- Sufficient stock of stores like AC sheets, J.Hooks, screw hinges, gunny bags, tarpaulins, ropes and wires for Port Crafts, diesel oil, kerosene oil, hurricane

lantern, kerosene lamps, torch lights with batteries and bulbs, electrical items etc. to be kept.

- Liaise with State Fire brigade for any assistance.

Civil Engineer

- Liaise with the terminal managers and DC/HM.
- Arrange for equipment and local contractors -manpower required for cutting and removing debris in case of emergency or for securing equipment and shifting them.
- The Contractors, if any, already engaged in some site works shall be intimated about the warning issued and directed to take necessary precautionary measures to prevent loss of life and damage to machineries/equipment and Port assets.
- Keep enough number of cement bags ready. Form a task force to attend to any emergency.
- Diesel engines for raw water and clean water, all pump house equipment and all generator sets meant for water supply shall be secured, tried out and kept ready.
- As soon as the contingency plan is made operational all the water tanks should be filled up and standby arrangement for supply of water to be made.

Mechanical Engineer

- Ensure water supply to the hydrants. Arrange for pumps and submersible pumps.
- All types of cranes, forklifts, heavy earth moving equipment to be secured in a safe manner.
- Arrange for specialized equipment if required as per the instruction.

Electrical Engineer

- Shall be responsible for making arrangements for electrical supply to vital equipment and systems at the berth.
- All Sub Stations, Power Control rooms will be manned round the clock. All the electrical equipment to be properly secured.

Traffic Manager

- Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation.
- Shall be responsible of shutting down of cargo operation & coordinating and rendering necessary assistance
- Arrange to protect cargo in vicinity from damage.
- Submits consolidated list of dangerous goods in port Vessels in port.
- Coordinates with ship in-charge/C & F agents/stevedores.
- Submit consolidated list of dangerous goods in port-tank farms in port area.
- Coordinates with the tank truck contractors. Liaise with cargo handling agents to arrange for pay loaders to remove debris and fallen trees.
- Controls traffic in the area.
- The Manager will make announcement in the adjoining habitats area indicating the precautionary measures to be taken.

- Shall mobilize and dispatch sufficient number of vehicles to the site of emergency or as required.
- Ensure that all the materials and equipment which are likely to get damaged are secured and covered with tarpaulin.

Sr. Commandant CISF
- Controls & directs traffic in the area.
- Shall supervise evacuation of personnel from the scene at the time of emergency.
- Ensure that all barges / small vessels are directed to go to the sheltered area.
- The fishing trawlers and fishing crafts to be sent to safer place.
- Till normality is restored, arrangement will be made for thorough checks on all out-going vehicles to guard against pilferage.
- Round the clock patrolling duty shall be introduced along the electric lines to guard against the removal of copper wires which are likely to be grounded during cyclone.
- A special task force to be set up by the CISF for the rescue operation.

Medical Officer
- Shall be responsible to organize and keep first aid team ready with ambulance & necessary medicines to attend to any injured person at the site of the accident.
- Keep sufficient doctors on duty during emergency.
- Arrange for medical assistance from empanelled hospitals as and when required.

General Functions Of All Departments
- All the equipment shall be properly secured and kept at safe locations. Safety of workmen on duty shall be given priority during action and all efforts shall be made to evacuate departmental held up workmen.
- Operator s cabin doors of all the equipment and vehicles shall be kept shut.
- Doors and windows of permanent buildings must be properly shut.
- Important documents/files/records must be stored well above the floor.
- Power supply to be switched off before leaving the building.

21.14. Tsunami

This plan relates to the Natural Disaster-Tsunami within DPA Port waters and land including where its occurrence has potential to interrupt the Port operations.

Aim and Objectives of the plan
DC/HM will have the control. He should confer with the Master of the vessel regarding plans, precautions to be taken to preserve the safety of the vessel and the Port in the interim, and measures should be taken for the prevention of pollution.

Immediate Action
Before the event
- Communication with the IMD/INCOIS and other agencies should be maintained,
- Continuous weather monitoring should be done,
- Should continuously keep track of the conditions on social media, TV channels etc.

Precautions before the event

DPA will then carry out the following actions:

- The movement of all other vessels into or out of the port should be stopped and alternative orders issued as necessary.
- The tug owner's representative should be promptly advised, and tugs requested to be placed on standby and secured.
- The Fire station should be informed and advised for the required action.
- Communications should be maintained and events are to be recorded, as appropriate.
- Ascertain that there are no unsafe conditions due to loosely secured equipment
- All operations at the port should be stopped.
- Confer with the Master regarding plans for the taking the vessel to the anchorage area.
- Advise the District Authority, and determine the need for assistance from any functional services, if necessary.
- Inform all contractors to remove all their equipment from jetty area and safely park at shore.
- Stop loading/unloading of ship and measure the ship cargo quantities along with client s surveyor and communicate Marine department/Shipping agencies to take the ship to anchorage area.

In the event of an incident occurring due to Earth Quake, the following actions should be considered:

- The Signal station should be informed of the incident by the Master of the vessel.
- The Signal station will inform the DC/HM of the incident.
- The Signal station will inform all concerned.
- To confirm appropriate pollution control and response measures are in place or standby and inform Coastguard, if necessary.

Ascertain details of the incident (if any), including the location of the incident, the vessel's particulars, direction of the vessel's head, height of tides, and extent of damage to vessel and port, prevailing and predicted weather conditions and damage to navigational aids. Determine whether any form of pollution of the sea has occurred or is likely to occur. The pollution containment equipment should be deployed as necessary and if possible. In the event of pollution refer to the DPA-OSCP.

- The vessel's agent should be informed of the incident.
- Response team will work as per the instructions of the DC/HM.
- Authorities to be informed

Post Emergency Actions

- Undertake restorative measure and repairs.
- Arrange for a preliminary inquiry into the causes of the incident to be commenced as soon as possible.
- Review the effectiveness.
- Inform the authorities about the termination of the response.

Action Plan

14.1. Scenario: Natural Disaster - Tsunami

14.2. Precautions: Continuous weather monitoring, Early warning system.

14.3. Impact Zone: Entire port.

14.4. Resources required: Organizational setup and major material and equipment resources.

DC/HM or Designated Incident Controller

- Activate the CMP.
- Establish EAC and be stationed to review & assess possible developments to determine the most necessary course of action.
- Give necessary instructions to Signal Station & arrange for external aid as necessary.
- Review the situation and accordingly inform to the Chairman.
- Consult with Chairman and decide on clearing of ships as soon as the cyclone is confirmed to pass in close proximity to the Port.
- Plan movements of vessels such that the vessels are cleared in shortest possible time.

Coordinate with external agencies/authorities such as Indian Navy and Coastguard at the earliest and extent possible.
Be in constant touch with District and Local Administration for rescue and relief operation.
Terminate the response and debrief before allowing normal operation.

Designated Incident Controller

- Proceed to the scene & communicate & collect all information.
- Take over the charge of Signal Station and ensure the action plan is promulgated as per the instructions of DC/HM.
- Inform and ask Masters to keep their ships ready to proceed to the sea at short notice as per the instructions.
- Ensure port hoists appropriate storm signal as per the situation.
- He will report the situation to the DC/HM & the Chairman.
- Keep rescue team ready with rubber boats, Life jackets etc.
- Ensure that the hazardous cargoes are shifted out of the port or secured/stored in a safe manner.
- Ensure that the operations are brought back to normal after the termination of the emergency procedure.
- Ensure that the tugs are on standby.
- Organize tugs and work boats and/or ensure that tugs and work boats are secured.
- Hire additional crafts as necessary.

Signal Station

- Gather information related to the vessel type and position in the port limit. Gather information related to the weather conditions by liaising with competent agencies for issuing warnings.
- Monitor through Internet or Television and record information as given in the news.
- Liaise with Master of the Vessel/Pilot.
- Ensure that telephones, one VHF and one walkie-talkie all are operational in the Port control centre. Listening watch to be maintained on VHF.
- Notify to DC/HM and the vessels moving into, through and inside the port. Keep DC/HM informed of all the messages received by telephone, VHF or by messenger.
- Notify the other Authorities and stakeholders as per instructions.
- Notify the information to all concerned as per the instruction of DC/HM. Pass the information to various Port departments and other port related organizations such as operators through telephones and VHF.

Inform the Survey & Dredging team /Pilot of the any buoys or crafts or any port installations is seen adrift.

Hoist signals or raise alarms, as per the warnings received by the competent agencies for issuing warnings.

Signal Station should liaise with Police/Health/District Administration for additional assistance.

Duty Pilot

- Shall be ready on site for taking the ship out of berth or will not bring the ship to berth as per the instruction given by DC/HM.
- He will inform the Masters of all vessels at the berths to double the moorings and to keep engine ready to proceed out to sea if situation warrants.
- Decision regarding moving ships to the anchorage will be taken depending on the strength of the wind likely to be encountered and number of vessels in the Port.
- He will maintain a close liaison and co-ordination with the Operations Incharge.

Master Of Tug/Pilot Launches And Other Launches

- Masters of respective crafts will notify their staff to remain on board and on standby until they are relieved by next shift staff or Pilot releases them from duty.
- Masters will secure their respective crafts at safe places as directed with additional moorings.
- Masters/Engineers will keep the engines of their crafts ready to proceed at short notice as per the instructions.
- Extra fenders and mooring ropes will be kept ready on board the Tug for use as required.
- If any craft is seen adrift or any other port installation is seen in danger, the Master of the crafts will immediately inform the signal station. Continuous listening watch will be maintained on VHF.
- Engine room entrance doors, sky lights etc. of all the floating crafts to be kept shut.
- Engineers in Charge of all tugs on receiving the cyclone warning must ensure that tugs are in readiness for operation.
- Tugs will be manned as per Marine Department s requirement in that situation and as per the instruction.

Master of Vessel and Craft In Port.

- Should raise ships emergency alarm and activate ship board emergency action plan.
- Having raised the alarm, the Master will be responsible for taking all immediate steps to safeguard his ship.
- Coordinate with Signal Station and provide the Port Authority with details of the vessel.
  Stops cargo operation & informs terminal loading manager and ship owner of the vessel. Notify port of the any need/difficulty.
- On arrival of port fire services & response team coordinate with them.
  Remain alert for un-berthing, if required.
- The Master will follow the instruction and be in continuous liaise with the C Signal Station.

Safety Officer

- Ensure workers within perimeter of safety dangerous / chemical tank farms shifted to safer perimeters. All other workers to move out of port area.
- He will keep fire tenders and pumps on standby. Mobilize fire tenders, personnel & fire-fighting equipment to the scene & extend all necessary support, if required.
- Assist in shifting of hazardous cargo out of the port or to a safe place.
- Sufficient stock of stores like AC sheets, J.Hooks, screw hinges, gunny bags, tarpaulins, ropes and wires for Port Crafts, diesel oil, kerosene oil, hurricane lantern, kerosene lamps, torch lights with batteries and bulbs, electrical items etc. to be kept.
- Liaise with State Fire brigade for any assistance.

Civil Engineer

- Liaise with the terminal managers and DC/HM.
- Arrange for equipment and local contractors -manpower required for cutting and removing debris in case of emergency or for securing equipment and shifting them.
- The Contractors, if any, already engaged in some site works shall be intimated about the warning issued and directed to take necessary precautionary measures to prevent loss of life and damage to machineries/equipment and Port assets.
- Keep enough number of cement bags ready. Form a task force to attend to any emergency.
- Diesel engines for raw water and clean water, all pump house equipment and all generator sets meant for water supply shall be secured, tried out and kept ready.
- As soon as the contingency plan is made operational all the water tanks should be filled up and standby arrangement for supply of water to be made.

Mechanical Engineer

- Ensure water supply to the hydrants. Arrange for pumps and submersible pumps.
- All types of cranes, forklifts, heavy earth moving equipment to be secured in a safe manner.
- Arrange for specialized equipment if required as per the instruction.

Electrical Engineer

- Shall be responsible for making arrangements for electrical supply to vital equipment and systems at the berth.
- All Sub Stations, Power Control rooms will be manned round the clock. All the electrical equipment to be properly secured.

Traffic Manager

- Traffic Manager shall ensure that the loading/unloading operations at the Port are stopped immediately, hatches closed, ships derricks properly secured and all labourers evacuated from the Port Area. Public Address System shall be installed at the Cargo Jetty Area, which shall be under the charge of Traffic Manager. He shall use it for necessary arrangements relating to evacuation.
- Shall be responsible of shutting down of cargo operation & coordinating and rendering necessary assistance
- Arrange to protect cargo in vicinity from damage.
- Submits consolidated list of dangerous goods in port Vessels in port.
- Coordinates with ship in-charge/C & F agents/stevedores.
- Submit consolidated list of dangerous goods in port-tank farms in port area.
- Coordinates with the tank truck contractors. Liaise with cargo handling agents to arrange for pay loaders to remove debris and fallen trees.
- Controls traffic in the area.
- The Manager will make announcement in the adjoining habitats area indicating the precautionary measures to be taken.
- Shall mobilize and dispatch sufficient number of vehicles to the site of emergency or as required.
- Ensure that all the materials and equipment which are likely to get damaged are secured and covered with tarpaulin.

Sr. Commandant CISF

- Controls & directs traffic in the area.
- Shall supervise evacuation of personnel from the scene at the time of emergency.
- Ensure that all barges / small vessels are directed to go to the sheltered area.
- The fishing trawlers and fishing crafts to be sent to safer place.
- Till normality is restored, arrangement will be made for thorough checks on all out-going vehicles to guard against pilferage.
- Round the clock patrolling duty shall be introduced along the electric lines to guard against the removal of copper wires which are likely to be grounded during cyclone.
- A special task force to be set up by the CISF for the rescue operation.

Medical Officer

- Shall be responsible to organize and keep first aid team ready with ambulance & necessary medicines to attend to any injured person at the site of the accident.
- Keep sufficient doctors on duty during emergency.
- Arrange for medical assistance from empanelled hospitals as and when required.

General Functions Of All Departments

- All the equipment shall be properly secured and kept at safe locations. Safety of workmen on duty shall be given priority during action and all efforts shall be made to evacuate departmental held up workmen.
- Operator s cabin doors of all the equipment and vehicles shall be kept shut.
- Doors and windows of permanent buildings must be properly shut.
- Important documents/files/records must be stored well above the floor.
- Power supply to be switched off before leaving the building.

22. LINKS BETWEEN THE ARMY, COAST GUARD & AIR FORCE

Aftermath of any Crisis the recovery and relief operations are conducted on a war footing.

The task involved usually demands rough and tough and dedicated personnel who are trained professionals to meet any challenge be it evacuating people marooned due to flood or making shelters or transporting relief to inaccessible areas. It is for this purpose that the army, air force and the coast guard would be required to assist the Kandla Port Administration.

The Chairman / Deputy Chairman would be the coordinating officials for liaising with the Station Commander (army, navy as well as air force) after consulting the District Administration.

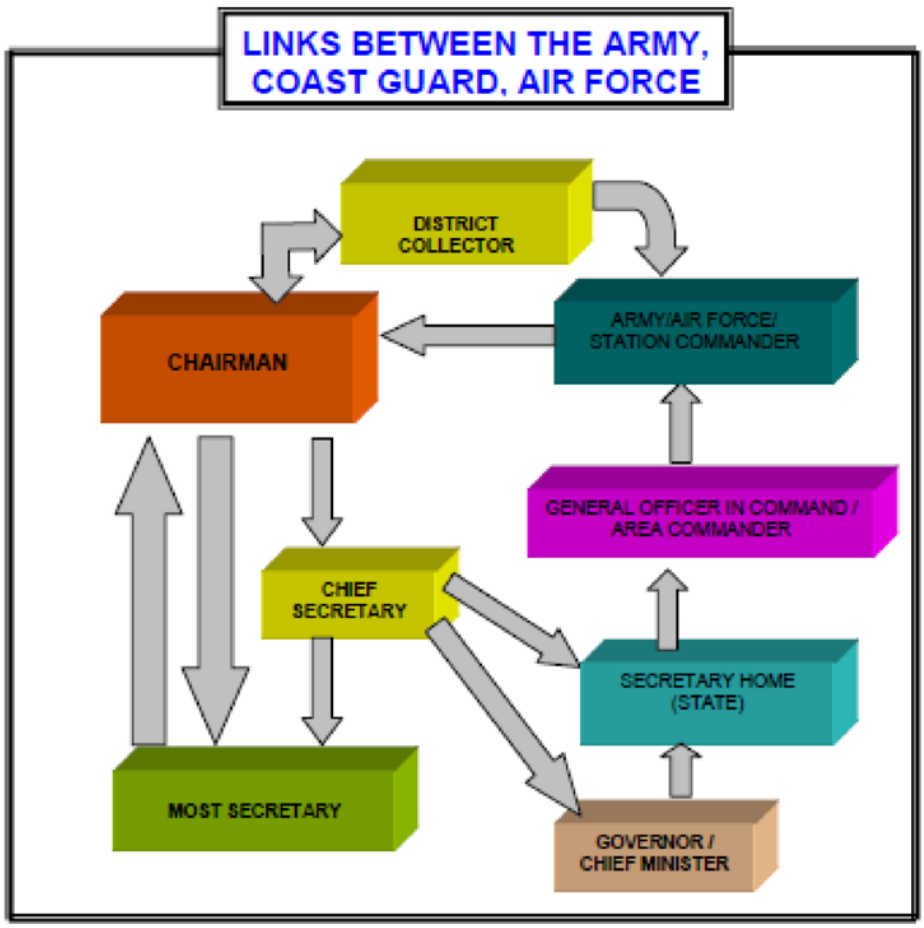
While seeking assistance from the army, air force or the coast guard the following documents should be kept ready for reference:

- Overall plot plan of the Kandla Port
- Clear demarcation of the affected area on the plot plan
- VHF link frequency for establishing contacts with the signal room as well as CISF commandant.
- List of all the important telephone numbers.
- In the event of Cyclone, keep the task force updated on the weather condition.
- Ensure that the emergency team is extending their full co-ordination to the task force.

- For ready reference the Secretary should nominate a person who should be made responsible to taking notes on what is happening and what sequence.
- The areas, which could be used as temporary shelters should be indicated to them.
- Open space which can be used as staging area should be indicated to them.
- All the medical staff should be kept on standby and they should be asked to act after consulting the Army or the Air force teams.
- In the event of air evacuation requirement it should be ensured that the people being evacuated are listed and the number of sorties required is noted.

- In the event of a cyclone and an resultant Ammonia Gas leak it should be noted that the Army and the Air force should be provided with gas mask (if the need be).
- Data pertaining to the number people in the affected areas (an approximate) should be made available to the Army / Air force.

The flow of information for co-ordination: Chairman District Collector Chief Secretary - Ministry of Surface Transport Governor / Chief Minister of the state ARMY/AIRFORCE.



23. STAFF ATTENDANCE

From experience it is observed that several times many officials do not turn up for work under one or the other pretext. This would be viewed very seriously. Immediately on operationalising this Action Plan, even if, it is a Public Holiday, the following staff shall report for duty.

All Operational Staff particularly those of Floating craft Section and Power Supply Section. Head of Departments may hold a meeting with Class-I, & Class-II and staffs and explain their functions as per the provisions of Action Plan during the Natural Calamity and submit a Compliance Report to Chairman/Dy. Chairman on priority basis.

FS- For the Flotilla Staff /SIGNAL STATION

Company Commander, CISF- CISF

FcSO- For Fire Brigade Staff

Leave For Class 1 Class Ii Officers

All Class-I & Class-II Officers, the Technical Staff, the essential staff and other persons assigned with specific functions under this plan who wants to avail leave in the month of May, June and July should invariably submit their leave program in April every year. Secretary shall issue a circular in the first week of April every year to all the Class-I and Class-II Officers and ascertain the period for which officers would like to proceed on leave during the months of May, June and July of that year.

24. CONTROL ROOM

There shall be three control rooms, one at Kandla at Signal Station Seva-Sadan-III, and second one at AO Building, Gandhidham and third at A O Building Off Shore Oil Terminal, and Vadinar. The Control Room at Kandla shall be under the direct supervision Harbour Master, whereas Dy. Secy. (G) will be the overall in charge of the control room at A O Building, Gandhidham. XEN (M&E) will be the overall in charge of control room at Vadinar. They shall rush to the respective control rooms as soon as the action plan is put into force. The officials named in the duty roaster of various departments elsewhere in this Action Plan shall also report to the respective HODs for coordination and to perform duties as may be assigned by the higher authorities. The overall in charge should draw up roster of the said employees and assign duties for the coming five days. The staff should report to the respective control rooms. The Radio Radar Technician will remain in control room to attend all communication equipments.

The overall in charge of the Control Rooms shall ensure the presence of the staff, to which various duties have been assigned. They should attend the meetings as and when called. In case of absence of the staff, the matter should be informed to the disciplinary authority, who shall take disciplinary action against the erring employees.

The information so collected shall be maintained by making hourly log entry in a register.

LIST OF CONTACTS & COMMUNICATIONS

PARTICULARS OF THE ACTION PLAN COMMITTEE MEMBERS

SR. No	Name	Designation	Telephone Nos.			
			Office	Residence.	Fax	Mobile
1	Mr. SANJAY MEHTA,IFS	Chairman	(02836)-233001/ 234601	02836-233002	235982	
2	Mr. NANDEESH SHUKLA IRTS,	Dy. Chairman	(02836) 234121 (02836) 236323	234218 236346	236323	
3	Capt. Pradeep Mohanty	Deputy Conservator	233585 220235	232806	233585	9603123449
4	Shri B. Bhagyanath, FA & CAO	FA&CAO	233174	239250	220047	9526062088
5	Mr. A Krishnan	Deputy FA&CAO	220214	223854	220047	9825227036
6	Mr. Mahesh Chande	Sr. Manager(ICT)	221251		220047	9879462352
7	Shri C. Harichandran, Secretary	Secretary	220167	231939	233172	7036868889
8	Mr. Y K Singh	Sr.Dy. Sectary	221375			9825227079
9	Mr. Deepak Rane	Sr. Asst. Secy	221679	234691		8238057380
10	Shri B. Rajendra Prasad,	Supdt.Engr. (C)		220670	---	9727754360
11	Shri K. Srinivasa Rao	Dy. CE	---	---	---	9427251059
12	Mr. Ravi Maheshwari	P O	223828			9426737553

13	Shri G.R.V. Prasada Rao,	Traffic Manager	270625 270246	263006	270475	9666107773
14	Shri Sudipta Banerjee,	Sr. Dy T.M.	270270	235100		9748437052
15	Capt. Laljee Ram Meena,	Harbour Master	270201	231310		8976741054
16	Mr KV Sriramprasad	Dy.Hydl. Engr	270277	225389		9825227201
17	Shri Nitin Keniya,	Flotilla Supdt.	270280	226121		9978559903

18	Shri Aseem Chakraborty	FCSO(I/C)	270176 270178		270176	9825227041
19	Shri. V. Raveendra Reddy	Chief Engineer	233192	228777	220050	9825227038
20	Shri K. Srinivasa Rao	Dy. CE	222056	---		9427251059
21	Shri Hemantkumar Bhaskar,	XEN (TD)		226323		9718313460
22	Shri S C NAHAK	CME	270426	226067 8249081015		9825235196
23	Mr. P Srinivasu	SE (E)	271010			9825234436
24	Shri Manipuspak Sethi	SE (M)	270352			9825340169
25	Dr. Anil J. Chellani,	CMO	225767 220072	234598		9825505796
26	Dr. Mahesh Bapat	Sr. Dy. CMO		220558		9687607528
27	Dr. S. Suryavanshi	Dy. CMO		233099		9687606995
28	Dr. Rekha Bambhania	Dy. CMO				8758952863
29	Dr. Sunil kumar	MO				9909006995
30	Dr. Milan Lakhiya	MO				9825655954
31	Dr. Vandna Suryavanshi	MO				8980610995
32	Dr. Sudhir Singh	MO				9426702120
33	Shri Abhijeet Kumar, Commandant	Comdt. CISF	271037	229140		9825227282

CONTACTS OF OFFICIALS OF GENERAL ADMINISTRATIVE DEPT.

Sr. No.	Designation	Present incumbent	Contact Telephone Numbers		
			Office	Res	Mobile
1	Secretary	Shri C. Harichandran, Secretary	220167	231939	7036868889
2	Sr. Deputy Secretary	Y K SINGH	221375	234730	9825227079
3	Sr. Asst. Secretary	DEEPAK RANE	221679	-	8238057380
4	Personnel Officer	RAVI MAHESHWARI	223828	228584	9426737553
5	Labour Officer	A. B. PRADHAN	230072	238643	95865 45289
6	TP & PRO	OMPRAKASH DADLANI	220051	223385	96389 43800
7	LAW OFFICER	PRAYAG PIYUSH	231369		9712341380
8	Librarian	Ms. YASASHWINI YADAV	221233		8318503328
9	Head Master, BVM School (Kandla)	Gohil Sir	271049	261998	9374240198

Contact Nos Of CISF Officials

Sr. No.	Designation	Present incumbent	Contact Telephone Numbers		
			Office	Res	Mobile
1	Commandant	Shri Abhijeet Kumar, Commandant	271037	229140	9825227282
	PA to Sr. Comdnt.	NEELAM KUMARI	271037	220192	9951492174
2	Control Room	270140			
3	North Gate		271440	-	-
4	West Gate – I		271039	-	-
5	West Gate II		270876	-	-
6.	West Gate-III (13 to 16)				
7,	13 to 16 berths				

List Of Duty Roster Of Marine Department (Ministerial Staff)

Sr. No.	*Name*	*Office*	*Resi.*
1	*office supdt.*	*221971*	
2	*Signal Supdt*	*270549*	*9825427400*
3	*Supd. A/C.*	*221971*	
4	*PA TO DC*	*220235*	*7567425706*
5	*Assistant*	*221971*	
6	*Sr. Clerk*	*270427*	
7	*Messenger*	*221971*	

Pilots

Sr. No.	*Name*	*Office*	*Resi.*
1	*Capt. S. K. Pathak*	*231310*	**98258 03499**
2	*Capt. A K Sharma*	*238154*	*98796 03642*
3	*Capt. Vipul M. Madan*	*221478*	*98796 03643*

Contract/Empanelled Pilots

NO.	NAME OF PILOTS	MAIL ID	CONTACT NUMBER
1	Capt. Vikash Mali	vikasmali@yahoo.com	9833362560
2	Capt. Sushant Mital	captmittal@gmail.com	9997713699
3	Capt. Ankit Dwivedi	capt_ankitdwivedi@icloud.com	7355274958
4	Capt. Prakash Dokaniya	prakash_dokania@yahoo.co.in	9099674149
5	Capt. Nitin Nanda	nitinnanda22@hotmail.com	9818143668
6	Capt. Genius Raj	genius.raj@gmail.com	9726097129
7	Capt. M.K. Mittal	captmittal@gmail.com	9408530740
8	Capt. Vinay Sud	capt.vinaysud@gmail.com	8375897570
9	Capt. Swapnil Shinde	swapsp3@hotmail.com	9892539921
10	Capt. Ripusudan Prasad	ripu_sudan@yahoo.com	8961269634
11	Capt. Saurabh Bali	saurabhbali75@hotmail.com	8527003475
12	Capti. Pankaj Jain	pankajjainnagpur@gmail.com	9422483965
13	Capt. Naveet Goel	naveetgoel@googlemail.com	8745832500
14	Capt. Shishir Patange	shishir.patange@gmail.com	9320220748
15	Capt.. Abhishek Yadav	abhisek.tcsmn@gmail.com	9166640924

Fire Station

Designation	Numbers
Main Station (Emergency Response Centre)	270176 / 270178
Cargo Jetty West Gate No. 1 (Tilak Fire Stn.)	9825221330
Cargo Jetty (Azad Fire) Nr. Berth No. 8	9825221352
Fire cum Safety Officer	270176 (O) / 227512 (R) 98252 27041 (M)
Fire cum Safety Oficer(i/c)	(M)9825227041

Flotilla staff

1	Shri. Nitin Keniya	Pasenger Jetty	226121	9978559903
2		Craft Jetty-1 Bunder Basin		

3	**Mr. Jaydeepsinh Gohil**	**SNA Jetty (New Jetty) Bunder Basin**		**9033590569**
4	**Jitendra Ninzar**			**9428749240**
5	**Sahdevsinh Jadeja**			**9429042696**
6	**Diwansinh jadeja**			**9426970903**
7	**Bharat Parmar**			**9638603889**

Sections

Sr. No.	*Name*	*Contact*
1	*Flotilla Section*	*270292*
2	*F/S*	*270280 / 226121 / 9978559903*
3	*Signal Station*	270549 / 270624 (F)
4	*Fire Station*	*270176 / 270178 / 295960 / 295974*

Designation	**Numbers**
Main Station (Emergency Response Centre)	270176 / 270178
Cargo Jetty West Gate No. 1 (Tilak Fire Stn.)	9825221330
Cargo Jetty (Azad Fire) Nr. Berth No. 8	9825221352
Fire cum Safety Officer	270176 (O) / 227512 (R) 98252 27041 (M)
Fire cum Safety Oficer (i/c)	(M)9825227041

Area	***Designation***	***Office***	***Resi.***	***Mobile***
New Kandla Gopalpuri	*S.E.(Road)* *XEN (TD)*		 *226323*	*9427251059* *98795 14129*
Old Kandla	*S.E. (Pipe Line)*	*220038*	*232880*	*9727754360*
Cargo Jetty	*Executive Engineer (Harbour)*			*9016609999*

List Of Duty Roster Of Civil Engineering Department

Designation	***Office***	***Residence***	***Mobile No.***
Chief Engr.	***233192***	***220982***	***9825227038***
Dy. Chief Engineer	***222056***	***---***	***9427251059***
Supdt. Engr.(C)	***220016***	***220670***	***9727754360***
PA To CE (T)	***---***	***226323***	***9429948190***
P.A. To CE	***220050***	***233089***	***9428032486***
Exe. Engr (TD)	***223912***	***228869***	***9879514129***
Exe. Engr. (H)	***---***	***----***	***9016609999***

LIST OF MEMBERS/ALTERNATE MEMBERS OF THE NATIONAL CRISIS MANAGEMENT COMMITTEE (N.C.M.C.)

Name/Designation & Telephone No. of the Member	Name/Designation & Telephone No. of the Member
Cabinet Secretary, Cabinet Secretariat Tel.(O)23016696/23011241 (R)23012434 FAX 23012095	Secretary (Coordination), Cabinet Secretariat Tel.(O)23017075,(R)23074083, FAX 23018949
Principal Secretary to P.M. Tel.(O) 23013040 (R) 23384230 FAX 23017475	Jt. Secretary to PM Prime Minister's Office Tel.(O) 23018876 (R) 26277609 FAX 23016857
Home Secretary, Ministry of Home Affairs Tel.(O)23092989/23093031 (R) 24103058, FAX 23093003	Joint Secretary (Border Management) 23438114, 24634290, 23438099 (FAX)
Defence Secretary Tel.(O)23012380 (R)23014489 FAX 23010044	Special Secretary, Cabinet Secretariat Telephone (O) 23796453, (R) 24601030
Secretary (Security), Cabinet Secretariat Tel.(O) 23094382 (R) 26255169 FAX 23094227	Additional Secretary, Cabinet Secretariat Tel.(O) 23012697 (R) 26883988 FAX 23012095
Dy. NSA, National Security Council Secretariat Tel.(O) 23345287 (R) 23070811 FAX 23742811	Director (Security), Cabinet Secretariat Telephone (O) 23093648 (R) 25671048
Director,I.B. Tel.(O)23093330/23094897/23092892 (R) 23012252 / 23012161 FAX 23092410	Chairman, JIC National Security Council Secretariat Tel. (O) 23349314 (R) 23070505 FAX 23349314
Secretary (R) Cabinet Secretariat Telephone (O) 23796470 / 23796647 (R) 23017524 FAX 23796462	Special Director, IB Telephone (O) 23093492 (tele-fax) (R) 24673573

KANDLA CONTROL ROOM

Designation	Office	Residence	Fax No	Mobile
Harbour Master	270201	231310	270624	8976741054
Signal Supd. (i/c)	270549, 270194		270624	8141484786
Signalman at Signal Station	270549, 270194		270624	9825227246

Inmarsat Mini – M – Terminal Kandla – 00873762092789
(SATELLILTE COMMUNICATION)

A.O. BUILDING, CONTROL ROOM (GANDHIDHAM)

Designation	Office	Residence	Fax No	Mobile
Dy. Secretary (G)	221375	236990	------	9825227079
Sr. Accounts Officer	235242		-----	7574894392
DMM	231362			

VADINAR CONTROL ROOM

Designation	Office	Residence	Fax No	Mobile
Signalman	0288-2573026			9825212359
Exe. Engineer (E&M)	0288-2573005			
A. F. S.	0288			9712824782
Pilot in Station				

CONTROL ROOM SHALL HAVE THE FOLLOWING FACILITIES

Control Room	Telephone Nos	Fax No	VHF
Kandla	270549/270194, Cell 9825227246	02836-270624	8,10,12,16
Gandhidham	238055/239055	239055	8,10,12,16
Vadinar	0288-2573026, 9825212359		8,10,12,16

The above facilities will remain as permanent assets of the Control Rooms. The in charge for setting up of Control Room at Kandla will be Dy. Conservator and Secretary for A. O. Building, Gandhidham. They should ensure setting up the Control Rooms at the respective places within two hours of warning and the matter reported to Chairman/Deputy Chairman.

Commandant, CISF to remain in contact with In charge of Control Room at Kandla.

INDIAN METEOROLOGICAL DEPARTMENT

Designation	Address	Office	Resi.	Fax
Director General	Mausam Bhavan, Lodi Road, New Delhi.	011-24611842	011-24633692	011-24611792
D.D.G.M. (C.W)	-do -	011-24611068		011-24619167
D.D.G.M. (WF)	Met Office, Simla Office, Pune	020-25535886	020-25884104	020-24623210 25893330 25535201
D.D.G.M.	RC Colaba, Mumbai	022-22150517	22150417	
Director (ACWC)	-do-	022-22150405	022-22150452	
Director (I/c)	Met Center Ahmedabad	079-22865012 22867206		079-22865449
Met I/C	MET Centre, Ahmedabad	22861413		
Dr. Jayanta Sarkar,	Director I/C.	22865165, 22867657		

Websites: www.imd.gov.in

CONTACT DETAILS OF NDMA CONTROL ROOM

Member Secretary		
Shri Kamal Kishore, Member Secretary	011-26701701 011-26701704 011-26701740 Fax: 011-26701716	secretary@ndma.gov.in kkishore@ndma.gov.in
Members		
Lt. Gen (Retd) Syed Ata Hasnain	011-26701775	syedata.hasnain@ndma.gov.in
Shri Rajendra Singh	011-26701738	rajendra.59@ndma.gov.in

Shri Krishna S. Vatsa	011-26701776	krishna.vatsa@ndma.gov.in
Joint Secretaries		
Shri. Kunal Satyarthi, IFS Advisor (Policy & Plan)	011-26701747 Fax: 011-26701864	jspp@ndma.gov.in
Ms. Sreyasi Chaudhuri JS (Mitigation)	011-26701777 011-26701721	js-mitigation@ndma.gov.in
Ms. Sreyasi Chaudhuri JS (Admin) - Additional Charge	011-26701718 Fax: 011-26701864	jsadm@ndma.gov.in
Shri Ravinesh Kumar, AS Financial Advisor	011-26701709 Fax: 011-26701715	fa@ndma.gov.in
Shri. Kunal Satyarthi, IFS Advisor (Ops & Communication) - Additional Charge	011-26701747	advopscomn@ndma.gov.in
Joint Advisors		
K. Uma Maheswara Rao, IRTS Joint Advisor (IT & Comm) - Additional Charge	011-26701815	jaitcomn@ndma.gov.in
Nawal Prakash, Joint Advisor (CBT)	011-26701719	cbt@ndma.gov.in
Dr. S.K. Jena, Joint Advisor (RR)	011-26701707	jointadvisor.rr@ndma.gov.in
Dr. Pavan Kumar Singh, Joint Advisor (OPS)	011-26701788	ja.ops@ndma.gov.in
K. Uma Maheswara Rao, IRTS Joint Advisor (MP& P) - Additional Charge	011-26701815	jampp@ndma.gov.in
K. Uma Maheswara Rao, IRTS Joint Advisor (Mitigation) & CVO, NDMA	011-26701815	jamp@ndma.gov.in

(https://m.indiacustomercare.com/ndma-contact-number#gsc.tab)

NDMA CONTROL ROOM

Name	Office	Fax	Mob.	E.mail id
Control Room	011-26701728 011-1078	011-26701729	9868891801 9868101885	controlroom@ndma.gov.in, ndmacontrolroom@gmail.com,

CONTACT DETAILS OF GUJARAT STATE DISASTER MANAGEMENT AUTHORITY

1.	**Shri Harendra Kumar G Vyas**	**PA to CEO**	**079-232-59276**

2.	**Shri Nirav Trivedi**	**PA to ACEO**	**079-232-59302**
3.	**Shri Yogita Parmar**	**Director Finance**	**079-232-59219**
4.	**Shri Saurabh Kumar Singh**	**Deputy Director**	**079-232-59246**
5.	**Miss. Ekta Thaman**	**Deputy Director**	**079-232-59247**
6.	**Accounts Dept.**	**Accountant**	**079-232-59019**
7.	**Administration**	**Sector Manager**	**079-232-59306**

(http://gsdma.org/Content/contact-directory-4196)

State Emergency Operation Center
Address - Sector 18, Gandhinagar, Gujarat 382021
Contact No. - 079-23251900

CONTACT DETAILS OF DISTRICT COLLECTOR, KUTCH

District Collector Office
Near Circuit House, Mandvi Road,
Emergencies
(https://collectorkutch.gujarat.gov.in/contacts)

Nr. Mota Bandh,Bhuj,
Gujarat - 370001
+91 2832 250650 // +91 2832 250430

- collector-kut@gujarat.gov.in

District Helpline- Emergencies
Call : +91 2832 1077
District EOCs Helpline No.
Call : +91 2832 250650
Commissioner of Rescue & Relief
Call : 1070

CONTACT DETAILS OF DISTRICT DISASTER MANAGEMENT AUTHORITY, KUTCH

1. **Kamlesh Patel Dist. Project Officer** (9426533915)
2. **Shri D. K. Chaudhry (** Dy. Mamlatdar Disaster) +91 2832 250923 (9998199874)

District Project Officer Disaster Risk Management Program, District Emergency Operation Centre (DEOC) , Emergency Operation Branch, Collector Office, Kutch

ALL IMPORTANT CONTACT NUMBERS

District Level Authorities CONTACTS

District Collector Office, Near Circuit House, Mandvi Road, Nr. Mota Bandh, Bhuj, Gujarat - 370001

+91 2832 250650 +91 2832 250430

- collector-kut@gujarat.gov.in
-

Emergencies - District Helpline

Call : +91 2832 1077

District EOCs Helpline No.

Call : +91 2832 250650

Commissioner of Rescue & Relief

Call: 1070

MP Bhuj	252595	251177
Shri Mehul V. Desai (Dy.Collector, Anjar) sdmanjar@gmail.com	243345	243363
Shri Anil Jadav Mamlatdar, Anjar • +91 2836 242588 • mam-anjar@gujarat.gov.in	242588	243362
Shri B. H. Zala Mamlatdar, Gandhidham • +91 2836 250270 • mam-gandhidham@gujarat.gov.in	250475 250270	222875 250475
Shri I.V. Kher, Regional Fire Officer, State Fire Prevention Services, Gandhidham	9879515966	----
Shri Narendra Gadhvi, Station Officer, ERC, G'dham	9825572188	
Collector's Control Room, Bhuj. Kamlesh Patel Dist. Project Officer (9426533915)District Project Officer Disaster Risk Management Program, District Emergency Operation Center(DEOC) , Emergency Operation Branch, Collector Office, Kutch	2252347 2231733 02832-252347 09557920767 02832-224150	-

Doordarshan, Bhuj	2251107	
Dy. Mamlatdar, Gandhidham	250475 250270	
Civil Defense, Gandhidham	220221	
PGVCL, Gandhidham	221728 222809	
GW&SB, Gandhidham	220975	
GSRTC, Gandhidham	220198	
Duty Officer, All India Radio, Bhuj	222503	
State Information Dept. -Mitesh Modasiya	224859 250954	9427236878
Air Force Duty Officer, Bhuj	252501 252502	
Air Force, Bhuj	223450	
Air Port, Bhuj	254550	
Aerodrome Officer, Kandla	238370	223247
Indian Navy, Jamnagar	550263 to 5	550825
Air force, Jamnagar	550245 to 7	550247

Telephone Numbers of Gujarat Maritime Board

Sr. No.	Name, Designation and place of Office	Tele. No. (Office)	Tele. No. (Residence)	Fax No.	Mobile No.
1	Shri Raj Kumar, IAS Chairman	23250301, 23250303		079-23250305	
2	Shri Rajkumar Beniwal, IAS Vice Chairman and CEO			23234703	
3	Chief Nautical Officer, Gandhinagar	91 2822 220435		-do-	
4	Chief Engineer(C), Gandhinagar	23238346		-91 79 23234703-04	
5	Officer on Special Duty, Gandhinagar			91 79 23234703-04	
6	Port Officer, Magdalla	0261-2470533	-	2475645	
7	Port Officer, Bharuch	02642-241772	229082	220377	
8	Port Officer, Bhavnagar	0278-2519221	2568580	2211026	
9	Port Officer, Jafrabad	02794-245165		245152	

10	Port Officer, Porbandar	0286-2242408	2242412	2244013	
11	Port Officer, Veraval	02876-220001	242956	243138	
12	Port Officer, Okha	02892-262001	262010	262002	
13	Port Officer, Jamnagar	+91 288 2711806 +91 288 2711805 +91 288 2755207		+91288271118 +91 28271115	
14	Port Officer, Navlakhi Main Gate	02822-220435		232470	
15	Port Officer, Mandvi	02834-220033	220040	230033	
16	Traffic Inspector, Mundra	02838-222136	222136	-	
17	Executive Engineer(C), Jakhau	02831-287261	222996	-	
18	Gujarat Pipavav Port Ltd., Chief Operating Officer, Duty Office	02794286314 86001/92	286070	-	
19	Gujarat Adani Port Ltd., Mundra.	02838- 288201 to 8	287241	-	

For supply of Food Packets etc.

Sr. No.	Name of Agency	Contact Person	Telephone No.
1	Arya Samaj Mandal	Mr.Vachanidhi	231223 Mob. 9824221332
2	Agrawal Samaj	Mr.Dinanath	231638
3	RSS	Mr. Sunil Kothari	222560 / 232909
4	Lions Club, Gandhidham	Mr. Naresh Bulchandani	220212 Mb: 982428470
5	Rotary Club, Gandhidham	Mr. Rajabhai / P.K. Mukherjee	228213 / 232035
6	Red Cross Society	Dr. Bhavesh Acharya	234854, 232736
7	Lohana Mahajan, Gandhidham	Mr. Premji Bhai Thakker	220925

8	Rajasthan Yuva Mandal	Mr. Sunil Bajaj (President) Mr. Dilip Jain	221459 / 230902 234525 / 9825168170
9	Swaminarain Mandir	Mr.Lavjibhai Thackker	231555, 233666
10	Sindhi Youth Circle	Mr.Vijay Khubchandani & Mr.Kundabhai	220490
11	Satwara Samaj	Mr.Agavjibhai	235659
12	Sitaram Parivar	Mr.Mohanbhai Dharsi	222373, 234603
13	Gurudwara, Gandhidham		220643
14	Swaminarayan Gurukul	Swamimukta Prasadji	228098, 226555

List of Essential Services

	HOSPITALS	OFFICE	RESIDENT
1	General Hospital, Bhuj Civil Surgeon, Bhuj	+9102832-246417/18 +9102832-258071 +91-02832-258080	
2	Referal Hospital, Anjar	232455	
3	Rambaugh Hospital, Gandhidham	02836-261626	
4	Divine Life, Adipur	APPOINTMENT : 72111 53101 EMERGENCY : 72111 53108 CORPORATES : 9712778774	
5	Railway Hospital, Gandhidham	231874	
6	Government Dispensary, Adipur	260608	
	TELECOMMUNICATION		
1	General Manager, BSNL, Bhuj	253000	252322
2	Dy. Manager, Bhuj	252505	251505
3	Area Manager, Gandhidham	238000	235000

4	SDO, Gandhidham	236250	236251
	ELECTRICITY		
1	S.E., PGVCL, Bhuj	222550	250189
2	Jr. S.E., Anjar	243008	242656
3	XEN, Anjar	242845	242446
4	Dy. Engineer, Gandhidham	222809	--
5	Line Office, Gandhidham	221728	
	WATER SUPPLY		
1	S.E., GWS&SB, Bhuj	221806	250601
2	XEN, Bhuj	250685	253016
3	SE, Anjar	242416	242421
4	XEN, Gandhidham	220717	223273
5	Control Room, Gandhidham	221252	
6	Water Tank, Sunderpuri	231313	
7	Water Tank, NU-4	654564	
8	Gandhidham Municipality	231610	
9	Chief Officer, Gandhidham Municipality	234967	

List of Vehicle Suppliers

Sl. No	Name of Institution	Contact Person	Parking Place	Name and Phone No. Of Driver.	Availability Of vehicle.
(A) Vehicle Hire Contractors					
1	M/s Rohit Enterprise /RISHABH ENTERPRISE	Mr. Rohit Shah 228550/237538 237547 (O) 234140 (R) Mob.9825225121			
2	M/s Jai Somnath Travels (GIM)	Mr. Mishra Mob.9825386739			
(B) Ambulance Pool					
01	St. Joseph Hospital, Gandhidham	Administrator 230160/229336	Hospital Premises	Driver available round the clock	First come first serve

02	IFFCO-Kandla on contract, Dispensary No. 20164 Dr. Mehta (R) 220832 Plant. Dispt. 270832	Mr. Mukesh Agrawal Hotel Gokul 221311			First come first serve
03	Kandla Salt Mfg. Ass. Neelkanth Bldg.	Mr. Shamji Ahir 231485 (R) 222765/220421 (O)	Zanda Chowk	Driver available round the clock	First come first serve
04	Zhulelal Mandir Trust	Mr. Kundan Guwalani 221760 (R) 229800 (O) Kundan Stores 221533/227800 229580	Mandir Premises	255580	
05	Red Cross Society	Dr. B F Acharya 225636/230345	Red Cross	Driver available round the clock	

THE TELEPHONE NUMBERS OF SOME OF THE VIPS

Sr. No.	Name and Designation	Fax / Mobile	Telephone (Office)	Telephone (Resi)
1	District Collector, Bhuj	02832-250430	250020	250350
2	Resident Add. Collector, Bhuj	250430 9978405099	250650	
3	Superintends of Police, Bhuj,	99784 05073	250444 250250	250850
4	Asstt. Supdt. Of Police, Bhuj		253405	250850
5	Dy. Collector, Anjar	99784 05069	243345	243345
6	Mamlatdar, Anjar		242588	243362
7	Mamlatdar, Gandhidham.	75670 03975	250475 250270	222875 250475
8	Traffic Manager, IOC	234396	231871	236442
9	Air Force Commander, Jamnagar		2550245	-
10	Collector, Jamnagar		2555869	2554059
11	Commandant, BSF, Gandhidham		223845	

12	Mrs. Vinod Chawda, MP, Kachchh	02832 - 225466 9825905467		
13				
14	Dr. Nimaben Acharya, MLA, Bhuj	9825226700	220715	
15	Mr. Rameshbhai Maheshwari,Gandhidham	9909910619		
16	Mr. Tarachand Chedda, MLA, Mandvi	9825225394		
17	Mr. Pankaj Mehta, MLA,Rapar	9825227883		
18				
19	Kum. Aruna Jagtiani, SRC	260401	260404 260811	260631
20				

LIST OF STEVEDORES AT THE PORT

Sr. No.	Name	Address	Fax No.	Telephone Nos.	
				Office	Resi.
1	M/s. A.V.Joshi & Co.	Plot No. 18, Sector-8, Maitry Bhavan, Nr. Post Office, Gandhidham –Kutch	233924	231070 232227 231588	234909
2	M/s. Agarwal Handling Agencies	DBZ-N-47, Gandhidham – Kutch	232749	220282 233187	232749
3	M/s. ACT Shipping P. Ltd.	Seva Sadan-II, Room No. 206/207, New Kandla	232175	270111 270112 270015 229967 231734	261308 231416
4	M/s. J.M. Baxi & Co.	Seva Sadan – II, Room No. 301 / 306, New Kandla	270646	270630 270550 270448	260427
5	Rishi Shipping	Plot 50, Sector 1/A GIM	238943	229830 229831	
6	Parekh Marine Agency	C-8, Shaktinagar GIM	231509	229297 221158 230587	

7	Krishna Shipping and Allied Services	Transport Nagar, NH GIM	233135	230501 223814 229085	
8	Velji P & Sons(P) Ltd	2nd Floor, Deepak Compex, 315, 12/B GIM	236168	231545 231546 225466	
9	Rishikiran Roadlines	Kiran House, Plot 8 Sector 8, GIM	231422	231894 234108	

10	Seaways Shipping (P) Ltd	2nd Floor, Plot 351 Ward 12/B, GIM		226183 237147	
11	Liladhar Pasoo Forwarders P.Ltd	Plot 4, Sector –1 KASEZ, GIM	252383 253506	252286 252297 252612	
12	Patel Shipping Agency	Patel Avenue, Floor 2, Plot 170, Sector 1/A GIM	231143	224024	

LIST OF TANK FARM OWNERS

KANDLA LIQUID TANK TERMINAL ASSOCIATION

LIST OF MEMBERS WITH CONTACT DETAILS

S.No.	Name of Terminal	First_Name	Last_Name	E-mail_ID	
1	Aegis Vopak Terminals Ltd.	Chirag	Vithlani	chirag.vithlani@vopak.com	91 97277 50647
2	Aegis Vopak Terminals Ltd.	Dinesh	Singhania	dinesh.singhania@aegisvopak.com	91 76980 66622
3	Aegis Vopak Terminals Ltd.	Sachin	Chati	sachin.chati@aegisvopak.com	91 82912 88890
4	Agencies & Cargo Care	Dhanpat	Parekh	dhanpat@acclkandla.com	91 98252 26765
5	Ahir Salt & Allied Products	Dharamshi	Agariya	agariyadb@neelkanth.co.in	91 99252 47904
6	Ahir Salt & Allied Products	Teja	Kangad	tkangad@gmail.com	91 98252 27199
7	Ambaji Import	Arun	Kothari	arun@lahotiandlahoti.com	91 98242 30902
8	Ambaji Import	Mahesh	Puj	operation@ambajiimports.com	91 98253 61199
9	Avean Intl Pvt. Ltd.	Bharat	Rathod	aipkdl@gmail.com	91 93753 10260
10	Avean Intl Pvt. Ltd.	Jitu	Bheda	jitu@bheda.com	91 93242 92330
11	BFCL Terminal Pvt. Ltd.	Handa	S K	skhanda1956@gmail.com	91 93753 57925
12	BFCL Terminal Pvt. Ltd.	Nitin	Patel	nitin.patel789@gmail.com	91 70433 55151
13	Emperius Infralogistics	Prakash	Rao	prakashrao.poka@emperiusindia.com	91 95120 22388
14	Friends Oil & Chemical Terminals Pvt. Ltd.	Sanjeev	Bhargava	srbhargava@gmail.com	91 98252 14020

15	Gookul Agro	Hitesh	Thakkar	hitesh@gokulagro.com	91 98791 12501
16	IMC Limited	Desai	H I	desai@imc.net.in	91 98242 25102
17	IMC Limited	Manoj	Gor	manojgor@imc.net.in	91 98985 00296
18	Indo Nippon	Ashish	Bhuva	info@indo-nippon.com	91 98210 83557
19	Indo Nippon	Amit	Pathak	kandla@indo-nippon.com	91 98795 46836
20	Kesar Terminal	Mahendra	Shah	mahendrashah@kesarindia.com	91 93740 20516
21	Kesar Terminal	Sanjeev	Parashar	sanjeevparashar@kesarindia.com	91 93753 49181
22	Rishi Kiran Logistics Pvt. Ltd.	Dinesh	Gupta	dng@thekirangroup.com	91 98252 25892
23	Rishi Kiran Logistics Pvt. Ltd.	Mahesh	Gupta	mng@thekirangroup.com	91 98252 25891
24	Rishi Kiran Terminals Pvt. Ltd.	Ravindra	Verma	r.verma@thekirangroup.com	91 99786 33422
25	Rishi Kiran Terminals Pvt. Ltd.	Singh	S P	spsingh@thekirangroup.com	91 90990 89703
26	Kutch Oil & Soap Industry	Asgarali	Khoja	kutchppl@rediffmail.com	91 98252 37214
27	Kutch Oil & Soap Industry	Bhanushali	L P	lp_bhanushali@yahoo.co.in	91 72111 47772
28	Liberty Investments	Thomas	C D	thomas@libertyoilmills.com	91 90990 11340
29	Naranbhai P Patel	Rajesh	Soni	rajesh.soni@thekirangroup.com	91 70439 61395
30	Parker Agrochem Exports Ltd	Bharat	Thakker	parkeragrochem@gmail.com	91 98252 38260
31	Seabridge Terminal	Mitesh	Dharmshi	mitesh@parekhgroup.in	91 98252 26557
32	Shreeji Liquid Terminal	Murali	Krishna	muralikrishna@shreeji-group.com	91 99406 66336
33	Shreeji Liquid Terminal	Santosh	Goyal	santosh@shreeji-group.com	91 98252 25651
34	Sunshine Liquid Storage	Romesh	Chaturani	sunshineliquid1@gmail.com	91 98252 26026

35	Tejmalbhai & Co.	Ashok	Chandan	tejmalbhaico@yahoo.co.in	91 98252 25101
36	Tejmalbhai & Co.	Smit	Chandan	tejmalbhaico@yahoo.co.in	91 99795 55111

PLACEMENT OF PORT CRAFTS ON CYCLONE WARNING.

(A)	SHIPPING TUGS	Heera Mehul	Bunder
		Kalinga	Maintenance Jetty (West side)
(B)	PILOT LAUNCHES AND SURVEY LAUNCHES	M. L. BHARINI, M.L. NIHARIKA M. T. SWATI	Floating Crafts Jetty
		ML Karishma	Bunder Basin
		ML Nirishak	Inside Bunder Area North Side.
I	G.S. LAUNCHES AND MOORING LAUNCHES	M. L. Mrinal	Inside Bunder Area North Side on Pilot Launches
		M. L. Unnati M.L. Vaishali	Inner Side of Floating Craft Jetty
		M. L. Vijay M. L. Priyadashani PL Rakshak	Inside Bunder Area North on G. S. and Pilot Launches.

LICENSE HOLDERS TO KEEP CRAFTS INSIDE THE PORT AREA.

Sl. No.	Name of Party	Name of Nodal Officer	Tele. (Office)	Tele. (Resi)
01	M/s Jaisu Shipping Co. P Ltd., Kewalramani House, Dinshaw, Bldg. Road, New Kandla	Mr.Preetam, Director, Mob. 9825226114	270538 270128 270428	260235 260224
02	M/s Gautam Freight Pvt Ltd., Plot No. 24, Sector,	Mr. Ramesh Singhvi, CMD	231386 232605	234176 230328

	10/C, GIDC Area, Gandhidham		230345 220163	
03	M/s Bapu's Shipping, Plot No. 32, Sec – 9 GIM	Mr. Vishalsinh Jadeja	222002	
04	M/s Blue Ocean Sea Transport, Manali Chamber, Plot No.306, Sec 1/A GIM	Mr. Hukumat T. Bhojwani & Mr. Dushyant Patel	239143 222518 230488 239058	
05	M/s Rishi Shipping, Rishi House, Sec 1/A, Plot No. 50 Gandhidham	Mr. Manoj Mansukhani Proprietor	220843 229830 229831 223913 229517 Fax. No. 238943	
06	M/s Velji P & Sons, Deepak Complex, 2nd Floor, Plot No. 315, Ward 12/B, GIM	Mr. Sureshchandra	231545 231546	232247
07	M/s A.S. Moloobhoy & Sons, Anchor House Shivkripa Bldg, Plot No. 135, Sec 1/A, GIM	Mr. Adil Sheth M- 9375312077	326543 225060 225061 225060	
08	M/s Gudani International Pvt. Ltd, C/o Chemoil Adani Mithakali Circle, Ahmedabad.		079- 25555765 25555266	

LIST OF MAJOR HEAVY LIFT OPERATORS AT D P T

NAME OF PARTY	NAME OF CONTACT PERSON	Phone Number
Swastik Heavy Lifters	Mr. Jigneshbhai Mr. Aslambhai	9825758151 9825228421
Kutch Carrier Transport Co	Mr. C. R. Thackar	9825225591
Agarwal Handling Agency	Mr. Rakesh Thackar	9426928728
Active Cargo Movers	Mr. Narendra	9825220411

Raghuvirsingh & Sons	Mr. Harcharan	9879104853
Thacker Brothers	Mr. Kamleshbhai	9825296107
Kiran Roadlines	Mr. Pankaj Gadvi	9879104552
Regal Shipping	Mr. Ashok Dudi	9825326328
Rathore Freight Carriers		220759/ 220380

ADDITIONAL LIST OF FIRMS FOR PAY-LOADERS/CRANES

M/s Mahalaxmi Transport Co., Plot No. 35, Sector No. 8, Behind Hotel Fun & Food, Gandhidham	Mr H K Rathod	(O)222387 I233500
M/s Kandla Earth Mover, DBZ-S-151, Gandhidham	Mr Sanjay Goyal	(O)221759 I222338 (M) 9825020550
Mr Lalji Bhavanji Sathwara, Laljibhai Sathwara, Plot No. 27, Shop No.5, Sector-9/A, Gandhidham		(O)234118 I232566 (M) 9825225957

VTS GOK OFFICERS OF MASTER CONTROL CENTER (MCC) KANDLA

Sr. No.	Name	Designation	Mobile number
01	Shir B. Mishra	Deputy Director	7383576832
02	Shri Hansraj	Deputy Director	9428863924
03	Shri Mukesh Parmar	Asstt. Executive Engineer	9016106566
04	Shri M. Nimare	Asstt. Executive Engineer	9408553192

Annexure I – Vessel Specification

DPA Owned Tugs particulars	
Type of vessel	Tug MV Jyestha
IR no	47890
call sign	AWRL
Bollard pull	50 T
flag	INDIAN
year of build	2016
Builder	H.S.L.
place of built	Vishakhapatnam
Date of Registry	24/08/2018
Port Of Registry	Mumbai
official no	4365
imo no	9696620
MMSI no	419001170
marks and notation	SUL, TUG, IY, AGNI (2400 M^3/Hr)
owners	DPA
classification society	IRS
main engine type	Model 3516 C, Caterpillar, 2X1920KW @1600 RPM
propulsion	SRP, Agimuth thruster, Rolls Royer
Speed (max)	12 Knots
length overall	31.074 Mtr
LBP/Breadth	10.8 M
moulded depth	4.43 M
TPC	2.756
light wt	386.1 T
GRT	389 T
NRT	117 T
diesel tanks -storage	4 Tanks, Total 94 M^3
diesel tanks -service	2 Tanks, Total 10 M^3
fresh water	2 Tanks, Total 68 M^3
bilge tank	1 Tanks, Total 41 M^3
dirty oil tank	1 Tanks, Total 2.7 M^3
Crew on board per shift of 8 hours. 12 shifts per week as per roster	6+7=13 hrs

DPA Owned Tugs particulars	
Type of vessel	Tug MV Krittika
IR no	47905
call sign	AWRB
Bollard pull	50 T
flag	INDIAN
year of build	2018
Builder	H.S.L.
place of built	Vishakhapatnam
Date of Registry	24/08/2018
Port Of Registry	Mumbai
official no	4364
imo no	9696622
MMSI no	419001169
marks and notation	SUL, TUG, IY, AGNI 1(2400 M^3/Hr)
owners	DPA
classification society	IRS
main engine type	Model 3516 C, Caterpillar, 2X1920KW @1600 RPM
propulsion	SRP, Azimuth thruster, Rolls Royer
Speed (max)	12 Knots
length overall	32.745 Mtr
LBP/Breadth	10.802 M
moulded depth	4.493 M
TPC	2.805
light wt	392.5 T
GRT	389 T
NRT	117 T
diesel tanks -storage	4 Tanks, Total 94 M^3
diesel tanks -service	2 Tanks, Total 10 M^3
fresh water	2 Tanks, Total 68 M^3
bilge tank	1 Tanks, Total 41 M^3
dirty oil tank	1 Tanks, Total 2.7 M^3
Crew on board per shift of 8 hours. 12 shifts per week as per roster	6+7=13 hrs

DPA Owned Launch Particulars		
Sl. No.	PARTICULARS	ITEM
1	*NAME OF THE* VIP launch/ speed boats	ML ROHINI
2	*CONTRACTOR'S NAME*	DPA
3	*AGE OF THE Speed LAUNCH*	2014
4	*DEAD-WEIGHT WITH DISPLACEMENT*	65 T
5	*LENGTH*	19 M
6	*BEAM*	5.8 M
7	*DEPTH*	2.66 M
8	*DRAFT*	1.5 M
10	*ENDURANCE*	
11	*MAIN ENGINE (Numbers, Make, BHP each)*	No. 4523 & 4524 YANMAR Model 6AYM-WGT 2X678KW
12	*GENERATOR ENGINE (Numbers, Make, BHP each)*	A-59565, A59562 Make- Simpson, 30 KW @ 1500 RPM each
13	*SPEED (In Knots)* 1. *Maximum Speed* 2. *Cruising Speed*	 16 Knots 12 Knots
14	*TOTAL FUEL CONSUMPTION PER HOUR*	85 Ltr/ Hr
16	*SITTING SPACE AVAILABILITY(No of heads)*	10
17	*PANTRY AVAILABILITY(Y/N)*	Y
18	*TOILET AVAILABILITY(Y/N)*	Y
19	*DAILY CHARTER HIRE*	-

DPA Owned Launch Particulars		
Sl. No.	PARTICULARS	ITEM
1	*NAME OF THE* VIP launch/ speed boats	ML MAGH
2	*CONTRACTOR'S NAME*	DPA
3	*AGE OF THE Speed LAUNCH*	2014
4	*DEAD-WEIGHT WITH DISPLACEMENT*	65 T
5	*LENGTH*	19 M
6	*BEAM*	5.8 M
7	*DEPTH*	2.66 M
8	*DRAFT*	1.5 M
10	*ENDURANCE*	
11	*MAIN ENGINE (Numbers, Make, BHP each)*	No. 4547 & 4548 YANMAR Model 6AYM-WGT 2X670 KW @ 1938 RPM each
12	*GENERATOR ENGINE (Numbers, Make, BHP each)*	A-59565, A59562 Make- Simpson, 30 KW @ 1500 RPM each
13	*SPEED (In Knots)* 1. *Maximum Speed* 2. *Cruising Speed*	 16 Knots 12 Knots
14	*TOTAL FUEL CONSUMPTION PER HOUR*	85 Ltr/ Hr
16	*SITTING SPACE AVAILABILITY(No of heads)*	10
17	*PANTRY AVAILABILITY(Y/N)*	Y
18	*TOILET AVAILABILITY(Y/N)*	Y
19	*DAILY CHARTER HIRE*	-

DPA Owned Mooring boat – ML ALOK

Sl no	Item	remarks
1	Length overall	9.7 M
2	Beam	3.5 M
3	Approx dry weight	14 T
4	Boat height- W/S to keel	1.85 M
5	Draft	1 M
6	Max capacity	9 Knots
7	Persons and gear	15 Person LSA
8	Propulsion Engine	150 BHP @ 1800 RPM

DPA Owned Mooring Boat – ML ATRI

Sl no	Item	remarks
1	Length overall	9.7 M
2	Beam	3.5 M
3	Approx dry weight	14 T
4	Boat height- W/S to keel	1.85 M
5	Draft	1 M
6	Max capacity	9 Knots
7	Persons and gear	15 Person LSA
8	Propulsion Engine	150 BHP @ 1800 RPM

DPA Owned Mooring boat – ML Hasta

Sr. no.	Item	Remarks
1	Length overall	9.7 M
2	Beam	3.3 M
3	Approx dry weight	11.15 T
4	Boat height- W/S to keel	1.5 M
5	Draft	1 M
6	Max capacity	9 Knots
7	Persons and gear	06 Person & HG 11-01
8	Engine	Ashok Leyland Marine Diesel Engine
9	Build	A.H. Wadia Boat builders
10	Place and Year	Bilimora and Dec - 2021
11	Propulsion Engine	170 BHP @ 2000 RPM

DPA Owned Mooring boat – ML Vishakha

Sr. no.	Item	Remarks
1	Length overall	9.7 M
2	Beam	3.3 M
3	Approx dry weight	11.15 T
4	Boat height- W/S to keel	1.5 M
5	Draft	1 M
6	Max capacity	9 Knots
7	Persons and gear	06 Person & HG 11-01
8	Engine	Ashok Leyland Marine Diesel Engine
9	Build	A.H. Wadia Boat builders
10	Place and Year	Bilimora and Dec - 2021
11	Propulsion Engine	170 BHP @ 2000 RPM

DPA Owned Launch Particulars		
Sl. No.	PARTICULARS	ITEM
1	*NAME OF THE* VIP launch/ speed boats	ML KARISHMA
2	*CONTRACTOR'S NAME*	DPA
3	*AGE OF THE Speed LAUNCH*	Dumb barge
4	*DEAD-WEIGHT WITH DISPLACEMENT*	N/A
5	*LENGTH*	24.60 mtrs
6	*BEAM*	7.20 mtrs
7	*DEPTH*	3.20 mtrs
8	*DRAFT*	1.00 mtrs
10	*ENDURANCE*	N/A
11	*MAIN ENGINE (Numbers, Make, BHP each)*	N/A
12	*GENERATOR ENGINE (Numbers, Make, BHP each)*	N/A
13	*SPEED (In Knots)* 1. *Maximum Speed* 2. *Cruising Speed*	N/A
14	*TOTAL FUEL CONSUMPTION PER HOUR*	N/A
16	*SITTING SPACE AVAILABILITY(No of heads)*	N/A
17	*PANTRY AVAILABILITY(Y/N)*	N
18	*TOILET AVAILABILITY(Y/N)*	N
19	*DAILY CHARTER HIRE*	-

DPA Owned Launch Particulars		
Sl. No.	PARTICULARS	ITEM
1	*NAME OF THE* VIP launch/ speed boats	ML SWATI
2	*CONTRACTOR'S NAME*	DPA
3	*AGE OF THE LAUNCH*	2010
4	*DEAD-WEIGHT WITH DISPLACEMENT*	85.61T
5	*LENGTH*	23.10 mtrs
6	*BEAM*	6.00 mtrs
7	*DEPTH*	2.90 mtrs
8	*DRAFT*	1.50 mtrs
10	*ENDURANCE*	
11	*MAIN ENGINE (Numbers, Make, BHP each)*	Make-CATERPILLAR,Model-C-32ACERT, Rating-2X850 bhp@ 1800 rpm, Engine Sr. No.- RNY-00430 (P)/00434(S)
12	*GENERATOR ENGINE (Numbers, Make, BHP each)*	Make-Kirloskar,Model-3R1040, Rating- 2X42 bhp@ 1500 rpm, Engine Sr. No.- 3H 3012/0900013 (P)/3H 3012/0800136(S)
13	*SPEED (In Knots)* 1. *Maximum Speed* 2. *Cruising Speed*	 16 Knots 12 Knots
14	*TOTAL FUEL CONSUMPTION PER HOUR*	Average Fuel Consumption -105 ltrs/Hour Craft
16	*SITTING SPACE AVAILABILITY (No of heads)*	16
17	*PANTRY AVAILABILITY(Y/N)*	Y
18	*TOILET AVAILABILITY(Y/N)*	Y
19	*DAILY CHARTER HIRE*	-

DPA Owned Launch Particulars		
Sl. No.	PARTICULARS	ITEM
1	*NAME OF THE* VIP launch/ speed boats	ML NIRIKSHAK
2	*CONTRACTOR'S NAME*	DPA
3	*AGE OF THE LAUNCH*	1999
4	*DEAD-WEIGHT WITH DISPLACEMENT*	57.95 T
5	*LENGTH*	16.30 mtrs
6	*BEAM*	4.60 mtrs
7	*DEPTH*	2.35 mtrs
8	*DRAFT*	1.40 mtrs
10	*ENDURANCE*	
11	*MAIN ENGINE (Numbers, Make, BHP each)*	Make-CATERPILLAR,Model-3306 BDIT, Rating-2X193 bhp@ 2000 rpm, Engine Sr. No.-84Z03087(P)/84Z03094(S)
12	*GENERATOR ENGINE (Numbers, Make, BHP each)*	Make-Cummins ONAN,Model-4B 3.9, Rating-2X30 KW@ 1500 rpm, Engine Sr. No.-45634417(P)/45634369(S)
13	*SPEED (In Knots)* 1. *Maximum Speed* 2. *Cruising Speed*	 08 Knots 06 Knots
14	*TOTAL FUEL CONSUMPTION PER HOUR*	Average Fuel Consumption - 18 ltrs/hour
16	*SITTING SPACE AVAILABILITY (No of heads)*	07
17	*PANTRY AVAILABILITY(Y/N)*	Y
18	*TOILET AVAILABILITY(Y/N)*	Y
19	*DAILY CHARTER HIRE*	-

DPA Owned Launch Particulars		
SR. No.	PARTICULARS	ITEM
1	NAME OF THE VIP launch/ speed boats	ML PURVA
2	CONTRACTOR'S NAME	DPA
3	AGE OF THE LAUNCH	2025
4	GROSS TONNAGE	56T
5	LENGTH	18.0 mtrs.
6	BEAM	5.00 mtrs.
7	DEPTH	2.85 mtrs.
8	DRAFT	1.30 mtrs.
10	ENDURANCE	
11	MAIN ENGINE (Numbers, Make, BHP each)	Make-Cummins, Model-QSK 19-M, Rating-2X800 bhp @ 1800 rpm, Engine Sr. No.-25496506/25496507
12	GENERATOR ENGINE (Numbers, Make, BHP each)	Make-LOURENCO MARINE , Model- S325, Engine Sr. No.- S325N65434(P)/S325N65430(S)
13	SPEED (In Knots) 1. Maximum Speed 2. Cruising Speed	 20+ Knots 16 Knots
14	TOTAL FUEL CONSUMPTION PER HOUR	Average Fuel Consumption - 70 ltrs/Hour Craft
16	SITTING SPACE AVAILABILITY (No of heads)	10
17	PANTRY AVAILABILITY(Y/N)	Y
18	TOILET AVAILABILITY(Y/N)	Y
19	DAILY CHARTER HIRE	Port Owned

Floating Dry-dock Specification

Sl no	Item	Remarks
1	Name	Steel Floating Dry-dock
2	Length	95 Mtrs
3	Width (inner Wall)	20 Mtrs
4	Width (Outer Wall)	26 Mtrs
5	Date of Procurement	24/03/1986
6	Life	20 Years
7	Life extended up to	31/12/2020 (Shall be further extended to 2020-23)
8	Availability – 2018-19	100%
9	Utilization – 2018-19	96.71%

Twin screw diesel driven st Floating Craft ML Anuradha

Sl no	Item	Remarks
1	Name	ML Anuradha
2	Flag	India
3	Classification	Indian Register of Shipping
4	Owner	Kandla Port Trust
5	Length O.A.	23.1 M
6	Beam (MLD)	6.00 M
7	Depth (MLD)	2.90 M
8	Draught	1.662 M
9	Weight	89.870 T
10	LCG	10.193 M FWD OF Fr. 0
11	VCG	2.876 M
12	TCG	0.00 M

Annexure J - Marine Hull Insurance Values

Sr. No.	Asset Particulars	Sum Insured
A	**Tugs**	
1	MT Jyeshtha	**45,00,00,000**
2	MT Kritika	**45,00,00,000**
3	MT Rohini	**7,38,00,000**
4	MT Magh	**7,38,00,000**
5	MT Alok	**1,01,70,000**
6	MT Atri	**1,01,70,000**
7	ML Hasta	**87,75,000**
8	ML Vishakha	**87,75,000**
9	DB Karishma	**90,00,000**
10	ML Swati	**8,73,00,000**
11	ML Nirikshak	**2,52,00,000**
12	ML Purva	**5,74,32,375**
13	ML Anuradha	**5,45,00,000**
B	Floating Dry dock/ SFDD	**66,87,00,000**
	GRAND TOTAL	**1,98,76,22,375**

A. Aggarwal & Associates
Licence No. SLA 68157
(SURVEYORS & LOSS ASSESSORS)

Plot No. 23, Ganesh Bhawan,
Brahman Society, Thane (W) 400 6
✆ : 022-25393394 Cell : 982032233
E-mail : a.aggarwal@mtnl.net.in

AL/092/2025-26 **5-7-2025**

TO WHOM SOEVER IT MAY CONCERN

This is to certify that based on the documents and details of 13 no. vessels we give the valuation of vessels as under

1. VESSEL ML ALOK	10170000/-
2. VESSEL ML ATRI	10170000/—
3. VESSEL DRY DOCK	668700000/-
4. VESSEL ML HASTA	8775000/-
5. VESSEL ML KARISHMA	9000000/-
6. VESSEL Tug MV KRITTIKA	450000000/-
7. VESSEL PURVA.	57432375/-
8. VESSEL ML NIRIKSHAK	25200000/-
9. VESSEL ML ROHINI	73800000/-
10.VESSEL ML SWATI	87300000/-
11.VESSEL Tug MV JYESTHA	450000000/-
12.VESSEL ML VISHAKHA	8775000/-
13.VESSEL MAGH	73800000/-
14.VESSEL ANURADHA	54500000/-

ISSUED WITHOUT PREJUDICE

A. AGGARWAL & ASSOCIATES THANE

for A. Aggarwal & Associates

Surveyor

ANNEXURE K

(on the letter head of the bidder)

Undertaking to not pay any direct / indirect brokerage, commission and / or any other fees etc. to anybody for the proposed reinsurance transaction thereof of Deendayal Port Authority.

TO WHOM SO EVER IT MAY CONCERN

We, undertake that _____ (bidder), will not pay any direct / indirect brokerage, commission and / or any other fees etc. to anybody for the proposed reinsurance transaction thereof of Deendayal Port Authority.

We note that M/s Marsh India Insurance Brokers Pvt. Ltd. is working with Deendayal Port Authority as Insurance Broker/Intermediary for Port assets insurance, settlement of Insurance claims and miscellaneous insurance services.

We, further, undertake that we will not directly / indirectly involve M/s Marsh India Insurance Brokers Pvt. Ltd. in the proposed reinsurance thereof of Deendayal Port Authority.

For _____ (bidder)

Signature :-

Name :-

Designation

INTEGRITY PACT

Between

Deendayal Port Authority (DPA) hereinafter referred to as **"The Principal"**
and

..... (Name of The bidders and consortium members) hereinafter referred to as **"The Bidder / Contractor"**

Preamble

The Principal intends to award, under laid down organizational procedures, contract(s) / concession(s) for Tender No. ..... The Principal values full compliance with all relevant laws of the land rules, regulations, economic use of resources and of fairness / transparency in its relations with its Bidder(s) and / or Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitors (IEMs), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the Principal

(1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

(a) No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

(b) The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

(c) The Principal will exclude from the process all known prejudicial persons.

(2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC / PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder(s) / Contractor(s)

(1) The Bidder(s) / Contractor(s) commits themselves to take all measures necessary to prevent corruption. The Bidder(s) / Contractor(s) commits themselves to observe the following principles during participation in the tender process and during the contract execution.

a. The Bidder(s) / Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in tender process or the execution of the contract or to any third person any material or other benefit, which he / she is not legally entitled to, in order to obtain in exchange of advantage of any kind whatsoever during the tender process or during the execution of the contract.

b. The Bidder(s) / Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-

submission of bids, or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

c. The Bidder(s) / Contractor(s) will not commit any offence, under the relevant Prevention of Corruption Act / Indian Penal Code / PC Act; further the Bidder(s) / Contractor(s) will not use improperly, for purposes of competition, or personal gain, or pass on to others, any information or document provided by the Principal, as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

d. The Bidder(s) / Contractor(s) of foreign origin shall disclose the name and address of the Agents / Representatives in India, if any. Similarly, the Bidder(s) / Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s) / Contractor(s). Further, as mentioned in the Guidelines all the payments made to Indian agent / representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" is placed at (page Nos. 7-20)

e. The Bidder(s) / Contractor(s) will, when presenting their bid, disclose any and all payments made, is committed to or intends to make to agents, brokers or any other intermediaries, in connection with the award of the contract.

f. Bidder(s) / Contractor(s) who have signed the Integrity Pact shall not approach the Courts while representing the matter to IEMs and shall wait for their decision in the matter.

(2) The Bidder(s) / Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 - Disqualification from tender process and exclusion from future contracts.

If the Bidder(s) / Contractor(s), before award or during execution has committed a transgression through a violation of Section-2 above, or in any other form, such as to put their reliability or credibility in question, the Principal is entitled to disqualify the Bidder (s) / Contractor(s), from the tender process, or take action as per the procedure mentioned in the "Guidelines on Banning of business dealings". Copy of the "Guidelines on Banning of business dealings" is placed at (Page No. 7-20).

Section 4 - Compensation for Damages

(1) If the Principal has disqualified the Bidder(s), from the tender process prior to the award, according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit / Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor, liquidated damages of the Contract Value or the amount equivalent to Security Deposit / Performance Bank Guarantee, whichever is higher.

(3) The Bidder(s) agrees and undertakes to pay the said amounts, without protest or demur, subject only to condition that, if the Bidder(s) / Contractor(s) can prove and establish that the termination of the contract, after the contract award has caused no damage or less damage than the amount of the liquidated damages, the Bidder/Contractor shall compensate the principal, only to the extent of the damage in the amount proved.

Section 5 - Previous transgression

(1) The Bidder declares that, no previous transgressions occurred in the last three years with any other company in any country confirming to the anti-corruption approach or with any other Public Sector Enterprises in India, that could justify his exclusion from the tender process.

(2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure mentioned in "Guidelines on Banning of Business dealing".

Section 6 - Equal treatment of all Bidders / Contractors

(1) In case of a Joint Venture, all the partners of the Joint Venture will enter into agreement with identical conditions as this on which all Bidders.

(2) There is no provision of sub-contract in the tender, any violation of the same, Contractor shall be held solely responsible for the same.

Section 7 - Criminal charges against violating Bidders / Contractors

If the principal obtains knowledge of conduct of a Bidder or Contractor or of an employee, or a representative, or an associate of a Bidder or Contractor, which constitutes corruption, or if the Principal has substantive suspicion, in this regard, the Principal will inform the same to the Chief Vigilance Officer (CVO) and the CVO will take further necessary action as deemed fit in accordance with the CVC Manual.

Section 8 - External Independent Monitor

(1) The Principal appoints competent and credible Independent External Monitor for this Pact after approval by Central Vigilance Commission. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

(2) The Monitor is not subject to instructions by the representative of the parties and performs his / her functions neutrally and independently. The Monitor would have access to all Contact documents, whenever required. It will be obligatory for him / her to treat the information and documents of the Bidders / Contractors as confidential. He / she reports to the Chairperson of the Board of the Principal.

(3) The Bidder(s) / Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Bidder / Contractor will also grant the Monitor, upon his / her request and demonstration of a valid interest, unrestricted and unconditional access to the project documentation. The Monitor is under contractual obligation, to treat the information and documents of the Bidder / Contractor with confidentiality.

(4) The Monitor is under contractual obligation to treat the information and documents of the Bidder(s) / Contractor(s) with confidentiality. The Monitor has also signed declaration on "Non-Disclosure of Confidential Information" and of "Absence of Conflict of Interest". In case of any conflict of interest arising at a later date, the IEM shall inform Chairman, DPA and recues himself / herself from that case

(5) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the

contractual relations between the Principal and the Bidder / Contactor. The parties offer to the Monitor the option to participate in such meetings.

(6) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he / she will so inform the Management of the Principal and request the management to discontinue, or take corrective action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

(7) The Monitor will submit a written report to the Chairperson of the Board of the Principal, within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.

(8) If the Monitor has reported to the Chairperson of the Board of the Principal, a substantiated suspicion of an offence under relevant IPC / PC Act and the Chairperson of the Board of the Principal has not, within reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

(9) The word "**Monitor**" would include both singular and plural.

Section 9 - Pact Duration

9.1 This Pact shall be operative from the date of signing of IP by both the parties till the final completion of contract of successful bidder and for all other bidders six months after the contract has been awarded. Issues like warranty, guarantee, etc. should be outside the purview of IEMs.

9.2 If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact, as specified above unless it is discharged / determined by the Chairperson, DPA.

Section 10 - Other Provisions

(1) This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. Gandhidham, Gujarat.

(2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

(3) If the Bidder / Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

(4) Should one or several provisions of this agreement, turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intensions.

(5) Issues like Warranty / Guarantee etc. shall be outside the purview of IEMs.

(6) In the event of any contradiction between the Integrity Pact and its Annexure, the Clause in the Integrity Pact will prevail.

_____ _____

(For & on behalf of the Principal) (For & on behalf of the Bidder/Contractor)

(Office Seal)

Signature of Witness:
(Name & Address)
_____
_____
_____
_____

(Office Seal)

Signature of Witness:
(Name & Address)
_____
_____
_____
_____

Place : Gandhidham
Date : ____/___ /20___

"**Note:** The bidder has to execute Integrity Pact agreement with Deendayal Part Authority (as per Bid Response Sheet No.10 and Shri Amiya Kumar Mohapara, IFoS, (Retd.) and Dr. Gopal Dhawan, Ex-CMD, MECL have been appointed by DPA as Independent External Monitors and whose address areas under :-

Shri Amiya Kumar Mohapara, IFoS,(Retd.) Qrs. No 5/9, Unit-9, Bhoi Nagar, Bhubaneshwar-751 022, Mobile No 9437002530 email: amiyaifs@gmail.com	**Dr. Gopal Dhawan, Ex-CMD, MECL** House NO 120, Jal Shakti Vihar (NHPC Society) P4, Builders Area, Greate Noida Gutam Budh Nagar, Uttar Pradesh- 201 315 email:gdhawangeologist@gmail.com

Annexure M – Reinsurance Support letter
(To be issued on the reinsurance company's letterhead)

Date:

To,
Office of FA & CAO
Administrative Office Building
Gandhidham Kutch - 370205

Subject of letter: Support Letter in respect of Port Package and Hull and Machinery Insurance for Deendayal Port Authority for the policy year 2025-26

Dear Sir,

We hereby confirm that we have financial security rating A by Security Rating Agency namely _____as on today's date. We confirm that we have provided reinsurance support to _____ for the Port Package and Hull and Machinery Insurance for Deendayal Port Authority for the policy year 2025-26.

Yours sincerely,