



Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

FORM V

(See Rule 14)

Environmental Audit Report for the financial Year ending the 31st March 2024

Unique Application Number

MPCB-ENVIRONMENT_STATEMENT-0000069450

Submitted Date

11-09-2024

PART A

Company Information

Company Name

Smartchem Technologies Limited

Application UAN number

MPCB-CONSENT_AMMENDMENT-0000012321

Address

Plot no.K-1, K-1 (Part-1), K-1 (Part-2), MIDC Taloja, Tal. Panvel, Dist. Raigad, 410208

Plot no

Plot no. K-1, K-1 (Part-1), K-1 (Part-2)

Taluka

Panvel

Village

Tondre

Capital Investment (In lakhs)

12972873

Scale

L.S.I

City

Raigad

Pincode

410208

Person Name

Jeyaprakash M

Designation

EHS Head

Telephone Number

9047022731

Fax Number

Email

jeyaprakash.m@dfpcl.com

Region

SRO-Taloja

Industry Category

Red

Industry Type

R52 Fertilizer(basic) (excluding formulation)

Last Environmental statement submitted online

yes

Consent Number

Format1.0/CC/UAN No.MPCB-CONSENT_AMMENDMENT-0000012321/CO/2402000044

Consent Issue Date

2024-02-21

Consent Valid Upto

2026-03-31

Establishment Year

2016

Date of last environment statement submitted

Jan 14 2024 12:00:00:000AM

Industry Category Primary (STC Code) & Secondary (STC Code)

Product Information

Product Name

Ammonia

Consent Quantity Actual Quantity UOM

140400 74579.80 MT/A

Weak Nitric Acid (WNA) from WNA-I,II,IV

346500 289393 MT/A

Technical Grade Ammonium Nitrate plus AN Melt	144000	144000	MT/A
4a. Multiple Grade NP fertilizer (AN based) * OR	325000	221710	MT/A
4a. Intermediate AN * (Technical Grade Ammonium Nitrate) including AN melt	177000	0	MT/A
4b. Multiple Grade NPK fertilizer (DAP based) with an option of producing fortified grade from the same unit as per EC)	600000	386908	MT/A
Electric Power (Coal Based)	9	2.78	Mwh
Hydrogen gas	960	832.54	MT/A
CO2 Gas	72000	46083.73	MT/A
Calcium Phosphate	210	0	MT/A

By-product Information

By Product Name	Consent Quantity	Actual Quantity	UOM
Not Applicable	0	0	MT/A

Part-B (Water & Raw Material Consumption)

1) Water Consumption in m3/day

Water Consumption for Process	Consent Quantity in m3/day	Actual Quantity in m3/day
Cooling	8823.00	2958.10
Domestic	77.00	75.00
All others	0.00	0.00
Total	9539.00	3403.10

2) Effluent Generation in CMD / MLD

Particulars	Consent Quantity	Actual Quantity	UOM
Trade Effluent	1703.52	1466.6	CMD
Domestic Effluent	70	65	CMD
Total	1773.52	1531.6	CMD

2) Product Wise Process Water Consumption (cubic meter of process water per unit of product)

Name of Products (Production)	During the Previous financial Year	During the current Financial year	UOM
Ammonia	0.73	0.86	Ton/Ton
Weak Nitric Acid (WNA) from WNA-I,II,IV	0.28	0.28	Ton/Ton
Technical Grade Ammonium Nitrate plus AN Melt	0	0	Ton/Ton
Multiple Grade NPK Fertiliser (Diffrent grades of AN & DAP based NPK fertilizer with an opetion of producing fortiefied grades from the same units as per EC)	0	0	Ton/Ton
Calcium Phosphate	0	0	Ton/Ton
Hydrogen gas	0	0	Ton/Ton
CO2 Gas	1.03	0	Ton/Ton

3) Raw Material Consumption (Consumption of raw material per unit of product)

Name of Raw Materials	During the Previous financial Year	During the current Financial year	UOM
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Ammonia (Weak Nitric Acid (WNA) from WNA-I,II,IV)	0.297	0.299	Ton/Ton
Ammonia (Multiple Grade NPK Fertilizer (Diffrent grades of AN & DAP based NPK fertilizer with an opetion of producing frortiefied grades from the same units as per EC))	0.216	0.13	Ton/Ton
Ammonia (ANP)	0.188	0.187	Ton/Ton
Ammonia (AN Solid)	0.215	0.217	Ton/Ton
Ammonia (AN Melt)	0.214	0.214	Ton/Ton
Natural gas (Ammonia) (SM3/MT)	1039.208	1044.895	Ton/Ton
Natural Gas (SM3/MT) (Multiple Grade NPK Fertilizer (Diffrent grades of AN & DAP based NPK fertilizer with an opetion of producing frortiefied grades from the same units as per EC))	8	7.702	Ton/Ton
WNA (ANP)	0.428	0.413	Ton/Ton
WNA (AN Solid)	0.809	0.807	Ton/Ton
WNA (AN Melt)	0.792	0.796	Ton/Ton
Phosphoric Acid (Multiple Grade NPK Fertilizer (Diffrent grades of AN & DAP based NPK fertilizer with an opetion of producing frortiefied grades from the same units as per EC))	0.203	0.286	Ton/Ton
Phosphoric Acid (ANP)	0.241	0.241	Ton/Ton
Sulphuric Acid (Multiple Grade NPK Fertilizer (Diffrent grades of AN & DAP based NPK fertilizer with an opetion of producing frortiefied grades from the same units as per EC))	0.358	0.062	Ton/Ton
Sulphuric Acid (ANP)	0.057	0.059	Ton/Ton
Potash ((Multiple Grade NPK Fertilizer (Diffrent grades of AN & DAP based NPK fertilizer with an opetion of producing frortiefied grades from the same units as per EC))	0.263	0.498	Ton/Ton
Clay/Filler ((Multiple Grade NPK Fertilizer (Diffrent grades of AN & DAP based NPK fertilizer with an opetion of producing frortiefied grades from the same units as per EC))	0.015	0.061	Ton/Ton
Anti-Caking Agent (Multiple Grade NPK Fertilizer (Diffrent grades of AN & DAP based NPK fertilizer with an opetion of producing frortiefied grades from the same units as per EC))	1	0.898	Ton/Ton
Anti-foaming Agent (Multiple Grade NPK Fertilizer (Diffrent grades of AN & DAP based NPK fertilizer with an opetion of producing frortiefied grades from the same units as per EC))	0.02	0.200	Ton/Ton
Torrent / Additive Agent (Multiple Grade NPK Fertilizer (Diffrent grades of AN & DAP based NPK fertilizer with an opetion of producing frortiefied grades from the same units as per EC))	0.005	4.740	Ton/Ton
Anti-Caking Agent (ANP)	0.001	1.361	Ton/Ton
Anti-foaming Agent (ANP)	0.001	0.558	Ton/Ton

4) Fuel Consumption

Fuel Name	Consent quantity	Actual Quantity	UOM
Coal	177390	6662.91	MT/A
Natural Gas	26387.74	1782.34	MT/A
HSD	635	59.76	KL/A

Part-C

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

[A] Water

Pollutants Detail	Quantity of Pollutants discharged (kL/day)	Concentration of Pollutants discharged(Mg/Lit) Except PH,Temp,Colour	Percentage of variation from prescribed standards with reasons	Standard	Reason
	Quantity	Concentration	%variation		
PH	0	7.12	0	6.5 to 8.5	NA

COD	72.12	49.2	0	250	NA
BOD	26.38	18	0	100	NA
TDS	1976.16	1348	0	2100	NA
TSS	38.70	26.4	0	100	NA
Ammonical Nitrogen as N	48.78	33.28	0	50	NA
Total Kjeldhal Nitrogen (TKN) as N	15.01	10.24	0	75	NA
Free Ammonical Nitrogen	0.41	0.28	0	4	NA
Nitrate Nitrogen as N	3.13	2.14	0	20	NA
Dissolved Phosphate as P	1.72	1.18	0	5	NA
Fluorides' as F	0	0	0	10	NA
Oil & Grease	1.94	1.33	0	10	NA

[B] Air (Stack)

Pollutants Detail	Quantity of Pollutants discharged (KL/day)	Concentration of Pollutants discharged(Mg/NM3)	Percentage of variation from prescribed standards with reasons	Standard	Reason
	Quantity	Concentration	%variation		
NH3 (NPK Train-1)	23.44	7.34	0	300 mg/Nm3	NA
Fluoride (NPK Train-1)	0	0	0	10 mg/Nm3	NA
PM (NPK Train-1)	83.16	26.04	0	150 mg/Nm3	NA
NH3 (NPK Train-2)	20.51	4.56	0	300 mg/Nm3	NA
Fluoride (NPK Train-2)	0	0	0	10 mg/Nm3	NA
PM (NPK Train-2)	94.75	21.07	0	150 mg/Nm3	NA
NH3 (ANP Prilling Tower)	12.95	5.10	0	300 mg/Nm3	NA
Fluoride (ANP Prilling Tower)	0	0	0	10 mg/Nm3	NA
PM (ANP Prilling Tower)	84.76	33.44	0	150 mg/Nm3	NA
NH3 (AN Prilling Tower)	9.39	4.33	0	300 mg/Nm3	NA
PM (AN Prilling Tower)	61.61	28.4	0	150 mg/Nm3	NA
SO2 (Coal Fired Boiler)	151.43	136.1	0	3200 Kg/Day	NA
PM (Coal Fired Boiler)	21.90	19.68	0	150 mg/Nm3	NA
NO2 (WNA-1)	186.99	274.13	0	400 mg/Nm3	NA
NO2 (WNA-2)	205.04	246.4	0	400 mg/Nm3	NA
NO2 (WNA-4)	175.70	284.7	0	400 mg/Nm3	NA
NO2 (Ammonia Reformer)	54.14	26.28	0	400 mg/Nm3	NA

Part-D

HAZARDOUS WASTES

1) From Process

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
5.1 Used or spent oil	66.60	63.39	KL/A
5.2 Wastes or residues containing oil	0	0	MT/A

33.1 Empty barrels /containers /liners contaminated with hazardous chemicals /wastes	0	0	MT/A
33.1 Empty barrels /containers /liners contaminated with hazardous chemicals /wastes	0	0	Nos./Y
17.2 Spent catalyst	0	0	Kg/Annum
17.2 Spent catalyst	0	0	MT/A
34.1 Chemical-containing residue arising from decontamination.	0	0	MT/A
17.2 Spent catalyst	0	5.43	MT/A
17.2 Spent catalyst	1.67	0	MT/A
17.2 Spent catalyst	1.30	0	KL/A
35.2 Spent ion exchange resin containing toxic metals	0	0	MT/A
33.1 Empty barrels /containers /liners contaminated with hazardous chemicals /wastes	0	0	Nos./Y
35.3 Chemical sludge from waste water treatment	161	177	MT/A

2) From Pollution Control Facilities

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
35.3 Chemical sludge from waste water treatment	161	177	MT/A

Part-E

SOLID WASTES

1) From Process

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
Coal Ash	6162.10	9214.12	MT/A
Insulation waste (Glass wool)	40.21	19.18	MT/A
Canteen Food Waste	710	0	Kg/Annum
Paper waste	421.5	0	Kg/Annum
Packaging waste	620	0	Kg/Annum
Spun Filter	0	0	MT/A
Ash due to Coal & Lime Treatment	0	0	MT/A

2) From Pollution Control Facilities

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
Not Application	0	0	MT/A

3) Quantity Recycled or Re-utilized within the unit

Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
35.3 Chemical sludge from waste water treatment	161	177	MT/A

Part-F

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

1) Hazardous Waste

Type of Hazardous Waste Generated	Qty of Hazardous Waste	UOM	Concentration of Hazardous Waste
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5.1 Used or spent oil	63.39	KL/A	Spent Oil
17.2 Spent catalyst	5.43	MT/A	Spent Iron Oxide Catalyst
35.3 Chemical sludge from waste water treatment	177	MT/A	Chemical sludge from waste water treatment

2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
Not Applicable	0	MT/M	--

Part-G

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

Description	Reduction in Water Consumption (M3/day)	Reduction in Fuel & Solvent Consumption (KL/day)	Reduction in Raw Material (Kg)	Reduction in Power Consumption (KWH)	Capital Investment(in Lacs)	Reduction in Maintenance(in Lacs)
ETP treated water PH maintained by using ETP Outfall instead of RW	10	0	0	0	0.5	0
Energy saving by using auto delta star converter unit for D301 motor	0	0	0	53.7	0.02	0
EDI Installation in down stream of RO Permeate to reduce DM plant regeneration influent	200	0	0	0	11	0

Part-H

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

[A] Investment made during the period of Environmental Statement

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
Green belt development : Plantation & Maintenance at site & nearby villages	Environmental protection	20
OCEMS ,AAQMS upgradation & Maintenance	Pollution monitoring	28
Environmental Monitoring	Pollution monitoring	26
EDI Installation in down stream of RO Permeate to reduce DM plant regeneration influent	Water conservation / Effluent reduction	11

[B] Investment Proposed for next Year

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
Green belt development : Plantation & Maintenance at site & nearby villages	Environmental protection	20
OCEMS ,AAQMS upgradation & Maintenance	Pollution monitoring	28
Reduce effluent discharge of T8/T11 of IPA by recycling to CTBD make up in IPA/ WNA3,4/Utilities	Water conservation / Effluent reduction	188
Solid Recovery Project	Water conservation / Effluent reduction	2300

Part-I

Any other particulars for improving the quality of the environment.

Particulars

1. Identification of opportunities for up-gradation of the infrastructure for air pollution control aimed at achieving the performance beyond regulatory compliance at DFPCCL through Environmental Science and Engineering Department, Indian Institute of Technology (IIT) Bombay, Powai, Mumbai. 2. Deepak fertilisers collaborative efforts yield remarkable results in forest conservation. Plantation done at Davadi Village, Dombivali (Total - 22,220 Nos. of trees are planted.) 3. World Environment Day

Name & Designation

Jeyaprakash M

UAN No:

MPCB-ENVIRONMENT_STATEMENT-0000069450

Submitted On:

11-09-2024