

ADITYA BIRLA



Date: 07.11.2023

Dr. Yogesh Kumar
IRO, Ministry of Environment, Forest & Climate Change
407, Aaranya Bhavan,
Sector-10, Gandhinagar

Dear Sir,

Subject: Half Yearly (From Apr-2023 to Sep-2023) EC Compliance reports for the Environment Clearance received from MOEFF & CC, New Delhi.

Please find enclosed six-monthly Environment Compliance reports for following Environment Clearances.

1. F. No. J-11011/321/2016-IAII (I); dated 17.10.2019 (Latest EC)
2. F. No. J-11011/321/2016-IA II (I), dated 16.08.2018
3. F. No. J-11011/321/2016-IA II(I)Pt, dated 15.01.2018
4. F. No. J-11011/463/2007-IA II (I), dated 20.12.2007

Hope you will find same in Order.

Yours Faithfully,
For Grasim Industries Limited
(Unit: Grasim Cellulosic Division, Vilayat)

Ashish Garg
Sr. President & Unit Head

Encl: a.a

CC: CPCB Vadodara; GPCB Gandhinagar and Bharuch

Grasim Industries Limited
(Unit:Grasim Cellulosic Division)

Site : Plot No.1, G.I.D.C. Vilayat Industrial Estate, PO.-Vilayat, Taluka-Vagra, Dist. Bharuch - 392 012, Gujarat. | Tel. 02641 - 273099

Regd. Office : Grasim Industries Limited, Birlagram, Nagda (M.P.) 456 331.

CIN : L17124MP1947PLC000410

Six Monthly Compliance Report of Environmental Clearance For

Environment Clearance - EC No. F. No. J-11011/321/2016-IAII (I); dated 17.10.2019

Environment Clearance - MOEF Ref. Letter No.: J-11011/321/2016-IA II (I), dated 16.08.2018

Environment Clearance - MOEF Ref. Letter No.: J-11011/321/2016-IA II(I)Pt, dated 15.01.2018

Environment Clearance - MOEF Ref. Letter No.: J-11011/463/2007-IA II (I), dated 20.12.2007



Submitted to: -

1. Ministry of Environment Forest & Climate Change, (WR Office) Bhopal
2. Ministry of Environment Forest & Climate Change, 407, Aaranya Bhavan, Sector-10, Gandhinagar
3. Central Pollution Control Board, Zonal Office (Vadodara)
4. Gujarat Pollution Control Board-Bharuch

Submitted By: -

Grasim Industries Limited

(Unit: - Grasim Cellulosic Division)

Plot No. 1 GIDC Vilayat Industrial Estate,
PO-Vilayat, Taluka-Vagra, Dist.: - Bharuch-
392012, Gujarat, India

Period: 01.04.2023 to 30.09.2023

**Compliance Status Report for “Environmental Clearance” Accorded by the MoEF
For
Grasim Cellulosic Division (GCD), Vilayat**

List of Annexure

| Sr. No. | Title | Annexure No. |
|----------------|---|---------------------|
| 1 | Brief Details of the CAP technology | Annexure-1 |
| 2 | Existing plant species and proposed plant species for greenbelt development | Annexure-2 |
| 3 | Structure of Environment Management Cell | Annexure-3 |
| 4 | List of testing facilities available at Environmental Laboratory | Annexure-4 |
| 5 | Environment Monitoring Program | Annexure-5 |
| 6 | Environmental Monitoring Reports | Annexure-6 |

**Compliance Status Report for “Environmental Clearance” Accorded by the MoEF
For
Grasim Cellulosic Division (GCD), Vilayat**

-: Introduction: -

1. Grasim Industries Limited (GIL), incorporated on 25th Aug., 1947; is a flagship company of the Aditya Birla Group and India's pioneer in manufacturing of Viscose Staple Fibre (VSF) a man-made, biodegradable fibre with characteristics akin to cotton.
2. M/s. Grasim Industries Ltd. has four VSF Plants in India which are located at Nagda (Madhya Pradesh), Harihar (Karnataka), Kharach & Vilayat (Gujarat).
3. Grasim Cellulosic Division, Vilayat is the latest plant in the Pulp & Fibre business, commissioned in Apr-2014 which produces both grey VSF and specialty fibre. This plant is also producing specialty grade fibre.
4. The Company's main production is Viscose Staple Fibre, Sodium Sulphate, Sulphuric Acid, Carbon-Disulphide.
5. All the operation related permits, including Environmental Clearance, Forest Clearance from MOEF&CC and Consents to Establish (CTE) & Consent to Operate (CTO) obtained from Gujarat Pollution Control Board, are in place.
6. Environmental quality monitoring in & around the project site is being carried out by GPCB & NABL approved Laboratory on a regular basis.
7. 04 No. of Ambient Air Quality Monitoring Stations (AAQMS) and Environmental Parameter Display Board at main gate has been established.
8. Continuous Emission Monitoring System is installed in process stacks of Rayon (Fibre) plant, H₂SO₄ - acid plant, CS₂ Plant for regular monitoring of CS₂, SO₂ etc.
9. Online TOC, pH & flow meters installed at the outlet of ETP, before discharging treated effluent to GIDC pipeline.
10. Green belt is being developed as per the CPCB guidelines to curb the emission and also to provide an aesthetic look.
11. Point wise compliance status of Environmental Clearance for GCD, Vilayat is furnished herewith.

Compliance status on Environmental Clearance

MOEF Ref. Letter No.: F. No. J-11011/321/2016-IAII (I); EC issued on 17.10.2019

Compliance Status Report for “Environmental Clearance” Accorded by the MoEF

For

Grasim Cellulosic Division (GCD), Vilayat

Compliance status on Environmental Clearance

EC No. F. No. J-11011/321/2016-IAII (I); EC issued on 17th October 2019

| Sr. No. | Stipulation | Compliance Status | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|--|--|--|---|--|--|--------------------------------|---|----------------------------|--|--|--|--|----------|--------|--------|-----------|--------|------------------|---|-------|-----------|-------------|---|-------|--------|--|--------------|---------------|---------------|---------------|--|---|--------------|-----|-------|-----|-------|---|
| 1 | This has reference to your Online proposal no. IA/ GJ / IND2 /58913 /2016, dated 23rd February 2019, for environmental clearance to the above subject. | Acknowledged | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | The Ministry of Environment, Forest and Climate Change has considered the proposal for environmental clearance to the project for expansion of Viscose Staple Fibre from 2,55,500 TPA to 4,38,000TPA, Sulfuric acid (1,82,500 to 3,46,750TPA) and Carbon- Disulphide (34675 to 65,700 TPA) by M/s Grasim Industries Ltd (Grasim Cellulosic Division) in an area of 222.63 ha at Plot No.1, GIDC Industrial Area, Vilayat, Taluka Vagra, District Bharuch (Gujarat). | Industry is setup at Plot No.1, GIDC Industrial Area, Vilayat, Taluka Vagra, District Bharuch (Gujarat). Latitude: 21 deg 46’8” and 21 deg 47’11” North Longitude: 72 deg 53’18”and 72 deg 54’49” East | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | The details of existing / proposed products are as under: - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Sr. No.</th> <th style="width: 15%;">Name of Products (Unit)</th> <th style="width: 15%;">Existing Capacity (as per EC dated 20th Dec 2007)</th> <th style="width: 15%;">Granted Capacity (as per EC dated 15th Jan 2018)</th> <th style="width: 15%;">Project proposed / Additional Capacity</th> <th style="width: 15%;">Total Capacity after Expansion</th> </tr> </thead> <tbody> <tr> <td rowspan="4" style="text-align: center;">1</td> <td colspan="5">Viscose Staple Fibre (TPA)</td> </tr> <tr> <td>Existing</td> <td style="text-align: center;">127750</td> <td style="text-align: center;">127750</td> <td style="text-align: center;">No Change</td> <td rowspan="3" style="text-align: center;">438000</td> </tr> <tr> <td>De-bottlenecking</td> <td style="text-align: center;">-</td> <td style="text-align: center;">36500</td> <td style="text-align: center;">No Change</td> </tr> <tr> <td>New Machine</td> <td style="text-align: center;">-</td> <td style="text-align: center;">91250</td> <td style="text-align: center;">182250</td> </tr> <tr> <td></td> <td>Total</td> <td style="text-align: center;">127750</td> <td style="text-align: center;">255500</td> <td style="text-align: center;">182250</td> <td></td> </tr> <tr> <td style="text-align: center;">2</td> <td>Solvent Spun</td> <td style="text-align: center;">Nil</td> <td style="text-align: center;">36500</td> <td style="text-align: center;">Nil</td> <td style="text-align: center;">36500</td> </tr> </tbody> </table> | Sr. No. | Name of Products (Unit) | Existing Capacity (as per EC dated 20 th Dec 2007) | Granted Capacity (as per EC dated 15 th Jan 2018) | Project proposed / Additional Capacity | Total Capacity after Expansion | 1 | Viscose Staple Fibre (TPA) | | | | | Existing | 127750 | 127750 | No Change | 438000 | De-bottlenecking | - | 36500 | No Change | New Machine | - | 91250 | 182250 | | Total | 127750 | 255500 | 182250 | | 2 | Solvent Spun | Nil | 36500 | Nil | 36500 | <p>Details of the production during reporting period is as under;</p> <p>Note: 25MW powerplant which is the part of EC No. J-11011/463/2007-IA II (I), dated 20-12-2007 has been transferred to Grasim Chemical Division.</p> <p>Balance capacity i.e. 30MW powerplant is installed by Industry Kindly refer the power generation details in above table. *30MW powerplant commissioned in Feb-2022.</p> |
| Sr. No. | Name of Products (Unit) | Existing Capacity (as per EC dated 20 th Dec 2007) | Granted Capacity (as per EC dated 15 th Jan 2018) | Project proposed / Additional Capacity | Total Capacity after Expansion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Viscose Staple Fibre (TPA) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Existing | 127750 | 127750 | No Change | 438000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | De-bottlenecking | - | 36500 | No Change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | New Machine | - | 91250 | 182250 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Total | 127750 | 255500 | 182250 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Solvent Spun | Nil | 36500 | Nil | 36500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | |
|--|--|--------|---------------------------------|-------------------------------|--|--|--|-----------------------------|
| | Cellulosic Fibre (Excel Fibre) TPA | | | | | | | |
| Associated Activities* | | | | | | | | |
| 3 | Sulphuric Acid (TPA) | 102200 | 182500 | 164250 | 346750 (182500– 164250) | | | |
| 4 | Carbon- Disulphide (TPA) | 23725 | 34675 | 31025 | 65700 (34675+31-25) | | | |
| 5 | Sodium Sulphate (by product) TPA | 83038 | 166076 – 210788 | 182500 | 348576 – 393288 (166076 – 210788+182500) | | | |
| 6 | Captive Power Plant (MW) | 25 | 55 | Nil | 55 | | | |
| *EC is not required as per EIA Notification 2006; as amended from time to time | | | | | | | | |
| Products=> | | | Viscose Staple Fibre | Carbon Di Sulphide | Sulfuric Acid | Sodium Sulphate (Byproduct) | Solvent Spun Cellulosic Fibre (Excel Fibre) | Power Generation |
| EC Amendment -EC No. F. No. J- 11011/321/2016-IAII(I), EC issued on 17th Oct'2019 | | | 438000 | 65700 | 346750 | 348576 - 393288 | 36500 | 55MW |
| Total Production (Tons) – Apr-23 to Sep-23 | | | 207270 | 16319 | 109178 | 121029 | Nil | 29.71 |
| Total Production (Tons) – Oct-22 to Mar- 23 | | | 162400 | 13408 | 102527 | 96138 | Nil | 28.08 |
| *30MW powerplant commissioned in Feb-2022 | | | | | | | | |
| 4 | Existing land area is 222.63 ha (2226300m2). No additional land will be required for the proposed expansion. | | | | No additional land is required for the proposed expansion. | | | |
| | The estimated project cost is Rs. 3500 Crores against the previously envisaged Rs. 2560 crores. | | | | Estimated Project cost is Rs. 3500 crores. | | | |
| | Total capital cost earmarked towards environmental control measures is Rs. 420 crores against Rs 150 crores and the recurring cost (operational and maintenance) will be about Rs. 70 crores against Rs 15 crores per annum. | | | | Separate funds are earmarked on annual basis for Environmental management. At present capital cost of approx. Rs. 210 crores is already spent as per the condition given in EC-2007 & EC-2018. Approx. Rs. 430 crores has been spent for environment control measures till FY 23. Further approx. Rs. 115 crores are planned to be spent in FY 24. Capex-Opex details are tabulated in Table No. 01 . | | | |

| Table No. 01 | | | | | | | | | | |
|--|--|----------------------|----------------|--------------|--|--------------|--------------|--------------|-----------------------------------|--|
| Fund Utilize for environmental Management are under (Rs. In Crore) | | | | | | | | | | |
| Sr. No. | Particular | Capex | Opex FY-17 | Opex FY-18 | Opex FY-19 | Opex FY-20 | Opex FY-21 | Opex FY-22 | Opex FY-23 | |
| 1 | Effluent Treatment | 79.00 | 11.50 | 10.56 | 11.00 | 11.00 | 13.35 | 14.85 | 35.60 | |
| 2 | Air Pollution Control (Including H2S Scrubbing Plant & CAP Plant) | 350.00 | 03.50 | 04.00 | 03.30 | 05.17 | 14.35 | 14.23 | 162.85 | |
| 3 | Green Belt Development | 00.50 | 00.50 | 00.55 | 01.30 | 0.51 | 0.13 | 0.08 | 1.09 | |
| 4 | Waste Management | 01.50 | 00.50 | 00.60 | 01.60 | 3.07 | 2.90 | 1.78 | 4.37 | |
| Total Amount (In Crore) => | | 431.00 | 16.00 | 15.71 | 17.20 | 19.75 | 30.73 | 30.94 | 203.91 | |
| Total employment will be 1400 persons as regular & 1300 persons on contract after expansion. | | | | | Noted and complied the condition. | | | | | |
| 5 | There are no National parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife corridors etc. within 10 km. Narmada River flows at 9 km in south-south west. | | | | Noted, there are no National parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife corridors etc. within 10 km from the project site. Narmada River (estuarine region) is at a distance of 9.0 km in SSW direction from the project site. | | | | | |
| 6 | Total water requirement is 52,500 m3/day, including fresh water requirement of 38,500m3/day proposed to be met from Gujarat Industrial Development (GIDC) pipeline. | | | | Fresh water requirement met through GIDC pipeline. Water consumption for last six months (Apr'23 to Sep'23) is 17101 m ³ /day, sourced from Narmada River and supplied by GIDC. Water Consumption details are tabulated in Table No.02. | | | | Table No.02 | |
| | | | | | | | | | Water Consumption (m3/day) | |
| | | Month | Average | | | | | | | |
| | | Apr-23 | 18558 | | | | | | | |
| | | May-23 | 16972 | | | | | | | |
| | | Jun-23 | 16772 | | | | | | | |
| | | Jul-23 | 16167 | | | | | | | |
| | | Aug-23 | 16747 | | | | | | | |
| | | Sep-23 | 17387 | | | | | | | |
| | | Avg. | 17101 | | | | | | | |
| | | | | | Following are the GIDC offer cum allotment letter details; | | | | | |
| | | 1) Letter No. | | | GIDC/POJ/MKT/GRASIM/575 | | | | | |
| | | | | | Dated 06th December-2006 | | | | | |

| | | Agreement for Water Supply | 15.60 MLD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|---|--------------------|--|--------------------|--|---|--|--|--|--------------|----------------|--------------|--------------------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|-------------|--------------|-------------|--------------|
| | | Effluent Discharge | 12.48 MLD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 2) Letter No. | GIDC/SE/CG//BRH/1236 Dated 29th December-2016 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Agreement for Water Supply | 25.00 MLD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Effluent Discharge | 19.40 MLD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 3) Letter No. | GIDC/BRH/WS/494 Dated 3rd.July,2019 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Agreement for Water Supply | 35.00 MLD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Effluent Discharge | 23.00 MLD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Effluent - 40,000 m ³ /day will be treated in the Effluent Treatment Plant of which around 14,000m ³ /day of treated effluent will be recycled back to VSF plant and remaining 26000m ³ /day will be discharge through GIDC common Pipeline into deep Sea after recovery of water from the effluent. | The average quantity of effluent treated & recycled back to VSF Plant from Apr-23 to Sep-23 is 21384 m ³ /day. Kindly find effluent discharge & waste water recycling data for reporting period in Table No. 03 & Table No. 04 respectively. Based on the increase in the effluent generation quantity due to increase in production, recycling increased to 21384 m ³ /day. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <table border="1"> <thead> <tr> <th colspan="2" data-bbox="1160 836 1621 874">Table No.03</th> <th colspan="2" data-bbox="1621 836 2092 874">Table No.04</th> </tr> <tr> <th colspan="2" data-bbox="1160 874 1621 912">Effluent Discharge (m³/day)</th> <th colspan="2" data-bbox="1621 874 2092 912">Waste Water Recycling (m³/day)</th> </tr> <tr> <th data-bbox="1160 912 1391 951">Month</th> <th data-bbox="1391 912 1621 951">Average</th> <th data-bbox="1621 912 1767 951">Month</th> <th data-bbox="1767 912 2092 951">RO Permeate</th> </tr> </thead> <tbody> <tr> <td data-bbox="1160 951 1391 989">Apr-23</td> <td data-bbox="1391 951 1621 989">14074</td> <td data-bbox="1621 951 1767 989">Apr-23</td> <td data-bbox="1767 951 2092 989">19700</td> </tr> <tr> <td data-bbox="1160 989 1391 1027">May-23</td> <td data-bbox="1391 989 1621 1027">13924</td> <td data-bbox="1621 989 1767 1027">May-23</td> <td data-bbox="1767 989 2092 1027">22270</td> </tr> <tr> <td data-bbox="1160 1027 1391 1066">Jun-23</td> <td data-bbox="1391 1027 1621 1066">13310</td> <td data-bbox="1621 1027 1767 1066">Jun-23</td> <td data-bbox="1767 1027 2092 1066">21704</td> </tr> <tr> <td data-bbox="1160 1066 1391 1104">Jul-23</td> <td data-bbox="1391 1066 1621 1104">13638</td> <td data-bbox="1621 1066 1767 1104">Jul-23</td> <td data-bbox="1767 1066 2092 1104">21941</td> </tr> <tr> <td data-bbox="1160 1104 1391 1142">Aug-23</td> <td data-bbox="1391 1104 1621 1142">13359</td> <td data-bbox="1621 1104 1767 1142">Aug-23</td> <td data-bbox="1767 1104 2092 1142">21436</td> </tr> <tr> <td data-bbox="1160 1142 1391 1181">Sep-23</td> <td data-bbox="1391 1142 1621 1181">13413</td> <td data-bbox="1621 1142 1767 1181">Sep-23</td> <td data-bbox="1767 1142 2092 1181">21253</td> </tr> <tr> <td data-bbox="1160 1181 1391 1219">Avg.</td> <td data-bbox="1391 1181 1621 1219">13620</td> <td data-bbox="1621 1181 1767 1219">Avg.</td> <td data-bbox="1767 1181 2092 1219">21384</td> </tr> </tbody> </table> | | Table No.03 | | Table No.04 | | Effluent Discharge (m³/day) | | Waste Water Recycling (m³/day) | | Month | Average | Month | RO Permeate | Apr-23 | 14074 | Apr-23 | 19700 | May-23 | 13924 | May-23 | 22270 | Jun-23 | 13310 | Jun-23 | 21704 | Jul-23 | 13638 | Jul-23 | 21941 | Aug-23 | 13359 | Aug-23 | 21436 | Sep-23 | 13413 | Sep-23 | 21253 | Avg. | 13620 | Avg. | 21384 |
| Table No.03 | | Table No.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Effluent Discharge (m³/day) | | Waste Water Recycling (m³/day) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Month | Average | Month | RO Permeate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Apr-23 | 14074 | Apr-23 | 19700 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| May-23 | 13924 | May-23 | 22270 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jun-23 | 13310 | Jun-23 | 21704 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jul-23 | 13638 | Jul-23 | 21941 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aug-23 | 13359 | Aug-23 | 21436 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sep-23 | 13413 | Sep-23 | 21253 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Avg. | 13620 | Avg. | 21384 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Power requirement after expansion will be 60 MW which will be met from Captive Power Plant. No DG sets will be required. | Presently 25MW is sourced from captive plant installed under chemical division. Remaining 30MW captive power plant is installed by us and 5 MW from renewable energy source. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | |
|-----|---|---|
| 7 | The project/activity is covered under Category A of item 5(d) 'Manmade fibres manufacturing' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 under category 'A' and requires appraisal/approval at central level in the Ministry. | Acknowledged |
| 8 | Standard Terms of Reference for the project was issued on 24th August, 2018. Public hearing is exempted as the project site is located inside the notified industrial area. | Acknowledged |
| 9 | The proposal was considered by the sectorial Expert Appraisal Committee (Industry-2) in the meeting held on 26-28 June 2019, wherein the project proponent and their accredited consultant presented the EIA/EMP report. The committee found the EIA/EMP report complying with the ToR and recommended the project for grant of environmental clearance. | Acknowledged |
| 10 | Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the project for expansion of Viscose Staple Fibre (2,55,500 to 4,38,000TPA), Sulphuric Acid (1,82,500 to 3,46,750TPA) and carbon- Disulphide (34675 to 65,700 TPA) by M/s Grasim Industries Ltd (Grasim Cellulosic Division) at Plot No. 1, GIDC Industrial Area Vilayat, Taluka Vagra, District Bharuch (Gujarat), under the provisions of EIA Notification, 2006, subject to the compliance of terms and conditions, as below: - | Acknowledged |
| (a) | Necessary permission as mandated under Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the state Pollution Control Board. | Industry has obtained Consent to Establish and Consent to Operate from GPCB and renewal of the same will be done time to time under Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 |

| | | |
|-----|---|--|
| (b) | Treated effluent shall be recycled back to VSF Plant and remaining 26000m ³ /day will be discharged through GIDC common pipeline into deep sea after recovery of water from the effluent. | Industry has installed RO plants for recycling of waste water. The average quantity of treated effluent recycled back to VSF Plant during Apr-23 to Sep- 23 is 21384 m ³ /day. (Please refer above Table No. 04). Treated effluent is discharged through GIDC common pipeline into deep sea after recovery of water from the effluent. |
| (c) | Necessary authorization required under the Hazardous and other Wastes (Management and Trans- Boundary Movement) Rules, 2016, Solid Waste management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to. | Necessary authorization as per the Hazardous and other Wastes (Management and Trans- Boundary Movement) Rules, 2016 is taken from Gujarat Pollution Control Board, Gandhinagar vide the CCA/CTO, reference No.- GPCB/BRCH-B/CCA-70(7)B/ID-36507/675889, Dated – 22.06.2022 and abiding all the conditions as per given in the CCA. |
| (d) | To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emission shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines. | Industry has 175-meter-tall stack designed as per CPCB/SPCB guidelines for proper dispersion of gasses from manufacturing process. To arrest fugitive emission various controls are provided such as shutters at Spinning Machine, waste water transfer to ETP through pipelines and covered drains, scrubber systems and waste gas recovery plants. i.e. H ₂ S Scrubbing Plant and Carbon Adsorption Plant for CS ₂ recovery. |
| (e) | Solvent management, if any, shall be carried out as follows: (i) Reactor shall be connected to the chilled brine condenser system. (ii) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (iii) The condensers shall have provided with sufficient HTA and residence time so as to achieve more than 98% recovery. (iv) Solvents shall be stored in separate space specified with all safety measures. (v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses | Industry currently not handling any solvent. As and when solvent is used in process we shall abide the prescribed conditions. |

| | | |
|-----|--|---|
| (f) | Total fresh water requirement shall not exceed 38,500m ³ /day proposed to be met from Gujarat Industrial Development (GIDC) pipeline. Pipeline Prior permission in this regard shall be obtained from the concerned regulatory authority. | Average fresh water consumption quantity from Apr-23 to Sep-23 is 17101 m ³ /day (Please refer above Table No.02) Necessary authorization for required quantity of water is taken from Gujarat Industrial Development (GIDC) vide their letter No. GIDC/BRH/WS/494 Dated 3rd.July,2019. |
| (g) | Rain water harvesting structures shall be provided to reduce dependency of fresh surface water for industrial purpose. In any case, no ground water shall be used for the plant. | Rain water harvesting structures are provided in all applicable areas. Industry is not using ground water for the plant. |
| (h) | The storm water from the premises shall be collected and discharged through a separate conveyance system. | Separate conveyance system for the discharge of storm water is provided. |
| (i) | Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on the tank farm, and solvent transfer through pumps. | Hazardous chemicals are stored in tanks, drums, carboys. Earthing has been provided to tanks. Flame arresters made compulsory for vehicles carrying Hazardous chemicals. |
| (j) | Process organic residues and spent carbon, if any shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. | Industry has applied for amendment in the condition vide our submission dated 24.02.2020. This condition needs to be amended as ETP Inorganic Sludge (Gypsum) shall be sent to Cement Industry/TSDF/Co-processing unit, Process organic residue & spent carbon and ETP Bio (Organic) sludge to be burnt in power plant or sent to TSDF / Co- processing unit. Industry is following CCA issued by GPCB for utilization/ disposal of hazardous waste. |
| (k) | The company shall strictly comply with the rules and guidelines under Manufacture, storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per Motor Vehicle Act (MVA), 1989. | Industry is strictly complying the rules and guidelines under the Manufacture, storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. Industry has ensured compliance of provisions made under the Motor Vehicle Act (MVA), 1989 for hazardous chemical transportation. Industry has obtained license for storage of 60 KL light diesel oil and storage of 10 KL HSD at 2 locations in plant area for DG sets from Deputy Controller of Explosive from M/s PESO (PETROLEUM & Explosives Safety Organization). Industry has factory license No. 17564 valid up to |

| | | 31.12.2026 issued by DISH. | | | | | | |
|--------|--|--|-----------------|----------|-----------------------------|-----------------|---|--------------------------------|
| (l) | The company shall undertake waste minimization measures as below; | The waste minimization measures are taken as below; | | | | | | |
| | (i) Metering and control of quantities of active ingredients to minimize waste | Industry has strict monitoring and control over usages of ingredients / raw materials to minimize the generation of waste. | | | | | | |
| | (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. | Industry has installed H2S Scrubbing Plant for abatement H2S from Spinning offgases of VSF manufacturing. Sulphur is recovered during this process and reutilized as Raw Material for production of Sulphuric Acid and CS2. | | | | | | |
| | (iii) Use of automated filling to minimize spillage | Industry has adopted automated filling /shifting of chemicals / raw material and avoided manual intervention wherever possible to minimize the spillage. | | | | | | |
| | (iv) Use of close Feed system into batch reactors. | Close feeding system is provided for chemicals / raw materials at point of use to minimize the waste generation. | | | | | | |
| | (v) Venting equipment through Vapour recovery system. | Industry has installed CAP Plant for recovery of CS2 from Spinning off gases. Scrubbers are provided at vents of chemical storage tank to recover the vapors. | | | | | | |
| | (vi) Use of high-pressure hoses for equipment clearing to reduce wastewater generation. | Industry has adopted 3R principle to reduce the waste water generation. High pressure hoses are also used for the cleaning of equipment. | | | | | | |
| (m) | The green belt of at least 5-10m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultant with the State Forest Department. | In order to achieve 33% greenbelt, plantation has been done along with periphery of plant, road sides and open area. Total 1,27,500 nos. trees have been planted till Sep-2023. Existing plantation details and proposed plan is tabulated in Table No.5 | | | | | | |
| | | Table No. 05 | | | | | | |
| | | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Sr. No</th> <th style="width: 20%;">Duration</th> <th style="width: 20%;">Area (Acre.) for Plantation</th> <th style="width: 50%;">Number of Plant</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">Existing (Till FY; 2017-18)</td> <td style="text-align: center;">60</td> <td style="text-align: center;">37,500 Plants</td> </tr> </tbody> </table> | Sr. No | Duration | Area (Acre.) for Plantation | Number of Plant | 1 | Existing (Till FY; 2017-18) |
| Sr. No | Duration | Area (Acre.) for Plantation | Number of Plant | | | | | |
| 1 | Existing (Till FY; 2017-18) | 60 | 37,500 Plants | | | | | |

| | | | | | |
|--|--|-------------------|--------------------------|------------|------------------------|
| | | 2 | 2018-19 | 25 | 15,000 Plants |
| | | 3 | 2019-20 | 25 | 15,000 Plant |
| | | 4 | 2020-21 | 25 | 15,000 Plant |
| | | 5 | 2021-22 | 25 | 15,000 Plant |
| | | 6 | 2022-23 | 25 | 20,000 Plant |
| | | 7 | 2023-24 (Till Sep'23) | 10 | 10,000 Plant |
| | | Total=> | | 195 | 1,27,500 Plants |

Details of existing plant species and proposed plant species along with Plant species for odor management, Gaseous emission (SO2 & NOx) tolerant species is enclosed as **Annexure-2**. Plant species are selected as per the directives of CPCB & DFO. Photograph of the existing green belts is attached below.

GLIMPS OF PLANTATION



| | | |
|-----|--|---|
| (n) | At least 0.25% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action shall be prepared and submitted to the Ministry's Regional office. | Total Project cost is Rs 3500 Crore and accordingly Rs. 8.75 Crores (0.25% of Project cost) is allocated for Corporate Environment Responsibility (CER). Based on the OM issued by MOEF Impact assessment Division– F. No, 22-65/2017-IA.III, dated 30 th September 2020, we have invested Rs. 173.67 Crore for the installation of H2S Scrubbing Plant for H2S abatement & Odour control and CAPplant for CS2 recovery. Investment of Rs. 173.67 Crore is done for the betterment of Environment in and around plant as well as the |
|-----|--|---|

environment of surrounding villages. Installation of H2S Scrubbing Plant and CAP plant has brought down the CS2 and H2S emission much below the regulatory norms. These are most advanced close-loop technologies to recover and recycle CS2. Industry has significantly reduced its emissions and achieve >90% recovery in terms of Sulphur and recycle it back to the process. Through Installation of above two Best Available Technologies Industry has been achieved the EUBAT emission norms which is far below the regulatory norms.

(o) For the DG sets, emission limits and the stack height shall be conformity with the extant regulations and the CPCB guidelines. Acoustic enclosures shall be provided to DG set for controlling the noise pollution.

DG sets are installed for emergency power supply during power failure. Appropriate stack height of 30 m is provided and emission from DG set is meeting the CPCB norms for the existing DG sets. Summary of test results is tabulated in Table No.6

Name of Agency: M/s. Unistar Pvt. Ltd
Instrument No. UERL/AIR/SMK/01
Instrument No. Stack Monitoring Kit, VSS1, **Serial No.** 467 DTJ 15
Calibration Date: 21.06.2023; **Calibration Expire On:** - 20.06.2024

Table No.06

| Month | DG Set-1 | | | DG Set-2 | | |
|-------------------|-------------|------------|-----------|-------------|------------|-----------|
| Unit | PM (mg/Nm3) | SO2 (PPM) | NOX (PPM) | PM (mg/Nm3) | SO2 (PPM) | NOX (PPM) |
| GPCB limit | 150 | 100 | 50 | 150 | 100 | 50 |
| Apr-23 | 73 | 9 | 39 | 63 | 7 | 37 |
| May-23 | 81 | 7 | 36 | 68 | 10 | 40 |
| Jun-23 | 68 | 6 | 40 | 83 | 8 | 36 |
| Jul-23 | 71 | 8 | 35 | 79 | 6 | 34 |
| Aug-23 | 84 | 10 | 42 | 71 | 8 | 39 |
| Sep-23 | 75 | 6 | 38 | 88 | 9 | 37 |
| Min | 68 | 6 | 35 | 63 | 6 | 34 |
| Max | 84 | 10 | 42 | 88 | 10 | 40 |
| Average | 75 | 8 | 38 | 75 | 8 | 37 |

Note: All values are well below the prescribed norms

| | | | | | | | |
|---|---|---|--|---------------------|----------|----------------------------------|---|
| (p) | The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms. | To protect the possible fire hazards during manufacturing process in material handling robust firefighting system is provided. | | | | | |
| (q) | Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act. | Industry has established an Occupational Health Center (OHC) and conducts health surveillance of the workers on a regular interval. Records are maintained at OHC as per the Factories Act. | | | | | |
| (r) | Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and another fugitive emissions. | Raw materials are stored in the silos / covered areas only to prevent dust pollution and other fugitive emissions. | | | | | |
| (s) | Continuous online (24x7) monitoring system for stack emission shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capacity and flow meters in the channel/drain carrying effluent within the premises. | Continuous online (24x7) monitoring system for stack emission are installed for measurement gas discharge and the pollutants concentration, date transmission with CPCB and SPCB server are under progress. Industry has installed flow meter at pipeline carrying treated effluent to GIDC pumping station. Industry has also provided TOC meter at treated effluent discharge pipeline instead of web camera for continuous monitoring. | | | | | |
| (t) | The energy sources for lighting purpose shall preferably LED based. | LED based lighting are preferred in the newly commissioned plant. LED & Solar LED Lights installed in the period (Apr'23 to Sep'23) is as below: <table border="1" data-bbox="1131 1013 2083 1101"> <tr> <td data-bbox="1131 1013 1601 1061">LED Light Installed</td> <td data-bbox="1601 1013 2083 1061">1170 Nos</td> </tr> <tr> <td data-bbox="1131 1061 1601 1101">LED Solar Street light Installed</td> <td data-bbox="1601 1061 2083 1101">-</td> </tr> </table> | | LED Light Installed | 1170 Nos | LED Solar Street light Installed | - |
| LED Light Installed | 1170 Nos | | | | | | |
| LED Solar Street light Installed | - | | | | | | |
| (u) | Transportation of raw materials/products should be carefully performed using GPS enabled vehicles. | Transportation of raw materials/products is being carried out in GPS enabled vehicles. | | | | | |
| 10.1 The grant of Environmental Clearance is further subject to compliance of other generic conditions as under: | | | | | | | |
| i. | The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), State Government and/or any other statutory authority. | Industry has ensured compliance of all stipulations made by GPCB, State Government and other regulatory authorities. Strict compliance to regulatory provisions is ensured all the time. | | | | | |

| | | |
|------|---|--|
| ii. | No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any | Noted, prior approval will be taken in case of any future expansion / modification. |
| iii. | The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated | Four Ambient Air Quality Monitoring Station (AAQMS) are installed in consultation with GPCB in nearby villages at Derol, Vilayat, Sarnar and Argama. These AAQMS are covering all four directions and location where maximum ground level concentrations is anticipated. |
| iv. | The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 th November, 2009 shall be complied with. | The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 th November, 2009 is compiled by Industry. |

| | | |
|----|---|---|
| v. | The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time) | Industry has provided relevant noise control measures such as acoustic hoods, silencers, acoustic enclosures at all noise sources. Ambient noise inside the plant and around the plant in nearby villages conforms to the Environment (Protection) Act, 1986 Rules, 1989. |
|----|---|---|

The Noise level (dB) at workroom for last 6 months is tabulated as under Table No. 07:

Sound Level Meter: - SL 4023 SD

Reference Standard: - Sound Level Calibrator, Sr. No. 3421624, Calibration Valid Up to: 02.02.2024

| Table no. 07 (UOM – dBA) | | | | | | | | | | | | |
|--------------------------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|
| Area | Apr-23 | | May-23 | | Jun-23 | | Jul-23 | | Aug-23 | | Sep-23 | |
| | Day Time | Night Time | Day Time | Night Time | Day Time | Night Time | Day Time | Night Time | Day Time | Night Time | Day Time | Night Time |
| Norms=> | 75 | 70 | 75 | 70 | 75 | 70 | 75 | 70 | 75 | 70 | 75 | 70 |
| Main Gate | 64.3 | 58.3 | 63.4 | 57.4 | 63.2 | 57.2 | 63.6 | 57.6 | 63.6 | 57.6 | 62.7 | 56.7 |
| Material Gate | 68.2 | 63.1 | 69.1 | 64.0 | 68.7 | 63.6 | 68.3 | 63.2 | 68.3 | 63.2 | 69.0 | 63.9 |
| OHC | 63.7 | 60.7 | 64.9 | 61.9 | 65.0 | 62.0 | 64.3 | 61.3 | 64.3 | 61.3 | 64.8 | 61.8 |
| Derol | 53.1 | 42.9 | 54.6 | 43.8 | 54.2 | 43.0 | 53.7 | 43.5 | 52.7 | 42.5 | 52.3 | 42.1 |

| | | | | | | | | | | | | |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Vilayat | 52.6 | 42.0 | 53.2 | 42.6 | 53.9 | 44.3 | 53.8 | 44.2 | 51.8 | 43.2 | 51.6 | 44.0 |
| Sarnar | 51.9 | 43.2 | 52.1 | 43.4 | 52.6 | 43.9 | 52.6 | 42.9 | 52.6 | 42.9 | 50.6 | 43.9 |
| Argama | 52.0 | 41.2 | 53.8 | 44.0 | 52.8 | 42.0 | 53.4 | 41.6 | 53.4 | 43.6 | 52.8 | 42.0 |
| Min | 51.9 | 41.2 | 52.1 | 42.6 | 52.6 | 42.0 | 52.6 | 41.6 | 51.8 | 42.5 | 50.6 | 42.0 |
| Max | 68.2 | 63.1 | 69.1 | 64.0 | 68.7 | 63.6 | 68.3 | 63.2 | 68.3 | 63.2 | 69.0 | 63.9 |
| Avg. | 58.0 | 50.2 | 58.7 | 51.0 | 58.6 | 50.9 | 58.5 | 50.6 | 58.1 | 50.6 | 57.7 | 50.6 |

Note: All values are well below the prescribed norms.

| | | |
|-----------|--|---|
| vi | The Company shall harvest rainwater from the roof tops of the buildings to recharge ground water, and to utilize the same for different industrial operation within the plant. | Survey has been carried out for roof top rain water harvesting. The Job has been already taken up at locations nearby to reservoir, rain water from the roof tops is diverted to fresh water reservoir. Following are the tentative details of water saving done through implementation of Rainwater harvesting scheme. |
|-----------|--|---|

Tentative Water Saving through Rain Water Harvesting (Apr-23 to Sep-23)

| Reservoir Area-1 | Reservoir Area-2 | fire house area | Area | Rainfall | | | Rain Water Harvesting |
|------------------|------------------|-----------------|--------|----------|-------|--------|-----------------------|
| M2 | | | | (MM) | (CM) | (Mtr.) | M3 |
| 86400 | 43200 | 240 | 129840 | 668.4 | 66.84 | 0.6684 | 86785.05 |

| | | |
|------------|--|---|
| vii | Training shall be imparted to all employees on safety and health aspects of chemicals handling. | Regular trainings are imparted to all employees on safety and health aspects of chemicals handling. |
| | Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. | We have established an Occupational Health Center (OHC). Prior to joining, pre-employment checkup is done and routine periodical medical examinations for all employees are carried out on regular intervals. Records for the same are maintained at OHC as per the Factories Act. Health surveillance finding reveals that no one suffering from any occupational health related disease. Details regarding tests conducted and numbers of employee covered is summarized in Table No. 08 . |

Table No. 08

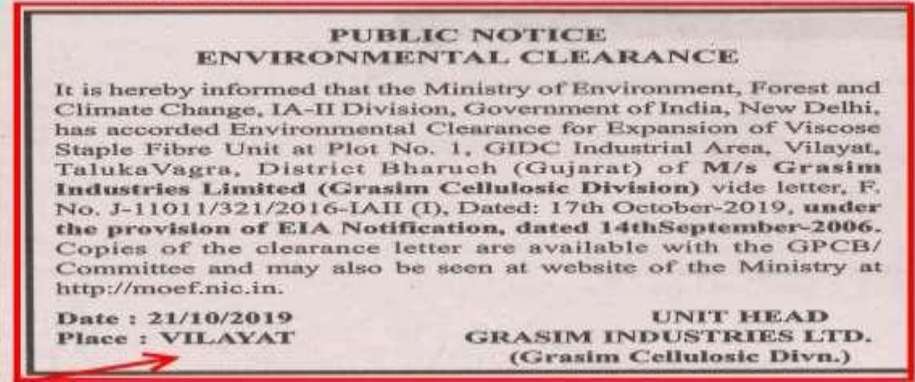
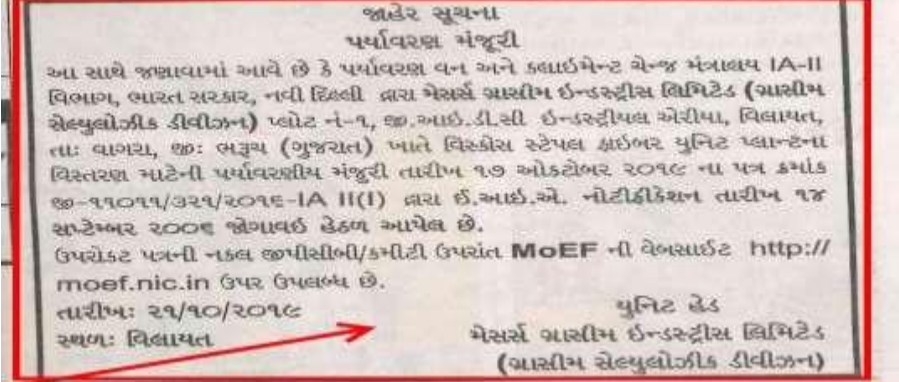
Spirometry (FY-23)

| Name of Dept. | Total Employees | FVC (litres) | FEV 1 | FEV 1/ FVC % | PEF | Conclusion |
|---|-----------------|--------------|-------|--------------|------------|----------------------------------|
| | | | | | Litres/Sec | |
| Admin Department (SCM, Purchase, Account, Legal, IT Dept.) | 92 | 0 | 0 | 0 | 0 | Approx. 0% deviation from normal |
| % | | 0 | 0 | 0 | 0 | |

| | | | | | | |
|---|-----|------|---|---|------|--|
| Process Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC, Civil) | 750 | 1 | 0 | 0 | 1 | Approx. 0.82% is deviation from normal |
| % | | 0.18 | 0 | 0 | 0.18 | |
| Technical Cell, WCM, Customer Focus, Electrical Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC) | 130 | 0 | 0 | 0 | 0 | Approx. 0% deviation from normal |
| % | | 0 | 0 | 0 | 0 | |
| Mechanical Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC) | 290 | 0 | 0 | 0 | 0 | Approx. 0% deviation from normal |
| % | | 0 | 0 | 0 | 0 | |
| QC & QA Instrumentation Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC) | 132 | 0 | 0 | 0 | 0 | Approx. 0% deviation from normal |
| % | | 0 | 0 | 0 | 0 | |
| P&A (HR, Security & Services, ER, CSR, Horticulture, Workshop) Dept. | 30 | 0 | 0 | 0 | 0 | Approx. 0% deviation from normal |
| % | | 0 | 0 | 0 | 0 | |

| Circulatory system (FY- 23) | | | | | | Vision | | ENT |
|---|-----------------|-------|------|----------------|-------|----------------|-----------------|------------|
| Employees | Total Employees | Pulse | ECG | Blood Pressure | Hemat | Distant Vision | Color Blindness | Audiometry |
| | | | | | Hb | | | |
| Admin Department (SCM, Purchase, Account, Legal, IT Dept.) | 92 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| % | | 1.64 | 0 | 1.63 | 0 | 0 | 0 | 3.27 |
| Process Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC, Civil) | 750 | 3 | 11 | 17 | 2 | 4 | 2 | 1 |
| % | | 0.55 | 2 | 3.1 | 0.36 | 0.73 | 0.36 | 0.18 |
| Technical Cell, WCM, Customer Focus, Electrical Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC) | 130 | 1 | 2 | 1 | 0 | 0 | 1 | 1 |
| % | | 1.52 | 3 | 1.51 | 0 | 0 | 1.5 | 1.5 |
| Mechanical Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC) | 290 | 2 | 3 | 7 | 1 | 0 | 4 | 1 |
| % | | 1.13 | 1.69 | 3.95 | 0.56 | 0 | 2.25 | 0.56 |
| QC & QA Instrumentation Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC) | 132 | 1 | 1 | 4 | 0 | 1 | 1 | 0 |
| % | | 1.09 | 1.09 | 4.34 | 0 | 1.09 | 1.09 | 0 |
| P&A (HR, Security & Services, ER, CSR, HORTICULTURE, Workshop) Dept. | 30 | 0 | 2 | 1 | 0 | 0 | 0 | 2 |
| % | | 0 | 10 | 5 | 0 | 0 | 0 | 10 |

| viii | The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures and public hearing shall be implemented. | All conditions as prescribed in EC, NOC and CC&A are maintained and monitored regularly. Detailed status of EIA/EMP is attached as Annexure-5 . Public hearing exempted by EAC as mentioned in serial no. 8 of the Environment Clearance. However, Industry has taken steps for environment management and risk mitigation measures. | | | | | |
|-------------------|---|---|--|-------------------|---------------------------|------------------|------------|
| ix. | The company shall undertake all measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villagers, administration and other stake holders. Also, eco-development measures shall be undertaken for overall improvement of the environment. | Industry has undertaken various community development measures in 25 Villages wherein 7674 nos. of beneficiaries were covered from Apr-23 to Sep-23. Unit has proposed Eco development plan on yearly basis through CSR activities. Updates of CSR activities are being submitted to GPCB in Environment Statement annually. | | | | | |
| x | A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. | A Separate Environment Management Cell already exists with technically qualified personnel who are under the direct control of senior executives for Environment Management and monitoring function. Organogram of environment management cell is Enclosed as Annexure-3 . Detail of testing facility & testing equipment available in environmental laboratory is enclosed as Annexure-4 | | | | | |
| xii | A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. | A copy of the clearance letter submitted to concern six Gram Panchayats vide our letter dated 25.10.2019. | | | | | |
| xiii | The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e mail) to the respective Regional Office of MoEF & CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the company. | <p>We have submitted the six-monthly compliance report to the MoEFCC Regional Office Bhopal and Gandhinagar, CPCB Zonal Office, Vadodara and GPCB. A copy of Environmental Clearance and six-monthly compliance status report is also posted on the website of the company.</p> <table border="1" data-bbox="1131 1177 2101 1264"> <thead> <tr> <th data-bbox="1131 1177 1617 1222">Compliance Period</th> <th data-bbox="1617 1177 2101 1222">Date of Report Submission</th> </tr> </thead> <tbody> <tr> <td data-bbox="1131 1222 1617 1264">Oct-22 to Mar-23</td> <td data-bbox="1617 1222 2101 1264">28.05.2023</td> </tr> </tbody> </table> | | Compliance Period | Date of Report Submission | Oct-22 to Mar-23 | 28.05.2023 |
| Compliance Period | Date of Report Submission | | | | | | |
| Oct-22 to Mar-23 | 28.05.2023 | | | | | | |

| | | |
|-----|---|--|
| xiv | <p>The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional offices of MoEF&CC by e-mail.</p> | <p>The environmental statement, Form-V for each financial year is regularly being submitted to the GPCB & E-mailed to Regional office of MoEF&CC, Bhopal. The same is also posted on the company website along with the status of compliance of environmental clearance conditions.</p> |
| xv | <p>The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at http://moef.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry</p> | <p>Environment Clearance is issued on 17.10.2019, and advertisement released on 24.10.2019 in two local newspapers. Please refer copy of the advertisement enclosed below. Industry has shared Information to Regional office of MoEF&CC, Bhopal vide letter dated 25.10.2019.</p> |
| | <p>Name of Paper: - The Times of India, Ahmedabad Date of Issue: - 21.10.2019 In: - English language</p> | <p>Name of Paper: - Divya Bhaskar, Vadodara Date of Issue: - 21.10.2019 In: - Gujarati language</p> |
| |  <p>PUBLIC NOTICE ENVIRONMENTAL CLEARANCE</p> <p>It is hereby informed that the Ministry of Environment, Forest and Climate Change, IA-II Division, Government of India, New Delhi, has accorded Environmental Clearance for Expansion of Viscose Staple Fibre Unit at Plot No. 1, GIDC Industrial Area, Vilayat, TalukaVagra, District Bharuch (Gujarat) of M/s Grasim Industries Limited (Grasim Cellulosic Division) vide letter, F. No. J-11011/321/2016-IAII (I), Dated: 17th October-2019, under the provision of EIA Notification, dated 14th September-2006. Copies of the clearance letter are available with the GPCB/Committee and may also be seen at website of the Ministry at http://moef.nic.in.</p> <p>Date : 21/10/2019 Place : VILAYAT</p> <p style="text-align: right;">UNIT HEAD GRASIM INDUSTRIES LTD. (Grasim Cellulosic Divn.)</p> |  <p style="text-align: center;">જાહેર સુચના પર્યાવરણ મંજૂરી</p> <p>આ સાથે જાણવામાં આવે છે કે પર્યાવરણ વન અને ક્લાઇમેટ ચેન્જ મંત્રાલય IA-II વિભાગ, ભારત સરકાર, નવી દિલ્હી દ્વારા મેસર્સ ગ્રાસિમ ઇન્ડસ્ટ્રીસ લિમિટેડ (ગ્રાસિમ સેલ્યુલોસિક ડિવિઝન) પ્લોટ નં-૧, જી.આઇ.ડી.સી ઇન્ડસ્ટ્રીયલ એરિયા, વિલાયત, તા: વાગરા, જી: ભરૂચ (ગુજરાત) ખાતે વિસ્કોસ સ્ટેપલ ફાઇબર યુનિટ ધ્યાન-૧ વિસ્તરણ માટેની પર્યાવરણીય મંજૂરી તારીખ ૧૭ ઓક્ટોબર ૨૦૧૯ ના પત્ર ક્રમાંક જી-૧૧૦૧૧/૩૨૧/૨૦૧૬-IA II(I) દ્વારા ઈ.આઈ.એ. નોટીફિકેશન તારીખ ૧૪ સપ્ટેમ્બર ૨૦૦૬ હેઠળ આપેલ છે. ઉપરોક્ત પત્રની નકલ જીપીસીબી/કમીટી ઉપરાંત MoEF ની વેબસાઇટ http://moef.nic.in ઉપર ઉપલબ્ધ છે.</p> <p>તારીખ: ૨૧/૧૦/૨૦૧૯ સ્થળ: વિલાયત</p> <p style="text-align: right;">યુનિટ હેડ મેસર્સ ગ્રાસિમ ઇન્ડસ્ટ્રીસ લિમિટેડ (ગ્રાસિમ સેલ્યુલોસિક ડિવિઝન)</p> |

| | | |
|----|---|---|
| 11 | The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and project proponent shall implement all the said conditions in a time bound manner. The ministry may revoke or suspend the environment clearance, if implementation of any of the above condition is not found satisfactory. | Acknowledged |
| 12 | The above conditions will be enforced, inter alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendment therein. | Noted, Industry is complying all the applicable provisions of the Water (Prevention & control of pollution) Act-1977, the Air (Prevention & control of pollution) Act-1981, the Environment (Protection) Act- 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act-1991. |

Note: Copy of the Monthly Environmental Monitoring reports by NABL accredited laboratory for Effluent and Emission for the last month of the compliance period i.e. Sep-23 is enclosed as **Annexure-6** for reference.

==X==X==X==X==X==X==X==X==X==X==X==X==X==X==

Compliance status on Environmental Clearance

MOEF Ref. Letter No.: J-11011/321/2016-IA II (I), Dated 16.08.2018

**Compliance Status Report for “Environmental Clearance” Accorded by the MoEF
For
Grasim Cellulosic Division (GCD), Vilayat**

Compliance status on Environmental Clearance

MOEF Ref. Letter No.: J-11011/321/2016-IA II (I), Dated 16.08.2018

General Profile: -

| Sr. No. | Stipulation | Compliance Status |
|---------|--|--|
| 1 | This has reference to your proposal No. IA/GJ/IND2/58913/2016 dated 18 th May, 2018 for amendment in the environment clearance to the above project. | Acknowledged |
| 2. | The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance granted by the Ministry vide letter dated 15 th January, 2018 in the favor of M/s. Grasim Industries Ltd (Grasim Cellulosic Division), to the project for expansion of Viscose Staple Fibre Unit (from 127750 TPA to 255500 TPA), Captive Power Plant (from 25 MW to 55 MW) and setting up Solvent Spun Cellulosic Fibre Unit of 36500 TPA at Plot No. 1, GIDC Industrial Area Vilayat, Tehsil Vagra, District Bharuch (Gujarat). The amendment has been sought for revision/modification in the specific conditions of 10(iv) & (v) stipulated therein regarding fuel requirement & the fresh water intake. | Industry is setup at Plot No.1, GIDC Industrial Area, Vilayat, Taluka Vagra, District Bharuch (Gujarat). Latitude: 21 deg 46’8” and 21 deg 47’11” North Longitude: 72 deg 53’18”and 72 deg 54’49” East |

Table-1

| Products=> | Viscose Staple Fibre | Carbon Di Sulphide | Sulfuric Acid | Sodium Sulphate (Byproduct) | Power Generation | Solvent Spun Cellulosic Fibre (Excel Fibre) |
|---|----------------------|--------------------|---------------|-----------------------------|------------------|---|
| EC Amendment - As per EC No. J-11011/463/2007-IA II (I), Dated 20.12.2007 | 127750 | 23725 | 102200 | 83038 | 25 MW | - |
| EC Amendment - As per EC No. F. No. J-11011/321/2016-IA-II(I) Pt Dated – 15.01.2018 | 255500 | 34675 | 182500 | 166076 to 210788 | 55 MW | - |

| | | | | | | |
|---|---------------|--------------|---------------|-------------------------|--------------|--------------|
| EC Amendment – As per EC No. F. No. J-11011/321/2016-IA-II(I) Pt Dated – 16.08.2018 | 255500 | 34675 | 182500 | 166076 to 210788 | 55 MW | - |
| EC Amendment - EC No. F. No. J-11011/321/2016-IAII(I) EC issued on 17th October 2019 (Total Capacity after Expansion) | 438000 | 65700 | 346750 | 348576 - 393288 | 55MW | 36500 |
| Total Production (Tons) – Apr-23 to Sep-23 | 207270 | 16319 | 109178 | 121029 | 29.71 | NIL |
| Total Production (Tons) – Oct-22 to Mar-23 | 162400 | 13408 | 102527 | 96138 | 28.08 | NIL |
| Note: State Environmental Impact Assessment Authority (SEIAA), Gujarat has issued an amendment vide letter no. SEIAA/Guj./EC/1(d), 4(d) & 5(f) /96/2011, dated 30-May-2011 & Letter No. SEIAA/GUJ/EC/1(d),4(d)&5(f)/98/2012 dt. 22.03.2012 for use of natural gas in place of charcoal in CS2 plant and 25MW powerplant which is installed by Grasim Chemical. As per the EC No. F. No. J-11011/321/2016-IAII(I) issued on 15.01.2018, remaining 30MW powerplant is installed by us. Kindly refer the Power generation details in above table. | | | | | | |

| | | |
|---------------|--|--|
| 3. | The proposal was considered by the Expert Appraisal Committee (Industry 2) in the Ministry held on 25-27 June 2018. The Committee after deliberations, has recommended for the proposed amendment in the said environment clearance as under: | |
| 10(iv) | The fuel requirement shall preferably be met through natural gas. However, in case of gas supply constraints and or/not found economic viable, coal having Sulphur content less than 0.5% or the in any case, adequate air pollution measures shall be installed to meet the emission standards prescribed under the Environment (Protection) Rules, 1986. | Due to consistent availability issue & less techno economic viability of natural gas supply, coal having sulphur content less than 0.5% is being used to meet the fuel requirement. |
| | ETP biomass may be used to meet the fuel requirements for the captive power plant/boilers. | Biomass generated from ETP possess GCV Value ~ 1500, can be burn in CPP available at site, but in CCA (AWH – 117036) dated 20.06.2022 valid upto 23.03.2024, SPCB has granted us permission for disposal of ETP Biomass at common TSDF site/co-processing. |
| | In any case, adequate air pollution measures shall be installed to meet the emission standards prescribed under the Environment (Protection) Rules, 1986. | Electrostatic Precipitator (ESP) along with 125m height stack is installed to meet the emission standards prescribed under the Environment (Protection) Rules, 1986. Emission Monitoring is done by NABL accredited |

| <p>10(v)</p> | <p>Treated effluent of 7350 KLD shall be reused/recycled to meet the requirements for different industrial operations and the fresh water demand shall accordingly be restricted to 28,000 KLD</p> | <p>laboratory on monthly basis.</p> <p>Industry has installed RO plants for recycling of waste water. The average quantity of effluent treated & recycled from Apr-23 to Sep-23 is 21384 m3/day, please refer Table No.01. Fresh Water consumption for last six months (Apr'23 to Sep'23) restricted to 17101 m3/day.</p> <table border="1" data-bbox="1592 204 2085 628"> <thead> <tr> <th colspan="2" data-bbox="1592 204 2085 244">Table No.01</th> </tr> <tr> <th colspan="2" data-bbox="1592 244 2085 284">Waste Water Recycling (m3/day)</th> </tr> <tr> <th data-bbox="1592 284 1765 323">Month</th> <th data-bbox="1765 284 2085 323">RO Permeate</th> </tr> </thead> <tbody> <tr> <td data-bbox="1592 323 1765 363">Apr-23</td> <td data-bbox="1765 323 2085 363">19700</td> </tr> <tr> <td data-bbox="1592 363 1765 403">May-23</td> <td data-bbox="1765 363 2085 403">22270</td> </tr> <tr> <td data-bbox="1592 403 1765 443">Jun-23</td> <td data-bbox="1765 403 2085 443">21704</td> </tr> <tr> <td data-bbox="1592 443 1765 483">Jul-23</td> <td data-bbox="1765 443 2085 483">21941</td> </tr> <tr> <td data-bbox="1592 483 1765 523">Aug-23</td> <td data-bbox="1765 483 2085 523">21436</td> </tr> <tr> <td data-bbox="1592 523 1765 563">Sep-23</td> <td data-bbox="1765 523 2085 563">21253</td> </tr> <tr> <td data-bbox="1592 563 1765 628">Avg.</td> <td data-bbox="1765 563 2085 628">21384</td> </tr> </tbody> </table> | Table No.01 | | Waste Water Recycling (m3/day) | | Month | RO Permeate | Apr-23 | 19700 | May-23 | 22270 | Jun-23 | 21704 | Jul-23 | 21941 | Aug-23 | 21436 | Sep-23 | 21253 | Avg. | 21384 |
|---------------------------------------|--|--|--------------------|--|---------------------------------------|--|--------------|--------------------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|-------------|--------------|
| Table No.01 | | | | | | | | | | | | | | | | | | | | | | |
| Waste Water Recycling (m3/day) | | | | | | | | | | | | | | | | | | | | | | |
| Month | RO Permeate | | | | | | | | | | | | | | | | | | | | | |
| Apr-23 | 19700 | | | | | | | | | | | | | | | | | | | | | |
| May-23 | 22270 | | | | | | | | | | | | | | | | | | | | | |
| Jun-23 | 21704 | | | | | | | | | | | | | | | | | | | | | |
| Jul-23 | 21941 | | | | | | | | | | | | | | | | | | | | | |
| Aug-23 | 21436 | | | | | | | | | | | | | | | | | | | | | |
| Sep-23 | 21253 | | | | | | | | | | | | | | | | | | | | | |
| Avg. | 21384 | | | | | | | | | | | | | | | | | | | | | |

| | | |
|-----------------|---|---------------------|
| <p>4</p> | <p>Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval to the proposed amendment in the environment clearance dated 15th January 2018, as stated in para 3 above, to the project for expansion of Viscose Staple Fibre Unit, Captive Power Plant and setting up Solvent Spun Cellulosic Fibre Unit by M/s. Grasim Industries Ltd (Grasim Cellulosic Division) at plot No. 1, GIDC Industrial Area Vilayat, Tehsil Vagra, District Bharuch (Gujarat).</p> | <p>Acknowledged</p> |
| <p>5</p> | <p>All other terms and conditions stipulated in the environment clearance dated 15th January 2008 shall remain unchanged.</p> | <p>Acknowledged</p> |

Compliance status on Environmental Clearance

MOEF Ref. Letter No.: J-11011/321/2016-IA II(I)Pt, Dated 15.01.2018

**Compliance Status Report for “Environmental Clearance” Accorded by the MoEF
For
Grasim Cellulosic Division (GCD), Vilayat**

Compliance status on Environmental Clearance

MOEF Ref. Letter No.: J-11011/321/2016-IA II(I)Pt, Dated 15.01.2018

General Profile: -

| Sr. No. | Stipulation | Compliance Status | | | | | | | | | | | | | | | | | | | | |
|---------|---|--|--|--|---------------------|--------------------------|---|----------------------|------------|--|------------|---|-------------------------------|----|-----------|-----------|---|-----------------|------------|-----------|------------|---|
| 1. | This has reference to your proposal no. IA / GJ / IND2 /58913 /2016, dated 23 rd January, 2017, submitting the EIA/EMP report on the above subject matter. | Acknowledged | | | | | | | | | | | | | | | | | | | | |
| 2. | The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for expansion of Viscose Staple Fibre from 1,27,750 TPA to 2,55,500 TPA, Captive Power Plant from 25 MW to 55 MW and setting up Solvent Spun Cellulosic Fibre unit of 36,500 TPA by M/s Grasim Industries Ltd (Grasim Cellulosic Division) at Plot No. 1, GIDC Industrial Area Vilayat, Tehsil Vagra, District Bharuch (Gujarat) | Industry is setup at Plot No.1, GIDC Industrial Area, Vilayat, Taluka Vagra, District Bharuch (Gujarat). Latitude: 21 deg 46’8” and 21 deg 47’11” North Longitude: 72 deg 53’18”and 72 deg 54’49” East | | | | | | | | | | | | | | | | | | | | |
| 3. | <p>The Existing & proposed products and capacities are as under;</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">S No.</th> <th style="text-align: center;">Products/Units</th> <th style="text-align: center;">Existing Capacity (as per EC dated 20.12.2007)</th> <th style="text-align: center;">Additional Capacity</th> <th style="text-align: center;">Capacity after Expansion</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Viscose Staple Fibre</td> <td style="text-align: center;">127750 TPA</td> <td style="text-align: center;">127750 TPA (Debottlenecking 36500; New Machine 91250)</td> <td style="text-align: center;">255500 TPA</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Solvent Spun Cellulosic Fibre</td> <td style="text-align: center;">--</td> <td style="text-align: center;">36500 TPA</td> <td style="text-align: center;">36500 TPA</td> </tr> <tr> <td style="text-align: center;">3</td> <td>Sulphuric Acid*</td> <td style="text-align: center;">102200 TPA</td> <td style="text-align: center;">80300 TPA</td> <td style="text-align: center;">182500 TPA</td> </tr> </tbody> </table> | S No. | Products/Units | Existing Capacity (as per EC dated 20.12.2007) | Additional Capacity | Capacity after Expansion | 1 | Viscose Staple Fibre | 127750 TPA | 127750 TPA (Debottlenecking 36500; New Machine 91250) | 255500 TPA | 2 | Solvent Spun Cellulosic Fibre | -- | 36500 TPA | 36500 TPA | 3 | Sulphuric Acid* | 102200 TPA | 80300 TPA | 182500 TPA | <p>Industry has taken following subsequent environment clearance for expansion in production capacities;</p> <ul style="list-style-type: none"> • Environment Clearance No. F. No. J-11011/321/2016-IAII(I) dated 17.10.2019 <p>Summary of total production capacities of all environmental clearances and actual production during the reporting period is mentioned in Table No.1</p> |
| S No. | Products/Units | Existing Capacity (as per EC dated 20.12.2007) | Additional Capacity | Capacity after Expansion | | | | | | | | | | | | | | | | | | |
| 1 | Viscose Staple Fibre | 127750 TPA | 127750 TPA (Debottlenecking 36500; New Machine 91250) | 255500 TPA | | | | | | | | | | | | | | | | | | |
| 2 | Solvent Spun Cellulosic Fibre | -- | 36500 TPA | 36500 TPA | | | | | | | | | | | | | | | | | | |
| 3 | Sulphuric Acid* | 102200 TPA | 80300 TPA | 182500 TPA | | | | | | | | | | | | | | | | | | |

| | | | | | |
|---|--|-----------|--------------------|---------------------|--|
| 4 | Carbon Disulphide* | 23725 TPA | 10950 TPA | 34675 TPA | |
| 5 | Anhydrous Sodium Sulphate (By Product) | 83038 TPA | 83038 – 127750 TPA | 166076 – 210788 TPA | |
| 6 | Captive Power Plant | 25 MW | 30 MW | 55 MW | |
| <i>*Not listed in the Schedule to EIA Notification 2006 and subsequent amendments therein</i> | | | | | |

| Table-1 | | | | | | |
|---|-----------------------------|---------------------------|----------------------|------------------------------------|-------------------------|--|
| Products=> | Viscose Staple Fibre | Carbon Di Sulphide | Sulfuric Acid | Sodium Sulphate (Byproduct) | Power Generation | Solvent Spun Cellulosic Fibre (Excel Fibre) |
| EC Amendment – As per EC No. J-11011/463/2007-IA II (I), Dated 20.12.2007 | 127750 | 23725 | 102200 | 83038 | 25 MW | - |
| EC Amendment – As per EC No. F. No. J-11011/321/2016-IA-II(I) Pt Dated – 15.01.2018 | 255500 | 34675 | 182500 | 166076 to 210788 | 55 MW | - |
| EC Amendment – EC No. F. No. J-11011/321/2016-IAII(I) EC issued on 17 th October 2019 (Total Capacity after Expansion) | 438000 | 65700 | 346750 | 348576 – 393288 | 55MW | 36500 |
| Total Production (Tons) – Apr-23 to Sep-23 | 207270 | 16319 | 109178 | 121029 | 29.71 | NIL |
| Total Production (Tons) – Oct-22 to Mar-23 | 162400 | 13408 | 102527 | 96138 | 28.08 | NIL |
| Note: State Environmental Impact Assessment Authority (SEIAA), Gujarat has issued an amendment vide letter no. SEIAA/Guj./EC/1(d), 4(d) & 5(f) /96/2011, dated 30-May-2011 & Letter No. SEIAA/GUJ/EC/1(d),4(d)&5(f)/98/2012 dt. 22.03.2012 for use of natural gas in place of charcoal in CS2 plant and 25MW powerplant which is installed by Grasim Chemical. As per the EC No. F. No. J-11011/321/2016-IAII(I) issued on 15.01.2018, remaining 30MW powerplant is installed by us. Kindly refer the Power generation details in above table. | | | | | | |

| | | |
|-----------|---|---|
| 4. | The existing land area is 222.63 ha and no additional land will be required for the proposed expansion. | Industry has setup proposed expansion on existing land area and no additional land is required. |
| | Industry will develop greenbelt in an area of 33 % i.e., 73.46 ha out of | Industry has developed greenbelt, in open space area |

222.63 ha area of the project.

and around factory complex along the boundary wall. Total 1,27,500 nos. tree have been planted till Sep-2023. Existing plantation details and proposed plan is tabulated in **Table No.2**

| Table No. 2 | | | |
|--------------------|--------------------------------|------------------------------------|------------------------|
| Sr. No | Duration | Area (Acre.) for Plantation | Number of Plant |
| 1 | Existing (Till FY; 2017-18) | 60 | 37,500 Plants |
| 2 | 2018-19 | 25 | 15,000 Plants |
| 3 | 2019-20 | 25 | 15,000 Plants |
| 4 | 2020-21 | 25 | 15,000 Plants |
| 5 | 2021-22 | 25 | 15,000 Plants |
| 6 | 2022-23 | 25 | 20,000 Plants |
| 7 | 2023-24 (Till Sep'23) | 10 | 10,000 Plants |
| Total=> | | 195 | 1,27,500 Plants |

Details of existing plant species and proposed plant species is enclosed as **Annexure-2**. Plant species are selected as per the directives of CPCB & DFO. Photograph of the existing green belts is attached in above EC Compliance report of EC Dated 17.10.2019.

The estimated project cost is Rs.2560 Crores.

We have spent Rs. 10 crores for debottlenecking of existing plant.
 Industry has taken following subsequent environment clearance for expansion in production capacities;
 • Environment Clearance No. F. No. J-11011/321/2016-IAII(I) dated 17.10.2019.
 Project cost after amendment in EC for expansion and installation of new higher capacity lines is Rs. 3500 Cr.

Employment will be provided to 1300 persons as direct & 1200

Noted and complied the condition

| | | |
|--|---|---|
| | <p>persons indirectly after expansion.</p> <p>Industry proposes to allocate Rs. 64.04 Crores towards enterprise social commitment</p> | <p>Industry has taken following subsequent environment clearance for expansion in production capacities;</p> <ul style="list-style-type: none"> • Environment Clearance No. F. No. J-11011/321/2016-IAII(I) dated 17.10.2019. <p>Industry has invested Rs. 10 Crores as a part of De-bottlenecking activity out of investment. Accordingly, industry has made action plan to spend Rs. 25 Lakhs in FY 20. RO drinking water facility is provided in the three nearby villages namely Sarnar, Saladra, Derol & spent 18.83 lacs as per the ESC plan.</p> <p>Remaining amount is invested for the betterment of Environment as per the OM issued by MOEF Impact assessment Division– F. No, 22-65/2017-IA.III, dated 30th September 2020. We have invested Rs. 173.67 Crore for the installation Best available technologies i.e. CAP plant for CS2 Recovery and the H2S recovery plant as a part of our ESC investment. This has brought down emission levels far below the statutory norms.</p> |
|--|---|---|

| | | |
|-----------|--|---|
| <p>5.</p> | <p>There are no National parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife corridors etc. within 10 km from the project site. Narmada River (estuarine region) is at a distance of 9.0 km in SSW direction from the project site.</p> | <p>Acknowledged, Plant is setup on Plot No.1 GIDC Industrial Estate, Vilayat, Taluka- Vagra, Dist.- Bharuch and there are no National parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife corridors etc. within 10 km from the project site. Narmada River (estuarine region) is at a distance of 9.0 km in SSW direction from the project site.</p> |
|-----------|--|---|

| <p>6.</p> | <p>The total fresh water requirement is 35,000 m3/day, which will be met from Gujarat Industrial Development Cooperation (GIDC) water supply.</p> | <p>GIDC offer cum allotment letter details are mentioned in Table No. 03.</p> <table border="1" data-bbox="1261 1270 2065 1450"> <tr> <th colspan="2" data-bbox="1261 1270 2065 1318">Table No. 03</th> </tr> <tr> <td data-bbox="1261 1318 1675 1450">1) Letter No.</td> <td data-bbox="1675 1318 2065 1450">GIDC/POJ/MKT/GRASI M/575, Dated 06th December-2006</td> </tr> </table> | Table No. 03 | | 1) Letter No. | GIDC/POJ/MKT/GRASI M/575, Dated 06 th December-2006 |
|---------------|---|--|--------------|--|---------------|--|
| Table No. 03 | | | | | | |
| 1) Letter No. | GIDC/POJ/MKT/GRASI M/575, Dated 06 th December-2006 | | | | | |

| | | | |
|--|--|--|--|
| | | Agreement for Water Supply | 15.60 MLD |
| | | Effluent Discharge | 12.48 MLD |
| | | 2) Letter No. | GIDC/SE/CG//BRH/1236 Dated 29th December-2016 |
| | | Agreement for Water Supply | 25.00 MLD |
| | | Effluent Discharge | 19.40 MLD |
| | | 3) Letter No. | GIDC/BRH/WS/494 Dated 3rd.July,2019 |
| | | Agreement for Water Supply | 35.00 MLD |
| | | Effluent Discharge | 23.00 MLD |
| | | Agreement of water supply is made with GIDC on 06.12.2006, 29.12.2016 and 03.07.2019. | |
| | | Effluent generated from the project will be treated in the existing effluent treatment plant, and the treated effluent will be discharged into Bay of Kambhat through GIDC pipeline. | The Effluent generated from plant is treated in the existing effluent treatment plant, and the treated effluent is discharged into Bay of Kambhat through GIDC pipeline. Treated effluent quality for the period of Apr-23 to Sep-23 is summarized as under Table no. 04. |

Table No.04

Third Party Lab Details: -

Agency: - Unistar Environment & Research lab Pvt. Ltd, **Address: -**GIDC, Char Rasta, Vapi

NABL: - NABL Certificate Number TC-7652

| Month | FINAL TREATED EFFLUENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|------------------------|--------------|--------------|--------------|---------------|------------|-------------|-------------|-------------|------------------------|------------------|---------------|------------|--------------------|------------------|------------|------------|------------|-------------|-------------|-------------|-----------|------------|------------|------------|-------------|-------------|------------------------|--------|
| | pH | Temp. | TSS | Oil & Grease | Phenolic Comp | Cyanide | Fluoride | Sulphide | Amm. Nas N | Total Kzeld Nit. (TKN) | Nitrate Nitrogen | Total Res Cl2 | Arsenic | Trivalent Chromium | Hexavalent Chrom | Cu | Pb | Hg | Ni | Zn | Cd | BOD | COD | Selenium | Vanadium | Mn | Iron | Bio Assay-96 Hrs. fish | |
| Unit | - | deg C | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit |
| Limit | 06-09 | | 100 | 10 | 5 | 0.2 | 15 | 5 | 50 | 50 | 50 | 1 | 0.2 | 2 | 0.1 | 3 | 0.1 | 0.01 | 3 | 15 | 0.05 | 100 | 250 | 0.05 | 0.2 | 2 | 3 | 90% | |
| Apr-23 | 7.28 | 30.00 | 38.00 | BDL | BDL | BDL | 1.28 | BDL | 2.30 | 5.90 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.13 | 0.08 | 0.03 | 70 | 240 | BDL | BDL | 0.22 | 0.74 | Complied | |
| May-23 | 7.21 | 32.00 | 22.00 | BDL | BDL | BDL | 2.50 | 1.70 | 2.80 | 7.00 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.08 | 0.18 | 0.04 | 80 | 224 | BDL | BDL | 0.23 | 1.08 | Complied | |
| Jun-23 | 7.35 | 31.00 | 16.00 | BDL | BDL | BDL | 2.40 | BDL | 2.80 | 6.50 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.17 | 0.13 | 0.04 | 72 | 208 | BDL | BDL | 0.18 | 0.89 | Complied | |
| Jul-23 | 7.54 | 30.00 | 28.00 | BDL | BDL | BDL | 0.57 | 1.10 | BDL | 4.50 | 0.20 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.13 | 0.19 | BDL | 48 | 160 | BDL | BDL | BDL | 1.05 | Complied | |
| Aug-23 | 7.10 | 30.00 | 22.00 | BDL | BDL | BDL | 1.21 | 0.60 | BDL | 4.00 | 2.60 | BDL | BDL | BDL | BDL | 0.05 | BDL | BDL | 0.40 | 0.81 | BDL | 65 | 208 | BDL | BDL | 0.35 | 1.08 | Complied | |
| Sep-23 | 7.22 | 29.80 | 8.00 | BDL | BDL | BDL | 1.19 | 4.40 | BDL | 5.10 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.24 | 0.10 | BDL | 56 | 204 | BDL | BDL | 0.44 | 1.79 | Complied | |
| Min | 7.10 | 29.80 | 8.00 | BDL | BDL | BDL | 0.57 | 0.60 | 2.30 | 4.00 | 0.20 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.08 | 0.08 | 0.03 | 48 | 160 | BDL | BDL | 0.18 | 0.74 | Complied | |
| Max | 7.54 | 32.00 | 38.00 | BDL | BDL | BDL | 2.50 | 4.40 | 2.80 | 7.00 | 2.60 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.40 | 0.81 | 0.04 | 80 | 240 | BDL | BDL | 0.44 | 1.79 | Complied | |
| Avg | 7.28 | 30.47 | 22.33 | BDL | BDL | BDL | 1.53 | 1.95 | 2.63 | 5.50 | 1.40 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.19 | 0.25 | 0.04 | 65 | 207 | BDL | BDL | 0.28 | 1.11 | Complied | |

| | | |
|--|---|--|
| | <p>Total power requirement of 55 MW will be met from the captive power plant. Three 175 TPH coal/pet coke fired boilers will be installed for the proposed CPP.</p> | <p>25 MW captive powerplant is installed by Grasim Chemical Division as per State Environmental Impact Assessment Authority (SEIAA), Gujarat has issued an amendment vide letter no. SEIAA/Guj. /EC/1(d), 4(d) & 5(f) /96/2011, dated 30-May-2011 & Letter No. SEIAA/GUJ/EC/1(d),4(d)&5(f)/98/2012 dt. 22.03.2012. Remaining 30 MW Captive Power Plant with one 175TPH Coal fired boiler is installed by Industry.</p> |
| | <p>Multi cyclone separator/ bag filter with a stack of height of 125 m will be installed to control the particulate emissions within prescribed norms.</p> | <p>Industry has installed ESP instead of the Multi Cyclone Separator/bag filter with a stack height of 125m to control the particulate emission within prescribe norms.</p> |

| | | |
|-----|---|--|
| | Existing unit has 2 DG sets of 1250 KVA capacity, that are used as standby during power failure. Stack height of 30 m has been provided as per CPCB norms for the existing DG sets | Existing DG sets are used as standby during power failure. Stack height of 30 m has been provided as per CPCB norms. |
| 7. | All Manmade Fibres Manufacturing (Rayon) projects are listed at 5(d) of Schedule to the Environment Impact Assessment (EIA) Notification, 2006, under Category 'A' and requires appraisal at central level by Expert Appraisal Committee (EAC) in the Ministry | Acknowledged |
| 8. | The terms of references (ToR) was granted on 2nd February, 2017 with the exemption from public consultation in terms of para 7 (i), Point III, Stage (3)(i)(b) of EIA Notification, 2006 | Acknowledged |
| 9. | The proposal for environmental clearance (EC) was placed before the EAC (Industry-2) in its 25 th meeting held during 5-7 July, 2017 in the Ministry. The project proponent and their consultant M/s J. M. EnviroNet Pvt Ltd, presented the EIA/EMP report as per the ToR. The EAC, found the EIA/EMP report satisfactory and in consonance with the ToR, and recommended the proposal for environmental clearance with certain conditions. | Acknowledged |
| 10. | Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the project ' Expansion of Viscose Staple Fibre from 1,27,750 TPA to 2,55,500 TPA, Captive Power Plant from 25 MW to 55 MW and setting up Solvent Spun Cellulosic Fibre unit of 36,500 TPA ' by M/s Grasim Industries Ltd (Grasim Cellulosic Division) at Plot No. 1, GIDC Industrial Area Vilayat, Tehsil Vagra, District Bharuch (Gujarat), under the provisions of EIA Notification, 2006 and the amendments made therein, subject to the compliance of terms and conditions, as under:- | Acknowledged |

10. Terms & Conditions

| | | |
|-----|---|---|
| i) | The environmental clearance issued by SEIAA vide letter dated 30th May, 2011 for the project 'Chlor-alkali unit with value added products (as a backward integration of VSF plant)' at the same premises, should be rectified to reflect M/s Grasim Industries Ltd (Grasim Chemical Division) as the project proponent in place of M/s Grasim Cellulosic (A Unit of Grasim Industries Ltd). | The Amendment in Name change has been done by SEIAA by Letter No. SEIAA/GUJ/EC/1(d),4(d)&5(f)/678/2019 dated 04 th May 2019; Now name of industry shall be read as M/S. Grasim Industries Limited (Chemical Division) instead of M/S. Grasim Cellulosic (A Unit of Grasim Industries Limited) in environmental clearance issued by SEIAA vide letter dated 30th May, 2011. |
| ii) | The Monitoring report on compliance status of the conditions | The monitoring report on compliance status of the conditions |

| | | | | | | |
|----------------------------------|---|---|---------------------|----------|----------------------------------|---|
| | stipulated by SEIAA in the environmental clearance dated 30 th May, 2011, shall be submitted to the Ministry through the Regional Office, for further review of the project, if so required. | stipulated by SEIAA in the environmental clearance dated 30 th May 2011 has been submitted to Regional office MoEFCC, Bhopal vide our letter dated 20.10.2016. Regional office of MoEFCC has forwarded monitoring report to MOEFCC, Delhi vide their letter No. 18-A-80/2011 (SEAC)/ 1336 dated 30.11.2017. | | | | |
| iii) | Effluent shall be treated properly before discharging to Bay of Kambhat through GIDC pipeline. | <p>A full-fledged Effluent Treatment Plant is installed having Primary and Secondary treatment facility based on extended aeration activated sludge process. Effluent Treatment Plant has of following major equipment.</p> <ol style="list-style-type: none"> 1. Grit Chamber – 2 Nos 2. Primary Clarifier – 2 Nos 3. Biological Reactor - 7 aeration Lagoons 4. Secondary Clarifier - 2 Nos 5. Treated Effluent RO – 14 MLD Capacity <p>The effluent is treated in effluent treatment plant & the quality of effluent is verified before its discharge to Bay of Kambhat through GIDC pipeline.</p> <p>Treated effluent quality for the period of Apr-23 to Sep-23 is summarized in Table no. 04.</p> | | | | |
| iv) | At least, 50 % of the fuel requirement shall be met from natural gas and the rest 50 % may be met from briquette/coal (with Sulphur content less than 0.5%). | This Condition has amended for use of 100% coal with ETP bio mass vide letter no. F No. J -11011/321/2016-IA-II(I) dated 16 th August 2018. | | | | |
| v) | Proposed effluent generation (27160 KLD) shall be reused after treating/processing through RO, etc. and fresh water requirement shall accordingly be restricted to 22,000 KLD | The Condition is amended for 28,000 KLD water after reusing/recycling of 7,350 KLD through RO plant vide letter no. F No. J -11011/321/2016-IA-II(I) dated 16 th August 2018. | | | | |
| vi) | Smart energy conservation equipments (like LED/solar light) shall be installed in the factory and premises. | <p>LED based lighting are preferred in the newly commissioned plant. LED & Solar LED Lights installed in the period (Apr'23 to Sep'23) is as below:</p> <table border="1" style="width: 100%;"> <tr> <td>LED Light Installed</td> <td>1170 Nos</td> </tr> <tr> <td>LED Solar Street light Installed</td> <td>-</td> </tr> </table> | LED Light Installed | 1170 Nos | LED Solar Street light Installed | - |
| LED Light Installed | 1170 Nos | | | | | |
| LED Solar Street light Installed | - | | | | | |
| vii) | As assured, 5 MW power (of the total power requirement) shall be generated from solar power/renewable energy sources. | We have started the procuring of renewable 5 MW power from Renew Surya Uday Pvt. Ltd. | | | | |

| | | |
|-------|--|--|
| viii) | Green belt of 10 m width shall be developed along the periphery of the plant with three layers of trees. At least 33 % of the area shall be developed as green area with trees | Industry has developed greenbelt, in open space area and around factory complex along the boundary wall. Total 1,27,500 nos. trees have been planted till Sep-2023. Existing plantation details and proposed plan is tabulated in Table No.2 .Details of existing plant species and proposed plant species along with is enclosed as Annexure-2 . Plant species are selected as per the directives of CPCB & DFO. Photograph of the existing green belts is available above in EC Compliance report of EC Dated 17.10.2019 |
|-------|--|--|

| | | |
|-----|---|---|
| ix) | The proponent shall plant and maintain at least 1 lakh native trees for five year in the nearby villages. | In FY 2023-24 (till Sep'23), We adopted conventional and Miyawaki technique and planted 88070 saplings with proper care and protection. |
|-----|---|---|



Survey map



GPS mapping



Actual plantation

| | | |
|----|--|---|
| x) | Enterprises social commitment (ESC) plan shall be implemented with at least 2.5 % of the project cost. As proposed, Hospital (with modern facilities) may be constructed/ maintained, and also construct and maintain modern RO drinking water facility in the five nearbyvillage. | Industry has taken following subsequent environment clearance for expansion in production capacities; <ul style="list-style-type: none"> • Environment Clearance No. F. No. J-11011/321/2016-IAII(I) dated 17.10.2019. Industry has invested Rs. 10 Crores as a part of De-bottlenecking |
|----|--|---|

| | | |
|--|--|---|
| | | <p>activity out of investment. Accordingly, industry has made action plan to spend Rs. 25 Lakhs in FY 20. RO drinking water facility provided in the three nearby villages namely Sarnar, Saladra, Derol & spent 18.83 lacs as per the ESC plan.</p> <p>Industry has additionally invested Rs. 173.67 Crore for the installation Best available technologies i.e. CAP plant for CS2 Recovery and the H2S recovery plant which is the part of our ESC investment. This has brought down emission levels far below the norms.</p> |
| <p>10.1 General Conditions: -The grant of environmental clearance is subject to compliance of other general conditions as under;</p> | | |
| i. | <p>The project authorities must strictly adhere to the stipulations made by the Central Pollution Control Board, State Pollution Control Board, State Government and any other statutory authority.</p> | <p>Industry strictly adhere to the stipulations made by the Central Pollution Control Board, State Pollution Control Board, State Government and any other statutory authority. Industry regularly submits the Six-Monthly Compliance report CPCB and GPCB along with MoEF&CC.</p> |
| ii. | <p>No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any</p> | <p>No expansion or modification is done in industry without prior permission of Ministry. Expansion is done with following prior permission / clearance.</p> <ul style="list-style-type: none"> • Environment Clearance No. F. No. J-11011/321/2016-IAII(I) dated 17.10.2019 |
| iii. | <p>The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated</p> | <p>There are 4 nos. AAQ monitoring stations installed in consultation with GPCB in nearby 4 villages, at Derol, Vilayat, Sarnar and Argama within 2-3 kms radius. Also monitoring AAQ inside plant periphery. Monthly monitoring is being done by NABL accredited Lab. The Ambient Air quality results for the period of Apr-23 to Sep-23 is tabulated as under Table No. 05.</p> |
| <p>Agency: - Unistar Environment & Research Lab Pvt. Ltd</p> <p>Instrument ID & Name: - 1) Respirable Dust Sampler - RDS: SR. No. 160203106–UERL/AIR/RDS/ 02(Calibration Period: - 31.07.2023 – 30.07.2024) 2) Fine Particulate Sampler - FPS: SR. No. 160402021 - UERL/AIR/FPS/08– (Calibration Period: - 31.07.2023 – 30.07.2024)</p> | | |

Table No. 05

| Month | SARNAR | | | | | | DEROL | | | | | | ARGAMA | | | | | | VILAYAT | | | | | |
|----------------|-------------|-------------|-------------|-------------|------------|------------|-------------|-------------|-------------|-------------|------------|------------|-------------|-------------|-------------|-------------|------------|------------|-------------|-------------|-------------|-------------|------------|------------|
| | SPM PM10 | SPM PM2.5 | SO2 | NO2 | H2S | CS2 | SPM PM10 | SPM PM2.5 | SO2 | NO2 | H2S | CS2 | SPM PM10 | SPM PM2.5 | SO2 | NO2 | H2S | CS2 | SPM PM10 | SPM PM2.5 | SO2 | NO2 | H2S | CS2 |
| | µg/m3 | | | | | | µg/m3 | | | | | | µg/m3 | | | | | | µg/m3 | | | | | |
| Norm | 100 | 60 | 80 | 80 | 150 | 100 | 100 | 60 | 80 | 80 | 150 | 100 | 100 | 60 | 80 | 80 | 150 | 100 | 100 | 60 | 80 | 80 | 150 | 100 |
| Apr-23 | 80.4 | 29.2 | 25.1 | 27.1 | BDL | BDL | 72.6 | 26.7 | 23.7 | 25.5 | BDL | BDL | 74.2 | 23.2 | 18.6 | 20.3 | BDL | BDL | 76.6 | 25.9 | 20.3 | 22.2 | BDL | BDL |
| May-23 | 83.6 | 30.4 | 22.6 | 25.5 | BDL | BDL | 76.1 | 27.8 | 20.6 | 23.9 | BDL | BDL | 78.6 | 26.1 | 21.3 | 23.6 | BDL | BDL | 72.9 | 26.7 | 18.6 | 21.8 | BDL | BDL |
| Jun-23 | 76.9 | 28.3 | 18.6 | 20.6 | BDL | BDL | 82.1 | 31.1 | 23.0 | 25.8 | BDL | BDL | 83.8 | 31.2 | 20.4 | 23.2 | BDL | BDL | 78.6 | 29.7 | 21.6 | 25.1 | BDL | BDL |
| Jul-23 | 69.2 | 20.8 | 21.2 | 25.2 | BDL | BDL | 76.1 | 25.0 | 18.7 | 22.7 | BDL | BDL | 77.1 | 26.1 | 16.4 | 19.4 | BDL | BDL | 72.0 | 22.0 | 19.8 | 22.6 | BDL | BDL |
| Aug-23 | 73.6 | 23.1 | 23.2 | 25.2 | BDL | BDL | 82.1 | 30.8 | 19.8 | 21.7 | BDL | BDL | 81.2 | 25.9 | 19.4 | 21.8 | BDL | BDL | 78.4 | 29.4 | 21.6 | 24.3 | BDL | BDL |
| Sep-23 | 72.9 | 23.9 | 17.6 | 18.6 | BDL | BDL | 78.6 | 28.5 | 20.2 | 23.4 | BDL | BDL | 80.6 | 25.6 | 21.4 | 23.2 | BDL | BDL | 72.2 | 25.7 | 18.6 | 20.8 | BDL | BDL |
| Min | 69.2 | 20.8 | 17.6 | 18.6 | BDL | BDL | 72.6 | 25.0 | 18.7 | 21.7 | BDL | BDL | 74.2 | 23.2 | 16.4 | 19.4 | BDL | BDL | 72.0 | 22.0 | 18.6 | 20.8 | BDL | BDL |
| Max | 83.6 | 30.4 | 25.1 | 27.1 | BDL | BDL | 82.1 | 31.1 | 23.7 | 25.8 | BDL | BDL | 83.8 | 31.2 | 21.4 | 23.6 | BDL | BDL | 78.6 | 29.7 | 21.6 | 25.1 | BDL | BDL |
| Average | 76.1 | 26.0 | 21.4 | 23.7 | BDL | BDL | 77.9 | 28.3 | 21.0 | 23.8 | BDL | BDL | 79.3 | 26.4 | 19.6 | 21.9 | BDL | BDL | 75.1 | 26.6 | 20.1 | 22.8 | BDL | BDL |

Note: All results are in µg/m3 and till date, the emission level has never exceeded prescribed limits. (Refer Table No.05)

| | | |
|-----|--|---|
| iv. | The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed | The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 th November, 2009 is compiled by Industry. |
| v. | The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time). | Industry has provided relevant noise control measures such as acoustic hoods, silencers, acoustic enclosures at all noise sources. Ambient noise inside the plant and around the plant in nearby villages conforms to the Environment (Protection) Act, 1986 Rules, 1989. |

The Noise level (dB) at workroom for last 6 months is tabulated as under Table No. 06

Certification Agency: - Tools MRO Safety / **Address:** - 806 – 808, Abhinandan Royale, Opp. Rajhans Olympia, Bhatar Road, Surat – 395007, Gujarat, India

Reference Standard: - Sound Level Calibrator, Sr. No. 3421624, Calibration Valid Up to: 02.02.2024

Table No.06 (UOM – dBA)

| Area | Apr-23 | | May-23 | | Jun-23 | | Jul-23 | | Aug-23 | | Sep-23 | |
|---------------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| | Day | Night | Day | Night | Day | Night | Day | Night | Day | Night | Day | Night |
| | Time | Time | Time | Time | Time | Time | Time | Time | Time | Time | Time | Time |
| | 75 | 70 | 75 | 70 | 75 | 70 | 75 | 70 | 75 | 70 | 75 | 70 |
| Main Gate | 64.3 | 58.3 | 63.4 | 57.4 | 63.2 | 57.2 | 63.6 | 57.6 | 63.6 | 57.6 | 62.7 | 56.7 |
| Material Gate | 68.2 | 63.1 | 69.1 | 64.0 | 68.7 | 63.6 | 68.3 | 63.2 | 68.3 | 63.2 | 69.0 | 63.9 |
| OHC | 63.7 | 60.7 | 64.9 | 61.9 | 65.0 | 62.0 | 64.3 | 61.3 | 64.3 | 61.3 | 64.8 | 61.8 |

| | | | | | | | | | | | | |
|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| Derol | 53.1 | 42.9 | 54.6 | 43.8 | 54.2 | 43.0 | 53.7 | 43.5 | 52.7 | 42.5 | 52.3 | 42.1 |
| Vilayat | 52.6 | 42.0 | 53.2 | 42.6 | 53.9 | 44.3 | 53.8 | 44.2 | 51.8 | 43.2 | 51.6 | 44.0 |
| Sarnar | 51.9 | 43.2 | 52.1 | 43.4 | 52.6 | 43.9 | 52.6 | 42.9 | 52.6 | 42.9 | 50.6 | 43.9 |
| Argama | 52.0 | 41.2 | 53.8 | 44.0 | 52.8 | 42.0 | 53.4 | 41.6 | 53.4 | 43.6 | 52.8 | 42.0 |
| Min | 51.9 | 41.2 | 52.1 | 42.6 | 52.6 | 42.0 | 52.6 | 41.6 | 51.8 | 42.5 | 50.6 | 42.0 |
| Max | 68.2 | 63.1 | 69.1 | 64.0 | 68.7 | 63.6 | 68.3 | 63.2 | 68.3 | 63.2 | 69.0 | 63.9 |
| Avg. | 58.0 | 50.2 | 58.7 | 51.0 | 58.6 | 50.9 | 58.5 | 50.6 | 58.1 | 50.6 | 57.7 | 50.6 |

Note: All results are within prescribed limits. (Refer Table No.06)

| | | |
|-----|--|---|
| vi. | The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water | Survey has been done for roof top rain water harvesting. Job is already taken up at some locations, nearby locations to reservoir are diverted to fresh water reservoir, following are the tentative details of water saving done through implemented scheme. |
|-----|--|---|

Tentative Water Saving through Rain Water Harvesting (Apr-23 to Sep-23)

| Reservoir Area-1 | Reservoir Area-2 | fire house area | Area | Rainfall | | | Rainwater Harvesting |
|------------------|------------------|-----------------|--------|----------|-------|--------|----------------------|
| M2 | | | | (MM) | (CM) | (Mtr.) | M3 |
| 86400 | 43200 | 240 | 129840 | 668.4 | 66.84 | 0.6684 | 86785.05 |

| | | |
|-------|---|---|
| vii. | Training shall be imparted to all employees on safety and health aspects of chemicals handling. | Trainings are imparted regularly to all employees on safety and health aspects of chemicals handling and records maintained. |
| | Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. | We have established an Occupational Health Center (OHC). Prior to joining Pre-employment checkup is done and on regular interval routine periodical medical examinations for all employees are carried out. Records are maintained at OHC as per the Factories Act. |
| | Training to all employees on handling of chemicals shall be imparted. | Trainings are imparted to all employees on safety and health aspects of chemicals handling. |
| viii. | The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. | All conditions as prescribed in EC, NOC and CC&A is maintained and monitored regularly. Detailed status of EIA/EMP is attached as Annexure-5 |
| ix. | The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by | We have been undertaking various community development measures in and around 25 Villages and 7674 Nos. of |

| | | |
|----|---|---|
| | involving local villages and administration. | beneficiaries covered from Apr-23 to Sep-23. Unit has proposed Eco development plan yearly basis through CSR activities and submitting update on CSR activities in Annual Environment Audit Report to GPCB on yearly basis. |
| x. | The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment. | Eco developmental measures including community welfare are being done under CSR initiatives as attached in & its expenditure details are in below Table No.07 . |

| Table No. 07 | | | | |
|---------------------|---|-----------------------------|--|-----------------------------------|
| Financial Year | Average Net Profit (in Crore) of the company (As per 135(S) company's Act) | Allocate CSR Amount (2%) | Actual Spent in CSR (Amount in Crore) | % Spent CSR against Net Profit |
| 2015-2016 | 791.00 | 15.82 | 15.05 | |
| 2016-2017 | 790.00 | 15.80 | 18.06 | |
| 2017-2018 | 1107.00 | 22.14 | 29.84 | |
| 2018-2019 | 1699.00 | 33.97 | 47.14 | |
| 2019-2020 | 2421.32 | 48.43 | 58.98 | |
| 2020-2021 | 2253.08 | 45.06 | 84.66 | |
| 2021-2022 | 1798.71 | 35.97 | 42.47 | |
| 2022-2023 | 1497.56 | 29.95 | 54.19 | |
| Total=> | 12357.67 | 247.14 | 350.39 | 2.84% |

| | | |
|-----|---|---|
| xi. | A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. | A Separate Environment Management Cell already exists with technically qualified personnel who are under the direct control of senior executives for Environment Management and monitoring function. Organogram of environment management cell is Enclosed as Annexure-3 . Detail of testing facility & testing equipment available in environmental laboratory is enclosed as Annexure-4 . |
|-----|---|---|

| | | |
|-----|---|---|
| xi. | The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for | Separate fund is enmarked on annual basis for Environmental management Please refer Table No.08 for fund Utilization details. |
|-----|---|---|

environment management/ pollution control measures shall not be diverted for any other purpose.

Table No.08

| Sl. | Particular | Capex | Opex FY-17 | Opex FY-18 | Opex FY-19 | Opex FY-20 | Opex FY-21 | Opex FY-22 | Opex FY-23 |
|--------------------------------------|--|---------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| 1 | Effluent treatment Plant | 79.00 | 11.50 | 10.56 | 11.0 | 11.00 | 13.35 | 14.85 | 35.60 |
| 2 | Air Pollution Control (Including EDTA & CAP Plant) | 350.00 | 03.50 | 04.00 | 3.3 | 5.17 | 4.70 | 14.23 | 162.85 |
| 3 | Green belt development | 00.50 | 00.50 | 00.55 | 1.3 | 0.51 | 0.13 | 0.08 | 1.09 |
| 4 | Waste Management | 01.50 | 00.50 | 00.60 | 1.6 | 3.07 | 2.90 | 1.78 | 4.37 |
| Total Amount (In Crore) => | | 431.00 | 16.00 | 15.71 | 17.20 | 19.75 | 21.08 | 30.94 | 203.91 |

| | | |
|-------|--|---|
| xiii. | A copy of the clearance letter shall be sent by the project proponent to concern Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. | A copy of clearance letter is submitted to Panchayat & GIDC authorities. |
| xiv. | The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e- mail) to the respective Regional Office of MoEF & CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the company. | We are regularly submitting six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e- mail) to the respective Regional Office of MoEF & CC, the respective Zonal Office of CPCB and GPCB. A copy of Environmental Clearance and six-monthly compliance status report is also posted on the website of the company. |
| xv. | The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the | The environmental statement (Form-V) is regularly submitted for each financial year ending 31 st March to the Gujarat Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, Copy of the EC Compliance report and Environment Statement is posted on company website. Industry also submits through e-mail, the Environment Statement along |

| | | |
|-------------|---|---|
| | <p>respective Regional offices of MoEF&CC by e-mail</p> | <p>with EC compliance report to regional office of MoEF&CC. Environment Statement Form-V for FY-23 is submitted vide out letter dated 02.09.2023.</p> |
| <p>xvi.</p> | <p>The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at http://moef.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry</p> | <p>EC issued on 15.01.2018, and advertisement released on 18.01.2018.</p> |

| | | |
|--|--|---|
| | <p>EC Amendment on 15.01.2018 & following are the advertisement details. Name of Paper: - Times of India Date of Issue: - 19.01.2018 In: - English language</p> | <p>Name of Paper: - Gujarat Samachar Date of Issue: - 19.01.2018 In: - Gujarati language</p> |
|--|--|---|



| | | |
|-------|--|---|
| xvii. | The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project. | We have started manufacturing of Viscose Staple fibre in Feb-22, Information given to BSE-NSE regarding completion and commissioning of the plant. Project / plant activities are as under. (1) Amended EC received on 17th Oct 2019, (2) Civil & Civil & another const. work started in Feb-2020. (3) Line commissioned in Feb-2022. |
| 11. | The Ministry may revoke or suspend the clearance, at subsequent stages, if implementation of any of the above conditions is not satisfactory. | Acknowledged |
| 12. | The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions. | Acknowledged |
| 13. | The above conditions will be enforced, <i>inter alia</i> under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules | Noted, Industry is complying all the applicable provisions of the Water (Prevention & control of pollution) Act-1977, the Air (Prevention & control of pollution) Act-1981, the Environment (Protection) Act- 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act-1991. |

Note: Copy of the Monthly Environmental Monitoring reports by NABL accredited laboratory for Effluent and Emission for the last month of the compliance period i.e., Sep-23 is enclosed as **Annexure-6** for reference.

Compliance status on Environmental Clearance
MOEF Ref. Letter No.: J-11011/463/2007-IA II (I), dated 20-12-2007

Compliance Status Report for “Environmental Clearance” Accorded by the MoEF

For

Grasim Cellulosic Division (GCD), Vilayat

Compliance status on Environmental Clearance

MOEF Ref. Letter No.: J-11011/463/2007-IA II (I), dated 20-12-2007

| Sr. No. | Stipulation | Compliance Status |
|---------|--|--|
| 1 | This reference to application No. Nil, dated 9 th May-2007 along with Form-I & pre-feasibility report seeking the environmental clearance for the above-mentioned project and subsequent correspondence vide letters dated 28 th September 2007, 13 th October 2007 and 30 th November 2007. | Acknowledged |
| 2 | The Ministry of Environment & Forest has examined the proposal along with the correspondence mentioned above and noted the proposal is to set up the Viscose Staple Fibre (VSF) plant at plot # 1, GIDC Industrial estate, Vilayat, Vagra, Bharuch district Gujarat by M/s Grasim Industries Limited (Grasim Cellulosic Division) | Industry is setup at Plot No.1, GIDC Industrial Area, Vilayat, Taluka Vagra, District Bharuch (Gujarat). Latitude: 21 deg 46’8” and 21 deg 47’11” North Longitude: 72 deg 53’18”and 72 deg 54’49” East |
| | The Total Cost of the Project is Rs. 1200 Crores | Total Cost 1703 Crores |
| | No ecological sensitive areas are located within 15 KM periphery of the plant site. | No ecological sensitive areas are located within 15 KM periphery of the plant site. |
| | The proposed plant is to be located in notified Industrial area at GIDC. | Plant is located on Plot No.1 of GIDC Industrial Estate, Vilayat, Taluka- Vagra, District – Bharuch, Gujarat |
| | Total land taken on lease from Gujarat Industrial Development Corporation for the plant is 567 Acres. | 530 Acre land provided on lease from GIDC after having provision of land for power corridor vide Letter No. GIDC/PROJ/MKT/GRASIM/575 dt. 06.12.2006 |

| | | | | |
|---|---|----------------------|--|-----------------------|
| | Following will be the products and production capacity; | | Industry has taken following subsequent environment clearances for expansion in production capacities; <ul style="list-style-type: none"> • Environment Clearance No. F. No. J-11011/321/2016-IA-II(I) Pt Dated – 15.01.2018 • Environment Clearance No. F. No. J-11011/321/2016-IA-II(I) Pt Dated – 16.08.2018 • Environment Clearance No. F. No. J-11011/321/2016-IAII(I) dated 17.10.2019 Summary of total production capacities of all environmental clearances and actual production during the reporting period is mentioned in Table No.1 | |
| | Sr. No. | Products | | Capacity |
| | 1 | Viscose Staple Fibre | | 127750 Tonnes / annum |
| | 2 | Carbon Disulphide | | 23725 Tonnes / annum |
| | 3 | Sulphuric Acid | | 10220 Tonnes / annum |
| | 4 | Power Generation | | 25 MW |
| | Sr. No. | By-Products | | Capacity |
| 1 | Anhydrous Sodium Sulphate | 83038 Tonnes / annum | | |

Table No. 1

| Products=> | Viscose Staple Fibre | Carbon Di Sulphide | Sulfuric Acid | Sodium Sulphate (Byproduct) | Power Generation | Solvent Spun Cellulosic Fibre (Excel Fibre) |
|--|-----------------------------|---------------------------|----------------------|------------------------------------|-------------------------|--|
| EC Amendment – As per EC No. J-11011/463/2007-IA II (I), Dated 20.12.2007 | 127750 | 23725 | 102200 | 83038 | 25 MW | - |
| EC Amendment - As per EC No. F. No. J-11011/321/2016-IA-II(I) Pt Dated – 15.01.2018 | 255500 | 34675 | 182500 | 166076 to 210788 | 55 MW | - |
| EC Amendment – As per EC No. F. No. J-11011/321/2016-IA-II(I) Pt Dated – 16.08.2018 | 255500 | 34675 | 182500 | 166076 to 210788 | 55 MW | - |
| EC Amendment - EC No. F. No. J-11011/321/2016-IAII(I) EC issued on 17th October 2019 (Total Capacity after Expansion) | 438000 | 65700 | 346750 | 348576 - 393288 | 55MW | 36500 |
| Total Production (Tons) – Apr-23 to Sep-23 | 207270 | 16319 | 109178 | 121029 | 29.71 | NIL |
| Total Production (Tons) – Oct-22 to Mar-23 | 162400 | 13408 | 102527 | 96138 | 28.08 | NIL |

| Raw Material Consumption (TPA) As per EC F. No. J-11011/463/2007- IA-II(I), Dated – 20.12.2007 | Pulp (Dissolving Grade) 130305 | Caustic Soda 100% 74095 | Sulphur 55079 | Charcoal 7118 |
|---|---|------------------------------------|--------------------------|--------------------------|
| Total Consumption (Tons) – Apr-23 to Sep-23 | 209176 | 92017 | 50531 | NIL |
| Total Consumption (Tons) – Oct-22 to Mar-23 | 163929 | 73018 | 44202 | NIL |

Justification for Raw Material Quantity: Raw Material consumption is increased due to increase in VSF production after receiving EC amendment for expansion in Jan-2018 and Oct-2019.

Note: State Environmental Impact Assessment Authority (SEIAA), Gujarat has issued an amendment vide letter no. SEIAA/Guj. /EC/1(d), 4(d) & 5(f) /96/2011, dated 30-May-2011 & Letter No. SEIAA/GUJ/EC/1(d),4(d)&5(f)/98/2012 dt. 22.03.2012 for use of natural gas in place of charcoal in CS2 plant and 25MW powerplant which is installed by Grasim Chemical. As per the EC No. F. No. J-11011/321/2016-IAII(I) issued on 15.01.2018, the remaining 30MW powerplant is installed by us. Kindly refer the Power generation details in above table.

| 3 | Pulp dissolving grade (130305 Tonnes / annum), Caustic Soda 100% (74095 Tonnes / annum), Sulphur (55079 Tonnes / annum), Charcoal (7118 Tonnes / annum), Zinc (383 Tonnes / annum) and Coal (255500 Tonnes / annum) will be used as Raw Material | Industry has taken environment clearance for expansion in production capacities on 15.01.2018 and 17.10.2019. Details of total Raw Materials consumed during the reporting period is mentioned in Table No.1 | | | | | | | | | | | | | | | | | | |
|--------------|--|--|---|--|--------------|----------------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|-------------|--------------|
| 4 | Total Water Requirement of the plant will be 25,000 m3/day and will be sourced from Narmada River, supplied by GIDC. | <table border="1"> <thead> <tr> <th colspan="2">Table No.02 Water Consumption (m3/day)</th> </tr> <tr> <th>Month</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>Apr-23</td> <td>18558</td> </tr> <tr> <td>May-23</td> <td>16972</td> </tr> <tr> <td>Jun-23</td> <td>16772</td> </tr> <tr> <td>Jul-23</td> <td>16167</td> </tr> <tr> <td>Aug-23</td> <td>16748</td> </tr> <tr> <td>Sep-23</td> <td>17387</td> </tr> <tr> <td>Avg.</td> <td>17101</td> </tr> </tbody> </table> | Table No.02 Water Consumption (m3/day) | | Month | Average | Apr-23 | 18558 | May-23 | 16972 | Jun-23 | 16772 | Jul-23 | 16167 | Aug-23 | 16748 | Sep-23 | 17387 | Avg. | 17101 |
| | Table No.02 Water Consumption (m3/day) | | | | | | | | | | | | | | | | | | | |
| Month | Average | | | | | | | | | | | | | | | | | | | |
| Apr-23 | 18558 | | | | | | | | | | | | | | | | | | | |
| May-23 | 16972 | | | | | | | | | | | | | | | | | | | |
| Jun-23 | 16772 | | | | | | | | | | | | | | | | | | | |
| Jul-23 | 16167 | | | | | | | | | | | | | | | | | | | |
| Aug-23 | 16748 | | | | | | | | | | | | | | | | | | | |
| Sep-23 | 17387 | | | | | | | | | | | | | | | | | | | |
| Avg. | 17101 | | | | | | | | | | | | | | | | | | | |
| | Necessary agreement of water supply is made with GIDC | Agreement of water supply is made with GIDC on 06.12.2006, 24.12.2016 and 03.07.2019, details are as under; | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|--|----------------------|--|----------------------------|-----------|--------------------|-----------|----------------------|---|----------------------------|-----------|--------------------|-----------|----------------------|--|----------------------------|-----------|--------------------|-----------|
| | | <table border="1"> <tr> <td colspan="2">Following are the GIDC offer cum allotment letter details.</td> </tr> <tr> <td>1) Letter No.</td> <td>GIDC/POJ/MKT/GRASIM/575 Dated 06th December-2006</td> </tr> <tr> <td>Agreement for Water Supply</td> <td>15.60 MLD</td> </tr> <tr> <td>Effluent Discharge</td> <td>12.48 MLD</td> </tr> <tr> <td>2) Letter No.</td> <td>GIDC/SE/CG//BRH/1236 Dated 29th December-2016</td> </tr> <tr> <td>Agreement for Water Supply</td> <td>25.00 MLD</td> </tr> <tr> <td>Effluent Discharge</td> <td>19.40 MLD</td> </tr> <tr> <td>3) Letter No.</td> <td>GIDC/BRH/WS/494 Dated 3rd.July,2019</td> </tr> <tr> <td>Agreement for Water Supply</td> <td>35.00 MLD</td> </tr> <tr> <td>Effluent Discharge</td> <td>23.00 MLD</td> </tr> </table> | Following are the GIDC offer cum allotment letter details. | | 1) Letter No. | GIDC/POJ/MKT/GRASIM/575 Dated 06th December-2006 | Agreement for Water Supply | 15.60 MLD | Effluent Discharge | 12.48 MLD | 2) Letter No. | GIDC/SE/CG//BRH/1236 Dated 29th December-2016 | Agreement for Water Supply | 25.00 MLD | Effluent Discharge | 19.40 MLD | 3) Letter No. | GIDC/BRH/WS/494 Dated 3rd.July,2019 | Agreement for Water Supply | 35.00 MLD | Effluent Discharge | 23.00 MLD |
| Following are the GIDC offer cum allotment letter details. | | | | | | | | | | | | | | | | | | | | | | |
| 1) Letter No. | GIDC/POJ/MKT/GRASIM/575 Dated 06th December-2006 | | | | | | | | | | | | | | | | | | | | | |
| Agreement for Water Supply | 15.60 MLD | | | | | | | | | | | | | | | | | | | | | |
| Effluent Discharge | 12.48 MLD | | | | | | | | | | | | | | | | | | | | | |
| 2) Letter No. | GIDC/SE/CG//BRH/1236 Dated 29th December-2016 | | | | | | | | | | | | | | | | | | | | | |
| Agreement for Water Supply | 25.00 MLD | | | | | | | | | | | | | | | | | | | | | |
| Effluent Discharge | 19.40 MLD | | | | | | | | | | | | | | | | | | | | | |
| 3) Letter No. | GIDC/BRH/WS/494 Dated 3rd.July,2019 | | | | | | | | | | | | | | | | | | | | | |
| Agreement for Water Supply | 35.00 MLD | | | | | | | | | | | | | | | | | | | | | |
| Effluent Discharge | 23.00 MLD | | | | | | | | | | | | | | | | | | | | | |
| | <p>A full-fledged Effluent Treatment Plant will be installed with Primary and Secondary treatment facilities based on extended aeration activated sludge process.</p> | <p>A full-fledged Effluent Treatment Plant is installed having Primary and Secondary treatment facility based on extended aeration activated sludge process. Effluent Treatment Plant consist of following major equipment;</p> <ol style="list-style-type: none"> 1. Grit Chamber – 2 Nos 2. Primary Clarifier – 2 Nos 3. Biological Reactor - 7 aeration Lagoons 4. Secondary Clarifier - 2 Nos 5. Treated Effluent RO – 14 MLD Capacity | | | | | | | | | | | | | | | | | | | | |
| | <p>Treated effluent quality will be maintained as per the standards prescribed by CPCB/GPCB. After treatment treated effluent will be disposed off in Gulf of Khambhat vis pipeline already laid by GIDC.</p> | <p>Industry has ensured that the treated effluent quality meets the norms prescribed by GPCB. Analysis of treated effluent is carried out monthly by NABL accredited lab M/s. Unistar Environment and Research Lab.</p> <p>Monitoring results for reporting period Apr'23 to Sep'23 are summarized in Table No.3</p> <p>After treatment, treated effluent is pumped to GIDC effluent collection station, Vilayat, from where it is pumped & disposed in Gulf of Khambhat by GIDC.</p> | | | | | | | | | | | | | | | | | | | | |

Table No.3

Third Party Lab Details: -

Agency: - Unistar Environment & Research lab Pvt. Ltd

NABL: - NABL Certificate Number TC-7753

Address: -GIDC, Char Rasta, Vapi

| Month | FINAL TREATED EFFLUENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|------------------------|-------|--------|--------------|---------------|---------|----------|----------|------------|------------------------|------------------|---------------|---------|--------------------|------------------|--------|--------|--------|--------|--------|--------|--------|--------|----------|----------|--------|--------|------------------------|--------|
| | pH | Temp. | TSS | Oil & Grease | Phenolic Comp | Cyanide | Fluoride | Sulphide | Amm. Nas N | Total Kzeld Nit. (TKN) | Nitrate Nitrogen | Total Res Cl2 | Arsenic | Trivalent Chromium | Hexavalent Chrom | Cu | Pb | Hg | Ni | Zn | Cd | BOD | COD | Selenium | Vanadium | Mn | Iron | Bio Assay-96 Hrs. fish | |
| Unit | - | deg C | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit |
| Limit | 06-09 | | 100 | 10 | 5 | 0.2 | 15 | 5 | 50 | 50 | 50 | 1 | 0.2 | 2 | 0.1 | 3 | 0.1 | 0.01 | 3 | 15 | 0.05 | 100 | 250 | 0.05 | 0.2 | 2 | 3 | 90% | |
| Apr-23 | 7.28 | 30.00 | 38.00 | BDL | BDL | BDL | 1.28 | BDL | 2.30 | 5.90 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.13 | 0.08 | 0.03 | 70 | 240 | BDL | BDL | 0.22 | 0.74 | Complied | |
| May-23 | 7.21 | 32.00 | 22.00 | BDL | BDL | BDL | 2.50 | 1.70 | 2.80 | 7.00 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.08 | 0.18 | 0.04 | 80 | 224 | BDL | BDL | 0.23 | 1.08 | Complied | |
| Jun-23 | 7.35 | 31.00 | 16.00 | BDL | BDL | BDL | 2.40 | BDL | 2.80 | 6.50 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.17 | 0.13 | 0.04 | 72 | 208 | BDL | BDL | 0.18 | 0.89 | Complied | |
| Jul-23 | 7.54 | 30.00 | 28.00 | BDL | BDL | BDL | 0.57 | 1.10 | BDL | 4.50 | 0.20 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.13 | 0.19 | BDL | 48 | 160 | BDL | BDL | BDL | 1.05 | Complied | |
| Aug-23 | 7.10 | 30.00 | 22.00 | BDL | BDL | BDL | 1.21 | 0.60 | BDL | 4.00 | 2.60 | BDL | BDL | BDL | BDL | 0.05 | BDL | BDL | 0.40 | 0.81 | BDL | 65 | 208 | BDL | BDL | 0.35 | 1.08 | Complied | |
| Sep-23 | 7.22 | 29.80 | 8.00 | BDL | BDL | BDL | 1.19 | 4.40 | BDL | 5.10 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.24 | 0.10 | BDL | 56 | 204 | BDL | BDL | 0.44 | 1.79 | Complied | |
| Min | 7.10 | 29.80 | 8.00 | BDL | BDL | BDL | 0.57 | 0.60 | 2.30 | 4.00 | 0.20 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.08 | 0.08 | 0.03 | 48 | 160 | BDL | BDL | 0.18 | 0.74 | Complied | |
| Max | 7.54 | 32.00 | 38.00 | BDL | BDL | BDL | 2.50 | 4.40 | 2.80 | 7.00 | 2.60 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.40 | 0.81 | 0.04 | 80 | 240 | BDL | BDL | 0.44 | 1.79 | Complied | |
| Avg | 7.28 | 30.47 | 22.33 | BDL | BDL | BDL | 1.53 | 1.95 | 2.63 | 5.50 | 1.40 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.19 | 0.25 | 0.04 | 65 | 207 | BDL | BDL | 0.28 | 1.11 | Complied | |

| | | |
|---|---|--|
| 5 | The main source of Air pollution will be CS ₂ plant, Viscose plant, Sulphuric Acid plant and Coal based captive power plant. The proposed pollution control equipment is: | |
| | CS₂ Plant | <p>Carbon disulphide recovery system</p> <p>Oil scrubbing system for recovery of CS₂</p> <p>Water/ chilled water condensers</p> <p>Brine condensers</p> <p>Klaus kiln for CS₂ plant</p> <p>The stack of 175m shall be provided to reduce GLC of CS₂ & H₂S</p> <p>Dust extraction cum Venturi scrubbing System for CS₂ Furnace</p> |
| | Acid Plant | <p>CS₂ Recovery system using condensation route is installed in spinning section for all lines.</p> <p>In order to further reduce the emissions, we have installed latest technology Carbon Adsorption Plant (CAP) in place of earlier CS₂ Genosorb plant. Emissions are reduced due to increase in CS₂ recovery from exhaust gases before releasing from chimney.</p> <p>Klaus kiln for CS₂ plant is installed.</p> <p>The stack of 175m has been provided to reduce GLC of CS₂ & H₂S from VSF plant.</p> <p>Not applicable as CS₂ is manufactured by using natural gas instead of charcoal.</p> |
| | Power plant | <p>Caustic Scrubber is installed</p> <p>Mist eliminators are provided in acid tower</p> <p>Electrostatic Precipitator (ESP) in power plant along with 100 m height stack</p> <p>Ash Handling plant</p> |
| | Auxiliary section | <p>Electrostatic Precipitator (ESP) in captive power plant along with 125 m height stack is installed.</p> <p>Ash Handling Plant is installed.</p> <p>Cyclones are installed</p> <p>Venturi water scrubbers are Installed</p> |
| 6 | During regeneration process of Cellulose from Viscose in Spinning Machine CS ₂ and H ₂ S will be liberated. The liberated CS ₂ and H ₂ S will be extracted through powerful exhaust system and discharge through chimney. | A powerful exhaust system is provided on all spinning machines. Extracted CS ₂ and H ₂ S is taken in H ₂ S Scrubbing Plant for recovery of Sulphur from H ₂ S and then CAP for further recovery of CS ₂ . After recovery, remaining gases are discharged through 175-meter-high Chimney for proper dispersion. |
| | The part of liberated fugitive emission in work zone area will be controlled by modified exhaust system, motorized curtain in Spinning Machine, Air curtain at stretch & feed rollers and modified bottom exhaust. | Exhaust system at Spinning Machine is designed to control maximum fugitive emission. Motorized shutters are provided at Spinning machine, powerful bottom exhaust system is installed to minimize the fugitive emission in work |

| | | | | | |
|--------------------|---|--|--|-------------------------|---------------------------------------|
| | | zone. | | | |
| 7 | Spent Catalyst (2.5 MT/year), Spent resin from DM plant (4MT/year) and Sulphur sludge will be disposed of through common TSDF and used oil will be sold to CPCB registered recyclers. Fly ash will be disposed off as per fly ash Notification 2003 and used for brick/cement manufacturing. | Industry has taken membership of Common TSDF M/s. Bharuch Enviro Infrastructure Limited (Membership No. OTH/474) & M/s. Safe Enviro Private Limited (Membership No. 103910) for disposal of Hazardous waste. Detail of hazardous waste disposal during reporting period (Apr'23 to Sep'23) is summarized in Table No.4. | | | |
| Table No. 4 | | | | | |
| | Name of Waste | CCA Quantity (MT/Year) | Disposal Quantity (MT) (Apr-23 to Sep-23) | Disposal Pathway | Agency |
| | Spent Catalyst | 15.00 | 2.56 | Landfill | TSDF, M/s BEIL Infrastructure Limited |
| | Used Oil | 25.00 | 10.12 | Recycling | M/s. S.B Lubricants |
| | <p>Note:</p> <ol style="list-style-type: none"> 1. Sulphur De-ashing sludge is not generated as Industry has installed natural gas based CS2 plant. 2. Industry has installed 30 MW captive power plant after receiving environment clearance issued on 15.01.2018. Fly ash generated from CPP is sold to authorized cement & brick manufacturers along with compliance of all other provisions of fly ash Notification 2003 as amended up to date. | | | | |
| 8 | The expert appraisal committee (Industry) in its 73 rd meeting held on 24 th -26 th October 2007 considered the proposal. All Man Made Fibres (Rayon) manufacturing units are listed at Sl. No. 5(d) of schedule of EIA notification 2006 under category A, hence appraisal is at Central level. Since the project located at GIDC Notified industrial estate, Vilayat, Vagra, it does not need public consultation as per Para 7(i) III, stage (3) b. – Public Consultation of EIA Notification, 2006 | Acknowledged, Industry is setup on Plot No.1, GIDC Industrial Estate Vilayat, Tal- Vagra, Dist. Bharuch | | | |
| 9 | Based on information submitted by the project authorities, the Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA notification 2006 subject to the compliance of following Specific and General conditions. | Acknowledged, the compliance status of Specific and General conditions is as below; | | | |

A. Specific Condition: -

| Sr. | Stipulation | Compliance Status | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|--|--|--|-------------------------|-------|-------------------|--|----------------------|-------------------------|--|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|------------|--------------|------------|--------------|-------------|--------------|
| 1 | The project authorities shall maintain emission limit of 50 kg / Ton of VSF for CS2. | <p>Industry has adopted control measures for CS2 emission from VSF manufacturing to achieve emission level far below the stipulated norms. CS2 Emission monitoring is done by NABL accredited laboratory on monthly basis. CS2 emission results for reporting period Apr'23 to Sep'23 is summarized in Table No.05</p> <table border="1" data-bbox="1129 464 2007 1089"> <thead> <tr> <th colspan="3" data-bbox="1129 464 2007 505">Table No.05</th> </tr> <tr> <th data-bbox="1129 505 1598 548">NABL Laboratory Details</th> <th data-bbox="1598 505 1751 548">Month</th> <th data-bbox="1751 505 2007 548">CS2 (kg/T of VSF)</th> </tr> <tr> <td data-bbox="1129 548 1598 634"></td> <td data-bbox="1598 548 1751 634">CCA Norms></td> <td data-bbox="1751 548 2007 634">95 (kg/T of VSF)</td> </tr> </thead> <tbody> <tr> <td data-bbox="1129 634 1598 1089" rowspan="10"> Agency: - Unistar Environment & Research lab Pvt. Ltd Address: - Near GIDC, Char Rasta, Vapi NABL: - NABL Certificate Number TC-7753 Details of instrument Used for Monitoring: - Instrument Name: - Handy Sampler Instrument ID: - UERL/AIR/HS/03 Serial No.: - 91-I-19 Calibration Date: - 03.02.2023 Expiry Date: - 02.02.2024 </td> <td data-bbox="1598 634 1751 675">Apr-23</td> <td data-bbox="1751 634 2007 675">12.60</td> </tr> <tr> <td data-bbox="1598 675 1751 716">May-23</td> <td data-bbox="1751 675 2007 716">12.20</td> </tr> <tr> <td data-bbox="1598 716 1751 756">Jun-23</td> <td data-bbox="1751 716 2007 756">12.60</td> </tr> <tr> <td data-bbox="1598 756 1751 797">Jul-23</td> <td data-bbox="1751 756 2007 797">12.10</td> </tr> <tr> <td data-bbox="1598 797 1751 837">Aug-23</td> <td data-bbox="1751 797 2007 837">15.10</td> </tr> <tr> <td data-bbox="1598 837 1751 878">Sep-23</td> <td data-bbox="1751 837 2007 878">13.10</td> </tr> <tr> <td data-bbox="1598 878 1751 919">Min</td> <td data-bbox="1751 878 2007 919">12.10</td> </tr> <tr> <td data-bbox="1598 919 1751 959">Max</td> <td data-bbox="1751 919 2007 959">15.10</td> </tr> <tr> <td data-bbox="1598 959 1751 1081">Avg.</td> <td data-bbox="1751 959 2007 1081">12.95</td> </tr> </tbody> </table> <p data-bbox="1129 1089 2007 1182">At no time, the emission exceeded the prescribed limits. (Refer Table No.05)</p> | Table No.05 | | | NABL Laboratory Details | Month | CS2 (kg/T of VSF) | | CCA Norms> | 95 (kg/T of VSF) | Agency: - Unistar Environment & Research lab Pvt. Ltd Address: - Near GIDC, Char Rasta, Vapi NABL: - NABL Certificate Number TC-7753 Details of instrument Used for Monitoring: - Instrument Name: - Handy Sampler Instrument ID: - UERL/AIR/HS/03 Serial No.: - 91-I-19 Calibration Date: - 03.02.2023 Expiry Date: - 02.02.2024 | Apr-23 | 12.60 | May-23 | 12.20 | Jun-23 | 12.60 | Jul-23 | 12.10 | Aug-23 | 15.10 | Sep-23 | 13.10 | Min | 12.10 | Max | 15.10 | Avg. | 12.95 |
| Table No.05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NABL Laboratory Details | Month | CS2 (kg/T of VSF) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CCA Norms> | 95 (kg/T of VSF) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Agency: - Unistar Environment & Research lab Pvt. Ltd Address: - Near GIDC, Char Rasta, Vapi NABL: - NABL Certificate Number TC-7753 Details of instrument Used for Monitoring: - Instrument Name: - Handy Sampler Instrument ID: - UERL/AIR/HS/03 Serial No.: - 91-I-19 Calibration Date: - 03.02.2023 Expiry Date: - 02.02.2024 | Apr-23 | 12.60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | May-23 | 12.20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Jun-23 | 12.60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Jul-23 | 12.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Aug-23 | 15.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Sep-23 | 13.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Min | 12.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Max | 15.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Avg. | 12.95 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | A guard/polishing pond shall be provided before discharge of treated waste water into GIDC pipeline for discharge into sea and TOC should be continually monitored. | Three guard/polishing ponds are constructed with each pond having capacity of 25000 m3. Total holding capacity is 75,000 m3, which is suitable for storage of treated effluent around 72 hrs. Treated effluent is discharged into sea through GIDC pipeline. A TOC Meter is installed for continuous monitoring of TOC of treated effluent. TOC meter reading for reporting period is summarized in Table No.06. | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | <table border="1"> <thead> <tr> <th colspan="4">Table No.06</th> </tr> <tr> <th colspan="4">TOC Meter Make: - Xylem WTW (UOM - mg/l)</th> </tr> <tr> <th>Month</th> <th>Min</th> <th>Max</th> <th>Avg.</th> </tr> </thead> <tbody> <tr> <td>Apr-23</td> <td>36.31</td> <td>81.81</td> <td>39.47</td> </tr> <tr> <td>May-23</td> <td>27.93</td> <td>38.19</td> <td>35.31</td> </tr> <tr> <td>Jun-23</td> <td>27.48</td> <td>58.30</td> <td>29.84</td> </tr> <tr> <td>Jul-23</td> <td>26.97</td> <td>82.09</td> <td>31.96</td> </tr> <tr> <td>Aug-23</td> <td>31.87</td> <td>84.75</td> <td>36.59</td> </tr> <tr> <td>Sep-23</td> <td>31.91</td> <td>87.28</td> <td>46.63</td> </tr> <tr> <td colspan="4">At no time, exceeded the prescribed limit. (Refer Table No.06)</td> </tr> </tbody> </table> | Table No.06 | | | | TOC Meter Make: - Xylem WTW (UOM - mg/l) | | | | Month | Min | Max | Avg. | Apr-23 | 36.31 | 81.81 | 39.47 | May-23 | 27.93 | 38.19 | 35.31 | Jun-23 | 27.48 | 58.30 | 29.84 | Jul-23 | 26.97 | 82.09 | 31.96 | Aug-23 | 31.87 | 84.75 | 36.59 | Sep-23 | 31.91 | 87.28 | 46.63 | At no time, exceeded the prescribed limit. (Refer Table No.06) | | | |
|--|---|--|-------------|--|--|--|--|--|--|--|-------|-----|-----|------|--------|-------|-------|-------|--------|-------|-------|-------|--------|-------|-------|-------|--------|-------|-------|-------|--------|-------|-------|-------|--------|-------|-------|-------|--|--|--|--|
| Table No.06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOC Meter Make: - Xylem WTW (UOM - mg/l) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Month | Min | Max | Avg. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Apr-23 | 36.31 | 81.81 | 39.47 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| May-23 | 27.93 | 38.19 | 35.31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jun-23 | 27.48 | 58.30 | 29.84 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jul-23 | 26.97 | 82.09 | 31.96 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aug-23 | 31.87 | 84.75 | 36.59 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sep-23 | 31.91 | 87.28 | 46.63 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| At no time, exceeded the prescribed limit. (Refer Table No.06) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | The project authorities shall install at least 11 multiple effect evaporators to achieve higher than 65% recovery of Sodium Sulphate. | Industry has installed 10 nos. of more efficient, high capacity (less specific steam consumption) 14 stage multiple effect evaporator (MEE). Total installed evaporation capacity is 280 m3/hr. Post expansion & increase in production capacity in EC, additional 10 nos. are being installed with 16 stage multiple effect evaporator. Total installed evaporation capacity is 350 m3/hr. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Electrostatic Precipitators (ESP's) to power plant boiler shall be provided to control particulate matter. | Electrostatic Precipitators (ESP's) to power plant boiler has been provided to control particulate matter. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3-stage condensing system for recovery of CS2 | 3 stage condensing system for CS2 recovery is provided. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Scrubber to Acid plant chimney | Alkali scrubber has been installed at Acid Plant chimney. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | klaus kiln recovery system to recover Sulphur from CS2 plant gases, followed by lime water absorber shall be provided | Klaus kiln recovery system has been installed for recover Sulphur from CS2 plant gases. Klaus kiln Systems recovers > 96% Sulphur and tail gases is passed through alkali scrubber before discharge from stack. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Monitoring arrangement shall be provided with the scrubber & condenser vents and shall be monitored monthly. | Monitoring arrangements are provided for scrubbers & condenser vents. Following are the details tabulated as Table No.07 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | <table border="1"> <thead> <tr> <th colspan="5">Table No.07</th> </tr> <tr> <th>Month</th> <th colspan="2">CS2 Plant</th> <th>Acid Plant-1</th> <th>Acid Plant-2</th> </tr> <tr> <th>Unit</th> <th>CS2 (mg/nm3)</th> <th>H2S (mg/nm3)</th> <th>SO2 (Kg/T of Acid)</th> <th>SO2 (Kg/T of Acid)</th> </tr> </thead> <tbody> <tr> <td>GPCB limit</td> <td>180</td> <td>45</td> <td>1.5</td> <td>1.5</td> </tr> <tr> <td>Apr-23</td> <td>BDL</td> <td>BDL</td> <td>0.95</td> <td>0.76</td> </tr> <tr> <td>May-23</td> <td>BDL</td> <td>BDL</td> <td>0.98</td> <td>0.82</td> </tr> <tr> <td>Jun-23</td> <td>BDL</td> <td>BDL</td> <td>1.01</td> <td>0.94</td> </tr> <tr> <td>Jul-23</td> <td>BDL</td> <td>BDL</td> <td>0.92</td> <td>0.89</td> </tr> <tr> <td>Aug-23</td> <td>BDL</td> <td>BDL</td> <td>0.98</td> <td>0.94</td> </tr> <tr> <td>Sep-23</td> <td>BDL</td> <td>BDL</td> <td>1.04</td> <td>0.82</td> </tr> <tr> <td>Min</td> <td>BDL</td> <td>BDL</td> <td>0.92</td> <td>0.76</td> </tr> <tr> <td>Max</td> <td>BDL</td> <td>BDL</td> <td>1.04</td> <td>0.94</td> </tr> <tr> <td>Average</td> <td>BDL</td> <td>BDL</td> <td>0.98</td> <td>0.86</td> </tr> <tr> <td colspan="5">Note: At no time, the emission exceeded the prescribed limits. (Refer Table No.07)</td> </tr> </tbody> </table> | Table No.07 | | | | | Month | CS2 Plant | | Acid Plant-1 | Acid Plant-2 | Unit | CS2 (mg/nm3) | H2S (mg/nm3) | SO2 (Kg/T of Acid) | SO2 (Kg/T of Acid) | GPCB limit | 180 | 45 | 1.5 | 1.5 | Apr-23 | BDL | BDL | 0.95 | 0.76 | May-23 | BDL | BDL | 0.98 | 0.82 | Jun-23 | BDL | BDL | 1.01 | 0.94 | Jul-23 | BDL | BDL | 0.92 | 0.89 | Aug-23 | BDL | BDL | 0.98 | 0.94 | Sep-23 | BDL | BDL | 1.04 | 0.82 | Min | BDL | BDL | 0.92 | 0.76 | Max | BDL | BDL | 1.04 | 0.94 | Average | BDL | BDL | 0.98 | 0.86 | Note: At no time, the emission exceeded the prescribed limits. (Refer Table No.07) | | | | |
|--|--|---|-----------------------|-----------------------|--|--|--|-------|-----------|--|--------------|--------------|------|-----------------|-----------------|-----------------------|-----------------------|------------|-----|----|-----|-----|--------|-----|-----|------|------|--------|-----|-----|------|------|--------|-----|-----|------|------|--------|-----|-----|------|------|--------|-----|-----|------|------|--------|-----|-----|------|------|-----|-----|-----|------|------|-----|-----|-----|------|------|---------|-----|-----|------|------|--|--|--|--|--|
| Table No.07 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Month | CS2 Plant | | Acid Plant-1 | Acid Plant-2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unit | CS2 (mg/nm3) | H2S (mg/nm3) | SO2 (Kg/T of Acid) | SO2 (Kg/T of Acid) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GPCB limit | 180 | 45 | 1.5 | 1.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Apr-23 | BDL | BDL | 0.95 | 0.76 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| May-23 | BDL | BDL | 0.98 | 0.82 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jun-23 | BDL | BDL | 1.01 | 0.94 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jul-23 | BDL | BDL | 0.92 | 0.89 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aug-23 | BDL | BDL | 0.98 | 0.94 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sep-23 | BDL | BDL | 1.04 | 0.82 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Min | BDL | BDL | 0.92 | 0.76 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max | BDL | BDL | 1.04 | 0.94 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Average | BDL | BDL | 0.98 | 0.86 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Note: At no time, the emission exceeded the prescribed limits. (Refer Table No.07) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Report shall be submitted to Ministry's regional office, Bhopal, CPCB & GPCB | Reports are regularly submitted to Ministry's regional office, Bhopal, CPCB & GPCB with compliance report every six months. Last compliance report submitted on 28.05.2023 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | <p>The technology employed shall achieve standards notified by the Ministry for the Rayon Industry vide Gazette Notification no. 195, dated 16th Oct-2006, other than CS2.</p> <p>The Company shall monitor CS2 & H2S regularly and submit data on the emission levels to the Ministry and its Regional office at Bhopal, GPCB and CPCB.</p> | <p>Industry has installed state of the art advanced technology for achieving standards notified time to time for Rayon Industry by Ministry of Environment, Forest and Climate change.</p> <p>CS2 & H2S is being monitored regularly. Monitoring details for reporting period from Apr'23 to Sep'23 is tabulated in Table No.08. Monitoring results are regularly submitted to Ministry Regional office, Bhopal, GPCB and CPCB along with six monthly compliance report.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | <table border="1"> <thead> <tr> <th colspan="4" style="text-align: center;">Table No.08</th> </tr> <tr> <th rowspan="2" style="text-align: center;">NABL Laboratory Details</th> <th style="text-align: center;">Month</th> <th style="text-align: center;">CS2 (kg/T of VSF)</th> <th style="text-align: center;">H2S (kg/T of VSF)</th> </tr> </thead> <tbody> <tr> <td></td> <td style="text-align: center;">CCA Norms></td> <td style="text-align: center;">95</td> <td style="text-align: center;">30</td> </tr> <tr> <td rowspan="9"> <i>Agency: - Unistar Environment & Research lab Pvt. Ltd</i> <i>Address: - Near GIDC, Char Rasta, Vapi</i> <i>NABL: - NABL Certificate Number TC-7753</i> <i>Details of instrument Used for Monitoring: -</i> <i>Instrument Name: - Handy Sampler</i> <i>Instrument ID: - UERL/AIR/HS/03</i> <i>Serial No.: - 91-I-19</i> <i>Calibration Date: - 03.02.2023</i> <i>Expiry Date: - 02.02.2024</i> </td> <td style="text-align: center;">Apr-23</td> <td style="text-align: center;">12.60</td> <td style="text-align: center;">2.60</td> </tr> <tr> <td style="text-align: center;">May-23</td> <td style="text-align: center;">12.20</td> <td style="text-align: center;">2.30</td> </tr> <tr> <td style="text-align: center;">Jun-23</td> <td style="text-align: center;">12.60</td> <td style="text-align: center;">2.80</td> </tr> <tr> <td style="text-align: center;">Jul-23</td> <td style="text-align: center;">12.10</td> <td style="text-align: center;">2.50</td> </tr> <tr> <td style="text-align: center;">Aug-23</td> <td style="text-align: center;">15.10</td> <td style="text-align: center;">4.20</td> </tr> <tr> <td style="text-align: center;">Sep-23</td> <td style="text-align: center;">13.10</td> <td style="text-align: center;">4.10</td> </tr> <tr> <td style="text-align: center;">Min</td> <td style="text-align: center;">12.10</td> <td style="text-align: center;">2.30</td> </tr> <tr> <td style="text-align: center;">Max</td> <td style="text-align: center;">15.10</td> <td style="text-align: center;">4.20</td> </tr> <tr> <td style="text-align: center;">Avg.</td> <td style="text-align: center;">12.95</td> <td style="text-align: center;">3.08</td> </tr> <tr> <td colspan="4"> Note: At no time, the emission exceeded the prescribed limits. (Refer Table No.08) </td> </tr> </tbody> </table> | Table No.08 | | | | NABL Laboratory Details | Month | CS2 (kg/T of VSF) | H2S (kg/T of VSF) | | CCA Norms> | 95 | 30 | <i>Agency: - Unistar Environment & Research lab Pvt. Ltd</i> <i>Address: - Near GIDC, Char Rasta, Vapi</i> <i>NABL: - NABL Certificate Number TC-7753</i> <i>Details of instrument Used for Monitoring: -</i> <i>Instrument Name: - Handy Sampler</i> <i>Instrument ID: - UERL/AIR/HS/03</i> <i>Serial No.: - 91-I-19</i> <i>Calibration Date: - 03.02.2023</i> <i>Expiry Date: - 02.02.2024</i> | Apr-23 | 12.60 | 2.60 | May-23 | 12.20 | 2.30 | Jun-23 | 12.60 | 2.80 | Jul-23 | 12.10 | 2.50 | Aug-23 | 15.10 | 4.20 | Sep-23 | 13.10 | 4.10 | Min | 12.10 | 2.30 | Max | 15.10 | 4.20 | Avg. | 12.95 | 3.08 | Note: At no time, the emission exceeded the prescribed limits. (Refer Table No.08) | | | |
|--|---|--|------------------------------|-----------|--|--|--------------------------------|--------------|------------------------------|------------------------------|--|--------------------------|-----------|-----------|--|--------|-------|------|--------|-------|------|--------|-------|------|--------|-------|------|--------|-------|------|--------|-------|------|-----|-------|------|-----|-------|------|------|-------|------|---|--|--|--|
| Table No.08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NABL Laboratory Details | Month | CS2 (kg/T of VSF) | H2S (kg/T of VSF) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | CCA Norms> | 95 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Agency: - Unistar Environment & Research lab Pvt. Ltd</i> <i>Address: - Near GIDC, Char Rasta, Vapi</i> <i>NABL: - NABL Certificate Number TC-7753</i> <i>Details of instrument Used for Monitoring: -</i> <i>Instrument Name: - Handy Sampler</i> <i>Instrument ID: - UERL/AIR/HS/03</i> <i>Serial No.: - 91-I-19</i> <i>Calibration Date: - 03.02.2023</i> <i>Expiry Date: - 02.02.2024</i> | Apr-23 | 12.60 | 2.60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | May-23 | 12.20 | 2.30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Jun-23 | 12.60 | 2.80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Jul-23 | 12.10 | 2.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Aug-23 | 15.10 | 4.20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Sep-23 | 13.10 | 4.10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Min | 12.10 | 2.30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Max | 15.10 | 4.20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Avg. | 12.95 | 3.08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Note: At no time, the emission exceeded the prescribed limits. (Refer Table No.08) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <p>Provision shall be made for retrofit additional equipment if necessary in future.</p> | <p>Industry has made provision for additional equipment during setup of Plant. Industry has adopted H2S Scrubbing Plant based on advance technology for H2S abatement and CAP Plant for recovery of CS2.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>7</p> | <p>The effluent should be treated in ETP having primary & secondary treatment facilities and treated effluent should meet the standards to be prescribed by the GPCB or under E. P. Act-1986 whichever are more stringent</p> | <p>A full-fledged Effluent Treatment Plant is installed having Primary and Secondary treatment facility based on extended aeration activated sludge process. Effluent Treatment Plant has of following major equipment;</p> <ol style="list-style-type: none"> 1. Grit Chamber – 2 Nos 2. Primary Clarifier – 2 Nos 3. Biological Reactor - 7 aeration Lagoons 4. Secondary Clarifier - 2 Nos 5. Treated Effluent RO – 14 MLD Capacity <p>Treated effluent quality is monitored on regular basis and meet the norms prescribed by GPCB. Treated effluent quality results for reporting</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | |
|--|--|---|----------------|
| | | period from Apr-23 to Sep-23 is summarized in Table No.09. | |
| <p>Total quantity of effluent should not exceed 60m³/ ton of production. The production shall be regulated to match the permitted discharge quantity by GIDC/GPCB</p> | <p>The quantity of effluent discharged is 12.03 m³/Ton of Fibre against stipulation of 60m³/TF. Avg. water Intake: 17101 m³/day Effluent discharge: 13620 m³/day Details of effluent discharge for reporting period are tabulated in Table No.10</p> | Table No.10 | |
| | | Effluent Discharge (m³/day) | |
| | | Month | Average |
| | | Apr-23 | 14074 |
| | | May-23 | 13924 |
| | | Jun-23 | 13310 |
| | | Jul-23 | 13638 |
| | | Aug-23 | 13359 |
| Sep-23 | 13413 | | |
| Avg. | 13620 | | |

Agency: - Unistar Environment & Research lab Pvt. Ltd

Address: -GIDC, Char Rasta, Vapi

NABL: - NABL Certificate Number TC-7753

Table No.09

| Month | FINAL TREATED EFFLUENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|------------------------|--------------|--------------|--------------|---------------|------------|-------------|-------------|-------------|------------------------|------------------|--------------------------|------------|--------------------|------------------|------------|------------|------------|-------------|-------------|-------------|-----------|------------|------------|------------|-------------|-------------|------------------------|--------|
| | pH | Temp. | TSS | Oil & Grease | Phenolic Comp | Cyanide | Fluoride | Sulphide | Amm. Nas N | Total Kzeld Nit. (TKN) | Nitrate Nitrogen | Total ResCl ₂ | Arsenic | Trivalent Chromium | Hexavalent Chrom | Cu | Pb | Hg | Ni | Zn | Cd | BOD | COD | Selenium | Vanadium | Mn | Iron | Bio Assay-96 Hrs. fish | |
| Unit | - | deg C | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit |
| Limit | 06-09 | | 100 | 10 | 5 | 0.2 | 15 | 5 | 50 | 50 | 50 | 1 | 0.2 | 2 | 0.1 | 3 | 0.1 | 0.01 | 3 | 15 | 0.05 | 100 | 250 | 0.05 | 0.2 | 2 | 3 | 90% | |
| Apr-23 | 7.28 | 30.00 | 38.00 | BDL | BDL | BDL | 1.28 | BDL | 2.30 | 5.90 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.13 | 0.08 | 0.03 | 70 | 240 | BDL | BDL | 0.22 | 0.74 | Complied | |
| May-23 | 7.21 | 32.00 | 22.00 | BDL | BDL | BDL | 2.50 | 1.70 | 2.80 | 7.00 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.08 | 0.18 | 0.04 | 80 | 224 | BDL | BDL | 0.23 | 1.08 | Complied | |
| Jun-23 | 7.35 | 31.00 | 16.00 | BDL | BDL | BDL | 2.40 | BDL | 2.80 | 6.50 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.17 | 0.13 | 0.04 | 72 | 208 | BDL | BDL | 0.18 | 0.89 | Complied | |
| Jul-23 | 7.54 | 30.00 | 28.00 | BDL | BDL | BDL | 0.57 | 1.10 | BDL | 4.50 | 0.20 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.13 | 0.19 | BDL | 48 | 160 | BDL | BDL | BDL | 1.05 | Complied | |
| Aug-23 | 7.10 | 30.00 | 22.00 | BDL | BDL | BDL | 1.21 | 0.60 | BDL | 4.00 | 2.60 | BDL | BDL | BDL | BDL | 0.05 | BDL | BDL | 0.40 | 0.81 | BDL | 65 | 208 | BDL | BDL | 0.35 | 1.08 | Complied | |
| Sep-23 | 7.22 | 29.80 | 8.00 | BDL | BDL | BDL | 1.19 | 4.40 | BDL | 5.10 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.24 | 0.10 | BDL | 56 | 204 | BDL | BDL | 0.44 | 1.79 | Complied | |
| Min | 7.10 | 29.80 | 8.00 | BDL | BDL | BDL | 0.57 | 0.60 | 2.30 | 4.00 | 0.20 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.08 | 0.08 | 0.03 | 48 | 160 | BDL | BDL | 0.18 | 0.74 | Complied | |
| Max | 7.54 | 32.00 | 38.00 | BDL | BDL | BDL | 2.50 | 4.40 | 2.80 | 7.00 | 2.60 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.40 | 0.81 | 0.04 | 80 | 240 | BDL | BDL | 0.44 | 1.79 | Complied | |
| Avg | 7.28 | 30.47 | 22.33 | BDL | BDL | BDL | 1.53 | 1.95 | 2.63 | 5.50 | 1.40 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.19 | 0.25 | 0.04 | 65 | 207 | BDL | BDL | 0.28 | 1.11 | Complied | |

Note: All parameters are well below the prescribed norms (Kindly refer above Table No.09)

| | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|----------------------|--|----------------------------|-----------|--------------------|-----------|----------------------|---|----------------------------|-----------|--------------------|-----------|----------------------|--|----------------------------|-----------|--------------------|-----------|
| 8 | The project authorities shall produce the copy of agreement with GIDC for discharge of treated wastewater to the Ministry and its Regional office within three months and submit the same to the Ministry / Regional office | <p>Agreement done with GIDC for supply of water and discharge of treated effluent through GIDC pipeline to deep see is done. A Copy of same was submitted along with earlier six-monthly compliance report to MoEF & CC.</p> <p>Following are the GIDC offer cum allotment letter details;</p> <table border="1" data-bbox="1125 354 2045 857"> <tr> <td data-bbox="1125 354 1608 435">1) Letter No.</td> <td data-bbox="1608 354 2045 435">GIDC/POJ/MKT/GRASIM/575 Dated 06th December-2006</td> </tr> <tr> <td data-bbox="1125 435 1608 475">Agreement for Water Supply</td> <td data-bbox="1608 435 2045 475">15.60 MLD</td> </tr> <tr> <td data-bbox="1125 475 1608 521">Effluent Discharge</td> <td data-bbox="1608 475 2045 521">12.48 MLD</td> </tr> <tr> <td data-bbox="1125 521 1608 602">2) Letter No.</td> <td data-bbox="1608 521 2045 602">GIDC/SE/CG//BRH/1236 Dated 29th December-2016</td> </tr> <tr> <td data-bbox="1125 602 1608 646">Agreement for Water Supply</td> <td data-bbox="1608 602 2045 646">25.00 MLD</td> </tr> <tr> <td data-bbox="1125 646 1608 691">Effluent Discharge</td> <td data-bbox="1608 646 2045 691">19.40 MLD</td> </tr> <tr> <td data-bbox="1125 691 1608 773">3) Letter No.</td> <td data-bbox="1608 691 2045 773">GIDC/BRH/WS/494 Dated 3rd.July,2019</td> </tr> <tr> <td data-bbox="1125 773 1608 816">Agreement for Water Supply</td> <td data-bbox="1608 773 2045 816">35.00 MLD</td> </tr> <tr> <td data-bbox="1125 816 1608 857">Effluent Discharge</td> <td data-bbox="1608 816 2045 857">23.00 MLD</td> </tr> </table> | 1) Letter No. | GIDC/POJ/MKT/GRASIM/575 Dated 06th December-2006 | Agreement for Water Supply | 15.60 MLD | Effluent Discharge | 12.48 MLD | 2) Letter No. | GIDC/SE/CG//BRH/1236 Dated 29th December-2016 | Agreement for Water Supply | 25.00 MLD | Effluent Discharge | 19.40 MLD | 3) Letter No. | GIDC/BRH/WS/494 Dated 3rd.July,2019 | Agreement for Water Supply | 35.00 MLD | Effluent Discharge | 23.00 MLD |
| 1) Letter No. | GIDC/POJ/MKT/GRASIM/575 Dated 06th December-2006 | | | | | | | | | | | | | | | | | | | |
| Agreement for Water Supply | 15.60 MLD | | | | | | | | | | | | | | | | | | | |
| Effluent Discharge | 12.48 MLD | | | | | | | | | | | | | | | | | | | |
| 2) Letter No. | GIDC/SE/CG//BRH/1236 Dated 29th December-2016 | | | | | | | | | | | | | | | | | | | |
| Agreement for Water Supply | 25.00 MLD | | | | | | | | | | | | | | | | | | | |
| Effluent Discharge | 19.40 MLD | | | | | | | | | | | | | | | | | | | |
| 3) Letter No. | GIDC/BRH/WS/494 Dated 3rd.July,2019 | | | | | | | | | | | | | | | | | | | |
| Agreement for Water Supply | 35.00 MLD | | | | | | | | | | | | | | | | | | | |
| Effluent Discharge | 23.00 MLD | | | | | | | | | | | | | | | | | | | |
| 9 | The project authorities shall take up the in-house or through IIT's research studies for further reduction of CS2 emission below 50 Kg/ Ton of production of VSF within three months and submit the same to Regional office. | <p>In house research / studies done and steps taken to further reduce the CS2 emission level are as under:</p> <ol style="list-style-type: none"> 1) Best Available Technology based Carbon Absorption Plant (CAP) is installed for recovery of CS2. (Brief Details of the technology is enclosed as Annexure-1) 2) Natural Gas based CS2 plant installed in place of conventional charcoal process to avoid CS2 emission from CS2 plant. | | | | | | | | | | | | | | | | | | |
| 10 | The industry shall measure ambient air quality for CS2, and H2S at the 3 ambient air quality monitoring stations set up in consultation with the GPCB to ensure CS2 and H2S emission not exceed 100 microgram/m3 and 150 microgram/m3 respectively. | 4 nos. of ambient air quality monitoring stations covering all four directions are placed in consultation with the GPCB. Ambient air quality monitoring is being done regularly for CS2 & H2S emission. CS2 & H2S concentration is well within the prescribed standards. Summary of six month (Apr-23 – Sep-23) monitoring results is tabulated below in Table No. 11. | | | | | | | | | | | | | | | | | | |

Agency: - Unistar Environment & Research Lab Pvt. Ltd

Instrument ID & Name: - 1) UERL/AIR/RDS/19– Respirable Dust Sampler (RDS: SR.No.1796 DTD 2013) (Calibration Period: - 31.07.2023 – 30.07.2024)
 2) UERL/AIR/FPS/22– Fine Particulate Sampler (FPS: SR.No.195 DTK 2013) (Calibration Period: - 31.07.2023 – 30.07.2024)

Table No. 11 (UOM - microgram/m3)

| Month | ETP MCC Room | | ER Office | | Aluminum Chloride plant | | Security Gate (CA Plant) | |
|-----------|------------------|-----------------|------------------|-----------------|-------------------------|-----------------|--------------------------|-----------------|
| | H ₂ S | CS ₂ | H ₂ S | CS ₂ | H ₂ S | CS ₂ | H ₂ S | CS ₂ |
| Norms --> | 150 | 100 | 150 | 100 | 150 | 100 | 150 | 100 |
| Apr-23 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| May-23 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Jun-23 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Jul-23 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Aug-23 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Sep-23 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Min | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Max | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Avg. | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |

At no time, the emission exceeded the prescribed limits. (Refer Table No.11)

| | | |
|-----------|--|--|
| 11 | The Solid & Hazardous waste shall be segregated according to its calorific contents and stored separately for treatment and disposal | The solid and hazardous waste is segregated based on its properties and Treatment & Disposal is done accordingly. Industry has taken membership of the common TSDF BEIL, Dahej & SEPL, Dahej having facility of incineration and landfill. Waste disposal is being done as per the procedure laid down by CPCB and GPCB. Waste disposal detail is tabulated in Table No. 12 |
|-----------|--|--|

Table No. 12

| Month | Chemical sludge-ETP (MT) | | Used Oil (MT) | | PVC bags/Liners (MT) | | Bio Sludge from ETP (MT) | | Spent Catalyst (MT) | | Spent Resin (MT) | |
|----------------------|--------------------------|----------|----------------|----------|----------------------|----------|--------------------------|----------|---------------------|----------|------------------|----------|
| | Category - 35.3 | | Category – 5.1 | | Category – 33.1 | | Category – 35.3 | | Category – 17.2 | | Category – 35.2 | |
| | Generation | Disposal | Generation | Disposal | Generation | Disposal | Generation | Disposal | Generation | Disposal | Generation | Disposal |
| CC&A Qty. | 20000 MT | | 25KL | | 160 MT | | 15000 MT | | 15.0 MT | | 12.0 MT | |
| Apr-23 | 1265.00 | 2280.56 | 0.00 | 0.00 | 15.28 | 15.28 | 1321.00 | 1535.37 | 0.00 | 0.00 | 0.00 | 0.00 |
| May-23 | 2700.00 | 2784.58 | 3.35 | 3.35 | 7.24 | 7.24 | 1100.00 | 1149.88 | 2.56 | 2.56 | 0.00 | 0.00 |
| Jun-23 | 2500.00 | 2407.05 | 0.00 | 0.00 | 6.98 | 6.98 | 100.00 | 52.98 | 0.00 | 0.00 | 0.00 | 0.00 |
| Jul-23 | 1200.00 | 1150.52 | 3.45 | 3.45 | 5.32 | 5.32 | 600.00 | 125.84 | 0.00 | 0.00 | 0.00 | 0.00 |
| Aug-23 | 900.00 | 844.93 | 3.32 | 3.32 | 21.53 | 21.53 | 100.00 | 181.51 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sep-23 | 1200.00 | 1274.40 | 0.00 | 0.00 | 10.38 | 10.38 | 100.00 | 40.36 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | |
|-------------------------|------------------------------|-----------------|---------------------------|--------------|-------------------------------------|--------------|-------------------------------------|----------------|------------------------|-------------|------------------------|-------------|
| Total | 9765.00 | 10742.04 | 10.12 | 10.12 | 66.73 | 66.73 | 3321.00 | 3085.88 | 2.56 | 2.56 | 0.00 | 0.00 |
| Disposal Pathway | Utilization | | Recycling | | Recycling | | Land Fill | | Land Fill | | Incineration | |
| Disposed To=> | J K, Ultratech Cement | | M/S S B Lubricants | | Sold to authorized Recyclers | | TSDf BEIL & SEPL (Dahej) | | TSDf BEIL Dahej | | TSDf BEIL Dahej | |

12 Fly Ash generated from CPP shall be utilize as per fly ash notification 1999 and subsequent amendment in 2003.

Fly Ash generated from CPP is supplied to authorized bricks & cement manufacturers. Unit is filling stipulated comprehensive report annually and the same is being submitted to MOEFCC, CPCB & SPCB.

13 Green belt of adequate width and density shall be developed in 150 Acres out of 567 acres project area to mitigate the effect of fugitive emission all around the plant. The development of green belt along the boundary wall and two additional rows in predominant wind direction shall be provided in consultation with the local DFO as per the CPCB guideline

Industry has developed greenbelt, in open space area and around factory complex along the boundary wall. Total 1,27,500 nos. tree have been planted till Sep-2023. Existing plantation details and proposed plan is tabulated in **Table No.13**

| Table No. 13 | | | |
|---------------------|--------------------------------|------------------------------------|------------------------|
| Sr. No | Duration | Area (Acre.) for Plantation | Number of Plant |
| 1 | Existing (Till FY; 2017-18) | 60 | 37,500 Plants |
| 2 | 2018-19 | 25 | 15,000 Plants |
| 3 | 2019-20 | 25 | 15,000 Plants |
| 4 | 2020-21 | 25 | 15,000 Plants |
| 5 | 2021-22 | 25 | 15,000 Plants |
| 6 | 2022-23 | 25 | 20,000 Plants |
| 7 | 2023-24 (Till Sep'23) | 10 | 10,000 Plants |
| Total=> | | 195 | 1,27,500 Plants |

Details of existing plant species and proposed plant species along with Plant species for odor management, Gaseous emission (SO₂ & NO_x) tolerant species is enclosed as **Annexure-2**. Plant species are selected as per the directives of CPCB & DFO.

14 The project proponent shall comply with the environmental protection measures and safeguards recommended in the

Total project cost was Rs. 1200 Crores as mentioned in EC. As committed in the EIA/EMP, Unit has been allocated capital cost Rs.

| | |
|---------|--|
| EIA/EMP | 170.5 Crores and recurring cost Rs. 15.5 Crores per annum respectively for implementations of environmental pollution control measures as per condition stipulated by the MoEF & CC & GPCB. Detailed EIA/EMP report is explained below & Capex – Opex Details are tabulated under Table No. 14. |
|---------|--|

| Table No. 14 | | | | | | | | | |
|---|--|---------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Fund Utilize for environmental Management are under (Rs. In Crore) | | | | | | | | | |
| Sr. No. | Particular | Capex | Opex FY-17 | Opex FY-18 | Opex FY-19 | Opex FY-20 | Opex FY-21 | Opex FY-22 | Opex FY-23 |
| 1 | Effluent Treatment | 79.00 | 11.50 | 10.56 | 11.00 | 11.00 | 13.35 | 14.85 | 35.60 |
| 2 | Air Pollution Control (Including H2S Scrubbing Plant & CAP Plant) | 350.00 | 03.50 | 04.00 | 03.30 | 05.17 | 14.35 | 14.23 | 162.85 |
| 3 | Green Belt Development | 00.50 | 00.50 | 00.55 | 01.30 | 0.51 | 0.13 | 0.08 | 1.09 |
| 4 | Waste Management | 01.50 | 00.50 | 00.60 | 01.60 | 3.07 | 2.90 | 1.78 | 4.37 |
| Total Amount (In Crore) => | | 431.00 | 16.00 | 15.71 | 17.20 | 19.75 | 30.73 | 30.94 | 203.91 |

Environmental monitoring Program: - In order to ensure that the predicted impact levels are within the acceptable limits and to further mitigate the impacts wherever possible from proposed facilities, following monitoring programs are undertaken;

Air Environment: Air quality surveillance program which includes;

1. Monitoring of air quality of all 4 stacks for CS₂, H₂S, PM, SO₂ & NO_x by our Lab as well as 3rd party Lab.
2. Ground level concentration is monitored for CS₂, H₂S, PM, SO₂ & NO_x in the impact zone as a part of ambient air monitoring by our Lab & 3rd party Lab.
3. Port holes and sampling facilities are provided in each stack as per CPCB guidelines, periodic performance evaluation of control measures & equipment's are done

Noise Environment: Noise generated sources are regularly monitored, ambient noise level is being monitored on quarterly basis inside & outside of plant area and strictly adhered the Factory Act norms of workroom and ambient levels as per E P Act.

Water Environment: For effective environmental pollution control the following measures are taken;

1. Daily monitoring of treated effluent in our Lab as well as third party monitoring by outside labs.
2. Evaluation of ETP performance is done regularly, based on the results of treated effluent.
3. Treated sewage is 100% used in green belt, sewage quantity is very less as only plant sewage comes to STP.
4. 3 nos. of guard ponds, each of (L: 90 m, B: 60 m, SWD: 6.5m) equivalent to 75,000m³ capacity installed, which is suitable for storage upto 72 hrs. treated effluent to meet the emergency situation in discharge of treated effluent through GIDC pipeline
5. Water conservation measures are taken and achieved very less discharge of treated effluent (< 35m³ / Ton of fibre as against 60m³ / Ton of fibre.

Land Environment: Following measures are taken to avoid adverse impacts on biological activities;

1. All precautions are taken to avoid any spillages on ground.
2. A record of Solid & Hazardous waste is maintained & monitored regularly by Env. Cell

3. Waste is categorized based on CC&A by GPCB. Hazardous waste is stored separately and disposed as per GPCB guidelines through online Manifest.
4. Green belt development program is undertaken and planted > 10,000 tree every year which will be continued to cover > 33% area as green belt.

Biological Environment: Following measures are taken to avoid adverse impacts on biological activities;

1. Survival rate of planted trees are closely monitored. New saplings are planted in place of dead saplings as per guideline which is closely monitored by Horticulture department.

| | | |
|-----------|---|---|
| 15 | The project authorities shall obtain the membership of TSDF and waste water disposal facility and copy of the same shall be submitted to the GPCB and Ministry's regional office at Bhopal within three months. | Industry has obtained membership of common TSDF, BEIL, Bharuch for disposal of hazardous waste. Details are as under; TSDF Name: - Bharuch Enviro Infrastructure Limited, Dahej. Ref: -BEIL/ANK/2022, Membership No. OTH/474 Membership Qty: - 8000 Ton/Annum TSDF Name: - Safe Enviro Pvt Ltd, Membership No. 103910 Membership Qty: - 5000 Ton/Annum Industry has taken permission / membership of GIDC pipeline network for disposal of treated effluent. |
| 16 | Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per the factories Act. | We have established an Occupational Health Center (OHC). Routine periodical medical examinations for all employees are carried out. Records are maintained at OHC as per the Factories Act. Findings of Health surveillance reveals that no one is suffering from any occupational health related disease. Details of test conducted and numbers of employee covered is summarized in Table No. 15 |

Table No. 15

Spirometry (FY-23)

| Name of Dept. | Total Employees | FVC (liters) | FEV 1 | FEV 1/ FVC % | PEF Litres/Sec | Conclusion |
|--|-----------------|--------------|-------|--------------|----------------|--|
| Admin Department (SCM, Purchase, Account, Legal, IT Dept.) | 92 | 0 | 0 | 0 | 0 | Approx. 0% deviation from normal |
| % | | 0 | 0 | 0 | 0 | |
| Process Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC, Civil) | 750 | 1 | 0 | 0 | 1 | Approx. 0.82% is deviation from normal |
| % | | 0.18 | 0 | 0 | 0.18 | |
| Technical Cell, WCM, Customer Focus, Electrical Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC) | 130 | 0 | 0 | 0 | 0 | Approx. 0% deviation from normal |
| % | | 0 | 0 | 0 | 0 | |
| Mechanical Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC) | 290 | 0 | 0 | 0 | 0 | Approx. 0% deviation from normal |
| % | | 0 | 0 | 0 | 0 | |

| Table No. 15 | | | | | | |
|---|-----------------|--------------|-------|--------------|----------------|----------------------------------|
| Spirometry (FY-23) | | | | | | |
| Name of Dept. | Total Employees | FVC (liters) | FEV 1 | FEV 1/ FVC % | PEF Litres/Sec | Conclusion |
| QC & QA Instrumentation Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC) | 132 | 0 | 0 | 0 | 0 | Approx. 0% deviation from normal |
| % | | 0 | 0 | 0 | 0 | |
| P&A (HR, Security & Services, ER, CSR, HORTICULTURE, Workshop) Dept. | 30 | 0 | 0 | 0 | 0 | Approx. 0% deviation from normal |
| % | | 0.00 | 1.09 | 0.00 | 0.00 | |

| Circulatory system (FY- 23) | | | | | | Vision | | ENT |
|---|-----------------|-------|------|----------------|-------|----------------|-----------------|------------|
| Employees | Total Employees | Pulse | ECG | Blood Pressure | Hemat | Distant Vision | Color Blindness | Audiometry |
| | | | | | Hb | | | |
| Admin Department (SCM, Purchase, Account, Legal, IT Dept.) | 92 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| % | | 1.64 | 0 | 1.63 | 0 | 0 | 0 | 3.27 |
| Process Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC, Civil) | 750 | 3 | 11 | 17 | 2 | 4 | 2 | 1 |
| % | | 0.55 | 2 | 3.1 | 0.36 | 0.73 | 0.36 | 0.18 |
| Technical Cell, WCM, Customer Focus, Electrical Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC) | 130 | 1 | 2 | 1 | 0 | 0 | 1 | 1 |
| % | | 1.52 | 3 | 1.51 | 0 | 0 | 1.5 | 1.5 |
| Mechanical Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC) | 290 | 2 | 3 | 7 | 1 | 0 | 4 | 1 |
| % | | 1.13 | 1.69 | 3.95 | 0.56 | 0 | 2.25 | 0.56 |
| QC & QA Instrumentation Dept. (Auxiliary, viscose, spinning, CS2/Acid, WTP/ETP/STP, EC) | 132 | 1 | 1 | 4 | 0 | 1 | 1 | 0 |
| % | | 1.09 | 1.09 | 4.34 | 0 | 1.09 | 1.09 | 0 |
| P&A (HR, Security & Services, ER, CSR, HORTICULTURE, Workshop) Dept. | 30 | 0 | 2 | 1 | 0 | 0 | 0 | 2 |
| % | | 0 | 10 | 5 | 0 | 0 | 0 | 10 |

| | | |
|-----------|--|--|
| 17 | The project authorities shall take up all out efforts to protect the water bodies and biodiversity around the plant. | Regular monitoring of Water & Air quality is being done by Environment Lab established by industry and 3rd party NABL accredited laboratory. There is only one water body namely "Bhooki Khadi" which is approximately 500 m from boundary wall. Water from this is being used |
|-----------|--|--|

| | | |
|--|--|--|
| | | for irrigation and cattle feeding by nearby villages. |
| | A monitoring mechanism for water / air quality, production & crop pattern around the plant shall be adopted and comparative status shall be reported annually to the Ministries Regional office, GPCB & CPCB | Water, Air quality & production is being monitored regularly and compared with base line. Same is being reported to Ministry's Regional office on six monthly basis and submitting reports to GPCB on monthly basis for the same. Data are tabulated Under Table No.16 Crop pattern study is done by M/s Kadam Environmental Consultant. |

Agency: - Unistar Environment & Research Lab
Address: - Near GIDC Office Char Rasta, Vapi-396195

NABL Accreditation: - NABL Certificate Number TC-7652

Table No.16

| Month | Up Stream - Down Stream (Bhukhi Khadi) Analysis Data | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|-------|-----------|--------|--------------------|---------------|-----------------|---------------|------------------|----------------|----------|---------------------|-------------|-------|-----------|--------|--------------------|---------------|-----------------|---------------|------------------|----------------|----------|---------------------|
| | Up-Stream | | | | | | | | | | | | Down-Stream | | | | | | | | | | | |
| | pH | Temp. | Turbidity | TSS | Ammonical Nitrogen | Nitrate | Phenolic Comp | BOD | Dissolved Oxygen | Total Nitrogen | Salinity | Dissolved Phosphate | pH | Temp. | Turbidity | TSS | Ammonical Nitrogen | Nitrate | Phenolic Comp | BOD | Dissolved Oxygen | Total Nitrogen | Salinity | Dissolved Phosphate |
| Unit | - | deg C | mg/lit | mg/lit | mg/lit | PPM | PPM | mg/lit | mg/lit | mg/lit | ppt | mg/lit | - | deg C | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit | mg/lit |
| Apr-23 | 8.00 | 30.00 | 1.00 | 28.00 | 0.30 | 0.40 | BDL (MDL:0.001) | BDL (MDL:1.0) | 6.50 | 2.80 | 0.12 | BDL(MDL:0.1) | 7.62 | 30.00 | 1.00 | 16.00 | 0.50 | BDL (MDL:0.1) | BDL (MDL:0.001) | BDL (MDL:1.0) | 6.60 | 3.10 | 0.13 | BDL (MDL:0.1) |
| May-23 | 7.80 | 31.00 | 1.00 | 12.00 | 0.30 | BDL (MDL:0.1) | BDL (MDL:0.001) | BDL (MDL:1.0) | 6.40 | 3.60 | 0.25 | BDL(MDL:0.1) | 7.70 | 31.00 | 1.00 | 10.00 | 0.26 | BDL (MDL:0.1) | BDL (MDL:0.001) | BDL (MDL:1.0) | 6.60 | 3.00 | 0.24 | BDL (MDL:0.1) |
| Jun-23 | 7.92 | 29.00 | 1.00 | 6.00 | 0.22 | BDL (MDL:0.1) | BDL (MDL:0.001) | BDL (MDL:1.0) | 6.50 | 2.60 | 0.19 | BDL(MDL:0.1) | 7.84 | 29.00 | 1.00 | 8.00 | 0.26 | BDL (MDL:0.1) | BDL (MDL:0.001) | BDL (MDL:1.0) | 6.60 | 3.10 | 0.22 | BDL (MDL:0.1) |
| Jul-23 | 7.29 | 30.00 | 1.00 | 24.00 | 0.21 | BDL (MDL:0.1) | BDL (MDL:0.001) | BDL (MDL:1.0) | 6.50 | 2.40 | 0.12 | 1.80 | 6.97 | 30.00 | 1.00 | 22.00 | 0.25 | BDL (MDL:0.1) | BDL (MDL:0.001) | BDL (MDL:1.0) | 6.60 | 2.60 | 0.12 | 1.90 |
| Aug-23 | 7.63 | 30.00 | 1.00 | 31.00 | 0.24 | BDL (MDL:0.1) | BDL (MDL:0.001) | BDL (MDL:1.0) | 6.60 | 3.10 | 0.20 | 0.50 | 7.74 | 30.00 | 1.00 | 28.00 | 0.18 | BDL (MDL:0.1) | BDL (MDL:0.001) | 2.00 | 6.40 | 2.80 | 0.19 | 0.40 |
| Sep-23 | 7.59 | 29.50 | 1.00 | 26.00 | 0.22 | BDL (MDL:0.1) | BDL (MDL:0.001) | 2.00 | 6.50 | 2.80 | 0.17 | 0.30 | 7.64 | 29.50 | 1.00 | 22.00 | 0.24 | BDL (MDL:0.1) | BDL (MDL:0.001) | 2.00 | 6.70 | 3.10 | 0.22 | 0.40 |
| Min | 7.29 | 29.00 | 1.00 | 6.00 | 0.21 | BDL (MDL:0.1) | BDL (MDL:0.001) | BDL (MDL:1.0) | 6.40 | 2.40 | 0.12 | BDL(MDL:0.1) | 6.97 | 29.00 | 1.00 | 8.00 | 0.18 | BDL (MDL:0.1) | BDL (MDL:0.001) | BDL (MDL:1.0) | 6.40 | 2.60 | 0.12 | BDL (MDL:0.1) |
| Max | 8.00 | 31.00 | 1.00 | 31.00 | 0.30 | 0.40 | BDL (MDL:0.001) | 2.00 | 6.60 | 3.60 | 0.25 | 1.80 | 7.84 | 31.00 | 1.00 | 28.00 | 0.50 | BDL (MDL:0.1) | BDL (MDL:0.001) | 2.00 | 6.70 | 3.10 | 0.24 | 1.90 |
| Average | 7.71 | 29.92 | 1.00 | 21.17 | 0.25 | - | BDL (MDL:0.001) | - | 6.50 | 2.88 | 0.18 | - | 7.59 | 29.92 | 1.00 | 17.67 | 0.28 | BDL (MDL:0.1) | BDL (MDL:0.001) | - | 6.58 | 2.95 | 0.19 | 0.90 |

Note: All parameters are well within the prescribed limits.

B. General Condition: -

| | | |
|------|--|--|
| I) | The project authorities shall strictly adhere to the stipulations of the SPCB/State Government or any statutory body. | Industry is complying all the stipulations of GPCB / state government. GPGB has granted Common Consent and Authorization (CCA) to industry which is valid up to 23/03/2024. |
| II) | No expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to the Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any. | No expansion or modification is done in industry without prior permission of Ministry. Expansion is done with following prior permission / clearance. Environment Clearance No. F. No. J-11011/321/2016-IA-II(I) Pt dated 15.01.2018 Environment Clearance No. F. No. J-11011/321/2016-IA II (I) dated 16.08.2018 Environment Clearance No. F. No. J-11011/321/2016-IAII(I) dated 17.10.2019 |
| III) | The gaseous emission (SO ₂ , NO _x , H ₂ S & CS ₂) and Particulate Matter along with RSPM levels from various process units shall confirm to the standards prescribed by the concerned authorities from time to time. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put of the operation and shall not be restarted until the desired efficiency has been achieved | Gaseous emission is monitored regularly and results confirm to the standards specified by both GPCB and CPCB. The lab results are summarized for the reporting period from Apr-23 to Sep-23 in table above Table No.17 & Table No. 18 below. Industry has developed Controls to put off the operations in case of failures of any pollution control devices and operations are not restored until the desired efficiency is achieved. |

| Table No. 17 | | |
|--|--|-----------------------|
| Third Party Lab Details | Month of Sample | CS2 (Kg/Ton of Fibre) |
| | CCA Norms | 95 |
| | Apr-23 | 12.60 |
| | May-23 | 12.20 |
| Agency: - Unistar Environment & Research lab Pvt. Ltd Address: - Near GIDC, Char Rasta, Vapi NABL: - NABL Certificate Number TC-7753 Details of instrument Used for Monitoring: - Instrument Name: - Stack Monitoring Kit Vss1 Instrument ID: - UERL/AIR/HS/03 Serial No.: - 91-I-19 Calibration Date: - 03.02.2023 Expiry Date: - 02.02.2024 | Jun-23 | 12.60 |
| | Jul-23 | 12.10 |
| | Aug-23 | 15.10 |
| | Sep-23 | 13.10 |
| | Min | 12.10 |
| | Max | 15.10 |
| | Avg. | 12.95 |
| | At no time, the emission exceeded the prescribed limits. (Refer Table No.17) | |

Agency: - Unistar Environment & Research Lab Pvt. Ltd

Instrument ID & Name: -1) Respirable Dust Sampler - RDS: SR. No. 160203106 - UERL/AIR/RDS/ 02(Calibration Period: - 31.07.2023 – 30.07.2024)

2) Fine Particulate Sampler - FPS: SR. No. 160402021 - UERL/AIR/FPS/08(Calibration Period: - 31.07.2023 – 30.07.2024)

Table No. 18 (For Ambient Air) µg/m3

| Month | Near ETP MCC Room | | | | | | Near ER Office | | | | | |
|----------------|-------------------|-------------|-----------------|-----------------|------------------|-----------------|----------------|-------------|-----------------|-----------------|------------------|-----------------|
| | SPM PM10 | SPM PM2.5 | SO ₂ | NO ₂ | H ₂ S | CS ₂ | SPM PM10 | SPM PM2.5 | SO ₂ | NO ₂ | H ₂ S | CS ₂ |
| Norms | 100 | 60 | 80 | 80 | 150 | 100 | 100 | 60 | 80 | 80 | 150 | 100 |
| Apr-23 | 55.2 | 18.6 | 20.2 | 23.1 | BDL | BDL | 50.9 | 15.2 | 18.6 | 21.1 | BDL | BDL |
| May-23 | 58.6 | 21.2 | 18.7 | 21.7 | BDL | BDL | 53.2 | 17.6 | 16.0 | 19.6 | BDL | BDL |
| Jun-23 | 54.8 | 20.2 | 20.1 | 23.5 | BDL | BDL | 51.6 | 19.4 | 17.6 | 20.6 | BDL | BDL |
| Jul-23 | 58.2 | 18.5 | 18.0 | 21.0 | BDL | BDL | 54.1 | 15.2 | 17.1 | 19.6 | BDL | BDL |
| Aug-23 | 56.1 | 20.8 | 15.6 | 18.3 | BDL | BDL | 52.8 | 17.1 | 19.4 | 21.3 | BDL | BDL |
| Sep-23 | 58.4 | 18.7 | 16.9 | 20.3 | BDL | BDL | 50.8 | 16.6 | 20.3 | 21.7 | BDL | BDL |
| Min | 54.8 | 18.5 | 15.6 | 18.3 | BDL | BDL | 50.8 | 15.2 | 16.0 | 19.6 | BDL | BDL |
| Max | 58.6 | 21.2 | 20.2 | 23.5 | BDL | BDL | 54.1 | 19.4 | 20.3 | 21.7 | BDL | BDL |
| Average | 56.9 | 19.7 | 18.3 | 21.3 | BDL | BDL | 52.2 | 16.9 | 18.2 | 20.7 | BDL | BDL |

Note: At no time, the emission exceeded the prescribed limits. (Refer Table No.18)

IV) The location of Ambient Air Quality (AAQ) monitoring stations shall be reviewed in consultation with SPCB and additional shall be installed, if required, in the downwind direction as well as where maximum ground level concentration is anticipated.

The location of Ambient Air Quality (AAQ) monitoring stations have been reviewed in consultation with GPCB and 4 nos. AAQ monitoring stations installed in nearby 4 villages, at Derol, Vilayat, Sarnar and Argama within 2-3 kms radius. Monthly monitoring is being done on monthly by NABL accredited Lab. The Ambient Air quality results for the period of Apr-23 to Sep-23 is tabulated as under **Table No. 19.**

Agency: - Unistar Environment & Research Lab Pvt. Ltd

Instrument ID & Name: - 1) Respirable Dust Sampler - RDS: SR. No. 160203106 - UERL/AIR/RDS/ 02(Calibration Period: - 31.07.2023 – 30.07.2024)

2) Fine Particulate Sampler - FPS: SR. No. 160402021 - UERL/AIR/FPS/08(Calibration Period: - 31.07.2023 – 30.07.2024)

Table No. 19

| Month | SARNAR | | | | | | DEROL | | | | | | ARGAMA | | | | | | VILAYAT | | | | | |
|----------------|------------|-----------|-----------|-----------|------------|------------|------------|-----------|-----------|-----------|------------|------------|------------|-----------|-----------|-----------|------------|------------|------------|-----------|-----------|-----------|------------|------------|
| | SPM | SPM | SO2 | NO2 | H2S | CS2 | SPM | SPM | SO2 | NO2 | H2S | CS2 | SPM | SPM | SO2 | NO2 | H2S | CS2 | SPM | SPM | SO2 | NO2 | H2S | CS2 |
| | PM10 | PM2.5 | | | | | PM10 | PM2.5 | | | | | PM10 | PM2.5 | | | | | PM10 | PM2.5 | | | | |
| Norms | 100 | 60 | 80 | 80 | 150 | 100 | 100 | 60 | 80 | 80 | 150 | 100 | 100 | 60 | 80 | 80 | 150 | 100 | 100 | 60 | 80 | 80 | 150 | 100 |
| Apr-23 | 80.4 | 29.2 | 25.1 | 27.1 | BDL | BDL | 72.6 | 26.7 | 23.7 | 25.5 | BDL | BDL | 74.2 | 23.2 | 18.6 | 20.3 | BDL | BDL | 76.6 | 25.9 | 20.3 | 22.2 | BDL | BDL |
| May-23 | 83.6 | 30.4 | 22.6 | 25.5 | BDL | BDL | 76.1 | 27.8 | 20.6 | 23.9 | BDL | BDL | 78.6 | 26.1 | 21.3 | 23.6 | BDL | BDL | 72.9 | 26.7 | 18.6 | 21.8 | BDL | BDL |
| Jun-23 | 76.9 | 28.3 | 18.6 | 20.6 | BDL | BDL | 82.1 | 31.1 | 23.0 | 25.8 | BDL | BDL | 83.8 | 31.2 | 20.4 | 23.2 | BDL | BDL | 78.6 | 29.7 | 21.6 | 25.1 | BDL | BDL |
| Jul-23 | 69.2 | 20.8 | 21.2 | 25.2 | BDL | BDL | 76.1 | 25.0 | 18.7 | 22.7 | BDL | BDL | 77.1 | 26.1 | 16.4 | 19.4 | BDL | BDL | 72.0 | 22.0 | 19.8 | 22.6 | BDL | BDL |
| Aug-23 | 73.6 | 23.1 | 23.2 | 25.2 | BDL | BDL | 82.1 | 30.8 | 19.8 | 21.7 | BDL | BDL | 81.2 | 25.9 | 19.4 | 21.8 | BDL | BDL | 78.4 | 29.4 | 21.6 | 24.3 | BDL | BDL |
| Sep-23 | 72.9 | 23.9 | 17.6 | 18.6 | BDL | BDL | 78.6 | 28.5 | 20.2 | 23.4 | BDL | BDL | 80.6 | 25.6 | 21.4 | 23.2 | BDL | BDL | 72.2 | 25.7 | 18.6 | 20.8 | BDL | BDL |
| Min | 69.2 | 20.8 | 17.6 | 18.6 | BDL | BDL | 72.6 | 25.0 | 18.7 | 21.7 | BDL | BDL | 74.2 | 23.2 | 16.4 | 19.4 | BDL | BDL | 72.0 | 22.0 | 18.6 | 20.8 | BDL | BDL |
| Max | 83.6 | 30.4 | 25.1 | 27.1 | BDL | BDL | 82.1 | 31.1 | 23.7 | 25.8 | BDL | BDL | 83.8 | 31.2 | 21.4 | 23.6 | BDL | BDL | 78.6 | 29.7 | 21.6 | 25.1 | BDL | BDL |
| Average | 76.1 | 26.0 | 21.4 | 23.7 | BDL | BDL | 77.9 | 28.3 | 21.0 | 23.8 | BDL | BDL | 79.3 | 26.4 | 19.6 | 21.9 | BDL | BDL | 75.1 | 26.6 | 20.1 | 22.8 | BDL | BDL |

Note: All results are in µg/m3 and Till date, the emission level has never exceeded prescribed limits. (Refer Table No.19)

V) Dedicated scrubbers and stack of appropriate height as per CPCB guidelines shall be provided to control the emissions from various stacks/vents.

Dedicated scrubbers and stack of appropriate height as per CPCB guidelines are provided to control the emissions from various stacks/vents. Details are as under;
Rayon plant – 175m stack; **H2SO4 plant-1** – 50 m stack; **H2SO4 plant-2** – 60 m stack; **CS2 Plant** – 100 m stack

The scrubber water shall be sent to ETP for further treatment

The scrubber water is routed through ETP for further treatment.

VI) All the chemicals / solvents storage tank shall be under negative pressure to avoid any leakages. Breather valve, N2 blanketing and secondary condensers with brine chilling system shall be provided for all the storage tanks to minimize vapor loses. All liquid raw material shall be stored in storage tanks and drums.

All storage tanks are suitably designed to avoid leakages for storage under atmospheric conditions. CS2 is stored under water due its volatile nature. Dykes are provided at all chemical storage area as per guidelines to arrest spillages / leaks with Emergency response plan for any such event.

| | | |
|-------|---|--|
| VII) | The company shall undertake following waste minimization measures; | - |
| | - Metering & control of quantities of active ingredients to minimize waste | Metering & measurement system are in place. Reduction in wastage is also reflected in specific consumption of chemicals |
| | - Reuse of by-products from the process as raw material or as RM substitution in other processes | We are recovering Sulphur from H2S gas which is generated during fibre spinning process & reuse it as a raw material for the manufacturing of CS2 & H2SO4. |
| | - Use of automated filling to minimize spillages | Chemicals such as Caustic, Sodium hypochlorite, Sulphuric acid, Carbon Disulphide is transported through pipelines. Sodium sulphate is bagged through automatic bagging M/c to avoid spillages. |
| | - Use of "closed feed" system into batch reactors | All chemicals are fed in closed feed system to avoid any spillage. |
| | - Venting equipment through vapor recovery system | CS2 vapor recovery system is installed at each spinning machine (6 no's) to recover CS2. |
| VIII) | Fugitive emissions in the work zone environment, product & raw materials storage area shall be regularly monitored. The emissions shall confirm to the limits imposed by SPCB/ CPCB | Fugitive emissions in work zone environment, product and raw material storage area is being monitored by Environmental Lab on regular basis and results are well within stipulated norms. Lab data are tabulated as Table No. 20 |

Inst. Calibration done by: - TMS
Instrument Name: - Toxirae III (for H2S Measurement) & For CS2 measurement following IS 5182 (Part 20): 1982 method
Serial No.: - G011236349, **Calibration Date:** - 13.09.2023, **Expiry Date:** - 11.03.2024

Table No. 20

| Month | Pulp Warehouse | | | | | | Central Stores | | | | | | Fibre warehouse | | | | | | Salt Go down | | | | | |
|--------|----------------|-----|--------|-----|------|-----|----------------|-----|--------|-----|------|-----|-----------------|-----|--------|-----|------|-----|--------------|-----|--------|-----|------|-----|
| | Entry | | Middle | | Last | | Entry | | Middle | | Last | | Entry | | Middle | | Last | | Entry | | Middle | | Last | |
| | CS2 | H2S | CS2 | H2S | CS2 | H2S | CS2 | H2S | CS2 | H2S | CS2 | H2S | CS2 | H2S | CS2 | H2S | CS2 | H2S | CS2 | H2S | CS2 | H2S | CS2 | H2S |
| | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Apr'23 | 0.1 | Tr | 0.12 | Tr | 0.13 | Tr | 0.10 | Tr | 0.11 | Tr | 0.13 | Tr | 0.12 | Tr | 0.14 | Tr | 0.12 | Tr | 0.14 | Tr | 0.14 | Tr | 0.14 | Tr |
| May'23 | 0.12 | Tr | 0.14 | Tr | 0.14 | Tr | 0.12 | Tr | 0.11 | Tr | 0.14 | Tr | 0.12 | Tr | 0.14 | Tr | 0.14 | Tr | 0.15 | Tr | 0.14 | Tr | 0.14 | Tr |
| Jun'23 | 0.11 | Tr | 0.12 | Tr | 0.14 | Tr | 0.12 | Tr | 0.14 | Tr | 0.12 | Tr | 0.14 | Tr | 0.13 | Tr | 0.12 | Tr | 0.12 | Tr | 0.15 | Tr | 0.14 | Tr |
| Jul'23 | 0.12 | Tr | 0.13 | Tr | 0.11 | Tr | 0.11 | Tr | 0.10 | Tr | 0.12 | Tr | 0.12 | Tr | 0.14 | Tr | 0.13 | Tr | 0.12 | Tr | 0.15 | Tr | 0.12 | Tr |
| Aug'23 | 0.14 | Tr | 0.12 | Tr | 0.13 | Tr | 0.10 | Tr | 0.12 | Tr | 0.08 | Tr | 0.14 | Tr | 0.15 | Tr | 0.12 | Tr | 0.14 | Tr | 0.15 | Tr | 0.15 | Tr |
| Sep'23 | 0.12 | Tr | 0.12 | Tr | 0.14 | Tr | 0.10 | Tr | 0.13 | Tr | 0.12 | Tr | 0.11 | Tr | 0.14 | Tr | 0.12 | Tr | 0.12 | Tr | 0.12 | Tr | 0.13 | Tr |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|
| Min | 0.10 | Tr | 0.12 | Tr | 0.11 | Tr | 0.10 | Tr | 0.10 | Tr | 0.08 | Tr | 0.11 | Tr | 0.13 | Tr | 0.12 | Tr | 0.12 | Tr | 0.12 | Tr | 0.12 | Tr |
| Max | 0.14 | Tr | 0.14 | Tr | 0.14 | Tr | 0.12 | Tr | 0.14 | Tr | 0.14 | Tr | 0.14 | Tr | 0.15 | Tr | 0.14 | Tr | 0.15 | Tr | 0.15 | Tr | 0.15 | Tr |
| Avg. | 0.12 | Tr | 0.13 | Tr | 0.13 | Tr | 0.11 | Tr | 0.12 | Tr | 0.12 | Tr | 0.13 | Tr | 0.14 | Tr | 0.13 | Tr | 0.13 | Tr | 0.14 | Tr | 0.14 | Tr |

ix) The project authorities shall strictly comply with the rules and guidelines under manufacture, storage and import of hazardous chemicals Rules 1989 as amended up to date and Hazardous waste (management & handling) Rules 1989 as amended time to time. Authorization from the SPCB shall be obtained for collection, storage, treatment and disposal of hazardous wastes.

Industry is strictly complying the rules and guidelines under the Manufacture, storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time.
 Industry has obtained license for storage of 60 KL light diesel oil and storage of 10 KL HSD at 2 locations in plant area for DG sets from Deputy Controller of Explosive from M/s PESO (PETROLEUM & Explosives Safety Organization). We have valid factory license from DISH.
 Industry has taken authorization (CC&A # AWH 100730) for collection, storage, treatment and disposal of hazardous wastes under the provisions of Hazardous Waste Rules, amended as on date. CCA issued by GPCB on 22nd June 2022 which is valid up to 23rd Mar 2024.
 Hazardous waste is being disposed to M/s. BEIL, Dahej & M/s. SEPL, Dahej (TSDF) facility and annual hazardous waste disposal details are submitted on GPCB XGN online site.

x) The overall noise levels in and around the plant area shall be kept well within the standard by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall confirm to the standards prescribed under the Environment (Protection) Act, 1986 Rules 1989 viz. 75 dB (day time and 70 dB (night time)

Industry has provided relevant noise control measures such as acoustic hoods, silencers, acoustic enclosures at all noise sources. Ambient noise inside the plant and around the plant in nearby villages conforms to the Environment (Protection) Act, 1986 Rules, 1989. The Noise level (dB) at workroom for reporting period from Apr'23 to Oct'23 is tabulated in **Table No. 21**:

Sound Level Meter: - SL 4023 SD
Reference Standard: - Sound Level Calibrator, Sr. No. 3421624, Calibration Valid Up to: 02.02.2024

Table No.21 (UOM – dBA)

| Area | Apr-23 | | May-23 | | Jun-23 | | Jul-23 | | Aug-23 | | Sep-23 | |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | Day | Night | Day | Night | Day | Night | Day | Night | Day | Night | Day | Night |
| | Time | Time | Time | Time | Time | Time | Time | Time | Time | Time | Time | Time |
| | 75 | 70 | 75 | 70 | 75 | 70 | 75 | 70 | 75 | 70 | 75 | 70 |
| Main Gate | 64.3 | 58.3 | 63.4 | 57.4 | 63.2 | 57.2 | 63.6 | 57.6 | 63.6 | 57.6 | 62.7 | 56.7 |
| Material Gate | 68.2 | 63.1 | 69.1 | 64.0 | 68.7 | 63.6 | 68.3 | 63.2 | 68.3 | 63.2 | 69.0 | 63.9 |
| OHC | 63.7 | 60.7 | 64.9 | 61.9 | 65.0 | 62.0 | 64.3 | 61.3 | 64.3 | 61.3 | 64.8 | 61.8 |
| Derol | 53.1 | 42.9 | 54.6 | 43.8 | 54.2 | 43.0 | 53.7 | 43.5 | 52.7 | 42.5 | 52.3 | 42.1 |
| Vilayat | 52.6 | 42.0 | 53.2 | 42.6 | 53.9 | 44.3 | 53.8 | 44.2 | 51.8 | 43.2 | 51.6 | 44.0 |
| Sarnar | 51.9 | 43.2 | 52.1 | 43.4 | 52.6 | 43.9 | 52.6 | 42.9 | 52.6 | 42.9 | 50.6 | 43.9 |
| Argama | 52.0 | 41.2 | 53.8 | 44.0 | 52.8 | 42.0 | 53.4 | 41.6 | 53.4 | 43.6 | 52.8 | 42.0 |
| Min | 51.9 | 41.2 | 52.1 | 42.6 | 52.6 | 42.0 | 52.6 | 41.6 | 51.8 | 42.5 | 50.6 | 42.0 |
| Max | 68.2 | 63.1 | 69.1 | 64.0 | 68.7 | 63.6 | 68.3 | 63.2 | 68.3 | 63.2 | 69.0 | 63.9 |
| Avg. | 58.0 | 50.2 | 58.7 | 51.0 | 58.6 | 50.9 | 58.5 | 50.6 | 58.1 | 50.6 | 57.7 | 50.6 |

Note: All results are within prescribed limits. (Refer Table No.21)

| | | |
|------------|---|--|
| XI) | The company shall develop rain water harvesting structures to harvest the runoff water for recharge of ground water | Survey has been done for roof top rain water harvesting. Job is already taken up at some locations, nearby locations to reservoir are diverted to fresh water reservoir. Tentative details of water saving done through implemented scheme are enclosed below: |
|------------|---|--|

Tentative Water Saving through Rain Water Harvesting (Apr-23 to Sep-23)

| Reservoir Area-1 | Reservoir Area-2 | fire house area | Area | Rainfall | | | Rain Water Harvesting |
|------------------|------------------|-----------------|--------|----------|-------|--------|-----------------------|
| M2 | | | | (MM) | (CM) | (Mtr.) | M3 |
| 86400 | 43200 | 240 | 129840 | 668.4 | 66.84 | 0.6684 | 86785.05 |

| | | |
|-------------|---|---|
| XII) | The company shall undertake eco-development measures including community welfare measures in the project area for the overall improvement of the environment. | We have been undertaking various community development measures in and around 25 Villages and 7674 nos. of beneficiaries covered from Apr-23 to Sep-23. Unit has proposed Eco development plan yearly basis through CSR activities and submitting CSR activities update in Annual Environment Audit Report to GPCB on yearly basis. |
|-------------|---|---|

| | | |
|--|--|---|
| | The eco development plan should be submitted to SPCB within three months of receipt of this letter for approval. | Eco development measures including community welfare being done under CSR initiatives & expenditure details of CSR activities are in below Table No. 22. |
|--|--|---|

Table No. 22

| Financial Year | Average Net Profit (in Crore) of the company (As per 135(S) company's Act) | Allocate CSR Amount (2%) | Actual Spent in CSR (Amount in Crore) | % Spent CSR against Net Profit |
|-------------------|---|-----------------------------|--|--------------------------------|
| 2015-2016 | 791.00 | 15.82 | 15.05 | |
| 2016-2017 | 790.00 | 15.80 | 18.06 | |
| 2017-2018 | 1107.00 | 22.14 | 29.84 | |
| 2018-2019 | 1699.00 | 33.97 | 47.14 | |
| 2019-2020 | 2421.32 | 48.43 | 58.98 | |
| 2020-2021 | 2253.08 | 45.06 | 84.66 | |
| 2021-2022 | 1798.71 | 35.97 | 42.47 | |
| 2022-2023 | 1497.56 | 29.95 | 54.19 | |
| Total=> | 12357.67 | 247.14 | 350.39 | |

| | | |
|--------------|---|--|
| XIII) | <p>A separate Environment Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and monitoring functions. The details of the Cell shall be submitted to MoEF regional officer prior to commissioning of the plant.</p> | <p>A Separate Environment Management Cell already exists with technically qualified personnel who are under the direct control of senior executives for Environment Management and monitoring function. Organogram of environment management cell is Enclosed as Annexure-3. Detail of testing facility & testing equipment available in environmental laboratory is enclosed as Annexure-4.</p> |
|--------------|---|--|

| | | |
|-------------|---|--|
| XIV) | <p>The project authorities shall earmark separate funds to implement the condition stipulated by MoEF as well as state government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.</p> | <p>As mentioned in Environment Clearance, total project cost was INR 1200 Crores. As committed in the EIA/EMP, unit has allocated capital cost of INR 170.5 Crores and recurring cost INR 15.5 Crores per annum respectively for implementation of environmental pollution control measures as per condition stipulated by the MoEF as well as state Govt.</p> <p>Funds are utilized in Air pollution control measures, water pollution control measures, Environmental monitoring & management, waste management & green belt development. We hereby declare that the capital & recurring fund is not diverted for other purpose. Details of fund utilized for environmental management is mentioned in Table-23</p> |
|-------------|---|--|

Table No.23

Fund Utilize for environmental Management are under (Rs. In Crore)

| Sr. No. | Particular | Capex | Opex FY-17 | Opex FY-18 | Opex FY-19 | Opex FY-20 | Opex FY-21 | Opex FY-22 | Opex FY-23 |
|--------------------------------------|--|---------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| 1 | Effluent Water | 79.00 | 11.50 | 10.56 | 11.00 | 11.00 | 13.35 | 14.85 | 35.60 |
| 2 | Air Pollution Control (Including H2S Scrubbing Plant & CAP Plant) | 350.00 | 03.50 | 04.00 | 03.30 | 5.17 | 14.35 | 14.23 | 162.85 |
| 3 | Green Belt Development | 00.50 | 00.50 | 00.55 | 01.30 | 0.51 | 0.13 | 0.08 | 1.09 |
| 4 | Waste Management | 01.50 | 00.50 | 00.60 | 01.60 | 3.07 | 2.90 | 1.78 | 4.37 |
| Total Amount (In Crore) => | | 431.00 | 16.00 | 15.71 | 17.20 | 19.75 | 30.73 | 30.94 | 203.91 |

| XV) | The implementation of the project vis-à-vis environmental action plans shall be monitored by the concerned regional office of MoEF/ GPCB/ CPCB. | Acknowledged, Industry submits every six-monthly environment clearance compliance report to MoEFCC, CPCB and GPCB. | | | |
|-------------------|--|--|-------------------|---------------------------|------------------|
| | A six-monthly compliance status report shall be submitted to monitoring agencies and shall be posted on the website of the company. | Six monthly compliance status report is being regularly submitted to monitoring agencies as well as being posted on the website of the company. Last compliance report is submitted on 26.11.2022. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Compliance Period</th> <th>Date of Report Submission</th> </tr> </thead> <tbody> <tr> <td align="center">Oct-22 to Mar-23</td> <td align="center">28.05.2023</td> </tr> </tbody> </table> | Compliance Period | Date of Report Submission | Oct-22 to Mar-23 |
| Compliance Period | Date of Report Submission | | | | |
| Oct-22 to Mar-23 | 28.05.2023 | | | | |
| XVI) | The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at website of MoEF http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned regional office of the Ministry. | Advertisement has been released in two local newspapers within 7 days from the date of issue of the clearance letter. Issue of Environment Clearance: 20.12.2007 Release of Advertisement : 24.12.2007 EC Advertisement copies are enclosed below: | | | |
| | Name of Paper: - Indian Express Date of Issue: - 28.12.2007 In: - English language | Name of Paper: - Gujarati Loksatta Date of Issue: - 28.12.2007 In: - Gujarati language | | | |



| | | |
|-------|--|--|
| | | |
| XVII) | The project authorities shall inform the Regional Office as well as Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of the start of the project | Industry has informed BSE & NSE regarding commissioning of project vide letters dated 31.07.2014 & 03.03.2015. We have submitted the same to Regional Office of MoEF & CC, Bhopal. Project / plant activities are as under; (1) EC received on 20 th Dec-07, (2) Civil & another const. work started in Jun-2011. (3) 1 st line commissioned in Mar-2014. (4) All 4 lines commissioned by Jan-2015. |
| 10. | The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory | Acknowledged |
| 11. | The Ministry reserves the rights to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions. | Acknowledged |
| 12. | The above conditions will be enforced, inter-alia under the provision of the Water (Prevention & control of pollution) Act-1977, the Air (Prevention & control of pollution) Act-1981, the Environment (Protection) Act- 1986, Hazardous waste (Management & Handling) Rules-2003 and the Public Liability Insurance Act-1991 along with their amendments and rules. | Noted, Industry is complying all the applicable provisions of the Water (Prevention & control of pollution) Act-1977, the Air (Prevention & control of pollution) Act-1981, the Environment (Protection) Act- 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act-1991. |

Note: Copy of the Monthly Environmental Monitoring reports by NABL accredited laboratory for Effluent and Emission for the last month of the compliance period i.e. Sep-23 is enclosed as Annexure-6 for reference.

Annexures

Annexure-1

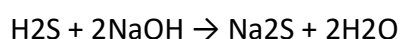
Brief of CAP Technology

Grasim Vilayat has installed state-of-the-art closed-loop technologies to recover and recycle CS₂, which is the key raw material for viscose manufacturing process. With these technologies, the site is able to significantly reduce its emissions and achieve 90-95% recovery in terms of Sulphur and recycle it back to the process. CAP is more efficient system for the recovery of CS₂ than CS₂ recovery through genosorb. In this system H₂S gas is recovered in the form of Sulphur in EDTA plant and the exhaust gas stream is move forward to the CAP plant for the CS₂ recovery.

Brief on process technology:

1. The washing tower system

The gas contains CS₂ and traces of H₂S, which enter from the lower side of the washing tower. After being sprayed and scrubbed by lye of all layers and cooled by cooling water, it shall come out from the top and enter the temperature reducing heat exchanger with demister to eliminate the drops in the waste gas and reduce the temperature of the waste gas. Then the waste gas shall enter the adsorber through waste gas blower. The main function of caustic scrubbing is to remove the H₂S in waste gas, its reaction equation is:



Also, another function of the washing tower is to cooling down the exhaust gas temperature.

2. Adsorption system

There are 8 steps for adsorber operation: gas intake, all valves turn-off, inert gas (nitrogen) intake, desorption, pressure relief, drying, cooling air exhausting.

3. Condensate System

During the desorption, the steam and CS₂ from the adsorber will condense out partly when going through the evaporator, and then it will enter to the two condensers. The condensed CS₂ and water will enter into the specific gravity separator (S.G. separator). From the exhaust tank to separate and withdrawal the water. Then condensed CS₂ will enter through a volume meter then to the CS₂ storage tank.

Annexure-2

Green belt development

Plant species for Odor management

Neem (*Azadirachta indica*), Saptparni (*Alstonia scholaris*), Guh babool (*Acacia farnesiana*), Morpankhi (*Thuja occidentalis*), Bougainvillea (*Bougainvillea spectabilis*), Lemon (*Citrus lemon*), Kaner (*Nerium indicum*), Mehndi (*Lawsonia inermis*), Champa (*Plumeria rubra*), Holy basil (*Ocimum tenuiflorum*), Tulsi (*Ocimum sanctum*), Sankuppi (*Clerodendrum inerme*), Jasmine tree (*Plumeria alba*), Jarul (*Lagerstroemia speciosa*), Gurhal (*Hibiscus rosa sinensis*), Bunchgrass (*Vetiveria zizanioides*) etc.

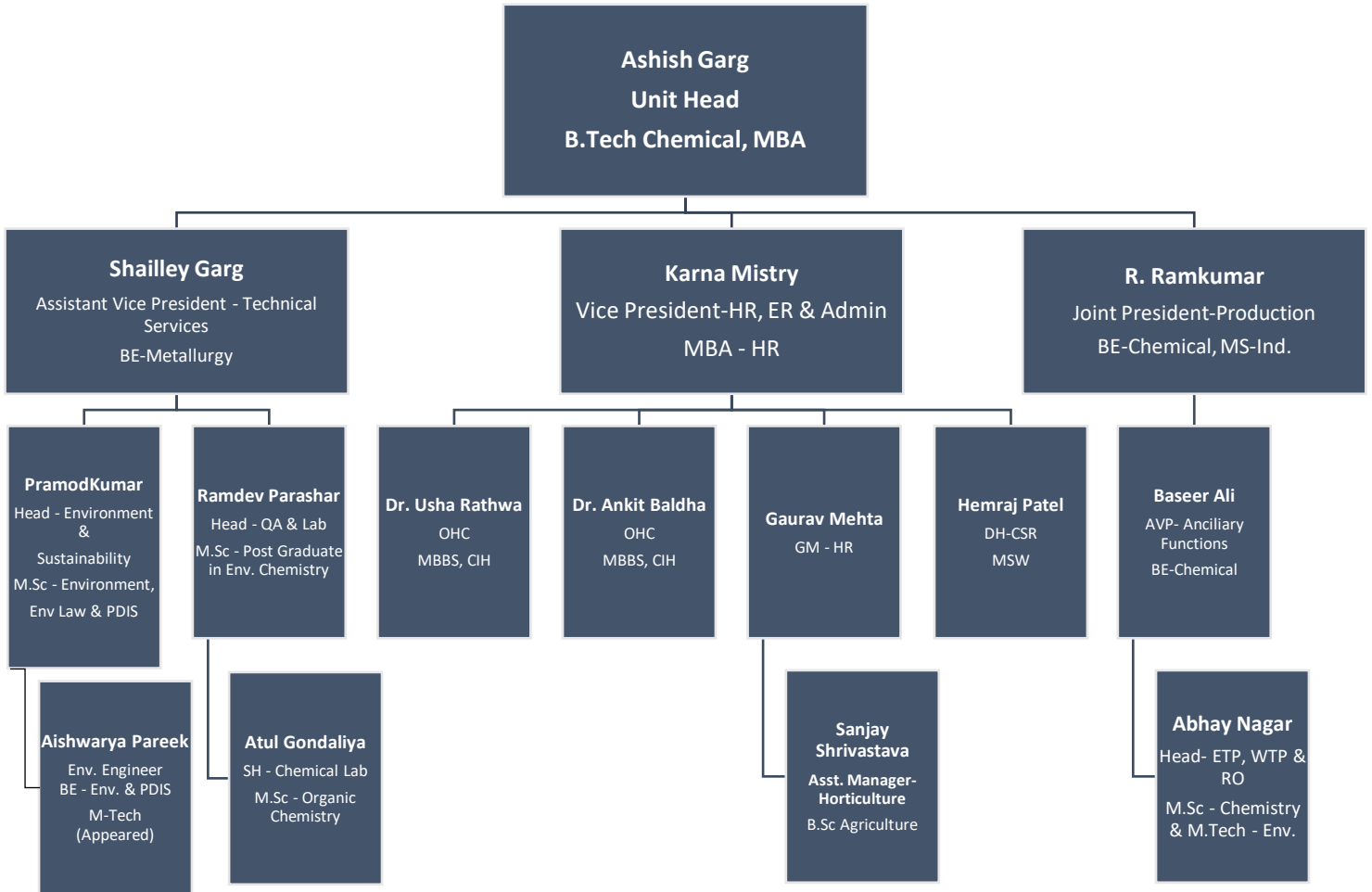
Gaseous emission (SO₂ & NO_x) tolerant species:

Neem (*Azadirachta indica*), Bel (*Aegle marmelos*), Kasood (*Cassia siamea*), Earleaf Acacia (*Acacia auriculiformis*), Saptparni (*Alstonia scholaris*), Aldu (*Ailanthus excelsa*), Siris (*Albizia lebbeck*), Shisham (*Dalbergia sissoo*), Pipal (*Ficus religiosa*), White fig (*Ficus infectoria*), Maulsari (*Mimusops elengi*), Kaner (*Nerium indicum*), Jarul (*Lagerstroemia speciosa*) etc. Existing Plantation Species: Neem (*Azadirachta indica*), Kasood (*Cassia siamea*), Pine/Junglisaru (*Casuarina equisetifolia*), Orchid tree (*Bauhinia blakeana*), Gulmohar (*Delonix regia*), Rain tree (*Samanea saman*), Yellow Gulmohar (*Peltophorum ferrugineum*), Bottle brush (*Callistemon sp.*), Earleaf Acacia (*Acacia auriculiformis*), Kadamb (*Neolamarckia cadamba*), Basant Rani (*Tabebuia rosea*), Safeda (*Eucalyptus*), Bougainvillea *spectabilis*, Lawn Plantation and Shrubbery.

Above plant species are selected based on CPCB Guidelines for development of Green Belt March 2000.

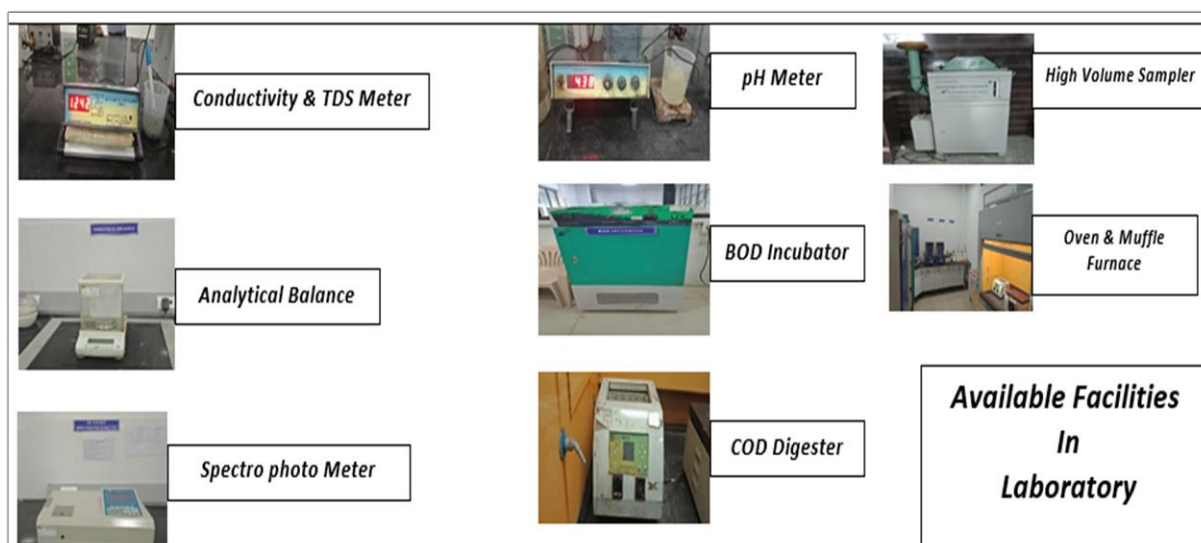
ANNEXURE-3

Organisation Chart of Environment Management Cell



Annexure-4

List of testing facilities available at Environmental Laboratory



| Name of Parameter | Testing Facility Available Yes or Not | Name of Instrument |
|--------------------------|--|----------------------------------|
| pH | Yes | pH Meter |
| Colour | Yes | Physically |
| Temperature | Yes | Thermometer |
| TSS | Yes | Filtration method |
| Oil & Grease | Yes | Extraction Method |
| Fluoride | No | - |
| Sulphide | Yes | Resin Method |
| Ammonical Nitrogen as N | No | - |
| Copper | No | - |
| Zinc | Yes | EDTA Method |
| COD | Yes | COD Digestion Method |
| BOD | Yes | 3 Days Incubation Method |
| Total Residual Chlorine | Yes | Titrimetric Method |
| Arsenic | No | - |
| Mercury | No | - |
| Hexavalent Chromium | Yes | UV Spectrophotometer |
| Total Chromium | No | - |
| Lead | No | - |
| Cadmium | No | - |
| Nickel | No | - |
| Cyanide | No | - |
| Phenolic Compound | No | - |
| Selenium | No | - |
| Mn | No | - |
| Iron | Yes | Comparison Method |
| Vanadium | No | - |
| Ambient Air Monitoring | Yes | - |
| Stack Monitoring Kit | Yes | - |
| dB Meter | Yes | Sound Meter |
| MLSS, MLVSS, MLRSS | Yes | Filtration, Oven, Muffle furnace |

Annexure-5

Environmental monitoring Program

In order to ensure that the predicted impact levels are within the acceptable limits and to further mitigate the impacts wherever possible from proposed facilities, following monitoring programs are undertaken;

✚ **Air Environment:** Air quality surveillance program which includes;

1. Monitoring of air quality of all 4 stacks for CS₂, H₂S, PM, SO₂ & Nox by our Lab as well as 3rd party Lab.
2. Ground level concentration is monitored for CS₂, H₂S, PM, SO₂ & Nox in the impact zone as a part of ambient air monitoring by our Lab & 3rd party Lab.
3. Port holes and sampling facilities are provided in each stack as per CPCB guidelines, periodic performance evaluation of control measures & equipment's are done

✚ **Noise Environment:**

Noise generated sources are regularly monitored, ambient noise level is being monitored on quarterly basis inside & outside of plant area and strictly adhered the Factory Act norms of workroom and ambient levels as per E P Act.

✚ **Water Environment:** For effective environmental pollution control the following measures are taken;

1. Daily monitoring of treated effluent in our Lab as well as third party monitoring by outside labs.
2. Evaluation of ETP performance is done regularly, based on the results of treated effluent.
3. Treated sewage is 100% used in green belt, sewage quantity is very less as only plant sewage comes to STP.
4. Three guard /polishing pond constructed, each pond having capacity of 25000 m³. Total holding capacity is 75,000 m³, which is suitable for storage of treated effluent more than 48 hrs. Treated effluent is discharged into sea through GIDC pipeline.
5. Water conservation measures are taken and achieved very less discharge of treated effluent. (Data are available in EC Compliance report).

✚ **Land Environment:** Following measures are taken to avoid adverse impacts on biological activities;

1. All precautions are taken to avoid any spillages on ground.
2. A record of Solid & Hazardous waste is maintained & monitored regularly by Env. Cell
3. Waste is categorized based on CC&A by GPCB. Hazardous waste is stored separately and disposed as per GPCB guidelines through online Manifest.
4. Green belt development program is undertaken and planted around 15,000 tree every year which will be continued to cover > 33% area as green belt.

Annexure-06

Environment Monitoring Reports (Effluent & Emission)



**TEST REPORT
(STACK MONITORING)**

| | | | |
|-------------------------------------|---|------------------------------|---------------------|
| ULR - TC77532300009363F | | | |
| Test Report No. | URA/23/09/D/S-001 | Report Issue Date: | 02/10/2023 |
| Service Request form No. | URA/SRF/09/001 | Service Request Date | 25/09/2023 |
| Sample ID No. | URA/ID/S-23/09/001 | Field Data Sheet No.: | URA/FDS/S-23/09/001 |
| Name & Add. of Customer | M/s. Grasim Industries Limited Grasim Cellulosic Division, Plot No. 1, GIDC, Vilayat Industrial Estate, District – Bharuch, Gujarat, Pin Code – 392012 (India) | | |
| Date of Sampling | 25/09/2023 | Date of Testing | 26/09/2023 |
| Stack Sampling Attached to | Rayon Plant | | |
| Air Pollution Control Device | H2S & CS2 Recovery plant | | |
| Fuel Used | - | | |

➤ **Details of Instrument Used for Monitoring**

| | | | |
|--------------------------|-----------------------|---------------------------|-------------------|
| Instrument Id No. | UERL/AIR/HS/03 | | |
| Inst. Name: | Handy Sampler | Serial Number: | 91-I-19 |
| Cali. Date: | 03/02/2023 | Next Cali. Due On: | 02/02/2024 |

➤ **General Stack Observation**

| Sr. No. | Description | Unit | Observation |
|---------|--------------|----------------|-------------|
| 1. | Stack Height | m | 175 |
| 2. | Stack Area | m ² | 12.8760 |

➤ **Test Parameter Results**

| DISCIPLINE – CHEMICAL TESTING | | | NAME OF GROUP – ATMOSPHERIC POLLUTION | | |
|-------------------------------|---------------------------------------|---------------------|---------------------------------------|-------------------|---------------------|
| Sr. No. | Test Parameter | Unit of measurement | Result | Permissible Limit | Test Method |
| 1. | Carbon Disulphide as CS ₂ | Kg/ton of fiber | 13.1 | <95 | IS: 11255 (Part 04) |
| 2. | Hydrogen Sulphide as H ₂ S | Kg/ton of fiber | 4.1 | <30 | IS: 11255 (Part 04) |

| |
|--|
| Remarks: |
| Opinion & Interpretation (if required): |


***** End of Report *****

Checked By:



Nikunj D. Patel
(Chemist)

Authorized By:



Jaivik S. Tandel
(Manager – Operations)



**TEST REPORT
(STACK MONITORING)**

| | | | |
|-------------------------------------|---|------------------------------|---------------------|
| ULR - TC77532300009364F | | | |
| Test Report No. | URA/23/09/D/S-002 | Report Issue Date: | 02/10/2023 |
| Service Request form No. | URA/SRF/09/002 | Service Request Date | 25/09/2023 |
| Sample ID No. | URA/ID/S-23/09/002 | Field Data Sheet No.: | URA/FDS/S-23/09/002 |
| Name & Add. Of Customer | M/s. Grasim Industries Limited Grasim Cellulosic Division, Plot No. 1, GIDC, Vilayat Industrial Estate, District – Bharuch, Gujarat, Pin Code – 392012 (India) | | |
| Date of Sampling | 25/09/2023 | Date of Testing | 26/09/2023 |
| Stack Sampling Attached to | Acid Plant 1 | | |
| Air Pollution Control Device | Alkali Scrubber | | |
| Fuel Used | - | | |

➤ **Details of Instrument Used for Monitoring**

| | | | |
|--------------------------|-----------------------------------|---------------------------|-------------------|
| Instrument Id No. | UERL-D/AIR/SMK/01 | | |
| Inst. Name: | Stack Monitoring Kit, VSS1 | Serial Number: | 467 DTJ 15 |
| Cali. Date: | 21/06/2023 | Next Cali. Due On: | 20/06/2024 |

➤ **General Stack Observation**

| Sr. No. | Description | Unit | Observation |
|---------|----------------------|-------------------|-------------|
| 1. | Stack Height | m | 50 |
| 2. | Stack Area | m ² | 6.1544 |
| 3. | Ambient Temperature | °C | 36 |
| 4. | Flue Gas Temperature | °C | 95 |
| 5. | Exit Gas Velocity | m/s | 1.51 |
| 6. | Exit Gas Flow | m ³ /h | 33455.3 |

➤ **Test Parameter Results**

| DISCIPLINE – CHEMICAL TESTING | | | NAME OF GROUP – ATMOSPHERIC POLLUTION | | |
|-------------------------------|-----------------|---------------------|---------------------------------------|-------------------|---------------------|
| Sr. No. | Test Parameter | Unit of measurement | Result | Permissible Limit | Test Method |
| 1. | Sulphur Dioxide | Kg/ton of acid | 1.04 | <1.5 | IS: 11255 (Part 02) |
| 2. | Acid Mist | mg/Nm ³ | 16.6 | 50 | SA EPA Method |

| |
|--|
| Remarks: |
| Opinion & Interpretation (if required): |

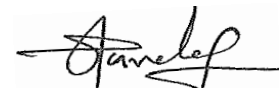
***** End of Report *****

Checked By:



Nikunj D. Patel
(Chemist)

Authorized By:



Jaivik S. Tandel
(Manager – Operations)



**TEST REPORT
(STACK MONITORING)**

| | | | |
|-------------------------------------|---|------------------------------|---------------------|
| ULR - TC77532300009365F | | | |
| Test Report No. | URA/23/09/D/S-003 | Report Issue Date: | 02/10/2023 |
| Service Request form No. | URA/SRF/09/003 | Service Request Date | 25/09/2023 |
| Sample ID No. | URA/ID/S-23/09/003 | Field Data Sheet No.: | URA/FDS/S-23/09/003 |
| Name & Add. Of Customer | M/s. Grasim Industries Limited Grasim Cellulosic Division, Plot No. 1, GIDC, Vilayat Industrial Estate, District – Bharuch, Gujarat, Pin Code – 392012 (India) | | |
| Date of Sampling | 25/09/2023 | Date of Testing | 26/09/2023 |
| Stack Sampling Attached to | Acid Plant 2 | | |
| Air Pollution Control Device | Alkali Scrubber | | |
| Fuel Used | - | | |

➤ **Details of Instrument Used for Monitoring**

| | | | |
|--------------------------|-----------------------------------|---------------------------|-------------------|
| Instrument Id No. | UERL-D/AIR/SMK/01 | | |
| Inst. Name: | Stack Monitoring Kit, VSS1 | Serial Number: | 467 DTJ 15 |
| Cali. Date: | 21/06/2023 | Next Cali. Due On: | 20/06/2024 |

➤ **General Stack Observation**

| Sr. No. | Description | Unit | Observation |
|---------|----------------------|-------------------|-------------|
| 1. | Stack Height | m | 50 |
| 2. | Stack Area | m ² | 6.1544 |
| 3. | Ambient Temperature | °C | 36 |
| 4. | Flue Gas Temperature | °C | 98 |
| 5. | Exit Gas Velocity | m/s | 1.46 |
| 6. | Exit Gas Flow | m ³ /h | 32347.5 |

➤ **Test Parameter Results**

| DISCIPLINE – CHEMICAL TESTING | | | NAME OF GROUP – ATMOSPHERIC POLLUTION | | |
|-------------------------------|-----------------|---------------------|---------------------------------------|-------------------|---------------------|
| Sr. No. | Test Parameter | Unit of measurement | Result | Permissible Limit | Test Method |
| 1. | Sulphur Dioxide | Kg/ton of acid | 0.82 | <1.5 | IS: 11255 (Part 02) |
| 2. | Acid Mist | mg/Nm ³ | 18.6 | 50 | SA EPA Method |

Remarks:

Opinion & Interpretation (if required):

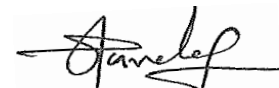
***** End of Report *****

Checked By:



Nikunj D. Patel
(Chemist)

Authorized By:



Jaivik S. Tandel
(Manager – Operations)



**TEST REPORT
(STACK MONITORING)**

| | | | |
|-------------------------------------|---|------------------------------|---------------------|
| ULR - TC77532300009366F | | | |
| Test Report No. | URA/23/09/D/S-004 | Report Issue Date: | 02/10/2023 |
| Service Request form No. | URA/SRF/09/004 | Service Request Date | 25/09/2023 |
| Sample ID No. | URA/ID/S-23/09/004 | Field Data Sheet No.: | URA/FDS/S-23/09/004 |
| Name & Add. Of Customer | M/s. Grasim Industries Limited Grasim Cellulosic Division, Plot No. 1, GIDC, Vilayat Industrial Estate, District – Bharuch, Gujarat, Pin Code – 392012 (India) | | |
| Date of Sampling | 25/09/2023 | Date of Testing | 26/09/2023 |
| Stack Sampling Attached to | CS₂ Plant | | |
| Air Pollution Control Device | SRU | | |
| Fuel Used | - | | |

➤ **Details of Instrument Used for Monitoring**

| | | | |
|--------------------------|-----------------------|---------------------------|-------------------|
| Instrument Id No. | UERL/AIR/HS/04 | | |
| Inst. Name: | Handy Sampler | Serial Number: | 92-I-19 |
| Cali. Date: | 03/02/2023 | Next Cali. Due On: | 02/02/2024 |

➤ **General Stack Observation**

| Sr. No. | Description | Unit | Observation |
|---------|---------------------|----------------|-------------|
| 1. | Stack Height | m | 100 |
| 2. | Stack Area | m ² | 0.8 |
| 3. | Ambient Temperature | °C | 35 |

➤ **Test Parameter Results**

| DISCIPLINE – CHEMICAL TESTING | | | NAME OF GROUP – ATMOSPHERIC POLLUTION | | |
|-------------------------------|---------------------------------------|---------------------|---------------------------------------|-------------------|---------------------|
| Sr. No. | Test Parameter | Unit of measurement | Result | Permissible Limit | Test Method |
| 1. | Carbon Disulphide as CS ₂ | mg/m ³ | BDL (MDL:5.0) | 180 | IS: 11255 (Part 04) |
| 2. | Hydrogen Sulphide as H ₂ S | mg/m ³ | BDL (MDL:5.0) | 45 | IS: 11255 (Part 04) |
| 3. | Sulphur Dioxide | ppm | 82 | -- | IS: 11255 (Part 02) |

| |
|--|
| Remarks: |
| Opinion & Interpretation (if required): |

***** End of Report *****

Checked By:



Nikunj D. Patel
(Chemist)

Authorized By:



Jaivik S. Tandel
(Manager - Operations)



TEST REPORT

| | | | |
|----------------------------|--|----------------------|------------------------|
| ULR No. | TC77532300009285F | Report No. | URC /23/09/0512 |
| Name & Address of Customer | M/s. GRASIM INDUSTRIES LTD. Plot No. 1, GIDC, Vilayat Industrial Estate, Dist. Bharuch, Gujarat, Pin – 392012(India) | Date of Report | 02/10/2023 |
| Sample Details | ETP Outlet Water Sample | Customer's Ref. | -- |
| Sample Qty. | 10 Lit. | Location | -- |
| Sampling Date | 25/09/2023 | Appearance | Colourless |
| Test Started Date | 26/09/2023 | Sample Received Date | 26/09/2023 |
| Sampled By | Client. | Test Completion Date | 02/10/2023 |
| UERL Lab ID. No. | 23/09/0512 | Sampling Method | -- |

TEST RESULTS:

| DISCIPLINE: Chemical Testing | | | NAME OF GROUP: Pollution & Environment | | |
|------------------------------------|------------------------|--|---|---------------------|----------------|
| Sr. No. | Parameters | Test Method | Permissible Limits (GPCB) | Unit of Measurement | Results |
| PHYSIO-CHEMICAL PARAMETERS | | | | | |
| 1. | pH @ 25 °C | IS 3025(Part 11):2022 | 6.0 – 9.0 | -- | 7.22 |
| 2. | Total Dissolved Solids | APHA 23rd Ed., 2017 2540-C | -- | mg/L | 5876 |
| 3. | Total Suspended Solids | APHA 23rd Ed., 2017 2540 D | 100 | mg/L | 8 |
| 4. | Temperature | IS 3025(Part 9):1984 | Shall not exceed more than 5 °C above received water temperature | °C | 29.8 |
| GENERAL CHEMICAL PARAMETERS | | | | | |
| 5. | Oil & Grease | IS 3025(Part 39):2021 | 10 | mg/L | BDL(MDL:2.0) |
| 6. | Fluoride | APHA 23rd Ed.,2017,4500 F, D | 15 | mg/L | 1.19 |
| 7. | Sulphide | APHA 23rd Ed.,2017,4500 S ² F | 5 | mg/L | 4.4 |
| 8. | TKN | APHA 23rd Ed.,2017,4500 NORG, B | 50 | mg/L | 5.1 |
| 9. | Ammonical Nitrogen | APHA 23rd Ed.,2017,4500 NH ₃ -B&C | 50 | mg/L | BDL(MDL:2.0) |
| 10. | Copper | APHA 23rd Ed.,2017,3111-B, | 3 | mg/L | BDL(MDL:0.05) |
| 11. | Zinc | APHA 23rd Ed.,2017,3111-B, | 15 | mg/L | 0.097 |
| 12. | COD | IS 3025(Part 58):2006 | 250 | mg/L | 204.2 |
| 13. | BOD (3 days at 27 °C) | IS 3025(Part 44):1993 | 100 | mg/L | 56 |
| 14. | Arsenic | APHA 23rd Ed.,2017,3114-C | 0.2 | mg/L | BDL(MDL:0.01) |
| 15. | Mercury | APHA 23rd Ed.,2017,3112-B | 0.01 | mg/L | BDL(MDL:0.001) |
| 16. | Lead | APHA 23rd Ed.,2017,3111-B, | 0.1 | mg/L | BDL(MDL:0.01) |
| 17. | Cadmium | APHA 23rd Ed.,2017,3111-B, | 0.05 | mg/L | BDL(MDL:0.003) |
| 18. | Hexavalent Chromium | APHA 23rd Ed.,2017,3500CrB | 0.1 | mg/L | BDL(MDL:0.05) |
| 19. | Nickel | APHA 23rd Ed.,2017,3111-B, | 3 | mg/L | 0.235 |
| 20. | Phenolic Compound | IS 3025(Part 43):2020 | 5 | mg/L | BDL(MDL:0.1) |

Note: BDL= Below Detection Limit, MDL = Minimum Detection Limit,

Remarks: --

Opinion & Interpretation (If required): --



TEST REPORT

| | | | |
|----------------------------|--|----------------------|------------------------|
| ULR No. | TC77532300009285F | Report No. | URC /23/09/0512 |
| Name & Address of Customer | M/s. GRASIM INDUSTRIES LTD. Plot No. 1, GIDC, Vilayat Industrial Estate, Dist. Bharuch, Gujarat, Pin – 392012(India) | Date of Report | 02/10/2023 |
| | | Customer's Ref. | -- |
| Sample Details | ETP Outlet Water Sample | Location | -- |
| Sample Qty. | 10 Lit. | Appearance | Colourless |
| Sampling Date | 25/09/2023 | Sample Received Date | 26/09/2023 |
| Test Started Date | 26/09/2023 | Test Completion Date | 02/10/2023 |
| Sampled By | Client. | Sampling Method | -- |
| UERL Lab ID. No. | 23/09/0512 | | |


TEST RESULTS:

| DISCIPLINE: Chemical Testing | | | NAME OF GROUP: Pollution & Environment | | |
|------------------------------|-------------------------|--|--|---------------------|---------------|
| Sr. No. | Parameters | Test Method | Permissible Limits (GPCB) | Unit of Measurement | Results |
| 21. | Iron | APHA 23rd Ed.,2017,3111-B, | 3 | mg/L | 1.786 |
| 22. | Nitrate Nitrogen | APHA 23rd Ed.,2017,4500 NO3-B | 50 | mg/L | BDL(MDL:0.1) |
| 23. | Total Residual Chlorine | APHA 23rd Ed.: 2017 4500-Cl, G | 1 | mg/L | BDL(MDL:0.1) |
| 24. | Manganese | APHA 23rd Ed.,2017,3500 Mn B | 2 | mg/L | 0.435 |
| 25. | Cyanide | IS 3025(Part 27):1986 | 0.2 | mg/L | BDL(MDL:0.05) |
| 26. | Selenium | APHA 23 rd Ed., 2017 -3114-C, | 0.05 | mg/L | BDL(MDL:0.05) |
| 27. | Vanadium | APHA 23rd Ed.2017-3500 – V | 0.2 | mg/L | BDL(MDL:0.5) |

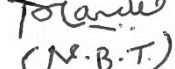
Note: BDL= Below Detection Limit, MDL = Minimum Detection Limit,
Remarks: --
Opinion & Interpretation (If required): --

***** End of Report *****

Checked By


N. C. P.
Nilesh C. Patel
(Sr. Chemist)

Authorized By


(N. B. T.)
(Nitin B. Tandel)
(Technical Manager)



TEST REPORT


| | | | |
|----------------------------|--|----------------------|------------------------|
| ULR No. | TC77532300009285F | Report No. | URC /23/09/0512 |
| Name & Address of Customer | M/s. GRASIM INDUSTRIES LTD. Plot No. 1, GIDC, Vilayat Industrial Estate, Dist. Bharuch, Gujarat, Pin – 392012(India) | Date of Report | 02/10/2023 |
| | | Customer's Ref. | -- |
| Sample Details | ETP Outlet Water Sample | Location | -- |
| Sample Qty. | 10 Lit. | Appearance | Colourless |
| Sampling Date | 25/09/2023 | Sample Received Date | 26/09/2023 |
| Test Started Date | 26/09/2023 | Test Completion Date | 02/10/2023 |
| Sampled By | Client. | Sampling Method | -- |
| UERL Lab ID. No. | 23/09/0512 | | |

TEST RESULTS:

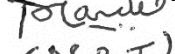
| DISCIPLINE: Chemical Testing | | | NAME OF GROUP: Pollution & Environment | | |
|---|--|------------------------|--|---------------------|-------------------------------------|
| Sr. No. | Parameters | Test Method | Permissible Limits (GPCB) | Unit of Measurement | Results |
| Toxicity Test | | | | | |
| 28. | Bioassay method for evaluation of toxicity using fish (90% survival of fish after 96 hrs in 100% effluent) | IS 6582 (Part 1): 1971 | 90 % survival of fish after 96 hrs. | % | 90 % survival of fish after 96 hrs. |
| 29. | Measurement of toxicity factor using zebra fish (dimensionless toxicity test) | IS:6582(part-II):2001 | -- | % | 90 % survival of fish after 96 hrs. |
| Note: BDL= Below Detection Limit, MDL = Minimum Detection Limit, | | | | | |
| Remarks: -- | | | | | |
| Opinion & Interpretation (If required): -- | | | | | |

***** End of Report *****

Checked By


N. C. P.
Nilesh C. Patel
(Sr. Chemist)

Authorized By


(N. B. T.)
(Nitin B. Tandel)
(Technical Manager)

TEST REPORT


| | | | |
|----------------------------|--|----------------------|------------------------|
| ULR No. | --- | Report No. | URC /23/09/0512 |
| Name & Address of Customer | M/s. GRASIM INDUSTRIES LTD. Plot No. 1, GIDC, Vilayat Industrial Estate, Dist. Bharuch, Gujarat, Pin – 392012(India) | Date of Report | 02/10/2023 |
| | | Customer's Ref. | -- |
| Sample Details | ETP Outlet Water Sample | Location | -- |
| Sample Qty. | 10 Lit. | Appearance | Turbid Colour |
| Sampling Date | 25/09/2023 | Sample Received Date | 26/09/2023 |
| Test Started Date | 26/09/2023 | Test Completion Date | 02/10/2023 |
| Sampled By | Client. | Sampling Method | -- |
| UERL Lab ID. No. | 23/09/0512 | | |

TEST RESULTS:

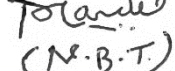
| DISCIPLINE: Chemical Testing | | | NAME OF GROUP: Pollution & Environment | | |
|---|--------------------|----------------|--|---------------------|---------------|
| Sr. No. | Parameters | Test Method | Permissible Limits (GPCB) | Unit of Measurement | Results |
| GENERAL CHEMICAL PARAMETERS | | | | | |
| 1. | Trivalent Chromium | By Calculation | 2 | mg/L | BDL(MDL:0.05) |
| Note: BDL= Below Detection Limit, MDL = Minimum Detection Limit, | | | | | |
| Remarks: -- | | | | | |
| Opinion & Interpretation (If required): -- | | | | | |

***** End of Report *****

Checked By


N.C.P.
Nilesht C. Patel
(Sr. Chemist)

Authorized By


(N.B.T.)
(Nitin B. Tandel)
(Technical Manager)



TEST REPORT


| | | | |
|----------------------------|--|----------------------|------------------------|
| ULR No. | TC77532300009286F | Report No. | URC /23/09/0513 |
| Name & Address of Customer | M/s. GRASIM INDUSTRIES LTD. Plot No. 1, GIDC, Vilayat Industrial Estate, Dist. Bharuch, Gujarat, Pin – 392012(India) | Date of Report | 02/10/2023 |
| | | Customer's Ref. | -- |
| Sample Details | STP Outlet Water Sample | Location | -- |
| Sample Qty. | 2 Lit. | Appearance | Colourless |
| Sampling Date | 25/09/2023 | Sample Received Date | 26/09/2023 |
| Test Started Date | 26/09/2023 | Test Completion Date | 02/10/2023 |
| Sampled By | Client. | Sampling Method | -- |
| UERL Lab ID. No. | 23/09/0513 | | |

TEST RESULTS:

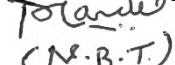
| DISCIPLINE: Chemical Testing | | | NAME OF GROUP: Pollution & Environment | | |
|---|---|---|--|---------------------|---------|
| Sr. No. | Parameters | Test Method | Permissible Limits (GPCB) | Unit of Measurement | Results |
| PHYSIO-CHEMICAL PARAMETERS | | | | | |
| 1. | pH @ 25 °C | IS 3025(Part 11):2022 | -- | -- | 7.42 |
| 2. | Total Suspended Solids | APHA 23 rd Ed.,2017,2540 -D | <30 | mg/L | 6 |
| GENERAL CHEMICAL PARAMETERS | | | | | |
| 1. | Biochemical Oxygen Demand (BOD) (5 days at 20 °C) | APHA 23 rd Ed.,2017,5210-B 5-6 | <20 | mg/L | 3 |
| 2. | Residual Free Chlorine | APHA 23 rd Ed.,2017,4500-Cl-G | 0.5 (min.) | mg/L | 0.60 |
| Note: BDL= Below Detection Limit, MDL = Minimum Detection Limit, | | | | | |
| Remarks: -- | | | | | |
| Opinion & Interpretation (If required):-- | | | | | |

***** End of Report *****

Checked By


N. C. P.
Nilesh C. Patel
(Sr. Chemist)

Authorized By


(N. B. T.)
(Nitin B. Tandel)
(Technical Manager)