

Ref :S&E/E.8-I/19  
Date: 04<sup>th</sup> June 2019

The Member Secretary  
Tamilnadu Pollution Control Board  
76, Anna Salai  
Guindy  
Chennai – 600 032.

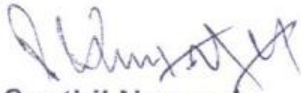
Dear Sir,

**Sub: Environmental Statement for the year 2018 - 2019 for SPIC  
Fertilizer Plant**

We are pleased to submit the Environmental Statement in Form-V (in duplicate) pertaining to our SPIC Fertilizer plants at Tuticorin for the year ending 31<sup>st</sup> March 2019.

Thanking you,

For "Southern Petrochemical Industries Corporation Limited",



**P. Senthil Nayagam**  
**General Manager (Works)**

cc.: 1. The District Environmental Engineer  
Tamilnadu Pollution Control Board  
C7 & C9, SIPCOT Industrial Complex  
Meelavittan  
TUTICORIN – 628 008

2. The Joint Chief Environmental Engineer  
Tamilnadu Pollution Control Board  
30/2, Sidco Industrial Estate, Pettai  
Tirunelveli – 627 010.



Southern Petrochemical Industries Corporation Limited

(CIN: L11101TN1969PLC005778)

Factory: SPIC Nagar, Muthiahpuram Post, Tuticorin 628 005 Tamilnadu, India

Phone : +91 (0461) 2355401 | Fax: +91 (461) 2355588 | Email: spiccorp@spic.co.in | www.spic.in

SPIC

**ENVIRONMENT (PROTECTION) ACT 1986****ENVIRONMENT (PROTECTION) SECOND AMENDMENT RULES,  
1992****FORM-V**

(See Rule 14)

**Environmental statement for the financial year  
ending 31<sup>st</sup> March, 2019****PART-A**

- i) Name and address of the owner / occupier of the industry, operation or process : Mr. S.R.Ramakrishnan.  
SPIC Limited  
88, Mount Road, Chennai – 600 032.  
M/s Southern Petrochemical Industries Corporation Limited,  
SPIC Nagar, Tuticorin 628 005.
- ii) Industry Category : Primary SIC No.2800  
(Chemicals and allied products)  
  
Secondary SIC No.2873  
(Nitrogenous Fertilizers)
- iii) Production Capacity (Reassessed capacity by MoEF)  
a) Urea : 6,20,400 MT/annum
- iv) Year of establishment : 1969
- v) Date of the last environmental report submitted : 14.06.2018

**PART – B**

**Water and Raw Material Consumption**

- i) Water consumption : Average M<sup>3</sup>/Day (Actual)
  - Cooling : 12129.8
  - Process : 264.5
  - Domestic : 178.7

Sl. No.	Name of Products	Water Consumption per unit of products (M <sup>3</sup> /MT)	
		During the previous Financial year 2017 - 18	During the current Financial year 2018 - 19
1.	Urea	7.48	6.94

- ii) Raw Material consumption

Sl. No.	Name of the Raw Material	Name of the Product	Consumption of raw material per unit of output	
			During the previous Financial year 2017 - 18	During the current Financial year 2018 - 19
1.	Naphtha	Ammonia	0.721	0.752

**PART – C**  
**Pollution Generated**

(Parameters as specified in the consent issued) whom so ever

Sl. No.	Pollutants	Quantity of Pollutants discharged mass/day	Concentration of pollutants discharged in mass/volume	Percentage of variation from prescribed standards with reasons
I	<b>WATER:</b> pH AN TKN	– 1.43 Kg/day 1.43 Kg/day	6.5- 8.5 16.25 mg/l 16.25 mg/l	All parameters are well within the prescribed standards
II	<b>AIR:</b>			
1)	Urea Prilling Tower: Particulate Matter	522.42 Kg/day	38.3 mg/ Nm <sup>3</sup>	No deviation from prescribed standards

Effluent disposal to sea 87.92 M3/ Day (Only 65 days during the year)

**PART - D**  
**(Hazardous Wastes)**

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

Sl. No.	Hazardous Wastes	Total Quantity (MT)			Closing Stock & Mode of collection/ Treatment & Disposal
		Quantity generated during 2017 - 18	Quantity generated during 2018 - 19	Characteristics	
1)	<b>Solid Spent Catalyst : (Nitrogenous Fertilizer Plant)</b>				
a)	HW Category 18.1 Spent catalyst (LT vessel - Zn-Cu catalyst)	Not generated	98.41	Zinc content : 35 % w/w Copper : 29.0% w/w	98.41 MT of Spent catalyst collected in drums, sealed and kept for disposal.
b)	HW Category 18.1 (Co and Mo catalyst)	Not generated	2.05	Cobalt content: 3.5% w/w Molybdenum 6.0% w/w	0.9 MT of Spent catalyst collected in drums, sealed and kept for disposal.
c)	HW Category 18.1 Spent catalyst (Zinc oxide Catalyst)	Not generated	Not generated	Zinc content : 7 % w/w	Nil
d)	HW Category 18.1 Spent catalyst (Methanator - Nickel catalyst)	Not generated	Not generated	Nickel content: 10 to 20 % w/w	Nil
e)	HW Category 18.1 Spent catalyst (Primary and Secondary Reformer - Nickel catalyst)	Not generated	17.095	Nickel content: 10 to 20 % w/w	6.47 MT of Spent catalyst collected in drums, sealed and kept for disposal.
f)	HW Category 18.1 Spent catalyst (Converter Iron catalyst)	Not generated	Not generated	Magnetite content	NIL
e)	HW Category 18.1 Spent catalyst (Cu promoted iron catalyst)	36	39.845	Fe 86%w/w	9 MT of Spent catalyst collected in drums, sealed and kept for disposal.
2.	<b>Liquid Used Oil:</b>				
	HW Category 5.1 Used or Spent Oil	22.160 KL	25.66 KL	Oil	Stock as on 31.03.2019 7.87 KL

**PART – E**

**BY PRODUCT**

Sl. No.	BY PRODUCT	Total Quantity (MT)	
		Generated During the previous financial year (2017 - 18)	Generated During the current financial year (2018 - 19)
1)	NIL	NIL	NIL
<b><u>SOLID WASTES</u></b>			
1)	<b><u>From Pollution Control Facilities:</u></b> Calcium carbonate sludge generated from effluent treatment plant	4.42	19.326
	<b><u>Quantity recycled or reutilized within the unit</u></b> Calcium Carbonate	4.42	19.326

**PART – F**

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

As specified in PART D and PART E:

We have become a member of **Industrial Waste Management Association- membership No: 1458**. The spent catalyst are sent to them for Landfill after treatment.(LAT)

PART – G**Impact of the pollution control measures on conservation of natural resources and on the cost of production:**

SPIC firmly believes that industrial productivity and environmental protection are to co-exist. With the strong environmental concern and commitment, SPIC has taken great strides in prevention of pollution and protection of the precious environment. The various pollution control and monitoring measures have been helpful to bring about an overall improvement of the quality of water, air and land in the nearby environment. We have implemented several measures for waste minimization / pollution prevention.

1. Online monitoring of Ammonia and Particulate matter is done in Urea Prilling tower with investment of about Rs.40 lakhs and data transmitted to Care Air Centre, TNPCB from 29<sup>th</sup> March 2018.
2. Environment clearance obtained for changeover of feed stock from Naphtha to mixed feed stock (Naphtha + NG) from MoEF on 28.03.17.
3. An online display of ambient air quality has been started since 2005 at the factory gate entrance area, which displays the pollutant data to the general public. The environmental standard values are also displayed nearby.
4. AAQ monitoring Station was commissioned and uploaded to Care Air Centre, TNPCB on 03.02.2012.
5. Due to optimization of steam network we are able to keep both the offsite boilers as standby boilers and thereby the SO<sub>2</sub> and CO<sub>2</sub> emission from the Off Site boilers has stopped.
6. Treated effluent is used for Phosphoric acid plant (M/s Greenstar Fertilizers Limited) and gardening purpose extensively.
7. The Eco club in Spic nagar School is patronized by SPIC and many awareness programmes on Environment protection were conducted.
8. Effluent Quality monitoring station was commissioned and uploaded to CPCB and TNPCB. (pH and sea flow were uploaded from 30.06.15 and AN from 13.10.2015)
9. Ammonia Plant reformer stack flue gas online monitoring is done and transmitted to Care Air Center, TNPCB from June 2015.
10. Ammonia plant Low Temperature Shift converter catalyst was completely renewed to reduce energy loss.

Overall cost towards effluent treatment was Rs.215.04 lakhs. The break-up details is given:

<u>Effluent Treatment Cost:</u>		<u>Rs.in Lakhs</u>
Direct	Power for IETP	0.27
	Chemicals for IETP	105.68
Indirect	Salary and Statutory Fees	109.08
Total Cost of ETP		Rs.215.04 Lakhs

**PART - H**

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

1. We are maintaining the green belt (more than 33 % of all over area.)  
Cost incurred for green belt development for the year 2018-19 is 3 lakhs.

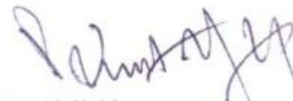


**PART - I**  
**Miscellaneous**

Any other particulars in respect of environment protection and abatement of pollution till March 2019.

1. Green Belt Development Programme is continuously carried out to improve the quality of the environment.
2. WORLD ENVIRONMENT DAY CELEBRATIONS:  
  
Environment Quiz and Essay, Environment Day Pledge, World Environment Day 2018 theme given by UNEP, "**Beat the plastic pollution**" was circulated in intranet for the benefit of employees.  
  
Plantation of New Saplings:  
60 (Sixty) saplings were planted on the inauguration function near the Greenstar scrap yard in presence of DEE and AE, TNPCB- Tuticorin.
3. Regular refresher training programme is conducted for employees on Safety and Environment. "Environment management in SPIC" is one of the topic in the above training Programme.
4. Monitoring of stack emission and ambient air and water quality is being done regularly.
5. Maintenance department is carrying out regular checking and scheduled maintenance of all the pollution control devices.
6. Production & Administration departments taking care of housekeeping.
7. Dedicative Horticulture section is taking care of tree plantation and green belt development. Every year we are growing new trees.
8. "Ban on single use and throwaway plastic" awareness programme and Pledge was taken at township nursery area, SPIC school in the presence of AEE, TNPCB and at the Security department.
9. "Ban on plastic" rally conducted at township was inaugurated by the District Collector and AEE, TNPCB also participated in the programme.
10. 30 employees attended Regional Conference on "One time use and throw away plastic" organized by TNPCB at Tirunelveli.

Signature :



Name and address of the person submitting the Environmental Statement Report :

**P. Senthil Nayagam**  
**General Manager(Works)**

On behalf of  
Name and Address of the Unit

M/s Southern Petrochemical Industries Corporation Limited,  
SPIC Nagar,  
Tuticorin 628 005.