



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-0000072055

Submitted Date

26-09-2024

PART A

Company Information

Company Name

Grasim Industries Limited (Unit - Century Rayon)

Application UAN number

MPCB-Consent_Ammendment-0000010874

Address

P B NO 22, Murbad Road, Shahad-421103, Dist- Thane (M S)

Plot no

45,53,56,57,58,59,76,77,78,201,202,207

Taluka

Ulhasnagar

Village

Shahad

Capital Investment (In lakhs)

75362

Scale

Large

City

Ulhasnagar

Pincode

421103

Person Name

Prakash S Bhat

Designation

General Manager

Telephone Number

09821284699

Fax Number

02512730064

Email

prakash.s.bhat@adityabirla.com

Region

SRO-Kalyan II

Industry Category

Red

Industry Type

R47 Synthetic fibers including rayon ,tyre cord, polyester filament yarn

Last Environmental statement submitted online

yes

Consent Number

Format1.0/CAC/UAN No.MPCB-CONSENT_AMENDMENT-0000010874/2307000070

Consent Issue Date

2023-07-11

Consent Valid Upto

30.09.2026

Establishment Year

1956

Date of last environment statement submitted

Sep 30 2023 12:00:00:000AM

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

Product Information

Product Name

Viscose Filament Yarn

Consent Quantity

29300

Actual Quantity

21935.34

UOM

MT/A

Sulphuric Acid

76000

69525.63

MT/A

Carbon-Di-Sulphide

20000

10503.16

MT/A

By-product Information

By Product Name

Consent Quantity

Actual Quantity

UOM

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
	14658.00	12716.00
Cooling	2000.00	1533.00
Domestic	2318.00	1982.00
All others	0.00	0.00
Total	18976.00	16231.00

2) Effluent Generation in CMD / MLD

Particulars	Consent Quantity	Actual Quantity	UOM
Trade Effluent	15300	12801	CMD
Colony Domestic Effluent	1200	704	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
Viscose Filament Yarn	190.27	196.61	MT/A
Sulphuric Acid	1.49	1.65	MT/A
Carbon di Sulphide	3.01	4.16	MT/A

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
PSY Wood Pulp	1.035	1.037	Ton/Ton
PSY Caustic Soda	0.590	0.588	Ton/Ton
PSY Carbon-di-Sulphide	0.279	0.279	Ton/Ton
PSY Sulphuric Acid	0.899	0.923	Ton/Ton
PSY Zinc	0.006	0.007	Ton/Ton
T/C Wood Pulp	1.011	1.016	Ton/Ton
T/C Caustic Soda	0.690	0.693	Ton/Ton
T/C Carbon-di-Sulphide	0.318	0.320	Ton/Ton
T/C Sulphuric Acid	0.855	0.855	Ton/Ton
T/C Zinc	0.0087	0.0085	Ton/Ton
CSY Wood Pulp	1.057	1.052	Ton/Ton
CSY Caustic Soda	0.657	0.660	Ton/Ton
CSY Carbon-di-Sulphide	0.285	0.280	Ton/Ton
CSY Sulphuric Acid	1.459	1.454	Ton/Ton
CSY C Zinc	0.0186	0.0184	Ton/Ton
Sulphur in Sulphuric Acid plant	0.331	0.331	Ton/Ton
Sulphur in CS2 plant	0.878	0.883	Ton/Ton

4) Fuel Consumption

Fuel Name	Consent quantity	Actual Quantity	UOM
Coal & Charcoal Churi	97090	82103.75	MT/A
LSHS	29200	237.23	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	Standard	Reason
	Quantity	Concentration	%variation		
Suspended Solids	316.74	30.17	0	100 mg/l	0
C.O.D	880.22	83.83	-	250 mg/l	-
B.O.D. (3 days at 27oC)	257.24	24.50	-	30 mg/	-
Oil & Grease	54.25	5.17	-	10 mg/l	-
Zinc	24.85	2.37	-	5 mg/l	-

[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		
CS2	7896.28	205.01	0	300 mg/Nm3	0
H2S	1773.25	46.04	0	70 mg/Nm3	-
SO2 from Coal Fired Boiler	2290	1228.02	-	5320 Kgs/day	-
SO2 from Acid Plant	262.86	501.30	-	3.5 Kg/T of sulfuric acid production (728 Kgs/day)	-
SOx from D G Set	0	0	-	7200 Kgs/day	Standby
NOx from D G Set	0	0	-	100 ppm	Standby
Acid Mist	2.73	9.5	-	50 mg/Nm3	-

Part-D**HAZARDOUS WASTES****1) From Process**

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
17.2 Spent catalyst	7.41	0.0	MT/A
Other Hazardous Waste	228.07	79.55	MT/A
5.1 Used or spent oil	6.390	18.510	MT/A
5.2 Wastes or residues containing oil	37.430	40.740	MT/A
33.2 Contaminated cotton rags or other cleaning materials	10.950	12.580	MT/A

33.1 Empty barrels /containers /liners contaminated with hazardous chemicals /wastes	8.060	6.580	MT/A
35.2 Spent ion exchange resin containing toxic metals	11.000	4.750	MT/A
29.1 Process wastes or residues	1505.01	726.017	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	3680.000	3706.710	MT/A

Part-E

SOLID WASTES

1) From Process

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
Dry Viscose, Trash Sweeping Waste Cellulose from Rayon and T.C. plant, Civil debris & Burnt Charcoal	5547.39	5743.09	MT/A
Yarn Waste	802.66	735.08	MT/A

2) From Pollution Control Facilities

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
Cinder Ash & Fly Ash	13828.93	12370.410	MT/A
Bio Sludge	31.69	89.35	MT/A

3) Quantity Recycled or Re-utilized within the unit

Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	0	0	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	3706.71	MT/A	NA, Disposal at CHWTSDF (MWML,Taloja)
17.2 Spent catalyst	0	MT/A	NA, Disposal at CHWTSDF (MWML,Taloja)
Other Hazardous Waste	79.55	MT/A	NA, Disposal at CHWTSDF (MWML,Taloja)
5.1 Used or spent oil	18.51	MT/A	Sent to Authorized recycler
5.2 Wastes or residues containing oil	40.740	MT/A	Sent to Authorized recycler
33.2 Contaminated cotton rags or other cleaning materials	12.58	MT/A	Disposal at CHWTSDF (MWML,Taloja)
35.2 Spent ion exchange resin containing toxic metals	4.75	MT/A	Disposal at CHWTSDF (MWML,Taloja)
33.1 Empty barrels /containers /liners contaminated with hazardous chemicals /wastes	6.58	MT/A	Sent to Authorized recycler
28.1 Process Residue and wastes	726.017	MT/A	Sent to Co-processing

2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
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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)
Replacement of second Economizer in Acid Plant No.1	0	441	0	0	73.71	0
Replacement of old condensate water pumps by energy efficient pumps	0	0	0	138240	30.00	0
Replacement of Cooling tower fan by Aerofoil design fan (3 sets)	0	0	0	32832	4.50	0
Intelligent Flow Control System	0	0	0	136199	13.5	0
Closed loop Auto system	0	0	0	198925	23.00	0
Standby Clarifier in ETP Plant	0	0	0	0	370.00	0
Lightning Protection System for Rayon / Chemical / Colony/ Outsourced Unit (Various plant - Electrical)	0	0	0	0	20.00	0
Additional ETP sludge Storage shed	0	0	0	0	31.00	0
Vaccum Cleaner	0	0	0	0	1.57	0
Replacement of existing old workstation for CEMS	0	0	0	0	1.20	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)
Replacement of second Economizer in Acid Plant No.1	Energy saving scheme	62.96
Modernization, Upgradation & Capacity enhancement for CSY hall conditioning. (For Air conditioning sys.)	Energy saving scheme	88.43
Replacement of old condensate water pumps by energy efficient pumps	Energy saving scheme	29.67
Reduce MSEDCL Bill through ADD Capacitor Bank (300 KVR)	Energy saving scheme	7.21
New Mist Type Combo vacuum condenser for reject FD, Qty:- 1 set	Energy saving scheme	6.10
Upgradation of TG-1 by Installing New Rotor and Diaphragms for Energy Efficiency-Boiler House	Energy saving scheme	0.09
FRP Trough for PSY Spinning Machines (Qty -12 Nos)	Environment Protection Measure	220.60

Installation of 200 KLD UF Plant	Environment Protection Measure	175.07
Chimney Replacement of Stoker fired boiler	Environment Protection measures	97.21
Standby Clarifier in ETP Plant	Environment Protection measures	51.49
Storm Water and ETP Water Separation	Environment Protection Measure	36.89
Lightning protection system -Rayon Plant-Electrical	Energy & Environment Protection Measure	2.94
Additional ETP sludge Storage shed	Environment Protection measures	1.57
Vaccum Cleaner	Environment Protection measures	1.26
Replacement of existing old workstation for CEMS	Environment Protection measures	1.01
PH sensor on storm water drain	Environment Protection measures	3.65

[B] Investment Proposed for next Year

Detail of measures for Environmental Protection

	Environmental Protection Measures	Capital Investment (Lacks)
Replacement of second Economizer in Acid Plant No.1	Energy saving scheme	10.75
Modernization, Upgradation & Capacity enhancement for CSY hall conditioning. (For Air conditioning sys.)	Energy saving scheme	21.56
Improvement in heat recovery of condensate in AT section	Energy saving scheme	8.01
VFD with Panel and bypass starter for TC Spinning Air Washer no 1 & 2 (40 HP)	Energy saving scheme	6.00
Calcination Exhaust blower VFD.	Energy saving scheme	6.00
Upgradation of New AT washing line A pump motors by IE4 efficiency motors.	Energy saving scheme	9.00
Replacement of cooling towers blade with aerodynamic blades-ER CT 1, 2, & 5 - fan	Energy saving scheme	6.00
FRP Trough for PSY Spinning Machines (Qty -12 Nos)	Environment Protection Measure	29.40
Installation of 200 KLD UF Plant	Environment Protection Measure	4.93
Chimney Replacement of Stoker fired boiler	Environment Protection Measure	2.79
Storm Water and ETP Water Separation	Environment Protection Measure	26.18
Lightning protection system -Rayon Plant-Electrical	Environment Protection Measure	2.34
Provision of Lightening protection in Spinbath and Spinning	Environment Protection Measure	5.06
Lightening protection system for CSY Building	Environment Protection Measure	4.39
PH sensor on storm water drain	Environment Protection Measure	2.85
Procurement of Noise level checking instrument as per ABG Noise Management Technical Standard (TS -06)	Environment Protection Measure	4.00
Extension pipeline from existing disposal pipeline to Waldhuni nala Approx 150 Mtrs.	Environment Protection Measure	85.81
Modified wash water assembly for 24 CSY machines	Environment Protection Measure	17.00
Noise level checking instrument as per ABG Noise Management Technical Standard (TS -06) requirements(Quantity 01 set)	Environment Protection Measure	3.00

Part-I

Any other particulars for improving the quality of the environment.

Particulars

Grasim Industries Limited (Unit Century Rayon) lays high emphasis on Environmental Improvement programme like plantation of trees in its premises and surrounding areas. Varieties of planted trees are based on seasonal climate and nature of soil as tested at our own Horticulture Department. The trees planted are, Peltophurum, Acacia, Cassurina, Cassia, Gold Mohar, Rain Tube, Pole Plantation, Saal, Bamboo, etc. The company spends huge amount every year on plantation alone. Shivaji Udyan opposit

Name & Designation

Prakash S Bhat - GM-EHS & Sustainability

UAN No:

MPCB-ENVIRONMENT_STATEMENT-0000072055

Submitted On:

26-09-2024