

[FORM – V]

(See Rule 14)

From

**General Manager-HSSE**  
APM Terminals Pipavav  
Gujarat Pipavav Port Ltd.  
Post Ucchaiya, Ta.Rajula  
Dist.Amreli

To,

**Member Secretary,**  
Gujarat Pollution Control Board,  
Sector-10 A, Paryavaran Bhavan  
Gandhinagar

PS 13/4/18  
Gujarat Pollution Control Board  
Sector No. 10 A,  
Gandhinagar - 382 010

**Environmental Statement for the financial year ending the 31<sup>st</sup> March 2018****PART – A**

1	Name and address of the owner/occupier of the industry operation or process	Mr. Ravindranath P.H, (Head-Port Infrastructure & Facility) APM Terminals Pipavav, Gujarat Pipavav Port Limited, Post:Ucchaiya,Tal:Rajula Dist:Amreli,Gujarat-365560,India Mobile: +91 9904807299 E mail : P.Ravindranath@apmterminals.com
2	Industry category Primary ---- (STC code) Secondary.----- (SIC Code)	Minor Port
3	Production capacity.-----Units----	This is Port sector, it operates facility for <b><u>Loading, unloading, movement, transits, storage of Cargo and dispatch of Cargo, receiving, storage, handling of finished vehicle RO RO cargos, washing, loading of finished vehicles RO RO cargos onto vessels</u></b> per CTE,(Order no. PC/CCA-AMR-13(7)/ID-14808/411575, dated 05/05/2017)approved capacity as per CCA Order ; 1. Container : 1.3 Million TEUs/year 2. Bulk : 4 Million ton/year 3. Liquid including LPG,LNG:2.6Million ton/year 4. RO RO : 0.75 Million/Annum

**APM Terminals Pipavav**  
**Gujrat Pipavav Port Ltd.**  
Post Office : Rampara No.2  
Via : Rajula  
District - Amreli, Gujarat - 365 560  
India

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[www.apmpipavav.com](http://www.apmpipavav.com)

4	Year of establishment	1997
5	Date of the last environmental statement submitted	20/05/2017, vide our letter no. APMT/ENV-143/6956/2017, dated 19/05/2017.

**PART – B**

**Water and Raw Material Consumption**

i) **Water consumption m3/d\*:**

Category	Consumption
Industrial (water spraying on Road, Coal yard etc as dust suppression, plantation)	1000
Domestic (Residential area, Offices, )	640

\*Total water consumption for April 2017 to March 2018 is 1640\* m3/day as per GWIL bills.

Name of Products	Process water consumption per unit of product output.	
	During the previous financial year	During the Current financial year
Not applicable		
This is case of Port. There is no manufacturing process. No consumption for process. Water consumption is for domestic and dust suppression and green belt development.		

ii) **Raw Material Consumption**

*Name of raw materials	Name of products	Consumption of raw material per Unit of output	
		during the previous financial year	during the current financial year

Not applicable, Not applicable, Not applicable,

This is case of Port & infrastructure industry. There is no manufacturing process. Handling of Cargo, i.e. loading, unloading, movement, transits, storage of cargo and dispatch of Cargotakes place.

\*Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

**PART - C**

Effluent discharged to environment/unit of output  
(Parameter as specified in the consent issued)

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Pollutants	Quantity of pollutants discharged (mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
a) Water	<p><b>BOD :</b>                      First monitoring :7.68 Kg/day                      Second monitoring :8.96 Kg/day                      Third monitoring :10.88 Kg/day  <b>Suspended Solids:</b>                      First monitoring : 6.4 Kg/day                      Second monitoring :5.12 Kg/day                      Third monitoring :8.320 Kg/day                      (Considering Avg. flow of sewage of 320 m3/day and results of Analysis reports of #3 monitoring.)</p>	<p><b>BOD : &lt; 20 mg/L</b>                      First monitoring :24 mg/L                      Second monitoring :28 mg/L                      Third monitoring :34 mg/L  <b>Suspended Solids : &lt; 30</b>                      First monitoring :20 mg/L                      Second monitoring :16 mg/L                      Third monitoring :26 mg/L                      Residual Chlorine :                      minimum 0.5 mg/L</p>	<p>20 % in first                      40 % in second                      70 % in third                      No deviation                      Parameters found slightly deviating from prescribed standards due to some operating problems. Now, the system has been stabilized &amp; upgraded to achieve prescribed norms.</p>



b) Air\*

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Only Flue gas monitoring from D G Sets. No process gas emission. DG Set I\*

Parameters	Pollution Concentration		
	Ist monitoring 17/04/2017	Iind monitoring 12/10/2017	IIIrd monitoring 26/02/2018
PM (mg/Nm <sup>3</sup> )	75.8	89.7	104.1
SO <sub>2</sub> (ppm)	18.2	9.6	9.7
NO <sub>x</sub> (ppm)	11	12.8	14.2

DG Set II\*

Parameters	Pollution Concentration		
	Ist monitoring	Iind monitoring	IIIrd monitoring
PM (mg/Nm <sup>3</sup> )	70	82.8	96
SO <sub>2</sub> (ppm)	22.7	8.5	7.7
NO <sub>x</sub> (ppm)	9.9	9.8	9.5

DG Set III\*

Parameters	Pollution Concentration		
	Ist monitoring	Iind monitoring	IIIrd monitoring
PM (mg/Nm <sup>3</sup> )	72.3	78.4	98.8
SO <sub>2</sub> (ppm)	24.9	9.2	8.6
NO <sub>x</sub> (ppm)	10.3	11.6	14.2

0%

As per Consent, the prescribed parameters for flue gas emission from DG Sets are ;

Particulate matter : 150 mg/Nm<sup>3</sup>

SO<sub>x</sub> : 100 ppm

NO<sub>x</sub> : 50 ppm

\*The port has no process gas stacks. Only flue gas emission from DG Sets are there. Also need to note that the Port has #3 DG sets of 1 MW, which are being used only in case of power failure or in emergency. The DG Sets are standby units.

\*There is no continuous emission into the air. So, daily pollutants load (kg/day) is not calculated, concentration of pollutants are in mass per vol. as mentioned in col.1.

All parameters of flue gas emission of DG sets found within norms.

**PART – D**

**Hazardous Wastes**

(as specified under Hazardous Waste Management and Handling Rules, 1989)

Hazardous Waster	Total Quantity (Kg.)	
	During the previous Financial Year	During the current Financial year
a)From process	Not applicable*	
b)From pollution control facilities.	None	
<p><b>*</b></p> <p>This is Port &amp; infrastructure industry. There is no any manufacturing process occur. So, there is no generation of hazardous waste from process.</p> <p>Hazardous wastes, of category 5.1 &amp; 5.2 ,i.e Used oil &amp; Waste Oil granted in CC&amp;A. Used oil is generated from workshops. On reception of Used/spent oil from different sections of Port, it is collected in Drums and placed in dedicated storage area for sale to Recyclers/Re processors.</p> <p>At present, no receiving of Waste oil from Vessels.</p> <p>30.730 KL of Used Oil disposed off/sold outto GPCB registered Re recyclers/Re refiners during financial year 2017-18.</p>		

**PART – E**

**Solid Wastes**

Description	Total Quantity	
	During the previous Financial year	During the current Financial year
(a) From process	Not applicable (No manufacturing)	Not applicable (No manufacturing)
a) From pollution control facility	Negligible quantity of Sludge from STP	Negligible quantity of Sludge from STP
(c) Quantity recycled or re-utilized within the unit		
(1) Sold	None	None
(2) Disposed	(Domestic waste generated from residential area, which is being disposed off on segregation of recyclable items, STP sludge used as manure.)	(Domestic waste generated from residential area, which is being disposed off on segregation of recyclable items, STP sludge used as manure.)
	477.748 MT/year	477.748 MT/year

**PART – F**

Please specify the characterizations (in terms of composition of quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

**Hazardous Wastes**

Category : Used Oil & Waste Oil, Cat. 5.1 & 5.2 as

Sources :Cargo handling equipments and Vessel

Characterizations: It mainly Hydrocarbon and water particles in terms of composition.

Storage: The Port has dedicated storage area for Hazardous waste and non hazardous wastes. Used oil, E waste, and used Batteries are being stored separately, also having separate slot for other wastes, i.e. Metal wastes, Glass wastes, wood wastes, Plastic wastes and rubber wastes.

Storage Area :

- 30x15 meter storage area for Hazardous wastes.
- MS roof structure, GI sheeting
- Concrete flooring
- Run off collection pit with drain.
- Fencing with adequate safety measures.

Quantity : **CCA granted for;**

Category	MT/Annum
5.1, Used oil	45
5.2 waste oil	2000

Disposal: The Port has been granted Authorisation under Haz.Rules for collection, storage, transportation, disposal of used Oil & Waste Oil by selling to registered Re refiners/Re reprocesors/Recyclers. On reception of Used/spent oil from different section of Port, it is collected in Drums and placed in dedicated storage area for its sale to GPCB registered Recyclers/Re processors



**Solid wastes :**

Sources : Domestic wastes from residential area of the Port, Offices, garden, mess, canteen etc.

Quantity : 477.748 MT/year including garbage, plastic, paper, scrap etc.

Characterizations : It characterized as Organic Carbon 14.9 %, bulk density 0.2061 g/ml and GCV of 1210 kcal/kg.

Collection & Disposal : Solid wastes generated from Residential area and Port's functional area is being collected in color coded bins and disposed at nearby dumpsite of Nagarpalika/GramPanchayat through Contractor as per SW Rules. Upgradation of solid wastes is in progress.

**PART – G**

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

Followings pollution abatement measures have reduced the consumption of natural resources ,i.e electricity, diesel, water etc.. and minimize the waste generation and resulted into the reduction in associated cost.

- Energy conservations drives: Electrification of Cranes are completed, which will reduce on site flue gas emission and save fuel and reduce quantum of hazardous wastes generation.
- Replacement of existing conventional HPSV /MH load to LED Lightings. APM Terminals Pipavav has replaced conventional fixtures of Street lights & High mast with LED fixtures, which resulted into considerable energy savings.
- Go Green Campaign, activities of trees plantation, cleanliness drives, waste minimization, community awareness, energy conservation among Port employees and Port residents etc.
- Solid waste management upgradation: Disposal of MSW generated in the Port for Co processing in nearby Cement Company, MoU signed with M/s. UltraTEch Cement Company for disposal of it through co processing. More emphasis on source segregation and efficient collection system, i.e.. color coded bins, frequency etc.. Sustainable MSW model will be implemented in phase wise manner in next 1.5 years.
- Dust suppression system at Rail yard installed, to improve quality of ambient air.
- Sustainable Hazardous waste management initiated by implementing new method of collection and disposal in environmentally sound manner.
- Community plantation and other cleanliness drives at nearby villages.
- Training & awareness programmes for all Port employees & Port residents.

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Effective implementation of Company's sustainability policy.

Bulk handling by conveyor system, & Hoppers to reduce fugitive dust emission.

Environment friendly dedicated coal yard.



- Dedicated Hazardous waste storage area. Separate waste management cell for storage of different type of wastes.
- Lead bund and Tray for containment of leaked Cargo.
- Disposal of “discarded Carg”o in environmentally sound manner
- Maintenance of 88acres of Mangroves within the port
- Planted 500 hectares of Mangrove in Surat and Bharuch, 100 Ha Plantation of Mangroves in Vil.Katpor,Bharuch for protection of Coastal area.
- Eco-Friendly Rubber Tyred Gantries.
- Periodic monitoring of all environmental parameters.
- As part of CSR-Environment, Ground water Recharge, check dam, natural fertilizers, preventing soil erosion, etc projects are under progress in nearby villages in association with NRM.
- Planted and maintained 35,000 trees/ saplings, improves ambient air quality.
- 100% sewage being treated and treated water used for plantation, thus also reduced the fresh water demand for development of Green Belt.

#### **PART – H**

Additional measures/investment proposal for environmental protection including abatement of pollution, prevention of pollution.

- Storm water drainage under progress.
- Dust suppression system at Rail siding under progress.

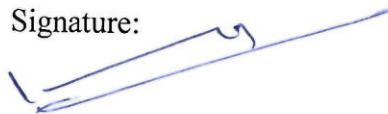
Capital cost of Environment management is proposed about 2.6 Cr.

#### **PART – I**

Any other particulars for improving the quality of the environment.

- Sustainable Solid waste management
- Sustainable Hazardous wastes management.
- Progress of Storm water drainage in the remaining area of Port.
- Upgradation of the conveyor system, optimum dwelling time for storage of bulk cargo, and environmentally sound transport of bulk materials on Jetty & yards.
- To upgrade EMS and to reduce carbon footprint.
- Upgradation and modernization of pollution control systems.
- Encouraging green procurement.

Signature:



Name :Mr.Sanjay Singh

Designation : **General Manager (HSSE)**

Date : 12/04/18