Date: 14th Sep 2023

Lr.No. CIPL/TNPCB/Form V/Sep-23/04

The District Environmental Engineer,

Tamil Nadu Pollution Control Board,

A-3, SIPCOT Industrial Complex,

Cuddalore – 607005.

Dear Sir,

Sub: Submission of Form V (Environmental Statement) for the Year 2022-23 – Regarding.

With reference to the above mentioned subject, we are submitting herewith the Form - V (Environmental Statement) for the year of 2022-23.

This is for your kind information and records please.

Thanking you

Your Faithfully,

For **Covestro (India) Private Limited**

COVESTRO (INDIA) PRIVATE LIMITED Semmankuppam Village, Cuddalore 607005 Cuddalore

D.M. Senthil Kumar

Site Head.

O/o. DEE TNPC BOARD CUDDALORE 15/9/23

Covestro (India) Pvt. Ltd.
Cin : U19113MH1995PTC179724

Semmankuppam Village,
Survey No. 135/1A, 135/2A,
135/1B2
Cuddalore - 607 005.

Telephone
+ 91 4142 239313
+ 91 4142 239913

Fax
+ 91 4142 239911

Registered Office
Unit No. SB-801, 8th Floor,
Empire Tower, Cloud Campus,
Thane - Belapur Road, Airoli,
Navi Mumbai- 400 708.
Maharastra, India.

Covestro.com

ENVIRONMENT PROTECTION RULES 1986

[FORM-V]

(See rule 14)

Environmental audit report for the financial year ending the 31st March 2023

PART-A

(1) Name and address of the owner/occupier of the industry, operation, or process	:	Mr. Anand Srinivasan Covestro (India) Private Limited Semmankuppam Village Cuddalore – 607 005
(2) Industry Category	:	Orange / Large
Primary STC code / Secondary - (SIC Code)	:	04142-239913
(3) Production Capacity	:	Consented Quantity: 500 MT/Month Product Name: Thermoplastic Polyurethane (TPU).
(4) Year of establishment	:	January 1988
(5) Date of the last environmental statement submitted	:	22nd September 2022

PART-B

(1) Water and Raw Material Consumption

Water Consumption KL/day

Process KL/day	:	4.40
Cooling tower KL/day	:	8.13
Domestic & Gardening KL/day	:	8.58

Process water consumption per unit of products output		
Name of products	During the previous financial year (2021-22) KL/MT	During the current financial Year (2022-23) KL/MT
Thermoplastic Polyurethane	0.009	0.013

(2) Raw Material Consumption:

Name of raw material	Name of products	Consumption of raw material per unit of output (Tons/Ton)	
		During the Previous Financial year (2021-22)	During the Current Financial year (2022-23)
MDI	Thermoplastic Polyurethane	0.290	0.358
Polyol	Thermoplastic Polyurethane	0.437	0.522
1,4-Butane Diol	Thermoplastic Polyurethane	0.117	0.120
Plasticizer	Thermoplastic Polyurethane	0.016	0.009

PART-C

Pollution discharged to environment/unit of output.

(Parameters as specified in the consent issued)

Pollutants	Quantity of pollution discharged (mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water	1) No wastewater discharged as our unit is a zero liquid discharge unit	1) No wastewater discharged as our unit is a zero liquid discharge unit	We are adhering to the norms specified by TNPCB
(b) Air	1) Norms as per Air Act	2) Norms as per Air Act	We are adhering to the norms specified by TNPCB

PART-D

Hazardous Wastes

[As specified under Hazardous Wastes (Management and Handling) rules, 1989].

Hazardous Wastes	Total Quantity in MT	
	During the Previous Financial year (2021-22)	During the Current Financial year (2022-23)
a) From process - Used or Spent oil (5.1)	1.240	0.600
b) Chemical containing residue arising from decontamination (34.1)	1.269	0.710
c) Decontaminated Barrels (33.1)	107.6	109.93
d) From pollution control facilities [from ZLD operation (35.3)]	0.691	0.381

PART-E

Solid Waste

Solid Waste	Total Quantity in MT	
	During the Previous Financial year (2021-22)	During the Current Financial year (2022-23)
(a) From process	Nil	Nil
(b) From pollution control facilities	Nil	Nil
(c) i) Quantity recycled or reutilized within the unit.	Nil	Nil
ii) Sold	Nil	Nil
iil) Disposed	Nil	Nil

PART-F

Please specify the characteristics (in terms of composition of quantum) of Hazardous as well as Solid wastes and indicate disposal practice adopted for both these categories of wastes.

S.No.	Parameters	ETP Chemical Sludge
1	Color	Brown
2	pH @ 28.4°C	6.49
3	Bulk Density (gm/cc)	0.79
4	Calorific Value (dry basis) cal/gm	3729
5	Total Chromium (mg/kg)	<50
6	Nickel (Total) mg/kg	<25
7	Cadmium (Total) mg/kg	<10
8	Lead (Total) mg/Kg	<50
9	Arsenic (Total) mg/Kg	<10
10	Physical state	Solid

- ✓ Sludge from wastewater treatment is dried and sent to Tamil Nadu Waste Management Limited in Gummidipoondi for solid waste disposal.
- ✓ Used or Spent oil are collected and stored separately. This is periodically disposed to agencies approved by Tamil Nadu Pollution Control Board (TNPCB).
- ✓ Used barrels are decontaminated prior to sales that it cut/crushed and disposed as scraps to the agencies approved by Tamil Nadu Pollution Control Board (TNPCB).

PART-G

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

- ✓ Around 300 numbers of tree saplings were planted at our factory premises in view of World Environmental Day Celebration - 2023.
- ✓ Around 200 numbers of tree saplings were planted at Govt., Higher Secondary School, Poondiyankuppam as part of avenue tree plantation.
- ✓ The effluent generation is continuously monitored, and appropriate actions were taken to minimize the effluent generation form the source itself.

- ✓ The effluent treatment plant is being operated as per the established standard operating procedure to ensure 100% compliance is achieved through effectively operating Reverse Osmosis (RO) plant & reject management system of Kettle Type Evaporator.
- ✓ The ambient air and the stack emission are being monitored regularly by engaging external laboratory and District Advance Environmental laboratory of TNPCB. The quality of the emission from the emission points are well within the norms.
- ✓ The ambient air quality is being monitored internally by engaging our internal lab team on every week for ensuring the compliance.
- ✓ The sludge generated from ZLD unit is sent to Tamil Nadu Waste Management Limited, Gummidipoondi as and when required.

Air Emission Monitoring:

- ✓ Our Thermic Fluid Heater (TFH) stack emission is continuously monitored, and the monitored SPM value is uploaded to the Care Air Centre (CAC), TNPCB.
- ✓ We have installed the online SPM & SO2 sensor at the stack of our Thermic Fluid Heater to continuously monitor and control the emission rates.
- ✓ We have installed the ambient air quality station at our plant premises & the air quality is being monitored on every week at the upwind & downwind directions of our premises.
- ✓ Once in six months, AAQ, ANQ and other Stack emissions are being monitored by engaging the MoEF approved external laboratory.
- ✓ We have installed the TVOC sensor in the production plant area to monitor the volatile organic compounds and the data is being monitored/uploaded to the Care Air Centre (CAC), TNPCB.

Training our Employees on Environmental Issues:

- ✓ At regular, we are conducting training programs for our employees to educate, train & motivate their participation related to environmentally friendly activities in a responsible manner.

PART-H

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

- ✓ We have maintained the Zero Liquid Discharge System from September 2013, onwards.
- ✓ We have augmented our Sewage Treatment Plant at the Year of 2015.
- ✓ We have installed the metrological station at our plant at the year of 2018 for monitoring the weather's data.
- ✓ Ban of one-time usage plastics implemented from January 2019, onwards.

- ✓ In the year of 2020, we have done the renovation for hazardous wastes storage godown including the facility of secondary containment pit & Pit transfer pump for facing the emergency situation in case of any spillage or damage.
- ✓ To minimize the noise pollution, we have installed the acoustic enclosure for the Air blowers & compressors which has installed at our process plant.
- ✓ Around 300 numbers of tree saplings were planted at our factory premises in view of World Environmental Day Celebration – 2023 & awareness speech has given to all our employees.
- ✓ We had distributed the yellow cloth bags to all our employees & contractors as a initiative of plastic awareness campaign.

PART-I

Any other particulars for improving the quality of the environment.

- ✓ We have installed the techno bag filter system for enhancing the periodic sludge removal in effluent treatment plant.
- ✓ Additional sand filter has installed in the sewage treatment plant for ensuring zero non-compliance in the operation.
- ✓ The world environmental day has celebrated at our factory & 300 numbers of saplings were planted at our premises & awareness oath has been taken among our employees.
- ✓ We have installed the new LED type environmental details display board at our factory main entrance gate.
- ✓ We have installed the new LED type hazardous waste details display board at in front of hazardous waste storage godown & entrance of the security gate.
- ✓ We have constructed the new rainwater harvesting system at our factory at the capacity of 12 KL for recharging the rainwater into the ground during the raining.

end

SOVESTRO (INDIA) PRIVATE LIMITED
Semmankuppam Village, Cuddalore 607005
Cuddalore