Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

FORM V

(See Rule 14)

Environmental Audit Report for the financial Year ending the 31st March 2022

Unique Application Number	***Submitted Date***
MPCB-ENVIRONMENT_STATEMENT-0000047006	23-09-2022

PART A

Company Information

Company Name	***Application UAN number***	
RASHTRIYA CHEMICALS & FERTILIZERS, LTD (TROMBAY UNIT)	5429	
Address		
MAHUL ROAD , CHEMBUR , MUMBAI : 4000074		
Plot no	***Taluka***	***Village***
127Chembur 1 (Marawali), 1,5,5,1 to 6 (Anik)	Chembur	Marawali
Capital Investment (In lakhs)	***Scale***	***City***
274747.00	L.S.I	Mumbai
Pincode	***Person Name***	***Designation***
400074	Anil Mathur	Executive Director (Trombay)
Telephone Number	***Fax Number***	***Email***
9820994737	0222552231	ed_tr@rcfltd.com
Region	***Industry Category***	***Industry Type***
SRO-Mumbai III	Red	R52 Fertilizer(basic) (excluding formulation)
Last Environmental statement submitted online	***Consent Number***	***Consent Issue Date***
yes	Formate1.0/CAC/UAN.NO.:00000114391/CR/CO-2206001329	2022-06-23
Consent Valid Upto	***Establishment Year***	***Date of last environment statement submitted***
2026-07-31	1978	Sep 28 2021 12:00:00:000AM
Industry Category Primary (STC Code) & Secondary (STC Code)		

Product Information

Product Name	***Consent Quantity***	***Actual Quantity***	***UOM***
AMMONIA	465000	461874	MT/A
UREA	483600	326656	MT/A
COMPLEX FERTILIZERS (SUPHALA + ANP))	855600	572160	MT/A
BIOLA	1200	26.38	MT/A
MICROLA	1200	359.714	MT/A

SUJALA (19:19:19) / (DRIP/FOILER)	22200	4355	MT/A
Methanol	69960	49649	MT/A
METHYLAMINE	5242	0	MT/A
Ammonium Bicarbonate	25000	24698	MT/A
Sodium Nitrite/Nitrate	5230	87.72	MT/A
Sulphuric acid	111600	65176	MT/A
Nitric acid (100% basis)	398040	380131	MT/A
Conc. Nitric Acid	27000	25411.99	MT/A
Phosphoric acid	37200	0	MT/A
Treated water from STP	9864000	8823973	KL/A
Rapid wall panel (Square meter)	15069475	0	SqFeet/Y
Wall Plaster	48000	0	MT/A
Wall putty	7200	0	MT/A
Ammoniam Nitrate	190000	161939.163	MT/A
Grid Syncorinized Solar PV Power Plant	2	2234.79	Mwh

By-product Information

By Product Name	***Consent Quantity***	***Actual Quantity***	***UOM***
ARGON	7198	3306	MT/A

Part-B (Water & Raw Material Consumption)

1) Water Consumption in m3/day

Water Consumption for	***Consent Quantity in m3/day***	***Actual Quantity in m3/day***
Process	10195	2468.91
Cooling	19465	18380.87
Domestic	4505	1260.60
All others	0	0.00
Total	34165	22110.38

2) Effluent Generation in CMD / MLD

Particulars	***Consent Quantity***	***Actual Quantity***	***UOM***
WATER GETS POLLUTED AND POLLUTED	13088	2749.67	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 (Treated Water)	27225	209964	M3/Anum
METHANOL (Treated Water)	700	97337	M3/Anum
Sulphuric Acid (Treated Water)	845	51611	M3/Anum
Nitric Acid (Treated Water)	11450	314468	M3/Anum
Phosphoric Acid	0	0	M3/Anum
Urea (Treated Water)	140910	190905	M3/Anum
Complex fertilizers	15980	0	M3/Anum

Conc Nitric Acid	1665	1311	M3/Anum
Ammoniam Bi Carbonate	40783	44013	M3/Anum
Sodiun Nitrate/Nitrite	0	0	M3/Anum
Grid Syncorinized Solar PV Power Plant	110	112	M3/Anum
Ammoniam Nitrate (AN) Plant	16916	0	M3/Anum
Drinking Water (BMC)	0	206155	M3/Anum

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*
Rock phosphate	106562	132583	MT/A
MAP	101802.586	101365	MT/A
DAP	3338	10864.080	MT/A
KCL	135651	148554	MT/A
SULPHUR	17797.969	21246.164	MT/A
NEEM OIL	205683	164361	Ltr/A
AMMONIA	419246.677	406255.87	MT/A
Soda Ash	567.010	567.010	MT/A
Caustic Soda Lye	909.821	236.765	MT/A
Natural Gas (as feed)	176890.008	226295.702	MT/A

4) Fuel Consumption

Fuel Name	*Consent quantity*	*Actual Quantity*	*UOM*
NATURAL GAS	214941	174951.222	MT/A
DIESEL	187.434	131.912	MT/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*		
	Quantity	*Concentration*	*%variation*	*Standard*	*Reason*
pH	2749.67	7.4	0	NA	NA
Ammonical Nitrogen	2749.67	25.6	0	NA	NA
Free Ammonical Nitrogen	2749.67	0	0	NA	NA
Nitrate Nitrogen	2749.67	15.3	0	NA	NA
Cynide as Cn	0	0	0	NA	NA
Vanadium as V	0	0	0	NA	NA
Arsenic as As	0	0	0	NA	NA
Phosphates as P	2749.67	4.2	0	NA	NA
Oil & grease	2749.67	0	0	NA	NA
Suspended solids	2749.67	32.5	0	NA	NA

Flourides as F	2749.67	0.4	0	NA	NA
Hexavalent Chromium as Cr	0	0	0	NA	NA
Total Chromium as Cr	0	0	0	NA	NA
Total residual chlorine (as Cl2)	2749.67	0.1	0	NA	NA
BOD	2749.67	19.4	0	NA	NA
Total dissolved solids	2749.67	1200.4	0	NA	NA
Total Kjeldhal Nitrogen	2749.67	54.5	0	NA	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***		
	Quantity	***Concentration***	***%variation***	***Standard***	***Reason***
UREA (PM emission)	50000	22.1	0	NA	NA
SPM/TPM (ANP)	28500	0	0	NA	NA
SO2 Boiler	32400	0	0	NA	NA
SO2 (Sulphuric acid Plant)in ppm	24877	276	0	NA	NA
Acid Mist (Sulphuric acid Plant)	24877	7.44	0	NA	NA
Fluorine (Suphala) in ppm	40000	8.4	0	NA	NA
MP.Nitric Acid (NOx) in ppm	140000	26	0	NA	NA
Ammonia (Urea Vent Stack) in ppm	4000	20.1	0	NA	NA
Ammonia (Suphala)	40000	54.5	0	NA	NA
HP.Nitric Acid (NOx) in ppm	51000	46.5	0	NA	NA
Dust from (Suphala plant)	51000	29.09	0	NA	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	97.46	99.40	MT/A
18.1 Spent catalyst	0.54	0	MT/A
17.1 Process acidic residue, filter cake, dust	24.43	19.38	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	3550.04	2510.62	MT/A

Part-E

SOLID WASTES

1) From Process

Non Hazardous Waste Type	***Total During Previous Financial year***	***Total During Current Financial year***	***UOM***
Chalk	0	343	MT/A

Gypsum	24448.29	87143.96	MT/A

2) From Pollution Control Facilities

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
Metal Waste Sold	840.47	457.79	MT/A
Non metal waste sold	302	497.68	MT/A

3) Quantity Recycled or Re-utilized within the unit

Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
17.1 Process acidic residue, filter cake, dust	14.8	10.25	MT/A
35.3 Chemical sludge from waste water treatment	2759.42	1149.87	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
35.3 Chemical sludge from waste water treatment	2510.62	MT/A	A Typical analysis of Sludge from Effluent Treatment Plant % w/w 1) Moisture Content- 52.27, 2) Total P2O5-36.11 ,3)Water soluble P2O5-0.54, 4)CO2- 6.24, 5)Acid Insoluble- 3.25,6)Ammonium Nitrate a

2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
CHALK	0	MT/A	The typical analysis of solid waste, Chalk (Calcium Carbonate) is as given below: Constituents Value , % w/w 1)Free moisture Content:- 22.82, Dry basis analysis 1)Calcium carbonate as CaCO3 :-97.
GYPSUM	0	MT/A	The typical analysis of Solid Waste, Gypsum (Calcium Sulphate) is as given below: Constituents Value , % w/w 1) Free Moisture 15.55. Analysis on Dry Basis 2) Total P2O5: 0.10, 3) W.S.P2O5: 0.06,

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)
Ammonia - V : CO2 compressor GTR completed	0	0	6000	0	10.00	2870
Urea Plant: Existing CT FAN-A blade replaced with Energy Efficient Blade	0	0	0	13	0	7.72
STP/ETP: Additional three 80 kW new submersible pumps installed in New Wet well at Ghatkopar Pumping Station.	0	0	0	75	86.92	13.39

STP/ETP : Replacement of four nos. of 5.5KW agitators with 6 nos. energy efficient submerged mixers in Denitrification tank	0	0	0	108	18.6	2.7
GT & HRSG : Supply of polished water to from Boiler-3 LP Heater	0	0	0	48.3	0	27.00
Suphala Plant : Installation of New heat exchanger (HE 608) .Controls ammonia emission in stack.	0	0	0	0	40.00	0
CONC. NITRIC ACID : Alloy -20 CNA loading/transfer pump replaced with PFA lined pumps.	0	0	0	36	2.72	7.0

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)***
Waste disposal & treatment cost (includes ETP /STP sludge & Sulphur sludge disposal cost.)	Recycling of Hazardous Waste.	49.03
Cost for air emissions Maintenance of Air & Stack minitoring Intruments (Stack monitoring, filters, agents etc.)	Maintenance of Monitoring Equipments	6.20
External Party monitoring, IMS training & Display Board	Monitoring of Various Parameters by MoEF approved party	13.31
Operation and Maintenance, material and services, and related personnel costs for running ETP , Old STP and New STP (Trombay Unit) for 2021-22 is	Operation and Maintenance ETP, Old STP and New STP	8462.17
Procurement of AAQMS station 1 & 2 .	Replacing AAQMS analysers with new AAQMS analysers with remote Callibration facilities as per the requiremnts of CPCB	29.40

[B] Investment Proposed for next Year

Detail of measures for Environmental Protection	***Environmental Protection Measures***	***Capital Investment (Lacks)***
Waste disposal & treatment cost (includes ETP /STP sludge & Sulphur sludge disposal cost.)	Recycling of Hazardous Waste.	35.00
Cost for air emissions Maintenance of Air & Stack minitoring Intruments (Stack monitoring, filters, agents etc.)	Maintenance of Monitoring Equipments of Air & Stack minitoring Intruments (Stack monitoring, filters, agents etc.)ntenance of Monitoring Equipments	11.00
External Party monitoring , IMS Training , IMS Audit and Display Board Maintenance	Monitoring of Various Parameters by MoEFCC approved party	12.00
Cost for Procurement of New Stack Monitoring Analysers .in Plants	CAAQMS analyser will be with new Technology and avalability of Spares for future	35.00
Cost for Recycling of Plastic Waste as per PWM 2016 as Brand Owner	CAs per the Plastic Waste Management Rule 2016	36.00

Part-I

Any other particulars for improving the quality of the environment.

Particulars

1. AN Melt Project: As per Increase in Power Demand . India Govt had to Increase the Coal production. And to increase the production of Coal there was increase in demand for AN melt from PSUs like Coal India Limited. In view of the national vision of “Atmanirbhar Bharat” and to meet the growing domestic demand, RCF came forward to help in this Cause to regularize existing AN Melt plant along with production enhancement from 1.40 to 1.90 Lakh MT per annum. country as Ammonium Nitrate is main

Name & Designation

Anil Mathur , Executive Director , RCF Ltd., Trombay Unit

UAN No:

MPCB-ENVIRONMENT_STATEMENT-0000047006

Submitted On:

23-09-2022