ENVIRONMENTAL STATEMENTS

FORM – V
(See Rule 14)

The Ministry of Environment & Forest vide its notification dated 13 March, 1992 directed all industries which need to have consent under Water (Prevention & Control of Pollution) 1974 and Air (Prevention & Control of Pollution) 1981 to file the environmental statement every year. This is to be filed for the period ending March by September every year. The format for the same is as follows:

Environmental Statement for the financial year ending the 31st March, 2017.

PART – A

i. Name and Address of the owner/occupier of the industry operation or process.

Corporate Office	Registered Office	KPPL Site office
Karaikal Port Private Limited Chettinad Chambers, 3rd Floor, No.39, Radhakrishnan Salai 5th Street, Mylapore Chennai – 600 004 Ph: +91-44-4562-2000 Fax: 044 4562 2080	Karaikal Port Private Limited, 81/A Maideen Palli Street Post Box No 33 Karaikal - 609602 India Phone: +91 4368 224773	Karaikal Port Private Limited, Keezhvanjore Village T.R.Pattinam – 609606 Phone: +91 4365 256600 Fax: +91 4365 256603

ii. Industry category Primary : **Infrastructure** (4400) ; Secondary : **Minor Port** (SIC Code)

iii. Production capacity 21.5 MMTPA Units. (Handling Capacity)

Cargo Quantity is 15.5 MMTPA (Coal 10 MMTPA+ General Cargo 2 MMTPA + Crude & Petroleum 1 MMTPA+ Edible Oil 2.5 MMTPA) as per the NOC & minutes from Puducherry Pollution Control Committee.

iv. Year of establishment : 2006 with the issue of EC. Port operations started in the year 2009 and the Port expansion project is going on.

v. Date of the last environmental statement submitted, 14.07.2016

PART – B

Water and Raw Material Consumption

i. Water consumption m^3 / day: 350 KL (Domestic, Supply to Ships, Gardening, Fire Service & Pollution Control & Miscellaneous) as per the water consent order.

Process : Effluent & Sewage Treatment Plants, Gardening, Miscellaneous consented quantity is 150 KLD

Cooling : Pollution Control (Dust Suppressions), Fire Services consented quantity is 160 KLD

Domestic : 40 KLD

Name of Products	Process water consumption per unit of product output.	
	During the previous financial year	During the Current financial year
	(1)	(2)
The project activity does not involve any product to be generated except for the operation of the port in material handling. Hence there is no water consumption per product generated. However the water is consumed for the purposes as mentioned above.		

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
The project activity does not consume any raw materials and make any products. Project is a Port infrastructure project. Hence there is no consumption of raw material involved.			

*Polluting 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

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

Pollutants		Quantity of pollutants discharged (mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a)	**Water**	No pollutant is discharged for operation of the port project.	Nil	Nil
(b)	**Air (**Ambient air pollutants at the site)	Since there is no product produced, so no measurement made on mass per day basis for the products.		No variations (Pollutants values are under prescribed standards)
	PM_{10}		46.33 µg/m^3	
	$PM_{2.5}$		24.51 µg/m^3	
	SO_2		9.15 µg^3	
	NO_2		11.6 µg/m^3	
	CO		Below Detectable Limit	

PART – D

Hazardous Wastes

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

Hazardous Waste		Total Quantity (Kg.)	
		During the year 2015-16	During the current 2016-17
(a)	From process (Heavy equipment such as the Front end Loaders and other earth moving equipment)	1. Used Oil sent to registered recycler – 16,180 Kgs	1. Used Oil sent to registered recycler – Nil
(b)	From pollution control facilities	2.Waste residues containing Oil disposed: Nil	2.Waste residues containing Oil disposed: Nil

Karaikal Port has disposed off the Hazardous waste to M/s Lakshmi & Co, who is a registered recycler.

PART – E

Solid Wastes

Solid Waste		Total Quantity (Kg.)	
		During the FY 2015-16	During the FY 2016-17
(a)	From process	Processes from this Project activity does not generate any Solid Waste	
(b)	From pollution control facilities	Nil	Nil
(c)	(1) Quantity recycled or re-utilized within the unit	40 Kg/Day	40 Kg/Day
	(2) Sold	Nil	Nil
	(3) Disposed	200 kg/Day	220 Kg/Day

The Solid waste generated as above is only due to the habitation of the work force. The recyclable and the bio-degradable waste is recycled by the composting method. The compost is used in the nursery and for the gardening purposes.

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.

Solid waste generated in the unit include the following: Kitchen Waste, packing material, paper, office waste, other rags, dry leaves and plant cuttings, food waste, waste tarpaulin etc.

Kitchen waste is being used for composting and reused for plantation.

Dry leaves and plant cuttings are used for mulching.

Inert and non recyclable solid waste is disposed off through local registered waste handler.

An Effective Solid waste management system has been implemented to increase the recycling capacity of waste generated inside by way of implementation of two bin

system where the Recyclable and the non recyclable wastes are segregated at the source of generation.

Hazardous wastes include the following:

Used oil and Waste residues containing Oil

Both the above waste is stored and disposed off to the registered recycler.

PART – G

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

Dust Suppression technique: Besides the usual dust suppression techniques such as the water monitors, sprinklers, DS200 & 150 etc., recycling of treated water from the ETP is extensively used.

Environmental Management Cell: Environment Management Cell has been made where the Heads of the Department are the members. It meets regularly and discusses the ways and means to improve upon the Pollution Control and abatement measures.

Sewage Treatment Plant: Treated water from the STP is fully used for irrigation. Sludge is sent to compost yard and the compost so produced in used in the nursery and the gardening.

Effluent Treatment Plants: Three effluent treatment plants are installed and in operation for treating the coal wash water. This water is also recycled for wetting the coal.

State of the art Tyre wash system is in place where the effluent after treatment is reused in the same unit.

Green Belt Development: Green belt is developed all along the boundary as well as pockets inside the Port and is an ongoing activity. 21,250 saplings have been planted during 2016-17.

Rain water Harvesting Pond: The unit has constructed Rain Water Harvesting Pond for harnessing rain water run-off.

Since the unit has not yet reached the optimal capacity of handling the impact of the abatement measures are not measured on the cost of production.

PART – H

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

- Efficient water spraying methods have been ercted and commissioned such as the high pressure water monitors and water sprayer machines.

- Additional areas have been identified for installation of Wind screens thereby help in maintaining the Ambient Air quality. In some areas the height of the wind screen is being raised to help improve the ambient air. This is being taken at a cost of Rs 2.0 crores
- Dust Suppression System Sprinklers have been installed at some more locations. Mobile Dust Spraying System has been installed to address the localized dust emissions. A total of about Rs 10.0 lakh will be spent.
- A fixed Dust Suppression System at a height of 12 metres is installed. This sprays fine water particles which helps in capturing the fine air borne coal dust particles. A total of about Rs 80.0 lakh was spent in installing this.

The port has installed three Continuous Ambient Air Quality Monitoring Stations which help in monitoring the Ambient Air Quality. Additional analysers and software at a cost of Rs 45.0 lakh is spent for upgrading the Stations.

All the above measures have helped in maintaining the Ambient Air quality in and around the port with in standards.

As a part of the Coal Handling Mechanisation the following systems have been erected.

1. Ship Unloaders
2. Stacker and Reclamier
3. Truck Loading System

The remaining which are in the process of erection and are in advanced stage of installation include

4. Wagon Loading System
5. Conveyor System Package

With the above system being commissioned there will be a substantial improvement in the Ambient Air Quality. In view of the Conveyor system, there will less no of trucks/ tippers operating in the port for intercarting cargo which will also reduce the vehicular emissions to a large extent. A total of about Rs 350.0 crore is estimated for the above.

PART – I

Any other particulars for improving the quality of the environment.

- An Environmental Management Plan consisting of mitigation measures, monitoring program and institutional measures are adopted during the development and operations of the port. Actions are taken to implement the mitigation measures for each of the attribute, which are exerting impacts on the environment.
- Green Belt Development being implemented on a regular basis. More areas have been identified and will be taken up during the monsoons this year.
- Implemented Solar water heater as a part of the initiative for use of the Solar Power. Trials have been completed for implementing the same for the Street Lighting.
- Energy audit and implementation of energy efficiency options being implemented. One of the option that has been implemented includes Conversion of Diesel engines to electric power driven for improving efficiency and lesser emissions. This is used for pumping water to the high pressure water pipe lines for water spraying in the Dust Suppression System.