

**Report
On
Environmental Audit of M/s Visakhapatnam Port Authority**



Submitted to



Visakhapatnam Port Authority
An ISO 9001, ISO 14001, ISO 45001 Certified & ISPS Compliant Port

By



National Productivity Council

NATIONAL PRODUCTIVITY COUNCIL
Utpadakta Bhawan, 5-6 Institutional Area,
Lodhi Road, New Delhi

(February, 2024)

ACKNOWLEDGEMENT

National Productivity Council (NPC) would like to place on record its sincere gratitude to the Visakhapatnam Port Authority for entrusting the study on “Environmental Audit of Visakhapatnam Port Authority, Visakhapatnam”.

We are grateful to Dr. Madhaiyaan Angamuthu, IAS, Chairperson, Visakhapatnam Port Authority and Shri Durgesh Kumar Dubey, IRTS, Deputy Chairperson, Visakhapatnam Port Authority for reposing trust in NPC and awarding the study on Environmental Audit of Visakhapatnam Port Authority, Visakhapatnam” to NPC.

We extend our sincere thanks to Shri R. N. Hari Krishna, Chief Engineer (Stat.) & Chief Mechanical Engineer and Shri A. Venu Prasad, Advisor for effectively co-ordinating the study with all sections and providing valuable support and facilitation in smooth conduct of this study.

We are also thankful to Shri M. Hariya, Chief Engineer (I/C), Shri B. G. Ganapatti, Superintending Engineer (Env) and Shri S. Balamurali, Executive Engineer (Env. Cell) and Shri M.V. Uday Bhaskar, Chief Manager (Env.) & other VPA officials for providing guidance and valuable inputs to NPC and facilitating smooth conduct of the study.

***Environment and Climate Action Group
NPC, HQ***

NPC STUDY TEAM

Shri K. D. Bhardwaj, Director, NPC

Shri Shailesh Kumar Vimal, Dy. Director, NPC

Shri Vijay Kumar Nehra, Dy. Director, NPC

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CHAPTER- 1: BACKGROUND OF PROJECT

1.1 Background of Project:

The Comptroller and Auditor General of India (CAG) recommended that the Visakhapatnam Port Authority may conduct an Environmental Audit and take necessary remedial measures based on the audit findings. The compliance status with the conditions specified in the Environmental Clearances issued to VPA and the terms and conditions of Consent for Operate (CFO) is needs to be assessed. In response to this, M/s Visakhapatnam Port Authority (VPA) had entrusted the National Productivity Council (NPC) under the Ministry of Commerce and Industry, Govt of India, New Delhi to conduct a third party **"Environmental Audit of Visakhapatnam Port Authority."**

1.2 Description of Project:

This study was entrusted by the Visakhapatnam Port Authority (VPA) to National Productivity Council (NPC) for conducting **"Environmental Audit of Visakhapatnam Port Authority"**.

1.3 Scope of Work & Methodology:

The primary goals of the environmental audit conducted for Visakhapatnam Port Authority were to review and check the conditions of Environmental Clearance and Consent for Operates are adhered. This includes the following points:

- Environmental Compliance: To review the records and approvals with statutory requirements with reference to Environment.
- Regular Reporting: Submitting monthly reports on environmental parameters and conditions to the regulatory authority to ensure transparency and adherence to EC & CFE conditions.
- Enhancing Monitoring Practices: Examining current environmental monitoring procedures and proposing suggestions for enhancing effectiveness.
- Pollution Prevention and Control: Reviewing the current implementing measures to prevent and control pollution concerning air, water, waste, noise, soil, and other relevant factors.
- Evaluating Pollution Control Devices: Assessing the performance of existing

pollution control mechanisms in place.

1.4 Study Limitations:

This study confines within the specified area as per the approved layout provided by the VPA:

1. Due to limited time for carrying out the study, the records are collected based on the secondary data/information provided/available with the VPA and the same have been reported under this study.
2. This study is based on independent audit by NPC and same shall not be used for any litigation purpose.
3. The suggestions/recommendations given by NPC may be implemented in a phased manner depending on operations viability and resource availability.
4. NPC team visited the site during 4th to 7th December, 2023, however the climatic conditions were hampered due to continuous rains in the region because of the impact of Cyclone Michaung.
5. The study did not involve any sample collection and analysis because of time constraints.

CHAPTER- 2: ABOUT VISAKHAPATNAM PORT AUTHORITY & THEIR ROLE

2.1 Introduction:

Visakhapatnam Port is one of the major ports of India. It lies almost in center of Kolkata and Chennai along the East Coast. Its ideal location act as an added advantage for facilitating “Act East Policy”. It contributes heavily to the maritime trade with the economies in the Asia and the Asia Pacific regions along with Europe, Persian Gulf, Africa, and Americas. The Port of Visakhapatnam is known as a Gateway port for the EXIM cargo of Nepal. The port is a premier Indian port in terms of annual traffic (cargo throughput). The port is a major bulk handling port with POL, Iron Ore and Coal being the major bulk commodities. Other commodities handled in substantial quantities are Iron & Steel, Fertilizers & Fertilizer Raw Materials and Alumina.

Port of Visakhapatnam is one of the 13 major ports of India. It is located on the east coast, midway between Kolkata and Chennai.

2.2 Visakhapatnam City:

Visakhapatnam city lies between 17°58'21" N to 17°24'45" N and 83°51'00" E to 83°27'00" E. It is a major industrial city in the north eastern coastal Andhra Pradesh, India. City has typical topographical features such as hills on three sides and the Bay of Bengal in the east. Based on topographical conditions Visakhapatnam city can be divided into four categories viz., Hilly region, Upland tracks, rolling plains and Plains. The Kailasa and Yarada are the major hill ranges in the city. The Kailasa hill range stretches from Simhachalam to MVP Colony on the north flank of the city. The city, which appears like a small basin, is surrounded by the Yarada hill popularly known as Dolphin’s nose (358m) on the side of the Kailasgiri hills on the north, with the Bay of Bengal forming the eastern wall. According to Forest Survey of India, forest cover in Visakhapatnam district is 11,161 km² in 2019. The coastal line runs from north- east to south west over a distance of 6 km. On the west, there is an extensive tidal basin called Upputeru now under reclamation (Visakhapatnam City Development Plan). The average annual temperature is 32°C and average annual rainfall is 950 mm. The predominant wind direction in North in summer and South in winter.

Visakhapatnam harbor a naturally built port. The bowl area of city extends over an area of 266 km². The port handles petroleum, oil, iron ore, coal, and other commercial goods, and the

port is the second largest in India in terms of the cargo traffic. Port has also led to industrial settlement in the city, consisting of steel, petroleum refining, and fertilizer industries. Besides the port, other factors contributing to the city's economic growth are its location between Chennai and Kolkata and a developed network of railways which changed this valley into an industrial hub and also there are 1.7 million inhabitants in the Greater Vishakhapatnam region, covering a city area of 530 km² and percentage of households owning a car is 8%, the percentage of households in the city owning a motor cycle is 36% and the percentage of households using a non-gas or non-electric cook stoves is 21% (Census of India, 2011, The Govt. of India).

2.3 Port Infrastructure:

The following infrastructure is available with Visakhapatnam Port Authority:

- a. **Number of Berths - 28 & 1 SPM**
- b. **Electrical Wharf Cranes-4**
- c. **Shipping Tugs**
 - Port owned-6
 - Private - 2
- d. **Port owned Dry Storage Facilities in Lakh Sq. Mtrs.**
 - Covered 0.48
 - Open area within Customs 1.97
 - Open area outside Customs 10.47
- e. **National Aluminium Company**
 - Silo 75000 Tonnes
- f. **Central Warehousing Corporation**
 - Warehouse 20170 Tonnes
- g. **Food Corporation of India**
 - Godowns 12 Nos.
- h. **Coal India Limited**
 - Silo 2

i. Covered Storage for

- Rock Phosphate 4700 Sq. Mtrs.
- Urea 800 Sq. Mtrs
- Rock Phosphate 60000 Sq. Mtrs.
- Sulphur 25000 Sq. Mtrs
- Urea/MOP/MAP 25000 Sq. Mtrs.
- Rock Phosphate 25000 Sq. Mtrs.

j. Connectivity & Storage

- Development of 4 lane connectivity from East breakwater road to Convent Junction (3.958 KM)
- Development of Flyover from Convent Junction (Seahorse Junction) to Dock area.
- Improving / up-gradation of 4 lanes to 6 lane road from the port Connectivity from Convent Junction to Sheelanaar Junction.
- Development of World Class Truck Parking Terminal in 20 acres by port (O&M by the third party)
- Construction of 4no of Covered Storage Sheds in Port area including necessary drains, road and water supply.
- Electrification of VPA Railway lines 38.00 TKM.
- Upgradation of track in East yard of VPA (6.70 KM)
- Provision of Electronic Interlocking by clubbing four cabins (North, South, Northwest and Southwest) of R&D yard and panel interlocking at 14 lever goomty in VPA.
- Improvement to VPA railway tracks and rectification of Sharp curves.

k. Container Transshipment Hub

- All weather port with deepest natural depth of 16M
- Visakhapatnam is the closest established container terminal to the Malacca Straits.
- Vast Hinterland with large industries in pharma, Steel, Alumina, Ferro minerals, Sea Food etc.
- Closest to the feeder ports on the upper Bay of Bengal.
- Growing main line Container vessel services offering global connectivity.
- Poised to be the largest container terminal on the East Coast with 1.3 million TEUs capacity.

- VRC discounts of 70% for above 50,000 GRT vessels and 50% discounts for below 50,000 GRT vessel
- Additional concession for vessels carrying minimum inward 250 TEUs for transshipment.

l. VPA Mobile X-ray Container Scanner

m. VPA 10 MW Solar Project

n. Industrial Lighting System

As per the existing Lighting inventory of VPA, there are almost 4016 Nos. of light fittings exists of various wattages of street lights, floodlights all over the port operational areas, High mast / mini mast tower lights, road lighting, shed lighting, harbour park and Maharanipeta housing colonies areas etc. In compliance with the Direction of the Ministry of New and Renewable Energy (MNRE), about 2000 Nos. (on street light poles & High mast / Mini mast towers) of the LED light fittings were replaced in phase I & II by M/s EESL which are under the scope of maintenance by EESL, is limited only to – repair/replacement of above 2000 Nos. LED streetlight fittings and the power supply to these streets light fitting is not in the scope of M/s EESL.

o. RFID (Radio Frequency Identification system) based Gate pass entry

- General Cargo Berth gate.
- East Quay-7 gate.
- Dock main gate.
- West Ore berth gate.
- West Quay 7 and 8 gates.
- North West gate.

p. Radio Navigation Equipment (MBES)

Nirmal launch is equipped with single beam echo sounder which uses SONAR (Sound Navigation and Ranging) technology to measure the depth of sea bed duly ensuring 16m channel draft to safely manoeuvre the vessels In/out of the harbour. Further, VPA is envisaging replacing the existing single beam echo sounder with the latest Multibeam echo sounder which will be commissioned by Sept 2020 duly complying with ministry guidelines to improve the operational efficiency.

q. Wireless Communication System

- VPA has deployed 160 nos. of wireless sets for uninterrupted wireless communication among staff for shipping/handling/railway operations.
- Further 02no of Repeater stations are installed at Duffer in signal station – II (Rose Hill) and DLD building.
- In addition to this, 80 No of digital VHF sets were provided to Marine wing for effective communication to safely manoeuvring the vessels during anchorage pilotage, berthing. Further 55 Nos of digital VHF sets are deployed for port security (CISF Patrolling and crime) for effective monitoring the port security and surveillance.

r. Cargo Handling Equipment

- VPA has installed 02No of 100 Ton Electronic in-Motion Railway Weigh Bridges (01 No. at AKP & 01 No. at WOB) for weighment of all cargo through Railway rake movements. The weigh bridges were procured and installed in the year 2009 as per the Railway Design and standards organization (RDSO) specifications.
- Further, the present weighbridges are being replaced with latest technology high capacity 140 Ton Electronic In-Motion Railway Weigh Bridges for faster evacuation of cargo duly reducing the TRT of rakes.

s. ISPS Equipment

- VPA has installed 95 nos of high resolution cameras throughout port area for effective surveillance of shipping operations duly complying ISPS requirement. Also a command control centre has been established for effectively monitoring cargo handling operations, environmental parameters and security aspects.
- VPA has also commissioned Radiation detection equipment (RDE) to detect nuclear materials and radioisotopes for the purpose of stopping illicit shipment of special nuclear material.

t. Harbour Pilot System (HPS)

- Recently Harbour Pilot System introduced in VPA to meet challenges of bringing CAPE and Baby CAPE (Bigger size) vessels in the narrow congested waters of Inner Harbour.
- It aids pilots in safe navigating, docking the vessels by taking precise position of vessels using PPU (Portable Pilot Unit) for measurement of speed, Heading and accurate Rate of Turn of vessel while manoeuvring.
- Presently HPS system is being used by pilots by carrying PPU's which is portable type having lighter weight and smaller size.

u. B. G. Locos

- WDS-6 Model Diesel-electric locomotives 1350 HP - 7 Nos.
- WDG-3A Model Diesel-electric locomotives 3100 HP - 3 Nos.

v. O S T T & L P G

- Maintenance of fire fighting facilities at O.S.T.T/ LPG/ OR-I, II& III berths for ensuring safety at berths as per PESO requirements.
- Maintenance of various capacities of Generator sets for lighting and power supply for the handling of cargos at berths.

w. 10 MLD Sewage Treatment Plant (STP)

x. Sweeping Machines & Fog Cannons

y. Floating Crafts (Tugs, Launches and Cranes)

- 65 Tons Bollard Pull ASD tug - 01 No.
- 60 Tons Bollard pull ASD tug - 01 No.
- 50 Tons Bollard Pull Tractor tug - 4 Nos.
- 100 tons Floating Care - 1 no.
- 50 tons Floating Crane - 1 No.
- Pilot Launches - 4 Nos.
- Mooring Launches - 3 Nos.
- Survey Launch (Nirmal) - 1 No.
- Agni Class File Float - 1 No.
- 500 M# Grab Hopper Dredger - 1 No.
- 350 tons Oil Barge - 1 Nos

z. Dry Dock Details

- Length - 140.24 Mtrs.
- Breadth - 18.28 Mtrs.
- Draft - 5.6 Mtrs.

2.4 Port Activities:

The following major activities from year 1951 up to 2023 by Visakhapatnam Port Authority (VPA) are occurred as follows:

- (1951-1961) Construction of three jetty berths (WJ-1, 2 &3) Construction of one quay berth (EQ-4) Construction of oil wharf consisting two oil berths (OR-1&2)
- (1961-1971) Commissioning of two captive iron ore berths WOB-1(now WQ-4) and WOB-2(WQ-5) Commissioning of ore handling plant Commissioning of captive Fertilizer's berth (FB) Commissioning of EQ-5 and EQ-6 Constitution of Visakhapatnam Port as a Trust, Commencement of Night Navigation
- (1971-1981) Commissioning of New Oil Mooring to accommodate large crude ships. Commissioning of Outer harbour and ore berths (OB-1 and OB-2) to accommodate ships of size 150,000 DWT
- (1981-1991) Construction of an off-shore tanker terminal (OSTT) in the outer harbour to accommodate crude tankers up to 150,000 DWT Construction of a General-cum-Bulk cargo berths to cater to ships up to 60,000 DWT
- (1991-2001) Conversion of the jetty berths WJ-1, 2 and 3 into a regular quay berth with more apron width. Commissioning of a multi-purpose berth EQ-7 in the inner harbour. Commissioning of multipurpose berth in the outer harbour (now Container terminal) Construction of an exclusive and specialized terminal for discharging LPG from gas carriers at the outer harbour.
- (2001-2010) Commencement of operation of the first BOT project – Container terminal at outer harbour concessioned to Visakha Container Terminal Pvt. Ltd. Development of two new berths in the extended Northern arm of Inner Harbour (EQ.8 & EQ.9) on BOT basis by M/s. Vizag Sea Port Pvt. Ltd. Commissioning of a multipurpose berth WQ-7 in the inner harbour Navigation of first PANAMAX vessel into inner harbour Commissioning of the LPG cavern facility Merging of Visakhapatnam Dock Labour Board with Visakhapatnam Port Authority Widening entrance channel of Inner Harbour to 111 m and permissible draft to 11 m Installation

of 2 nos., harbour mobile cranes at West Quay berths of the inner harbour on hire basis.

- (2013-2016) Outer harbour is deepened to (-) 20 m, outer turning circle to (-) 21m and outer approach channel to (-) 22 m to handle CAPE vessels of draft up to 18m. Inner harbour entrance channel deepened to (-) 16.10 m dredge depth to handle PANAMAX vessels of draft up to 14.50 m.
- (2016-2018) Development of WQ7 & WQ8 berths (two berths), 280 m in length each, in inner harbour to handle PANAMAX vessels of draft up to 14.50 m. Development of EQ2 to EQ5 berths (two berths), 280 m in length in inner harbour to handle PANAMAX vessels of draft up to 14.50 m.
- (2018-2020) Development of OR-III berth, 180 m in length in inner harbour to handle vessels of draft up to 12.0 m.
- (2020-2022) Development of Cruise-Cum-Coastal Cargo Terminal at Visakhapatnam Port by M/s Visakhapatnam Port Authority and development of WQ-7 & WQ-8 berth in the northern arm of Inner Harbour of Visakhapatnam Port Authority-handling of multiple cargo through semi mechanized mode.

2.5 Site Connectivity & Site Layout

Roads:

Visakhapatnam is on the Golden Quadrilateral. Port connectivity road connects to NH-16 Chennai –Kolkata 12 KM Port Connectivity road 4 lane)

Road projects envisaged under Bharatmala are as follows:

1. Development of flyover bridge from sea horse junction to dock area
2. Development of 4 lane road from East Breakwater to Convent junction
3. Improving /upgradation of 4 lane to 6 lane road for the port connectivity from East Break water to Sheelanagar Junction
4. Visakhapatnam Port road from Sheelanagar to Anakapalli-Sabbavaram/ Pendurthi-Anandapuram road.

Railway Station

The nearest railway station to the Port is Visakhapatnam (Code: VSKP), East Coast Railways located at a distance of about 3 Kms. The Port railway is connected to the trunk railways of Waltair Division through its exchange yards viz., the R&D Yard and the Ore Exchange Yard.

Railway network at Port of Visakhapatnam is the largest amongst Indian Ports with over 200km rail length, over 30 Sidings and ~60% rail coefficient. The Port has a close interface with Waltair Division of East Coast Railways which facilitates quick transportation of EXIM cargo from/to all the States in the Country and at time to Pakistan and Bangladesh also. Port is equipped with 15 WDS-6 locos of 1400 HP and 3 WDG-3 locos of 3100 HP capacity for carrying Train operations.

The Rail network at Port has two systems viz., Iron ore(Mechanical Tippling) and General (other than Iron ore Mechanical), for handling food grains, fertilizers, thermal coal, steel products, coking coal, Iron Ore(manual unloading) & other mineral ores, POL products etc.

Bus Stand:

Bus Transport in Visakhapatnam is being taken care of by the state-run Andhra Pradesh State Road Transport Corporation (APSRTC). The nearest bus station to the Port is Dwaraka Bus Station or Central Bus Station (CBS), RTC Complex is located at a distance of about 5 Kms.

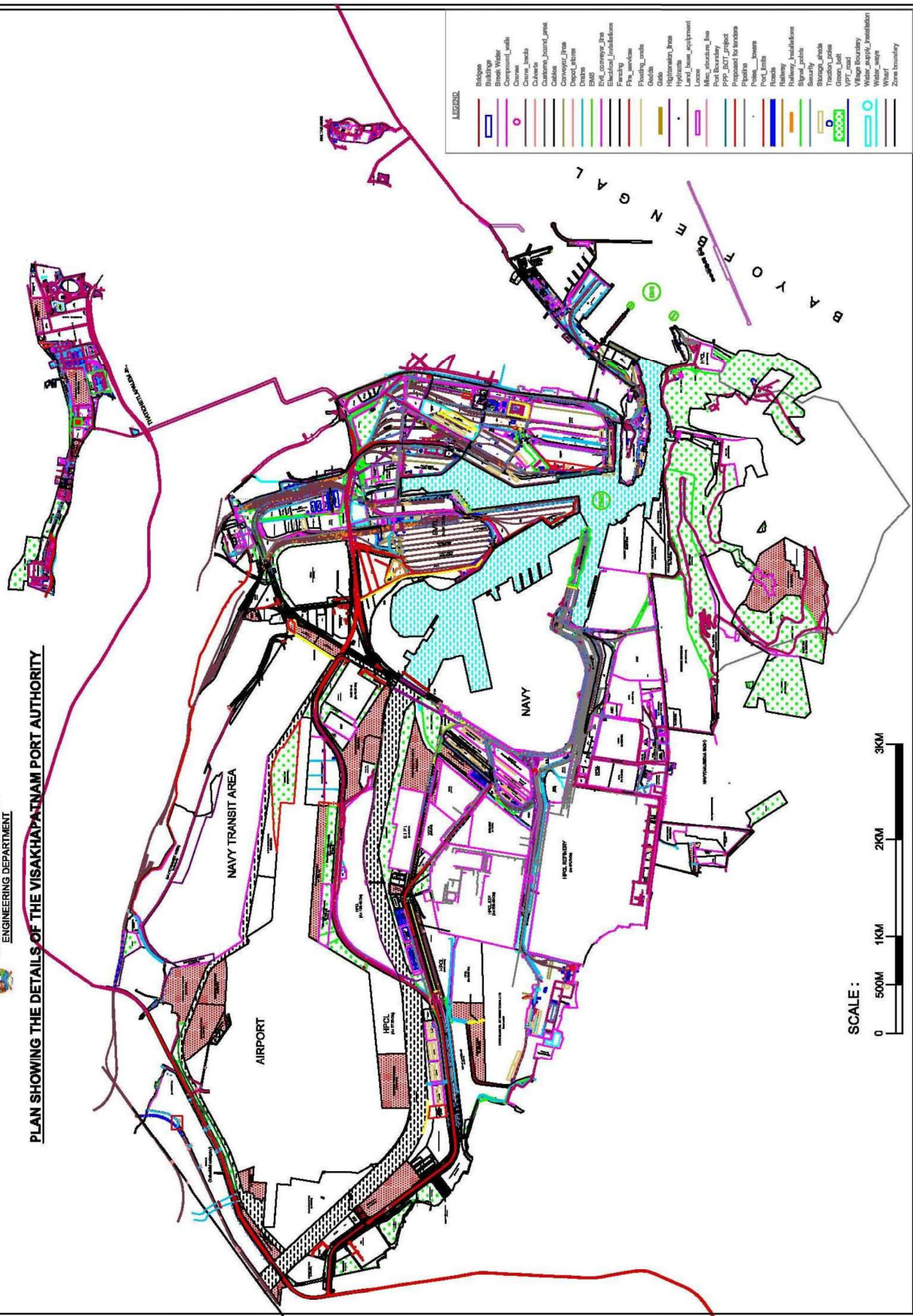
Airport:

The Visakhapatnam Airport caters to Domestic and International Travel. The Airport is about 14 Kms from VPA.

Site Layout

Layout of Visakhapatnam Port Authority is given below:

PLAN SHOWING THE DETAILS OF THE VISAKHAPATNAM PORT AUTHORITY



CHAPTER- 7: RECOMMENDATIONS BY NPC

7.1 Recommendations:

1. Legal & Statutory approval with respect to Environment:

The records provided by VPA, revealed that all statutory approvals have been obtained with respect to environment which are critical aspects for the operation of port. Visakhapatnam Port Authority has obtained 12 Environmental Clearances as per EIA notification 2006 and its subsequent amendments for operating port activities and thereafter has obtained respective CTE/CTO from APPCB under Air and Water act. The conditions given in CTO of APPCB are reviewed by NPC team and our observations are given in the Chapter 6.

Further, as per Hon'ble NGT direction, it is noted that as per order dated 05.08.2020 and application no 68/2015 APPCB had inspected the facility and imposed an environmental compensation of Rs 1.95 crores and VPA has paid the environmental compensation and the case was disposed.

It is suggested that the conditions in CTO must be adhered to avoid any litigations and environmental compensations charges in future.

2. Air Pollution Prevention and Control:

It is informed that port area is generating a lot of fugitive emissions during handling & storing of dusty import and export materials which leads to air pollution. To avoid and minimise fugitive emission they have taken several steps such as covering the dusty cargo with tarpaulins, limiting the storage height upto 6 meter & developed storage sheds and few under constructions, 7.5 meter compound wall at kobbarithota wall, water sprinkling at road, development of green belt, enclosed conveyor belt, reorganisation of stacking, Mechanical dust suppression system, mechanisations of berths are (under process) implemented by VPA.

It is suggested that all manual handling bulk cargo must be phased out. It is an urgent need to develop covered sheds for handling bulk cargo and open storage of bulk cargo must be phased out in a planned manner. This implementation will help avoiding and minimising the fugitive emission in the port area.

The operators of Continuous Ambient Air Quality Monitoring Stations should be provided with the notification of National Ambient Air Quality Standards, 2009 so that they can compare their daily readings and analyze that the parameters are well within the prescribed norms. If not, the operators may flag the issues to their senior authority so that timely suitable correctives and preventive measures can be taken. Aerial videography can be utilized to ensure that all open stack yards are covered with tarpaulins and trucks are properly covered. This will enable a visual perspective of the port area, enabling authorities to identify, monitor, and address environmental concerns related to air quality and pollution control.

3. Waste water treatment & its utilization:

A 10 MLD (Million Liters per Day) Sewage Treatment Plant (STP) is treating the sewage generated in the part of old city received through Gangullagedda, Chakaligedda and Yerrigedda. The STP is based on conventional technology (activated sludge process) operates in continuous flow mode. It is installed at the city sewer open drain to treat sewage wastewater. The treated water is stored in an open pond and then used for the sprinkling purposes for dust suppression.

It is suggested that the following points for proper utilization of STP:

- Presently, VPA is receiving different inflow on daily basis at STP. Further, after a review of the records of STP; it is found that its capacity is underutilized (40 to 60%). Also, treatment cost with reference to power consumption is on higher side as the design of STP is for 10MLD and running on below capacity. Therefore, an equalization tank of adequate capacity may be established to maintain the uniform flow. An equalization tank plays a crucial role in a Sewage Treatment Plant (STP) by providing a balanced and uniform flow of wastewater to subsequent treatment processes.
- Surface aerator may be replaced with diffused aerator. Benefits of diffused aerator are as follows:
 - ❖ Diffused aerators generally have higher oxygen transfer efficiency compared to surface aerators. The fine bubbles created by diffused systems provide a larger surface area for oxygen exchange with the water, leading to better oxygen transfer.
 - ❖ Diffused aerators are often more energy-efficient than surface aerators.

- ❖ Diffused aerators provide efficient mixing and circulation throughout the water column.
- ❖ PLC based operation of STP may be established. PLC-based systems allow for the automation and centralized control of various processes within the STP. This leads to enhanced operational efficiency by reducing manual intervention and ensuring precise control. PLCs enable real-time monitoring and control of key parameters such as flow rates, chemical dosing, and equipment status. This facilitates process optimization, ensuring that the STP operates at its most efficient levels.
- ❖ STP outlet wastewater must be installed with Real time continuous effluent monitoring system
- ❖ Proper 5-S management within the STP may be required to optimize the available area.
- For long run planning, it is suggested that the existing STP technology may be shifted to Sequential Batch Reactor (SBR) technology. SBR technology is known for its operational flexibility, ability to handle varying influent conditions, and high treatment efficiency. Advantages of SBRs are that equalization, primary clarification, biological treatment, and secondary clarification can be achieved in a single reactor vessel. These advantages can reduce the treatment area and cost.

4. Waste Management including horticulture, drain cleaning, silt management:

Definition of solid waste as per Solid Waste Management rules, 2016

“Solid waste” means and includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering, and market waste and other non-residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated biomedical waste excluding industrial waste, biomedical waste and e-waste, battery waste, radio-active waste generated in the area under the local authorities and other entities mentioned in rule 2; as per SWM rule 2016.

VPA shall formulate an action plan with consultation with GVMC for managing solid waste generated from their facilities and management of this solid waste in accordance with Solid Waste Management Rules, 2016 and its subsequent amendments. However, it is reported that all the solid waste is handover to GVMC.

Effective waste management in a port area requires a holistic approach, involving various stakeholders, regulatory compliance, and sustainable practices to minimize environmental impact.

5. Surface water & Marine water and ground water

VPA may take suitable efforts to develop and install real time Continuous Marine Water Quality Monitoring Stations (CMWQMS) as per MoEF&CC/CPCB guidelines with digital dashboard and is to be calibrated by an approved lab showing the real time value with reference to the permissible limits and to be hooked with MoPSW server/portal/Sagarmanthan dashboard for real time monitoring and feedback.

It is suggested that VPA conducts annual testing of groundwater quality in accordance with BIS IS 10500 standards to ensure the quality of drinking water. This testing should be performed by a laboratory approved or recognized by NABL.

6. Monitoring Mechanism :

- **Consent to Operate & Authorisation order issued to M/s. Visakhapatnam Port Authority** i.e. Sr No 2 is yet to comply by M/s Visakhapatnam Port Authority as it is issued on 12/07/2023 by APPCB. It is suggested that M/s Visakhapatnam Port Authority is required to submit the half-yearly compliance report of the Consent to Operate issued by the Andhra Pradesh Pollution Control Board (APPCB) on dated 12.07.2023
- It is the responsibility Public Private Partnership (PPP) operators to submit the half yearly report to concerned department and comply all conditions laid the in CFE. It is suggested that M/s Visakhapatnam Port Authority to ensure through its EMC cell that all conditions specified in the Consent for Establish (CFE) and Consent for Operate (CFO) issued to PPP operator are adhered. Any instances of non-compliance should be promptly reported to the APPCB. Further, it is suggested that all PPP operators shall conduct an annual Environment audit through reputed agency and submit their findings to VPA.

7. Fire & Safety Management:

Fire safety audit for Visakhapatnam Port has been done by National Safety Council and the report is submitted by them in the month of June 2023. Findings of the report must be implemented.

It is suggested that the report must be shared with the APPCB for meeting compliance point of CTO.

8. Water audit and Energy audit towards sustainable development:

Water audits and energy audits offer numerous benefits, ranging from resource conservation and cost savings to regulatory compliance and improved environmental stewardship. Implementing recommendations from these audits can lead to more sustainable and efficient operations for organizations. It is suggested that water audit and energy audit may be conducted by reputed agency to identify the water saving and energy saving measures in port. This will also leads to decrease their carbon and water footprints.

9. Green Initiatives towards sustainable development: from compliance to value creation

Harit Sagar Guidelines implementation:

In accordance with the Office Memorandum by Ministry of Ports, Shipping & Waterways, Government of India dated 11th May 2023, with reference number PD-24015/3/2023, titled "Harit Sagar Green Port Guidelines," it is recommended that to take various green initiatives to reduce carbon intensity and to develop an environment friendly ecosystem at port.

The aim is to position Major Ports as hubs of economic growth and development in a sustainable manner which has to be achieved through optimization of Port Procedures, inducting Green Technologies, reducing wastages, taking steps for reducing the Carbon Intensity per unit of cargo handled and initiatives for achieving the de-carbonization benchmarks set out in the Government's Panchamrit Commitments.

Accordingly, VPA has taken an initiative to comply with Harit Sagar Guidelines 2023 and to stimulate continuous improvement in the Port environment and its environmental management.