Environment Management System of Visakhapatnam Trust

A relentless march is being led by Visakhapatnam Port which is an ISO certified Port towards National development with no compromise in implementing the well structured Environment management plans to safeguard the Environment quality from the detrimental effects of development plans.

Environment Initiatives and Best Practices are adopted to protect environment and the same is being ensured to combat air and water quality pollution successfully duly addressing the environmental issues of serious concern from time to time.

The key aspects of Environment Management System of VPT are as below:

Environmental Management System Objectives:

1. **Statutory Obligations compliance:**

   Obtaining necessary Environment clearances from State and Central bodies as per applicability.

   Waste management methods at VPT as per statutory obligations:

   Visakhapatnam Port is having an authorization to handle hazardous waste and bio – medical waste.(details enclosed. VPT is also filing the returns at regular periodicity as required. Data enclosed. E- Waste is being handled through APPCB authorized recyclers.

2. Strategic approach towards safe guarding Environment by preparing and implementing a well structured Environment management plan:

   - **Upgradation and modernisation of existing cargo handling facilities**: As the manual handling of cargo is resulting in the emission of fugitive emissions during the various stages of operations it is proposed to mechanise the facilities and the details of mechanization projects is enclosed.
   - **Re-organisation of stack yards**: In line with mechanization projects a relocation of existing stack yards is in progress.
   - **Construction of High rise walls and Dust barriers:** with an objective of spreading the dust emissions into the neighbour hood, high rise walls are constructed provided with dust barriers around the cargo stacking areas.
   - **Covering of stacks with Tarpaulins**: To minimize air pollution and Control Fugitive dust emissions from the stacks in and around port areas, tender was called and work is awarded for supply of tarpaulins and Manpower for covering of stackyards.
   - **Truck tyre washing facility:** As a part of Environment management , Construction of Truck tyre cleaning system at B ramp was completed by end of May 2016 and currently O & M for 3 years is in progress since June 2016.
   - New Truck Tyre Cleaning System facility at ESSAR junction was constructed and currently O & M for one year is in progress since October 2018.

- All the vehicles about 500 No.s per day going out of Port to Port connectivity road are passing through these truck tyre washing systems to ensure that cargo/spillage struck to tyres is washed. This has reduced the dust on Port connectivity road there by improving the air quality.

- **Comprehensive Environment Management System:** Sprinkling of water on port internal roads, Maintenance of internal roads and drains, manual sweeping and other housekeeping works are made inclusive in Comprehensive environment management system , a work awarded to an outsourcing agency for the period of two years at a cost of Rs. 6.38 crores.
- In addition to the above, VPT is awarding the contract to construct **covered storage sheds** (Estimate cost Rs.36 crores) by end of September 2021, which is targeted to be completed by September 2022.
- VPT has also proposed to **procure additional machinery** viz. fog machines, mechanical sweeping machines and other machinery for cleaning of roads and geddas

3. GREEN INITIATIVES IN PLACE AT VISAKHAPATNAM PORT

Design of schemes related to Energy Conservation

- **Demand Correction**: It can be seen that demand recorded for all facilities other than residential facilities, is less than 80% of contract demand. It is preferable to reduce the contract demand so that demand charges can be reduced. In case if any additional demand is envisaged, it shall be explored to maintain the maximum demand by staggering of loads to the extent possible.

- **Pumps Control for Tankers Filling**: The STP treated water is used for dust suppression. The tankers are filled through a pumping system connected to discharge outlets. Around eight discharge outlets are provided for simultaneous filling. It was noticed that the pump was running at full capacity, even if one tanker is getting filled. Other discharge outlets could not be throttled / closed, since the pumps are getting overheated. Even when there are no tankers for some time, the pumps are not switched off due to priming requirements. Now a day's self priming pumps are available. There is a lot of energy wastage also due to this Following arrangement is suggested. There is potential to save energy around 300 units per day which amounts to saving of Rs 54,000.00 per month.

- **Lighting Controls in Corridors / Offices:** It was observed that many lights were on during daytime in many office rooms and also in corridors. It shall be ensured that all corridors lights are connected through a time switch so that they will be on only whenever light fails, and office rooms shall have good maintainable windows with glazing so that

day lighting can be exploited. The cost towards time switch may not be more than Rs 20,000/- which can be paid back in around six months.

SOLAR POWER:

Visakhapatnam port is the pioneer in implementing Solar power under Green initiatives and initiated 10MW solar power plants at a cost of about Rs.60 crores .Already 100 Kw roof top solar power is being used for hospital purposes. In addition 770 KW roof top solar power is being generated.

Besides, hospital building with all blocks can accommodate around 80KWp solar PV system. The system can be without a battery bank since most of the energy can be used during daytime itself. The approximate payback period with Solar PV system is given below. However, a detailed study needs to be done for actual implementation of system.

Water Conservation: in order to reduce the pressure on fresh water resources the waste water from two major drains of the city is being captured before entering into sea water which is being treated at 10 MLD sewage treatment plant the sewage water being monitored fortnightly. Duly ensuring the quality once in fifteen days, the treated water is being reclaimed for dust suppression thus conserving

GREEN BELT DEVELOPMENT TO MANAGE AIR QUALITY:

Green Belt: was developed around the stack yards. Plantation programme is being pursued by VPT on a continuous basis for the last 2 decades for continual improvement and addition of Green Belt in and around Port area. Since 1990s, 430,000 plantation was done covering an area of 630 Acs at different areas including Port operational areas, residential and city areas. Most of the Greenery was damaged due to Hud-hud cyclone occurred on 12.10.2014. To compensate the lost greenery, 5.65 lakh number of plants allotted to VPT under Green Visakha by the District Administration. VPT has already planted about 4.625 lakhs of plants. 1.02 lakhs plantation is taken up during 2020-21 at a cost of Rs.3.84 Crores and so far 70,000 plantation is completed.

4. THE MEASURES TAKEN BY THE PORT TO MONITOR AND IMPROVE ENVIRONMENTAL MANAGEMENT SYSTEMS:

(a) As a proactive measure and to achieve continual improvement, Visakhapatnam Port has engaged the services of the Administrative Staff College of India, Hyderabad for the preparation of "**Environmental Management and Monitoring Plan"** (EMMP). The said report was submitted in January 2015 and the Port is implementing the same.

(b) Port has engaged the services of Administrative Staff College of India, Hyderabad for "Advisory support in the Environmental area of VPT" .

(c) The Port has engaged the services of the Jawaharlal Technological University, Kakinada to come up with an "**Assessment of Effectiveness of existing air pollution management plan of Public Private Partnership partners** and other areas of Visakhapatnam Port" and they have submitted the report during December 2018.

(d) The Visakhapatnam Port has engaged the services of the National Environment Engineering Research Institute (hereinafter referred to as NEERI) for the preparation of **"Disaster Management Plan**". The said plan was submitted in July 2014 and the same in force for implementation.

e) The Visakhapatnam Port has engaged the services of the National Environment Engineering Research Institute (hereinafter referred to as NEERI) for the preparation of **"Source Apportionate Study report** ". Study is under progress.

1) <u>Existing Environment Management System at VPT:</u>

- AAQ is being monitored continuously at three locations by Environnment SA, India Pvt Ltd.
- Separate Environmental Cell headed by Superintending Engineer with dedicate staff and is supervised by Assistant Engineer .
- VPT has constituted internal Environment .task force team headed by Dy. Traffic Manager to monitor the implementation of EMS at VPT & PPP terminals.
- Environment Monitoring Committee (APPCB, Senior Citizens, Air Quality Experts, NGOs, Port users, Officials of GVMC, Representatives of Navy, SAIL and schools) meets once in 2 months.
- Consent of APPCB obtained under Air and Water Acts.
- Annual auditing by external agencies (IRQS) for ISO14001 is a continuous process.