

ADITYA BIRLA



GRASIM/ENV/ /2024  
13<sup>th</sup> May 2024

To,  
Integrated Regional Office (IRO)  
A-Wing – 407 & 409,  
Aranya Bhawan, Near CH-3 Circle,  
Sector-10A, Gandhinagar – 382010

**Kind Attention: Dr. Yogesh Kumar**

- Sub. : Compliance Status of Environmental Clearances accorded by Ministry of Environment, Forests & Climate Change, Government of India, New Delhi
- Ref. : 1. MoEF Letter No. J-11012/25/95-IA. II (I) dated 19.06.1995 & Amendment dated 31.08.1998  
2. MoEF Letter No. J-11011/445/2008-IA. II (I) dated 18.07.2008  
3. MoEF Letter No. J-11011/382/2008-IA. II (I) dated 02.08.2011  
4. MoEF Letter No. 11-80/2008-IA.III dated 20.10.2008  
5. MoEF Letter No. 11-80/2008-IA.III (Part - II) dated 07.12.2009  
6. MoEF& CC Letter No. J-11011/343/2013-IA II (I) dated 22.06.2015


Respected Sir,

This is in reference to above mentioned letters received from MoEF&CC, please note that we are complying all stipulated condition. We are attaching herewith the descriptive reports on status of compliance to conditions of Environmental Clearance and Environmental Management for the period 1<sup>st</sup> October 2023 to 31<sup>st</sup> March 2024 as Annexure - A.

We hope you will find the above in order.

Yours Faithfully,

For Grasim Industries Limited; Unit – Indian Rayon

  
Shashank Pareek  
Unit Head

CC:

The Regional Officer  
Gujarat Pollution Control Board  
Pankaj Vikas Bunglow  
Opposite Saint Annes Church  
Station Road  
Junagadh – 362001

R/145

The Director  
Forest and Environment Department  
Block No. 14, 8<sup>th</sup> floor Sachivalaya  
Gandhinagar – 382010

R/146

Central Pollution Control Board Zonal Office (West),  
Parivesh Bhawan, Atmajyoti Ashram Rd,  
Opp. VMC Ward Office No. 10,  
Subhanpura, Vadodara - 390023



  
The fashion yarn

Grasim Industries Limited

## ANNEXURE-A

**DESCRIPTIVE REPORT ON STATUS OF COMPLIANCE TO CONDITIONS OF ENVIRONMENTAL CLEARANCES  
AND ENVIRONMENTAL MANAGEMENT**

<b>A.</b>	<b>As per Letter No. J-11011/343/2013-IA II (I) dated 22<sup>nd</sup> June, 2015 by MoEF &amp; CC for Proposed Expansion of Viscose Filament Yarn (1650 to 2400 MTPM), Sodium Sulphate (Na<sub>2</sub>SO<sub>4</sub>) Plant (2050 to 2350 MTPM), Captive Power Plant (34.5 to 54.5 MW) along with Installation of Sodium Sulphite (Na<sub>2</sub>SO<sub>3</sub>) Plant (3000 MTPM) &amp; Liquid Sulphur Dioxide (SO<sub>2</sub>) Plant (1500 MTPM).</b>
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<b>Sr. No.</b>	<b>Conditions</b>	<b>Reply to Stipulated Conditions</b>
i.	ESP and adequate stack height shall be provided to coal fired boiler to control air emissions within the limit stipulated by CPCB and GPCB. Low NO <sub>x</sub> burner shall be provided in captive Co-generation power plant to reduce the NO <sub>x</sub> emissions.	<p>The Existing CPP (Boiler 1 &amp; 2) based on CFBC technology is installed with three nos. of 3 field Electrostatic Precipitator (ESP) to control particulate emissions. The Existing CPP Boiler 3 has been provided with additional Electrostatic precipitator i.e. four field ESP in the month of January 2023. Opacity meter has also been installed for Continuous PM Emission Monitoring.</p> <p>Adequate stack height of 122 m (each) for stack no 1 attached to Boiler No.1 &amp; 2 and stack 2 attached to Boiler 3 &amp; 5 is maintained as per CPCB Standard to control air emission within the limit stipulated by CPCB &amp; GPCB.</p> <p>The Boiler No. 5 (CFBC technology) has been commenced in May 2022. The connection of Boiler No. 5 hooks up with existing chimney attached to Boiler No.3. The Boiler 5 is equipped with 4 field Electrostatic Precipitator to control particulate emission.</p> <p>The unit has been granted Renewal of CC&amp;A <i>vide</i> letter no. GPCB/CCA/JNG-1(35)/ID-17239/780188 dated 03.01.2024, which is valid up to 31.12.2028 The Amendment of CC&amp;A has been granted <i>vide</i> letter no GPCB/CCA/JNG-1(35)/ID-17239/784706 dated 23.02.2024, which is valid up to 31.12.2028. The said CCA attached as <b>Annexure- I</b>.</p>
ii.	The gaseous emissions (SO <sub>2</sub> , NO <sub>x</sub> , CS <sub>2</sub> , H <sub>2</sub> S, CO, HC) and particulate matter from process and CPP units shall confirm norms prescribed by the CPCB/ GPCB from time to time. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the	The existing Chlor-Alkali plant is installed with Online Continuous Emission analyzer for parameter Cl <sub>2</sub> and HCl in Hypo and HCl Stack respectively. Similarly, Online Continuous Emission Monitoring System have been installed for Parameter Particulate Matter PM, SO <sub>2</sub> , NO <sub>x</sub> for both the Old and New Power Plant and data w.r.t. all above mentioned parameter has been transmitted to GPCB and CPCB server. The unit has installed Online Continuous Emission Monitoring System for parameter SO <sub>2</sub> at both the Sulphuric Acid Plant.

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	<p>desired efficiency. Continuous emission monitoring system (CEMS) should be installed to measure SO<sub>2</sub>, NO<sub>x</sub> and particulate from the CPP stack and SO<sub>2</sub>, CS<sub>2</sub> and H<sub>2</sub>S from process plant stacks.</p>	<p>We have installed total 6 nos. of SO<sub>2</sub> sensor, 6 nos. of CS<sub>2</sub> sensor, 3 nos. of H<sub>2</sub>S sensor in and around CS<sub>2</sub> plant to indicate the Work Zone concentration of CS<sub>2</sub>, SO<sub>2</sub> &amp; H<sub>2</sub>S gas. In addition, we have installed Online Continuous Emission Monitoring System for parameter CS<sub>2</sub> &amp; H<sub>2</sub>S for both Rayon Stack.</p> <p>We have also installed 47 Nos. of Chlorine Sensors in our Caustic Soda Plant and other location in plant which are inter-connected to the Distributed Control System through which whole lot of manufacturing process are carried out. Also we have installed 15 Nos. of hydrogen sensors for monitoring which are hooked up with DCS for onsite hydrogen handling area in Caustic Soda Plant.</p> <p>The gaseous emission from process stacks conform to the standard as per prescribed by GPCB/CPCB. The reports are submitted to GPCB every month and Six monthly reports are being submitted to Integrated Regional Office (IRO), Gandhinagar. Copy of the Stack monitoring results are attached as <b>Annexure – II.</b></p> <p>Apart from above, stack monitoring, AAQ and Treated Effluent Analysis results performed by NABL (QCI) accredited laboratory namely “Kadam Environmental consultants” Vadodara, results of which are attached as <b>Annexure – III.</b></p>
iii.	<p>Exhaust containing CS<sub>2</sub> and H<sub>2</sub>S gas from rayon plant shall be passed through scrubber.</p>	<p>H<sub>2</sub>S gas is scrubbed with Caustic Soda in two stage absorption system to recover Sodium Sulphide. The gaseous emission from the Carbon di-Sulphide plant in the form of CS<sub>2</sub> are recovered by condenser.</p> <p>Exhaust gas containing CS<sub>2</sub> &amp; H<sub>2</sub>S gas is controlled by supplying humidified air through Air Washers continuously. The exhausting dilute gases through 2 Nos. of process stack and the emission level of both CS<sub>2</sub> &amp; H<sub>2</sub>S concentration is maintained within permissible limit.</p> <p><b>The project will be expanded in three phases within 10 years for which EC &amp; CTE have been granted.</b></p> <p><b>Phase-1:</b> We have been granted Consolidated Consent and Authorization (CCA) from GPCB, Gandhinagar for enhancing VFY production from 1650 MTPM to 1950 MTPM vide letter no. GPCB/CCA/JNG-1(23)/ID17239/345269 dated 12.02.2016. We have been granted a renewed CC&amp;A No. GPCB/ID-</p>

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		<p>17239/CCA/JNG-1 (27) for which Consent order number is. AWH -92560 Date of issue: 23/04/2018.</p> <p>For enhancing VFY production, 12 New Machines has been installed in the month of May 2022. The existing pollution control facilities are adequate to maintain the stipulated norms by GPCB.</p> <p><b>Phase -2:</b> In order to further increase the production of Captive Power Plant capacity from 34.5 MW to 54.5 MW within the existing plant premises, amendment of Consolidated Consent and Authorization (CCA) from GPCB, Gandhinagar has been granted through <i>vide</i> letter no. GPCB/CCA/JNG-1(34)/ID-17239/682802 issued on 12.09.2022. Further, correction to Consolidated Consent and Authorization (CCA) from GPCB, Gandhinagar has been granted through <i>vide</i> letter no. GPCB/CCA/JNG-1(34)/ID-17239/753418 issued on 16.09.2023.</p> <p>The unit has been granted Renewal of CC&amp;A <i>vide</i> letter no. GPCB/CCA/JNG-1(35)/ID-17239/780188 dated 03.01.2024, which is valid up to 31.12.2028 The Amendment of CC&amp;A has been granted <i>vide</i> letter no GPCB/CCA/JNG-1(35)/ID-17239/784706 dated 23.02.2024, which is valid up to 31.12.2028.</p> <p><b>Phase – 3:</b> In order to further increase the production of Viscose Filament Yarn (1950 MTPM to 2400 MTPM), Sodium Sulphate (Na<sub>2</sub>SO<sub>4</sub>) Plant (2050 to 2350 MTPM), new product Sodium Sulphite (Na<sub>2</sub>SO<sub>3</sub>) Plant (3000 MTPM) and Liquid Sulphur Dioxide (SO<sub>2</sub>) Plant (1500 MTPM) within the existing plant premises, we shall seek approval for CTO from GPCB prior to production.</p> <p>During the commissioning of phase- 3, concentration of CS<sub>2</sub> &amp; H<sub>2</sub>S in process gas shall remain within permissible limit by the application of similar facilities.</p>
iv.	Ambient Air Quality data shall be collected as per NAAQS standards notified by the Ministry vide G.S.R. No 826 (E) dated 16 <sup>th</sup> September, 2009. The levels of PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, CS <sub>2</sub> , H <sub>2</sub> S, HCl, VOCs and methane and non-methane HC shall be monitored in the ambient air and displayed at a convenient location near the main gate of the company and at important public places. The company shall upload the	<p>Four Nos. of AAQ stations are installed and ambient air quality is being measured for parameters such as PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, NO<sub>x</sub>, CS<sub>2</sub>, H<sub>2</sub>S, HCl, and Cl<sub>2</sub>. Location of AAQ Stations are finalized after consultation with GPCB officials.</p> <p>Copy of the AAQ monitoring results from <b>October 2023 to March 2024</b> are attached as <b>Annexure – IV</b>.</p> <p>The AAQ results are being displayed in main gate and the same is being updated regularly. The AAQ results are being</p>

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	<p>results of monitored data on its website and shall update the same periodically, it shall simultaneously be sent to the Regional office of MoEF, the respective Zonal office of CPCB and GPCB</p>	<p>uploaded in our website (<a href="http://www.grasim.com/sustainability.aspx">http:// www.grasim.com/sustainability.aspx</a>) regularly.</p> <p>Simultaneously, the same AAQ results are sent to all the statutory authority. Apart from above, Ambient Air Quality monitoring is performed by GPCB approved Environmental Auditor Namely R K University, Rajkot.</p> <p>Further, out of four, we have installed Three nos. of online Continuous Ambient Air Quality Monitoring System (CAAQMS) inside the plant premises i.e. over Rooftop of our Rayon Administrative Building, over rooftop of Caustic Soda Administrative Building &amp; Guest House Building. Online Data from these stations are being transmitted to GPCB server. In addition, AAQ and Treated Effluent Results are being displayed over digital interface at our Main gate.</p>
v.	<p>In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emission shall be controlled by providing closed storage, closed handling &amp; conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emission shall confirm to the limits stipulated by the GPCB.</p>	<p>We have taken adequate preventive measures in all potential fugitive emission generating points such as coal handling point, transfer point etc. to control fugitive emission. The arrangements are as below:</p> <ul style="list-style-type: none"> <li>• Coal is being kept in a covered shed and it is being transferred to Coal Bunker through encased conveyor Belt system to prevent fugitive dust emissions.</li> <li>• Bag Filters &amp; Cyclone Separator (Mechanical dust collector) with Coal fired boilers to control particulate emissions.</li> <li>• Water sprinkler system in Coal Handling Plant to control fugitive emissions.</li> <li>• Bag filters in Coal crushing unit</li> <li>• Dry fog based Dust suppression system (114 Nos. Nozzles) provided in Coal Handling plant with investment of Rs. 30 Lacs to control of sub-micron particle of dust.</li> <li>• Water sprinkler system in coal yard to control particulate emissions.</li> <li>• Further, to improve the Ambient Air Quality, 26 Nos. of Rain Guns are provided for suppression of Coal Dust in Coal Storage &amp; Handling Unit.</li> </ul> <p>Work environment is being monitored on continuous basis by chlorine sensors installed at different locations as per the requirement. CS<sub>2</sub> and H<sub>2</sub>S are also being monitored with sensor and results are continuously monitored and</p>

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		maintained and it is being reported to statutory Authority in Form No- 37.
vi.	The gaseous emission from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG set to mitigate the noise pollution.	<p>We have D.G Sets for emergency power back up having Stack Height as per GPCB Standards, which are as given below:</p> <ul style="list-style-type: none"> <li>➤ 1 Nos. of D.G set (1500 KVA) (Stack Height = 30 m)</li> <li>➤ 4 Nos. of D.G sets (750 KVA) (Stack Height = 11 m)</li> </ul> <p>The DG sets is provided with the acoustic enclosures to mitigate the noise.</p>
vii.	Total fresh water requirement from Umrethi Dam supply should not exceed 15938 m <sup>3</sup> /day and prior permission shall be obtained from the concerned Authority. No ground water should be used. Efforts should be made to reduce the fresh water requirement by adopting 3R's (Reduce, Reuse and Recycle) concept.	<p><b>Agreed.</b></p> <p>Total fresh water requirement is met through Permeate from the Sea water and dam water supply and will be maintained within the limit as per stipulated condition. Unit has made efforts to reduce fresh Water consumption through water conservation measures such as 3R's (Reduce, Reuse and Recycle) and the same will be continued.</p>
viii.	Total industrial wastewater generation shall not exceed 10540 m <sup>3</sup> /day. As proposed, effluent should be treated in effluent treatment plant. Treated effluent shall be discharged into conveyance system for marine disposal after confirming to the standards prescribed for marine discharge norms and obtaining permission from the GPCB. Treated effluent should be passed through guard pond. Online pH meter, TOC analyzer and flow meter should be installed. No process effluent shall be discharged in and around the project site. Sewage should be treated in STP. The water quality monitoring report for treated effluent should be submitted to the CPCB and Ministry's regional office at Bhopal.	<p>We have been granted Renewal of CC&amp;A <i>vide</i> letter no. GPCB/CCA/JNG-1(35)/ID-17239/780188 dated 03.01.2024, which is valid up to 31.12.2028 for generation of 12,322 m<sup>3</sup>/day of treated effluent. The Amendment of CC&amp;A has been granted <i>vide</i> letter no GPCB/CCA/JNG-1(35)/ID-17239/784706 dated 23.02.2024, which is valid up to 31.12.2028.</p> <p>Our wastewater generation will not exceed 10,540 m<sup>3</sup>/day. We have Effluent Treatment Plant (ETP) having adequate capacity and it will be adequate for treatment of wastewater. The installation of High rate solid contact clarifier-HRSCC for better performance is underway. The treated effluent is processed through guard pond. Thereafter it is being discharged into sea through pipeline having design discharge capacity of 15,000 m<sup>3</sup>/day into deep sea with diffuser system and same meets all parameters within the GPCB limits.</p> <p>Further, we have installed Online Continuous Effluent Monitoring system for pH, TSS, Temperature &amp; Flow and the online data has been transmitted to GPCB/CPCB server.</p> <p>In addition to this, we have installed Sewage Treatment Plant of capacity 500 m<sup>3</sup>/day. However, we are generating sewage within limits of 388 m<sup>3</sup>/day. The treated effluent</p>

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		<p>from STP is being utilized as source of make-up Water for cooling Towers &amp; in Plantation.</p> <p>Copy of Treated Effluent Analysis report for the period from <b>October 2023 to March 2024</b> is attached as <b>Annexure – V</b>.</p> <p>Apart from above, Treated Effluent Analysis is done by GPCB approved Environmental Auditor Namely R K University, Rajkot. Also, we have installed Online Continuous Emission Monitoring System for parameter TOC at site and it is in operation.</p>
ix)	As proposed, effluent recycling RO plant shall be installed to produce 2000 m <sup>3</sup> /day recycle water. Efforts shall be made for recovery of sodium thio-sulphate.	We have installed 1000 m <sup>3</sup> /day Effluent recycle plant and Project of New ETP RO plant of Capacity 2000 m <sup>3</sup> /day is planned to be installed after completion of HRSCC. Efforts for recovery of Sodium thio-sulphate is noted.
x)	Treated effluent should be passed through guard pond. Online pH meter, TOC analyzer and flow meter should be installed. Sulphide contents in the effluent should also be monitored.	<p>At present, treated effluent is processed through guard pond. Thereafter it is being discharged into sea through pipeline into deep sea having design capacity of 15,000 m<sup>3</sup>/day with diffuser system and same meets all parameters within the GPCB limits.</p> <p>Further, Online Continuous Effluent Monitoring system for pH, TSS, Temperature &amp; Flow Meter have been installed in our ETP and the online data has been transmitted to GPCB/CPCB server.</p> <p>Sulphide concentration in effluent water is being regularly monitored.</p> <p>We have installed Online Continuous Emission Monitoring System for parameter TOC at site and it is in operation.</p>
xi)	Process effluent/ any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	The unit ensured & take all precautionary measures regularly to avoid mixing of both the streams (Storm & Process) which is done by formulating periodic schedule for cleaning of all Effluent Channel as well as storm channels which eliminate the possibility of chocking of the drains. The instructions are taken care by all the concerned departments / sections for implementation on continuous & regular basis.
xii)	The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-boundary movement) Rules, 2008 and amendment as on date for management of hazardous waste and prior permission from	The unit has been granted with permission from GPCB for collection, storage and disposal of 18 No of Hazardous waste under the Hazardous Other Waste (Management & Trans-boundary movement) Rules, 2016 in CC&A Renewal <i>vide</i> letter no. GPCB/CCA/JNG-1(35)/ID-17239/780188 dated 03.01.2024, which is valid up to 31.12.2028. The Amendment of CC&A has been granted <i>vide</i> letter no

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	GPCB shall be obtained for disposal of solid/Hazardous waste in the TSDF. A copy of the same shall be submitted to the Ministry and Ministry's regional office at Bhopal.	GPCB/CCA/JNG-1(35)/ID-17239/784706 dated 23.02.2024, which is valid up to 31.12.2028.  Solid/Hazardous Waste Generated from the process is being disposed through GPCB approved TSDF/CHWIF with prior permission.
xiii)	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 the motor vehicle Act (MVA), 1989.	<ul style="list-style-type: none"> <li>• The unit has been granted authorization for handling and storage of Hazardous waste, generated in the plant and relevant procedures are followed. The approvals from Chief Inspectorate of Factories, Gandhinagar, Chief Controller of Explosives, Nagpur and Fire Safety Inspectorate has been obtained.</li> <li>• We are complying with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000.</li> <li>• All transportation of hazardous chemicals is being done as per the Motor Vehicle Act (MVA), 1989 as registered vehicles are only used for transportation.</li> </ul>
xiv)	All the recommendations mentioned in the Environment Management Plan, Rapid Risk Assessment Report, Disaster Management Plan and safety guidelines shall be implemented.	<ul style="list-style-type: none"> <li>• We have onsite Emergency plan and offsite Emergency plan having duly approved by Deputy –Director (Industrial Safety and Health), Government of Gujarat.</li> <li>• We are adhering to the recommendations mentioned in Environmental Management Plan &amp; Rapid Risk Assessment Report. Moreover, we are also carrying out safety audit regularly and the report is submitted to various Government bodies.</li> <li>• We have adopted Aditya Birla Sustainability Framework for Safety System in VFY, CSP &amp; CPP as the part of which we have Implemented 14 safety standards to maintain and improve work place safety culture.</li> <li>• Implemented Process Safety Management System to prevent process incidents and to prevent unexpected releases of toxic, reactive or flammable liquids and gases from processes of highly hazardous processes.</li> <li>• The Company is fully committed to the protection of the EHS as well as quality as it is evident from the adaption of Management Systems: ISO 14001:2015, ISO 9001:2015, ISO 45001:2018, SA 8000:2014, ISO/IEC 27001 : 2013 &amp; ISO 50001:2018 from reputed international agency TUV NORD .</li> </ul>



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xv)	Boiler ash should be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by air or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.	The unit has installed Dry Fly ash collection facility in CPP. There are Four Silos with Bag Filter having total capacity of 1200 MT is available for storage of dry fly ash. We will uphold the existing facility for proposed fly ash generation. Appropriate PPE's are provided to the workers to avoid direct exposure to fly ash and dust.
xvi)	All the fly ash shall be utilized as per fly ash Notification, 1999 subsequently amended in 2003 and 2008.	Fly Ash generated from the CPP is 100 % Utilized in the cement plants as per the Fly Ash notification. Also note that, Annual Fly ash compliance along with the duly signed Standard Pro-forma provided by MoEF & CC, New Delhi as per Fly Ash Notification dated 31.12.2021 is submitted at your good office.
xvii)	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per norms.	<p>Recommendations of Fire study &amp; Risk Assessment is being implemented to prevent fire hazards.</p> <p>Routine Assessments are being done with implementation of Preventive measures and recommendations of the study. Fire safety measures is incorporated within factory premises. All the fire extinguishing media such as Water, dry chemicals, CO<sub>2</sub> etc. are kept in vital locations.</p> <p>We have full-fledged hydrant system which will suffice to take care of an emergency in the plant.</p> <p>Mock drills are being carried out to train the workman to deal with emergency situation.</p>
xviii)	Occupational health surveillance Program should be undertaken as regular exercise for all the employees. The first aid facility in the occupational health center should be strengthened and regular medical test records of each employee should be maintained separately.	<ul style="list-style-type: none"> <li>• Occupational health surveillance Program are undertaken as regular exercise for all the employees, specifically for those engaged in handling hazardous substances.</li> <li>• The first aid facilities in the occupational Health Centre are strengthened and the medical records of each employee have been maintained separately.</li> </ul>
xix)	Dedicated parking facility or loading and unloading of material should be provided in the factory premises. Unit should develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.	At present, we have the adequate infrastructure for parking for vehicle engaged in loading and unloading of material. Further, we have a team of personnel, who take care the transporting system inside plant premises. Outward moving vehicles are instructed not to rush in public road and move in a queue in order to avoid congestion.

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xx)	As proposed, green belt over 33% of the total project area should be developed within plant premises with at least 10-meter-wide green belt on all sides along the periphery of the project area, in downward direction, and along road side etc. selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.	<ul style="list-style-type: none"> <li>• We have developed 33.64 % of plant area viz. Rayon, Power Plant and Caustic Soda Plant into Green belt with local species. There are 129047 nos. existing trees as on 31<sup>st</sup> March 2024. Besides above 1.147-acre area is used/developed with lawn (Hariyali). Total 10.3 Km length of hedges are planted and maintained.</li> <li>• Plant Area breakup: <ul style="list-style-type: none"> <li>➤ Plant Boundary: 176.26 acre</li> <li>➤ Green Belt Area: 59.31 acre (33.64% of total area)</li> <li>➤ Open Area: 50.66 acre</li> </ul> </li> </ul> <p>Although we have already achieved the 33% of area covered under Green belt but still we are carrying out plantation during onset of monsoon every year. For the year 2023-24, we have planted 2858 nos. of sapling till 31<sup>st</sup> March, 2024.</p> <p>Development of Biodiversity Park using the Miyawaki Plantation Technique. The Sapling were planted on 14<sup>th</sup> October 2023 at Raysil Heights colony of Indian Rayon, Veraval within the area of 450 sq. m. with 62 different species.</p>
xxi)	All the commitments made to the public during public hearing/Public consultation meeting held on 4 <sup>th</sup> October, 2014 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the ministry's Regional office at Bhopal.	All the comments raised during public hearing/consultation was noted and detailed Action Plan and Budgetary Allocation is earmarked to satisfactorily implement the same. The aforesaid report has been submitted to your good office.
xxii)	The company shall submit within three months their policy towards Corporate Environmental Responsibility which should inter-alia address (i) standard operating process/procedure to being into focus any infringement/ deviation/ violation of environmental or forest norms. Conditions, (ii) Hierarchical system or Administrative order of the company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) system of reporting of non- compliance/ violation environmental norms to the Board of Directors of the	<p>Complied.</p> <p>The unit have ensured their environmental responsibility through adoption of Environmental policy in line with the Corporate Environmental Policy featuring all the attributes delineated in the condition. Also we would like to mention that we are carrying out the Environmental Management in our unit in line with the formulated Policy.</p>

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	company and/or stakeholders or shareholders.	
xxiii)	At least 5% of the total cost of the project (i.e. Rs. 43 Crore) shall be earmarked towards the <b>Enterprise Social Commitment (ESC)</b> based on local needs and action plan with financial and physical break up /details shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such Programme should be ensured accordingly in a time bound manner.	Noted for Compliance. A separate budget has been earmarked for CSR/ESC activities. CSR/ESC activities is being carried out by IR Jan Seva Trust. CSR Report for the period <b>October 2023 to March 2024</b> is attached as <b>Annexure – VI</b> .
xxiv)	Provision shall be made for the housing for the construction Labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile sewage treatment plant, safe drinking water, medical health care, crèche etc. the housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.	Noted We will provide the basic amenities to the construction workers within the site.
<b>General Condition</b>		
i)	The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB), State Government and any other statutory authority.	Presently, we are complying all the conditions given by Gujarat State Pollution Control Board, State Government and other statutory authority.
ii)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment & Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted The unit have received the Environmental Clearance for Expansion of Viscose Filament Yarn (1650 to 2400 MTPM), Sodium Sulphate (Na <sub>2</sub> SO <sub>4</sub> ) Plant (2050 to 2350 MTPM), Captive Power Plant (34.5 to 54.5 MW) along with Installation of Sodium Sulphite (Na <sub>2</sub> SO <sub>3</sub> ) Plant (3000 MTPM) & Liquid Sulphur Dioxide (SO <sub>2</sub> ) Plant (1500 MTPM) from Ministry of Environment, Forests & Climate Change, New Delhi vide letter no. J-11011/343/2013-IA II (I) dated 22 <sup>nd</sup> June, 2015.  We have been granted amendment in CTE/NOC from Gujarat Pollution Control Board for Expansion of

Sr. No.	Conditions	Reply to Stipulated Conditions
		<p>production Capacity of Viscose Filament Yarn &amp; other products as prescribed in Environmental Clearance of Expansion Project Vide Order No. GPCB/CCA/JNG-1(21)/ID17239/332587 dated 10.11.2015 and corrigendum in Amendment vide Order No. GPCB/CCA/JNG-1(23)/ID17239/342712 dated 25.01.2016. Further, we have been Granted CTE-Extension by GPCB, Gandhinagar vide CTE Order No. 118896 dated <b>23.05.2022</b> valid up to <b>21.06.2025</b>.</p> <p>We have been granted Consolidated Consent and Authorization (CCA) from GPCB, Gandhinagar for enhancing VFY production from 1650 MTPM to 1950 MTPM vide letter no. GPCB/CCA/JNG-1(23)/ID17239/345269 dated 12<sup>th</sup> February 2016.</p> <p>We have been granted a renewed CC&amp;A No. GPCB/ID-17239/CCA/JNG-1 (27)/453902 dated: 03.05.2018.</p> <p>We have been granted with Consolidated Consent and Authorization (CCA) Amendment from GPCB, Gandhinagar for increasing Captive Power Plant capacity from 34.5 MW to 54.5 MW through vide letter no. GPCB/CCA/JNG-1(34)/ID-17239/682802 issued on 12.09.2022 and correction to Consolidated Consent and Authorization (CCA) from GPCB, Gandhinagar has been granted through vide letter no. GPCB/CCA/JNG-1(34)/ID-17239/753418 issued on 16.09.2023.</p> <p>Further, the unit has been granted with permission from GPCB for collection, storage and disposal of 18 No of Hazardous waste under the Hazardous Other Waste (Management &amp; Trans-boundary movement) Rules, 2016 in CC&amp;A Renewal vide letter no. GPCB/CCA/JNG-1(35)/ID-17239/780188 dated 03.01.2024, which is valid up to 31.12.2028. The Amendment of CC&amp;A has been granted vide letter no GPCB/CCA/JNG-1(35)/ID-17239/784706 dated 23.02.2024, which is valid up to 31.12.2028.</p>
iii)	The National Ambient Air Quality Emission standards issued by the Ministry vide G.S.R. No 826 (E) dated 16 <sup>th</sup> September, 2009 shall be complied.	Noted
iv)	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	Four Nos. of AAQ stations are installed and ambient air quality is being measured for parameters such as PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>x</sub> , NO <sub>x</sub> , CS <sub>2</sub> , H <sub>2</sub> S, HCl, and Cl <sub>2</sub> . Location of AAQ Stations are finalized after consultation with GPCB officials.

Sr. No.	Conditions	Reply to Stipulated Conditions
	that at least one stations is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	We have installed Three nos. of online Continuous Ambient Air Quality Monitoring System (CAAQMS) over Rooftop of our Rayon Administrative Building, over rooftop of Caustic Soda Administrative Building & Guest House Building.
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 EPA Rules, 1989 viz. 75 dB (A) (day time) and 70 dB (A) (night time).	Adequate measures are taken to provide earmuffs/earplugs for persons working in noisy areas. All the places where practicable silencers are provided to the equipment's like compressors, Blowers etc. We are regularly monitoring Noise Level at Ambient Air and also in Work Zone.
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 for the process activities of the project to conserve fresh water.	All efforts for rain water harvesting are being taken. Due to high water table in area further recharging is not possible. However, separate storm water drains are provided to prevent flooding by discharging into Devka River.  In addition to this, we have also developed watershed development recharge pits in the several villages falling under 10 km of radius of Study area, resulting into rise in water level in nearby areas.
vii)	Training shall be 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. Training to all employees on handling of chemicals shall be imparted.	We are regularly carrying out training to all employees on safety and health aspects on handling chemicals.  Pre-employment and routine periodical medical examinations are also performed.
viii)	Usage of personnel protective Equipment's (PPE's) by all employees/workers shall be ensured.	All employees/Workers are provided with Personnel Protective Equipment's based on the work place hazards.
ix)	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, risk mitigation measures and public hearing relating to the project shall be implemented.	We adhere to the recommendations made in EIA/EMP report covering all aspect in condition.
x)	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding areas. CSR	We actively participate in activities meant for improving Socio-economic conditions of surrounding.

Sr. No.	Conditions	Reply to Stipulated Conditions
	activities shall be undertaken by involving local villages and administration.	
xi)	The company shall undertake eco-developmental measures including community welfare measures in the project area of the overall improvement of the environment.	Noted
xii)	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and monitoring functions.	<p>We have a Corporate Environment Management structure which reports to the Office of the Chairman. Director of our Business monitors the environment management system and at the Unit Level President &amp; Vice President leads Environment Management system. Qualified &amp; Competent Engineers to maintain the aspects and implement Environment Management System effectively and ensure its continuous improvement. A well-equipped laboratory &amp; dedicated EMC are established in the factory to regularly analyze &amp; monitor the highly fragile eco-system of the complex. We are also monitoring ambient air apart from four stations. All the results are within the GPCB Prescribed Norms. For the Environmental requirement, return on investment is not calculated and the budget is allocated as discretionary budget. There is no limitation from the side of Management for spending on regulatory/ Environmental protection requirements. The Environment Management Cell comprises of following persons and headed by:</p> <ul style="list-style-type: none"> <li>a) President &amp; Unit Head</li> <li>b) FH – VFY</li> <li>c) FH – Caustic &amp; Power Plant</li> <li>d) DH – Environment, Safety &amp; Sustainability</li> <li>e) DH – Civil</li> <li>f) Manager – ETP</li> <li>g) Engineer/ Officer – Environment &amp; Sustainability</li> <li>h) Environmental Analyst</li> <li>i) DH – Estate, Fire &amp; Security</li> </ul>
xiii)	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment & Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The	The policy of the company is that for any Environmental incidents there are no budget restrictions. However, a minimum amount of Rs. 40 to 50 Lacs earmarked on annual basis for environmental activities. This is besides expansion incurred for chemical consumption and strengthening of existing pollution control and monitoring equipment.

Sr. No.	Conditions	Reply to Stipulated Conditions
	funds so provided should not be diverted for any other purpose	
xiv)	A Copy of clearance letter shall be sent by Project Proponent to the concerned panchayat/ Zila Parishad/ Municipal Corporations, Urban local body and the local NGO if any, from who suggestions/ representations, if any, were received while processing the proposal.	<p>Complied</p> <p>We have Intimated to Local Administration (District Collector/ Add. District Collector) about accordance of Environmental Clearance on 30.06.2015.</p>
xv)	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, the respective Zonal Office of CPCB and the Gujarat Pollution Control Board. A copy of Environmental Clearance and six monthly compliance status reports shall be posted on the website of the company.	<p>We are submitting the six monthly compliance report of stipulated EC conditions to your good office and GPCB in hardcopy and we are also uploading it on our website.</p> <p>Henceforth, we will be regularly submitting the same in the form of softcopy through Email. Kindly note that Aditya Birla Nuvo Limited have been amalgamated with Grasim Industries Limited w.e.f 1<sup>st</sup> July 2017. Therefore, now, our unit is called Grasim Industries Limited, Unit – Indian Rayon. We have intimated about the amalgamation to Pollution Control Authorities viz. The Director, IA Division (Industry - II), New Delhi, MoEF &amp; CC, Western Regional Office, Bhopal, Zonal Officer, CPCB, Vadodara, GPCB, Gandhinagar, GPCB, Junagadh vide our Letter dated 22<sup>nd</sup> June 2017, 3<sup>rd</sup> July 2017 and 15<sup>th</sup> July 2017 respectively.</p> <p>Further, we have submitted notarized undertaking about change of company name only without increase in any production prospective to Unit Head – Junagadh, GPCB, Gandhinagar vide our Letter dated 9<sup>th</sup> October 2017.</p> <p>We have incorporated a name change which has been included in our CC&amp;A by GPCB [No: GPCB/ID -17239/ CCA - JNG -1(26)] and the same was informed to MoEF &amp; CC through our letter dated 28.12.2017.</p>
xvi)	The environmental statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated shall be submitted to concerned State Pollution Control Board as prescribed under the EP 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 Office of MoEF & CC by e-mail.	<p>We are regularly submitting the Environmental Statement to GPCB and uploading the same on our website. The same also sent to Regional Office, MoEF &amp; CC. Henceforth, we will be regularly submitting the same in the form of softcopy through Email as well.</p>

Sr. No.	Conditions	Reply to Stipulated Conditions
xvii)	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 <a href="http://www.moef.nic.in">http://www.moef.nic.in</a> . 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 should be forwarded to the Regional office.	<p>Complied</p> <p>We have already intimated about the advertisement of accordance of Environmental Clearance with in stipulated time to your good office vide our letter no. ABNL/ENV/C3262/2015 dated 27<sup>th</sup> June 2015 i.e. within 7 days' period.</p>
xviii)	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.	<p>Noted for compliance. Moreover, we have been granted NOC/CTE dated 15<sup>th</sup> September 2015 for aforesaid project.</p> <p>Further, we have been Granted CTE-Extension by GPCB, Gandhinagar vide CTE Order No. 118896 dated 23.05.2022 valid up to 21.06.2025.</p> <p>We have been granted with Consolidated Consent and Authorization (CCA) Amendment from GPCB, Gandhinagar for increasing Captive Power Plant capacity from 34.5 MW to 54.5 MW through vide letter no. GPCB/CCA/JNG-1(34)/ID-17239/682802 issued on 12.09.2022 and correction to Consolidated Consent and Authorization (CCA) from GPCB, Gandhinagar has been granted through vide letter no. GPCB/CCA/JNG-1(34)/ID-17239/753418 issued on 16.09.2023.</p> <p>Further, the unit has been granted with permission from GPCB for collection, storage and disposal of 18 No of Hazardous waste under the Hazardous Other Waste (Management &amp; Trans-boundary movement) Rules, 2016 in CC&amp;A Renewal vide letter no. GPCB/CCA/JNG-1(35)/ID-17239/780188 dated 03.01.2024, which is valid up to 31.12.2028. The Amendment of CC&amp;A has been granted vide letter no GPCB/CCA/JNG-1(35)/ID-17239/784706 dated 23.02.2024, which is valid up to 31.12.2028.</p>
8)	The ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	We will implement all the conditions.
9)	The Ministry reserves the right to stipulate additional conditions, if found necessary.	We will comply any additional conditions may be imposed by your esteemed department from time to time.



Sr. No.	Conditions	Reply to Stipulated Conditions
	The company in a time bound manner shall implement these conditions.	
10)	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	<p>We are complying all the provisions under Water (Prevention &amp; Control of Pollution) Act, 1974, Air (Prevention &amp; Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Waste (Management and Transboundary Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.</p> <p>We are operating our Plant under statutory Consents &amp; Clearances accorded from Gujarat Pollution Control Board, Gandhinagar and Ministry of Environment, Forests &amp; Climate Change, New Delhi respectively.</p>

<b>B.</b>	<b>As per EC Letter No. J-11011/445/2008 – IA.II (I), Dated: 18.07.2008 by MoEF &amp; CC for Expansion Project for production of Viscose Filament Yarn from 1300 MTPM to 1650 MTPM &amp; Caustic Soda production from 200 TPD to 400 TPD.</b>
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<b>Sr. No.</b>	<b>Conditions</b>	<b>Reply to Stipulated Conditions</b>
<b>A. Specific Conditions</b>		
i.	The effluent generation shall not exceed 8540 m <sup>3</sup> /d. The effluent from the caustic soda plant and viscose filament rayon plant shall be treated in the company's own Common Effluent Treatment Plant and the treated effluent after conforming to the industry specific discharge standards shall be sent to sea creek. The domestic effluent shall be disposed of through septic tank soak pit	Being Complied
ii.	Process emissions from the caustic soda plant shall be scrubbed with alkali scrubber with efficiency of 95% at each stage. Bubble cap tray followed by packed bed scrubber with water as scrubber media shall be installed to control HCl emissions. Stack of adequate height for caustic soda plant and HCl synthesis unit shall be provided for dispersion of emission	Complied
iii.	The vent gases from Sodium hypochlorite plant and HCl acid plant shall be controlled at source by effective absorption system. Waste Chlorine gas shall be used in preparation of HCl. Bubble cap tray followed by packed bed scrubber with DM water shall be provided to scrub HCl gas mist and vapor. The vent gases shall be discharged from the stacks of adequate height for effective dispersion. On line chlorine monitors with DCS within Caustic Soda plant to monitor chlorine gas and on line hydrogen monitors with DCS shall be installed	Complied
iv.	Particulate emissions from the captive power plant and coal fired boiler shall be controlled by electrostatic precipitator and bag filters and emissions shall be	Complied

Sr. No.	Conditions	Reply to Stipulated Conditions
	dispersed through stack of adequate height. Particulate emissions shall conform to the prescribed standards. For dispersion of emissions from the DG set, stack height as per CPCB standards shall be provided. Emissions from the DG Sets shall conform to the standards prescribed by the CPCB. The DG sets will be provided with the acoustic enclosures to mitigate the noise.	
v.	Dykes of adequate height shall be provided around the HCl acid tanks to collect the acid within the dyke walls in the event of catastrophic failure of the tank	Complied
vi.	The gaseous emissions from the carbon di Sulphide plant in the form of CS <sub>2</sub> and H <sub>2</sub> S shall be recovered by condensers and H <sub>2</sub> S shall be scrubbed with caustic soda and 2-stage absorption system to recover sodium Sulphide.	Complied
vii.	The adequate measures shall be taken to prevent the fire hazards and accidental release of Cl <sub>2</sub> .	Complied
viii.	The project authorities shall comply with the recommendations made in the EIA/EMP report.	Complied.
ix.	Green belt shall be developed in 12 ha of plant area to mitigate the effects of fugitive emissions all around the plant. The development of green belt shall be as per the Central Pollution Control Board guidelines.	Complied
x.	Rainwater harvesting measures shall be undertaken to recharge the ground water.	Complied
<b>B. General Conditions</b>		
i.	The project authorities shall strictly adhere to the stipulations made by the <b>Gujarat State Pollution Control Board (GPCB)</b>	Complied
ii.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment & Forests. In case of deviations or alterations	Complied

Sr. No.	Conditions	Reply to Stipulated Conditions
	in the project proposal from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	
iii.	The project authorities shall strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. must be obtained.	Complied We are renewing the approvals periodically.
iv.	The project authorities shall strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management and Handling) Rules, 2003. Authorization from the State Pollution Control Board must be obtained for collections/ treatment/ storage/ disposal of hazardous wastes.	Complied
v.	The overall noise levels in and around the plant area shall be kept well within the standards (85 dB (A)) 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 EPA Rules, 1989 viz. 75 dB (A) (day time) and 70 dB (A) (night time).	Being Complied
vi.	Occupational health surveillance Programme shall be undertaken as regular exercise for all the employees, specifically for those engaged in handling hazardous substances. The first aid facilities in the occupational health center should be strengthened and the medical records of	Being Complied

Sr. No.	Conditions	Reply to Stipulated Conditions
	each employee should be maintained separately	
vii.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA and Risk analysis. Report. The Company must also undertake social welfare/ community development measures in the surrounding villages, such as health care, education and drinking water supply facilities	Complied
viii.	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and monitoring functions.	Complied
ix.	The project authorities shall provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment & Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purpose.	Complied
x.	The implementation of the project vis-à-vis environmental action plans will be monitored by Ministry's Regional Office at Bhopal/ State Pollution Control Board/ Central Pollution Control Board. A six monthly compliance status report should be submitted to monitoring agencies.	Complied
xi.	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 State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This should be advertised within seven days from the date of issue of the clearance letter, at least	Complied

Sr. No.	Conditions	Reply to Stipulated Conditions
	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 should be forwarded to the Regional office.	
xii.	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 commencing the land development work, if any.	<p>Complied</p> <p>This project was applied to enhance the production capacity of Viscose Filament Yarn through modification in machinery and in Caustic Soda Plant by installation of three electrolyzers in the cell house. For the aforesaid project we have been granted NOC/CTE on 30.06.2009 and subsequently, we obtained Consolidated Consent Authorization (CCA) on 26.11.2010 and amendment in CCA on 18.11.2011. We have received the Amendment from vide letter no. GPCB/CCA-JNG-1(16)/ID-17239/96938 dated 18<sup>th</sup> November 2011 for commissioning of New Superior Spool Technology for Manufacturing of Viscose Filament Yarn within the existing production capacity of 1650 MTPM.</p>
8.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted
9.	The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner shall implement these conditions.	Noted.
10.	Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997	Complied
11.	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	<p>Noted.</p> <p>We are operating our plant under statutory consents &amp; clearances from Gujarat Pollution Control Board (GPCB), Gandhinagar and Ministry of Environment &amp; Forests (MoEF), New Delhi respectively.</p>

<b>C.</b>	<b>As per Amendment in EC vide Letter No. J-11011/382/2008-IA.II (I) dated 02.08.2011 by MoEF &amp; CC for Expansion project for enhancing production capacity of Viscose Filament Yarn from 1300 MTPM to 1650 MTPM and Caustic Soda plant of 200 TPD</b>
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<b>Sr. No.</b>	<b>Conditions</b>	<b>Reply to Stipulated Conditions</b>
i.	Plant capacity shall not increase beyond 1650 MTPM as mentioned in the Ministry's letter no. J-11011/445/2008-IA. II (I) dated 18.07.2008, No further expansion/modification shall be carried out without prior approval from the MoEF.	Complied
ii.	All the conditions mentioned in the letter no. J-11011/445/2008-IA. II (I) dated 18.07.2008 shall be satisfactory complied.	Complied
iii.	Permission from the State Government shall be obtained for the change in technology.	Complied

<b>D.</b>	<b>As per EC no. J -11012/25/95-IA.II (I) dated 19.06.1995 &amp; amendment dated 31.08.1998 by MoEF &amp; CC (Expansion Project)</b>
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<b>Sr. No.</b>	<b>Conditions</b>	<b>Reply to Stipulated Conditions</b>
1	The PA must strictly adhere to the stipulations made by the SPCB and the State Government.	Complied
2	The PA must take effective steps to limit the emissions of CS <sub>2</sub> & H <sub>2</sub> S and in no case, it should exceed the limits prescribed by GPCB-amended condition.	Being Complied
3	Gaseous and particulate emissions from the various process vents and storage tanks should conform to the standards prescribed by the competent authorities from time to time. At no time will the emission levels be allowed to go beyond the prescribed standards. In the event of failure of the any respective unit should be put out of the operation immediately and should not be restarted to achieve the desired efficiency. An interlocking system should be incorporated & its effectiveness checked and approved by the SPCB.	Being Complied
4	At least four AAQ monitoring stations should be established in the down wind direction as well as where maximum ground level	Being Complied

Sr. No.	Conditions	Reply to Stipulated Conditions
	concentrations of SPM, SO <sub>2</sub> , NO <sub>x</sub> , CS <sub>2</sub> , H <sub>2</sub> S and Cl <sub>2</sub> are anticipated. The selection of the AAQ monitoring stations should be based on modeling exercise to represent short term ground level concentrations, sensitive targets etc. in consultation with the SPCB. Stack emissions should also be regularly monitored by installing stack monitoring devices in consultation with the SPCB. Data on AAQ and stack emissions should be submitted regularly to this Ministry once in six months and the SPCB once in three months along with the statistical analysis and interpretation.	
5	Fugitive emissions should be controlled, regularly monitored and data recorded.	Being Complied
6	Liquid effluents coming out of the existing plant should conform to the standards as prescribed by the SPCB/ stipulated under the EP Act, 1986 and the treated effluents should be recycled/ reused to the maximum extent possible. There should not any effluent discharge from proposed caustic soda plant.	Being Complied
7	The hazardous wastes should be handled as per the HWMH Rules, 1989 of the EP Act, 1986. A plan for handling, treatment and disposal of hazardous wastes should be prepared and submitted for approval within six months.	Being Complied
8	Adequate measures for control of noise should be taken so as to keep noise levels below 85dB in the working environment. Persons working near the noisy machines in the different units, blowers, compressors etc. should be provided with well-designed ear muffs/ plugs. Besides, measures should be taken to reduce the noise at the source itself by employing engineering methods.	Being Complied
9	Adequate number of chlorine sensors coupled with alarm system should be installed at vulnerable locations to detect chlorine leak(s) for timely action. An early warning system should develop to alert the nearby communities during emergency situations. A	Complied



Sr. No.	Conditions	Reply to Stipulated Conditions
	wind sock should be provided at appropriate place within the plant in consultation with the SPCB.	
10	Necessary approval should also be taken from the Explosive Department and the Chief Inspector of Factories, Gujarat regarding the design and safety of the pressure vessels, storage tanks etc.	Complied We are renewing the approvals periodically.
11	Work place air quality should be monitored regularly for acid mist, CS <sub>2</sub> , H <sub>2</sub> S and Cl <sub>2</sub> so as to ensure that it meets the standards prescribed by the competent authorities/ OSHA/ NIOSH/ ACGIH in the form of time weighted averages.	Being Complied
12	Brine sludge collection area should always be kept clean. Area should be made impervious to avoid contamination of ground water due to spillage. The method should be approved by the SPCB.	Being Complied
13	Workers before entering the bring sludge area and undertaking any work must wear adequate PPE such as safety goggles, aprons, gloves etc. This may be achieved by proper training and strict enforcement of safety regulation.	Being Complied
14	Showers (de-contamination booths) and eyes baths should be installed and properly maintained and the safety Programme should also include periodic checking and maintenance of these systems as per the requirement of the Safety Directorate.	Being Complied
15	Occupational health surveillance Programme should be undertaken as a regular exercise especially with respect to exposure to CS <sub>2</sub> , H <sub>2</sub> S, chlorine, thermal stresses and noise pollution. Maintenance of individual medical records along with base-line data is required.	Being Complied
16	A green belt of adequate width and density using local plant species should be developed all around the plant including sludge dumping site in consultation with the local DFO. There should be an average of 1500 trees/ha in the	Complied

Sr. No.	Conditions	Reply to Stipulated Conditions
	green belt and an overall average of 300/ha for the plant.	
17	Risk assessment report should be revised and submitted for approval by this Ministry incorporating worst scenario and risk contours for hazardous toxic chemicals and gases. Hazard distance should not cross the battery limits of the factory under any circumstances.	Complied
18	The PA should revise the DMP incorporating graphs/ nomograms indicating special distribution of concentrations of pollutants during day and night under different stability classes wind conditions so that in case of accidental release of toxic gases the area likely to be affected could be known and rescue operations may be organized accordingly. Handling, manufacture, storage and transport of hazardous chemicals should be as per the details/provisions in the MSIHC Rules, 1989	Complied
19	Approval from the State Govt. / SPCB should be obtained for the proposed landfill site.	Complied
20	All the requirements of the CRZ notification must be complied with.	Complied
21	The PA should set up laboratory facilities for collection and analysis of samples under the supervision of competent technical personnel, who will directly report to the Chief Executive.	Complied
22	A separate EMC with suitably qualified people to carry out various functions should be set up under the control of Senior Executive, who will directly report to the Head of the organization.	Complied
23	The ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted

<b>E.</b>	<b>As per EC Letter No. 11-80/2008-IA.III (Part - II) dated 07.12.2009 by MoEF &amp; CC for Marine Pipeline Project</b>
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<b>Sr. No.</b>	<b>Conditions</b>	<b>Reply to Stipulated Conditions</b>
1.	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the RO of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO <sub>2</sub> , NO <sub>x</sub> (ambient level as well as stack emissions) or critical sectorial parameters, indicated for the project shall be monitored & displayed at a convenient location near the main gate of the company in the public domain.	Being complied
2.	The PP shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective RO of MoEF, the respective Zonal Office of CPCB and the SPCB.	Complied
3.	The environmental statement for reach financial year ending 31 <sup>st</sup> March in Form-V as is mandated to be submitted by the PP to concerned SPCB as prescribed under the EP Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective RO of MoEF by e-mail.	Being complied

<b>F.</b>	<b>As per Letter No. ENV-10-2008-1177-E dated 12.02.2009 by GCZMA for Marine Pipeline Project</b>
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<b>Sr. No.</b>	<b>Conditions</b>	<b>Reply to Stipulated Conditions</b>
1	The Provisions of the CRZ notification of 1991 and subsequent amendments issued from time to time shall be strictly adhered to by M/s Indian Rayon.	We will comply with all the provisions of the CRZ Notification of 1991 and subsequent amendments issued from time to time.
2	The treated effluent, to the tune of 15000 m <sup>3</sup> /day (max) meeting with the Gujarat Pollution Control Board (GPCB) Norms at the point recommended by CSMCRI, Bhavnagar, shall only be discharged through the said pipeline after obtaining necessary Consent of the GPCB under the Water Act, 1974. At present, the company has disposed of 8450 m <sup>3</sup> / day of treated effluent and shall increase the quantity of the same after obtaining the necessary CCA/ Consent under the water Act 1974, from the GPCB.	Being complied
3	All the recommendations and suggestion given by the CSMCRI in its effluent disposal point selection report/ Environment Impact Assessment Report shall be implemented strictly by M/s Indian Rayon.	Complied
4	The effluent not meeting with the GPCB Norms shall not be discharged and shall be stored in the Guard ponds and recycled back in to the effluent Treatment Plant for further treatment to achieve the GPCB Norms. M/s Indian Rayon shall install necessary facilities for this purpose shall strictly ensure the compliance with the GPCB Norms, round the Clock	Complied
5	Comprehensive Environment Impact Assessment report shall be submitted to this department and the recommendations/ suggestions given in it shall be implemented.	Complied
6	The construction debris and sewage generated during the construction phase shall not be discharged in to sea creek, sea, estuary or in to the CRZ Area. The debris shall be removed from the construction site immediately after the construction is over and shall be disposed of as per the guidelines of the GPCB.	Complied

Sr. No.	Conditions	Reply to Stipulated Conditions
7	The land ward portion of the pipeline shall be buried at least 1m below the ground and the offshore portion shall be protected appropriately from the erosion.	Complied
8	The construction camps shall be located outside the CRZ area and the construction labors shall be provided with necessary amenities including sanitations, water supply and fuel and it shall be ensured that the environmental conditions are not deteriorated by the construction labors.	Complied
9	The ground water shall not be tapped to meet with water requirements during construction or operation phase in any case.	Complied
10	A Disaster Management plan to meet any eventualities that may arise during constructions and/ or operations phase shall be prepared implemented.	Complied
11	The Pipeline Shall be monitored regularly by the company and it shall be ensured that there is no leak from the pipe line. In case of any such eventualities, the company shall immediately stop disposal through the said pipeline and take corrective measures in the connection in consultation with GPCB and the District Collector.	Complied
12	Necessary permissions from different departments/ agencies under different laws/ acts shall be obtained before commencing the constructions/ pipeline laying activities.	Complied
13	The company shall take up the mangrove plantation in 50 ha of area on Gujarat coastal line in phased manners in five years.	Complied
14	A separate Environmental Management Cell with qualified personnel shall be created to implement Environmental Management Plan and a separate budget shall be provided for this purpose.	Complied
15	The cost of external agency that may be appointed by this department for supervision/ monitoring of the project activities during	We will bear cost of external agency appointed by DoEF, Gandhinagar for supervision/ monitoring of the project activities during constructions operational phases.

Sr. No.	Conditions	Reply to Stipulated Conditions
	constructions operational phases shall be borne by the M/s Indian Rayon.	
16	Massive Green belt development program shall be carried out in consultations with the forest department by M/s Indian Rayon.	Complied
17	A large Scale Socio-economic upliftment program in consultation with the District Collector/ DDO shall be carried out. A Separate budget shall be provided for this purpose and details be finished to this department from time to time.	Complied
18	Environment Audit Report shall be submitted every year. The report shall also cover the change in the costal and marine environment enroute the proposed pipeline and around disposal point due to commissioning of the proposed pipe line	Complied Marine monitoring is regularly carrying out through M/s. National Institute of Oceanography, Mumbai and report is being submitted to all the Regulatory Authorities on regular basis. Monitoring Report for samples collected during the period 24.03.2023 to 31.03.2023 has been submitted to statutory authority
19	A Six Monthly Progress reports regarding the compliance of the conditions shall be submitted to this department.	We will comply.
20	Any additional conditions that may be imposed by the DOEF Department time to time shall have to be complied By M/s Indian Rayon.	We will comply any additional conditions may be imposed by the your department time to time

<b>G.</b>	<b>As per EC Letter No. 11-80/2008-IA.III dated 20.10.2008 by MoEF &amp; CC for Marine Pipeline Project</b>
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<b>Sr. No.</b>	<b>Conditions</b>	<b>Reply to Stipulated Conditions</b>
<b>A. Specific Conditions</b>		
(i)	The Zinc Concentration in the effluents at the discharge point shall be monitored and the report submitted to the Regional Office, Bhopal at every three months.	Complied  Marine monitoring is regularly carrying out through M/s. National Institute of Oceanography, Mumbai and report is being submitted to all the Regulatory Authorities on regular basis. Monitoring Report for samples collected during the period 24.03.2023 to 31.03.2023 has been submitted to statutory authority.
(ii)	All the conditions stipulated by Forests and Environment Department Government of Gujarat vide their letter No. ENV-10-2008-1177E dated 06.10.2008 shall be strictly implemented.	Complied
(iii)	The Pipe line shall not be disturbed the movement of fishing vessels or fishermen.	Complied
(iv)	It shall be ensured that there is no displacement of people, houses or fishing activities as result of the project.	Complied
(v)	It shall be ensured due to the project that there is no adverse impact on the drainage of the area and recharge of Ground water. No ground water shall be tapped in the project area falling in Coastal Regulation Zone.	Complied
(vi)	The Project Proponent must ensure that the effluents/ liquid wastes discharged are the standards laid down by the Gujarat Pollution Control Board.	Complied
(vii)	The camps of Labour shall be kept outside the Coastal Regulation Zone area. Proper arrangement for cooking fuel shall be made for the Labour during construction phase so as to ensure that mangroves are not cut /destroyed for this purpose.	Complied
(viii)	The entire stretch of the pipe lines Shall be buried underground except at the booster pumping station which will be fenced and station would be manned round the clock. The buried lines will be protected with anticorrosive	Complied

Sr. No.	Conditions	Reply to Stipulated Conditions
	Coal tar based Coating. The Coating will be tested in accordance with prescribed Standard.	
(ix)	Markers shall be installed at every 30 M to indicate the position of the line. Regular patrolling of the pipe line needs to be done. This will help in identifying any activities that have the potential to cause the pipe line damage or to identify small leaks whose effect are too small to be detected by Instrument.	Complied
(x)	Their Shall be display board at critical location along the pipe line viz. road/ rail/ river crossings giving emergency instructions as well as contact details of M/s Indian Rayon. This will ensure prompt information regarding location of the accident during any emergency. Emergency information board shall contain emergency instructions .Any additions to contact details.	Complied
(xi)	All necessary clearance from concerned agencies shall be obtained before initiating the project.	Complied
(xii)	The Project shall be implemented in such a manner that there is no damage whatsoever for the mangroves/ other sensitive coastal ecosystems. If any damage in mangroves is anticipated as a result of project activities then the clearance now been accorded shall stand cancelled and proponents may seek fresh approval from Ministry.	Complied
(xiii)	A Continuous and comprehensive post project Marine Monitoring quality Programme shall be taken up. This shall include monitoring of water quality, sediment quality and biological characteristics covered in the EIA Studies.	Complied Marine monitoring is regularly carrying out through M/s. National Institute of Oceanography, Mumbai and report is being submitted to all the Regulatory Authorities on regular basis. Monitoring Report for samples collected during the period 24.03.2023 to 31.03.2023 has been submitted to statutory authority.
<b>B. General Conditions</b>		
(i)	Construction of the proposed structure shall be under taken miraculously conforming to the existing center/ local rules and regulation. All the construction/ drawing related to the proposed construction activity must have	Complied



Sr. No.	Conditions	Reply to Stipulated Conditions																											
	approval of the concerned state government department/ agencies.																												
(ii)	The project authorities shall take appropriate community development and welfare measures for the villagers in the vicinity of the project site, including drinking water facilities. A separate fund shall be allocated for this purpose	Complied																											
(iii)	To meet any emergency situation appropriate firefighting system shall be installed. Appropriate arrangement uninterrupted power supply to the environment protection equipment and continuous water supply for the firefighting system to be made.	Complied																											
(iv)	A separate Environment Management Cell with suitably qualified staff to carry out various environment related function shall be set up under the charge of senior executive who will directly to the chief executive of the company.	Complied																											
(v)	The funds earmarked for environment protection measures shall be maintained as a separate account and shall be no diversion of these funds for any other purpose. A year-wise expenditure on environmental safe guard shall be reported to this ministry's regional office at Bhopal	Complied																											
<b>Proposed Environmental Expenditure in Financial Year 2024-25</b>																													
	<table> <tr> <th>Sr. No.</th><th>Environmental Management Plan</th><th>Budget Rs. Lacs</th></tr> <tr> <td>1</td><td>Pipe line Maintenance including Diffuser System</td><td>50</td></tr> <tr> <td>2</td><td>Water Environment including ETP Performance</td><td>100</td></tr> <tr> <td>3</td><td>Post Marine Environment Monitoring</td><td>40</td></tr> <tr> <td>4</td><td>Green Belt Development</td><td>50</td></tr> <tr> <td>5</td><td>Revamping of Effluent treatment plant</td><td>950</td></tr> <tr> <td>6</td><td>Installation of Air diffuser for Odour Mitigation</td><td>25</td></tr> <tr> <td>7</td><td>Extension of Guard Pond</td><td>99</td></tr> <tr> <td></td><td><b>Total</b></td><td><b>1314</b></td></tr> </table>	Sr. No.	Environmental Management Plan	Budget Rs. Lacs	1	Pipe line Maintenance including Diffuser System	50	2	Water Environment including ETP Performance	100	3	Post Marine Environment Monitoring	40	4	Green Belt Development	50	5	Revamping of Effluent treatment plant	950	6	Installation of Air diffuser for Odour Mitigation	25	7	Extension of Guard Pond	99		<b>Total</b>	<b>1314</b>	
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(vi)	Full support shall be extended to the officers of the ministry regional office at, a fresh reference shall be made to this ministry for modification in the clearance Bhopal and the officers of the Central and State Pollution Control Board by the project proponent during their inspection for monitoring agency.	Complied																											

Sr. No.	Conditions	Reply to Stipulated Conditions
(vii)	In case deviation or alteration in the project including the implementing agency, a fresh reference shall be made to this Ministry for modification in the clearance conditions or imposition of new one for ensuring environmental protection. The project proponents shall be responsible for implementing the suggested safeguard measures.	Noted and Complied
(viii)	The Ministry deserves right to revoke this clearance, if any conditions stipulated are not complied with to the satisfaction of this Ministry.	Noted
(ix)	This Ministry are any competent Authority may stipulate any other additional conations subsequently; any if deemed necessary, for Environmental protection, shall be complied with.	Noted
(x)	A Copy of clearance letter shall be marked to the concerned agency panchayat/ local/ NGO if any, from whom any suggestions/ representations has been received while processing the proposal.	Complied
(xi)	State Pollution Control Board/ Committee shall display a copy of the clearance letter at District Industry Center, Collector's Office/ Tehsildar's office for thirty days.	Not pertains to the Project
(xii)	The Project Proponent Shall advertises at least in two local new papers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned informing that project has been accorded Environment Clearance and copies of Environment Clearance letters are available with Gujarat State Pollution Control Board and may also be seen at website of the Ministry of Environment and Forests at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a> .	Complied
(xiii)	The Project Proponents shall inform to Regional office, Bhopal as well as Ministry, the date of financial closure and final approval of the	Complied

Sr. No.	Conditions	Reply to Stipulated Conditions
	project by the concerned authorities and the date of start of work.	
(xiv)	The Project Proponent will obtain the Forest Clearance for the land passing through the Reserved Forest Area before commencement of the Project activities in Forest Area.	Complied
(xv)	So as to maintain ecological features and avoid damage to the eco system, movement of Vehicles in the Intertidal zone Shall be restricted to the minimum.	Complied
(xvi)	Budgetary break up for the Environmental Management Plan for the Project to be mentioned.	Same as mentioned in Point No. 5
(xvii)	Any appeal against this Environmental Clearance shall lie with the National Environment Appellate Authority, if preferred, with in a period of thirty days as prescribed under Section 11 of the National Environment Appellate Act, 1997.	Not Applicable
4.	The above mentioned stipulations will be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Chemicals (Manufacturing, Storage and Import) Rules, 1989, the Costal Regulation Zone Notification, 1991 and its subsequent amendments and the Public Liability Insurance Act, 1991 and the Rules made thereunder from time to time. The project proponents shall also ensure that the proposal complies with the provisions of the approved Coastal Zone Management Plan of Gujarat and the Supreme Court's order dated 18 <sup>th</sup> April, 1996 in the Writ Petition No. 1993 to the extent the same are applicable to this proposal.	Being Complied



# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN, SECTOR 10-A,  
GANDHINAGAR - 382010,  
(T) 079-23232152

By R.P.A.D

**CONSOLIDATED CONSENT AND AUTHORIZATION (CC & A)**  
**CCA NO: AWH-131279 Appl Type: CCA-Renewal**

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution) Act-1981 and Authorization under rule 6 (2) of the Hazardous and Other Waste (Management & Transboundary Movement) Rules 2016 framed under the Environment Protection Act- 1986,

And whereas Board has received Consolidated Consent Application Inward ID No. **289890** dated: **09/11/2023** for the Consolidated Consent and Authorization (CC&A) of this Board under the provisions/rules of the aforesaid acts. Consents & Authorization are hereby granted as under:

**CONSENT AND AUTHORIZATION:**

(Under the provisions/Rules of the aforesaid environmental Acts)

To,

**M/s. Grasim Industries Limited (Unit-Indian Rayon)**

Plot No. 1502, 1507, 1511, 1516, 1493,

Veraval-362266,

Tal. Veraval, Dist. Gir-Somnath.

1. Consent Order Number **AWH - 131279** Date of issue: **27/12/2023**

1.1 The consent under Water Act-1974, Air Act-1981 & Authorization under Environment (Protection) Act, 1986 shall be valid up to 31/12/2028 to operate industrial plant for manufacturing of the following products.

Sr. No.	Products	Quantity MT/Month
1.	Viscose Filament Yarn	1950
2.	Sodium Sulphate	2050
3.	Sulphuric Acid	3600
4.	Sodium Sulphide (100 %)	100
5.	Carbon di sulphide	1000
6.	Caustic Soda Lye (100%)	12000
7.	Chlorine (100%)	10560
8.	Hydrochloric Acid (100%)	1800
9.	Sodium Hypo chlorite (100%)	3750
10.	Compressed Hydrogen	650000Nm <sup>3</sup>
11.	Captive Power Plant	54.5 MW

2. **SPECIFIC CONDITIONS:**

2.1 The applicant shall not produce any products as well as not carry out any activities for products/process listed in the EIA Notification dated:-14/09/2006 as amended from time to time is requiring prior Environmental Clearance from the competent authority.

2.2 Applicant shall strictly comply/fulfill with All the conditions stipulated by Ministry of Environment, Forests & Climate Change, Government of India their per Letter No. J-11011/343/2013-IA II (I) dated 22 June 2015 shall be strictly implemented.

2.3 The recovery of Sodium Sulphat shall not be less than 60 % in Viscose Filament Yarn Unit

2.4 Unit shall sell out their hazardous waste to authorized end-users who are having authorization with valid CCA and rule-9 permission to receive this waste. Unit shall make MoU with such authorized end-users and submit MoU.



- 2.5 Unit shall strictly follow the solid fuel guideline framed by Board and shall install APCM as per Guideline.
- 2.6 Unit shall follow coal-handling guideline framed by Board and provide close ash handling facility.
- 2.7 Unit shall install Online Continuous Emission Monitoring System (CEMS) and link it with the server of GPCB for real time data transfer for boiler more than 8 TPH capacities or equivalent capacity of TFH.
- 2.8 Unit shall Provide APCM with solid fuel fire utility for SO<sub>2</sub> control and comply all conditions as per GPCB office order dated :-03.06.2021.
- 2.9 Total control of Odour nuisance from the plant premises shall be achieved & maintained by the applicant continuously.

3. **CONDITIONS UNDER THE WATER ACT:**

- 3.1 The water consumption and waste water generation shall be as under

	WATER CONSUMPTION KLPD	WASTE WATER GENERATION KLPD
<b>Industrial</b>	14020	12322
<b>Domestic</b>	1448	388

- 3.2 Quantity of the industrial effluent shall not exceed 12322 Kl/Day.
- 3.3 The quantity of sewage effluent from the factory shall not exceed 388 Kl/Day.

**Trade Effluent**

- 3.4 The quality of the treated effluent as per GPCB norms mentioned in column 2

PARAMETER	GPCB NORMS
pH	6.0 to 8.5
Temperature	45° C
Colour (pt.co.Scale)	100 units
Suspended Solids	100 mg/l
Oil and Grease	10 mg/l
BOD (5 days at 20 C)	100 mg/l
COD	250 mg/l
Zinc	15 mg/l

**Note: The recovery of Sodium Sulphate shall not be less than 60 % in Viscose Filament Yarn Unit.**

If the COD of the treated effluent is more than 250 mg/l, industry is required to identify chemicals causing the same in case these are to be toxic as defined in the hazardous chemical rules -1989 (Schedule-I) industry shall have to install tertiary treatment system within the month from date of such directions.

- 3.5 The permissible limit of COD in condition No 3.4 above has been fixed on the following grounds:
- (A) Grasim Industries Limited, Unit - Indian Rayon is an integrated plant manufactures various products such as sulphuric acid, caustic soda, power and sulphuric acid etc. along with viscose filament Yarn.
  - (B) Plants other than viscose filament Yarn products effluent which would have less BOD in effluent compare to effluent to give benefits of dilutions to the effluent generated.
  - (C) Standards for viscose filament yarn as laid down in Gazette of India dated 09.11.2018 for Ind. Specific Standards doe BOD is 100 mg/L.
- 3.6 The effluent conforming to the above standards shall be discharged into sea through close Marine Pipeline.
- 3.7 All the conditions stipulated by Ministry of Environment & Forests, Government of India vide letter No.11-80/2008-IA-III dtd.20/10/2008 shall be strictly implemented for laying a pipeline for disposed of treated effluent in the coastal environmental of Arabian Sea off Veraval Coast.
- 3.8 All the conditions stipulated by Ministry of Environment & Forests, Government of India vide letter No.11-14/2021-IA-III dtd.17/06/2021 shall be strictly implemented for laying of sea water intake and outfall in the Arabian sea for Reverse Osmosis reject from Desalination plant at Veraval Gujarat.
- 3.9 All the conditions stipulated by Ministry of Environment & Forests, Government of India their letter No. F No-J-11011/382/2008-IA II (I) dt: 02/08/2011 shall be strictly implemented.
- 3.10 All the conditions stipulated Ministry of Environment & Forests, Government of India their letter No. F No-J-11011/445/2008-IA II (I) dt: 18/07/2008 shall be strictly implemented.



# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN, SECTOR 10-A,

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- 3.11 All the conditions stipulated by Forests & Environment Department of, Government of Gujarat their letter No ENV-10/2008-1177 -E dtd.06/10/2008 shall be strictly implemented for proposed treated effluent disposal pipeline.
- 3.12 All the conditions stipulated by Forests & Environment Department of, Government of Gujarat their letter No ENV-10/2019-126-E(T.cell), dtd.25/02/2021 shall be strictly implemented for proposed treated effluent disposal pipeline.
- 3.13 All the effluent treatment units shall be operated and maintained efficiently so that the treated effluent always conforms to the specifications referred in condition no.3.4 above.
- 3.14 Sewage shall be treated in STP and it shall conform to following standards and treated sewage shall be used for plantation and gardening on own land within in premises and for cooling tower.

Sr. No	Parameters	Permissible Limit
1.	pH	6.5-9.0
2.	BOD	Less than 30 mg/l
3.	Total Suspended Solid	Less than 100 mg/l
4.	Oil & Grease	Less than 10 mg/l
5.	Fecal Coliform	Less than 1000 mg/l
	Most probable number per 100 ml (MPN/100ml)	

- 3.15 In order to enable the Board to perform its functions of ascertaining the standards of effluent laid down by it for the discharge of the effluent under the condition no. 3.4 of this order are complied with by the Company while causing discharge of effluent, the applicant shall have to submit every month the analysis report of the samples of effluent to be collected and analyzed by one of the laboratories recognized by the State Board.

**PENALTY PROVISIONS:** If the applicant fails to comply with the conditions and other directives issued by this Board as laid down in this order, the applicant is liable for prosecution under Section 43 & 44 and other penal provisions of the Act and shall on conviction, be liable for punishment and imprisonment as provided in the said Act.

## 4. CONDITIONS UNDER THE AIR ACT:

- 4.1 The following shall be used as fuel:

Sr.	Fuel	Total
1.	Coal cum Lignite	45 MT/Hr
2.	HCV Coal	3.5 MT/Hr
3.	Agro waste Cum Briquette	5400 MT/Year
4.	L.D.O	57 KL/Day
5.	Hydrogen	375 m3/MT

- 4.2 The flue gas emission through stack shall confirm to the following standards:

Stack No.	Stack attached to	Stack Height in Meter	Air Pollution Control System	Parameter	in Permissible Limit
1.	Boiler No. 1&2 (Old Power Plant)	122 m	ESP	Particulate Matter	100 mg/Nm3
				SO2	600 mg/Nm3
2.	Boiler No- 4 (Removed)	31 m	Bag filter, Cyclone	NOx	600 mg/Nm3



3.	Boiler No. 3 (New Power Plant)	122 m	ESP	Particulate Matter SO <sub>2</sub> NO <sub>x</sub> Mercury (Hg)	50 mg/Nm <sup>3</sup> 600 mg/Nm <sup>3</sup> 300 mg/Nm <sup>3</sup> 0.03 mg/Nm <sup>3</sup>
4.	Boiler No.- 5 (105 TPH) (connection hooked up into existing new chimney)	122 m	ESP (Lime dosing system CFBC)	Particulate Matter SO <sub>2</sub> NO <sub>x</sub> Mercury (Hg)	30 mg/Nm <sup>3</sup> 100 mg/Nm <sup>3</sup> 100 mg/Nm <sup>3</sup> 0.03 mg/Nm <sup>3</sup>
5.	D.G Sets (2270 KVA)(6 Nos.) (Removed)	40m	Acoustic enclosure	Particulate Matter SO <sub>2</sub>	150 mg/NM <sup>3</sup> 100 ppm
6.	D.G Sets (1450 KVA)(2 Nos.) (Removed)	11m	Acoustic enclosure	NO <sub>x</sub>	50 ppm
7.	D.G Sets (750 KVA)(4 Nos.) (Installed)	11m	Acoustic enclosure		
8.	D.G Sets (1500 KVA)(1 Nos.) (Existing)	30 m	Acoustic enclosure		

- 4.3 The process emission through various stack/vent of reactors, process, vessel etc, shall conform to following standards:

Stack No.	Stack attached to	Stack height in Meter	Air pollution control system	Parameter	Permissible Limit
1.	Old Rayon Plant	52.5	Air washers & Exhaust Fans	CS <sub>2</sub>	200 Kg/MT of Yarn Production
2.	New Rayon Plant	52.5	Air washers & Exhaust Fans	H <sub>2</sub> S	30 kg/MT of Yarn Production
3.	Caustic Soda flaking unit	34	Bag Filter	Particulate Matter	150 mg/m <sup>3</sup>
4.	Coal Crushing Unit	52			
5.	Old Sulphuric Acid Plant	30	Alkali Scrubber	SO <sub>2</sub> Acid Mist	2 Kg/Ton of 100 % Acid Production 50 mg/Nm <sup>3</sup>
6.	New Sulphuric Acid plant	30	Alkali Scrubber	SO <sub>2</sub> Acid Mist	2 Kg/Ton of 100 % Acid Production 50 mg/Nm <sup>3</sup>
7.	(Caustic Chlorine Plant) Hypo Plant	34	Three Stage Scrubbing System by chilled caustic	Cl <sub>2</sub>	15 mg/Nm <sup>3</sup>
8.	(Caustic Chlorine Plant) HCl Plant	34	Bubble Cap tray followed by packed bed scrubber	HCL vapor & Mist	35 mg/Nm <sup>3</sup>

- 4.4 Unit shall comply MoEF & CC Notification dated 09.11.2018 for Environmental Standards of Man Made Fibre industry and amendment from time to time.



# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN, SECTOR 10-A,

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(T) 079-23232152

4.5 Industry shall have to comply following in pursuant to notification issued by MoEF & CC on 09.11.2018

(A) Uncontrolled Emission Quantities (EQ) of CS<sub>2</sub> shall not exceed

FOR VFY

EQ = 200 KG OF CS<sub>2</sub>/T OF FIBER

(B) Stack Height

a) A minimum of 80% total emission estimated above shall pass through stack having height calculated for formula described under at (b). If calculated stack height is less than 30 mt, a minimum height 30 meter shall be provided.

b) Stack Height in Meter

$$H = 11 Q^{0.41} - 3 V_s D/U$$

WHERE Q = CS<sub>2</sub> EMISSION RATE, KG/HR.

V<sub>s</sub> = Stack Exit Velocity -m/sec.

D = Diameter of Stack -Meter

U = Annual Average Wind Speed at Top of Stack -m/sec.

c) In Case of Multiple Stack

(1) All stack carrying CS<sub>2</sub> emission shall be same height based on maximum emission rate.

(2) Number of stack shall be increased from the existing number. However, the number of stack may be reduced. The existing stack may be rebuilt and if stack are to be relocated, condition no.3 below applies.

(3) Spacing among the stacks (x) at the minimum shall be 3.0 H (in mt.) if the distance, X between two stack is less than 3.0 H (in mt) emission both stack shall be calculated considering all emission is going through one stack.

d) Ambient Air Quality Monitoring

Industry shall install three air quality monitoring station for CS<sub>2</sub> and H<sub>2</sub>S measurement in consultation with this board to ensure following ambient air norms on 24 hour average basis.

CS<sub>2</sub> = 100 µg/M<sup>3</sup>

H<sub>2</sub>S = 150 µg /M<sup>3</sup>

4.6 Ambient Air quality within and outside the premises of the unit shall confirm National Ambient Air Quality standards Notified by MoEF vide notification dated 16/11/2009 and manly to the following standards.

Parameter	Permissible Limit (Microgram/M <sup>3</sup> )	
	Annual	24 Hours
Particulate Matter (Size Less than 10 µm) or PM <sub>10</sub>	60	100
Particulate Matter (Size Less than 2.5 µm) PM <sub>2.5</sub>	40	60
Oxides of Sulphur (SO <sub>x</sub> )	50	80
Oxides of Nitrogen (NO <sub>x</sub> )	40	80
HCl	200 Microgram/M <sup>3</sup>	
Cl <sub>2</sub>	100 Microgram/M <sup>3</sup>	



- Annual arithmetic mean of minimum 104 measurements in a year at particular site taken twice a week 24 hourly at uniform intervals.
  - 24 hourly 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days monitoring.
  - Note: - whenever and whenever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation.
- 4.7 Unit shall operate industrial plant/Air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified in conditions as above..
- 4.8 D.G Set standards: - The flue gas emission through stack attached to D.G Set shall conform to the following standards
- a. The minimum height of stack provided with each of the generator set shall be  $H = h + 0.2 (KVA)^{1/2}$ , where H=Total stack height in meter, h= height of the building in meter where or by the side of which the generator set is installed.
  - b. Noise from D.G. Set shall be controlled by providing an acoustic enclosure or by treating the room acoustically, at the users end.
  - c. The acoustic enclosure or acoustic treatment of the room shall be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on the higher side (if the actual ambient noise is on the higher side, it may not be possible to check the performance of the acoustic enclosure/ acoustic treatment. Under such circumstances the performance may be checked for noise reduction up to actual ambient noise level, preferably, in the night time).The measurement for insertion loss may be done at different points at 0.5 m from the acoustic enclosure/room, and the averaged.
  - d. The D.G. Set shall be provided with proper exhaust muffler with insertion loss of minimum 25 dB (A).
  - e. All efforts shall be made to bring down the noise level due to the D.G. Set, outside the premises within the ambient noise requirements by proper siting and control measure.
  - f. Installation of D.G. Set must be strictly in compliance with the recommendations of the D.G. Set manufacturer.
  - g. A proper routine and preventive maintenance procedure for D.G. Set should be set and followed in consultation with the D.G. Set manufacture which would help prevent noise level of the D.G. Set from deteriorating with use The applicant shall provide portholes, ladder, platform etc. at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by number(s) such as S-1, S-2, etc. and these shall be painted / displayed to facilitate identification.
- 4.9 The applicant shall operate industrial plant / air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified in condition no. 4.3, 4.4 and 4.6 above.
- 4.10 The consent to operate the industrial plant shall lapse at any time if the concentration in the ambient air is not within the tolerance limits specified in the condition no. 4.3, 4.4 and 4.6
- 4.11 The applicant shall provide portholes, ladder, platform etc at chimney {s} for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.
- 4.12 The Industry shall take adequate measures for control of noise levels from its own Sources within the premises so as to maintain ambient air quality standards in respect of Noise to less than 75dB (a) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.
- 4.13 The applicant shall operate air pollution control equipment very efficiently and continuously so that the gases emission always conforms to the standards specified in condition No.4.2, 4.3 and 4.6 above.
- 4.14 The consent to operate the industrial plant shall lapse if at any time any conditions of this consent order are not complied with OR parameters of the gaseous emission are not within the tolerance limits specified in the condition no. 4.2, 4.3 and 4.6 above.





# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN, SECTOR 10-A,

GANDHINAGAR - 382010,

(T) 079-23232152

- 4.15 The applicant shall at his own cost get samples of emissions collected and analyzed from an approved laboratory once in three months for the parameters indicated in condition no. 4.2, 4.3 and 4.6 and shall submit in duplicate the report there of to the Board by the 10th of the succeeding month. The applicant shall also maintain records of the analytical results properly and shall keep these records/charts open for inspection.

**PENALTY PROVISIONS:** - If the applicant fails to comply with the conditions of this order and other directives issued by the Board he is liable for prosecution under Section 37, 38, 39 and other penal provisions of the Act.

5. **AUTHORIZATION FOR THE MANAGEMENT & HANDLING OF HAZARDOUS WASTES Form-2 (See rule 6(2)) Form for grant of authorization for occupier or operator handling hazardous waste.**
- 5.1 M/s. Grasim Industries limited Unit-Indian Rayon, is hereby granted an authorization for following hazardous wastes on the premises situated Plot No. 1502, 1507, 1511, 1516, 1493, Veraval-362266, Ta. Veraval, Dist. Gir Somnath.

Sr. No.	Waste Name	Quantity (MT/Annum)	Schedule	Treatment & Disposal
1.	Sulphur Sludge (Acidic)	140	Schedule-I Category No.- 17.1	Collection, Storage, Transportation, Disposal at CHWIF of SEPPL, Bhachau, Dist. Kutch for incineration.
2.	Used Oil/Burnt Oil & LDO	60	Schedule-I Category No.- 5.1	Collection, Storage, Transportation & disposal by selling to registered recyclers
3.	Discarded Drums	3000 Nos / 45 MT	Schedule-I Category No.- 33.11	Collection, Storage, Transportation, Disposal by selling to authorized decontaminated facility.
4.	Cellulose waste ( Organic Bio degradable )	130	Schedule-I Category No.- 23.1	Collection, Storage, Transportation, Disposal at CTSDf of Safe Environ Projects Ltd., Jambusar or Utilizing in cement plant and allied industries.
5.	Spent catalyst from H2SO4 Plant ( Solid )	5.0	Schedule-I Category No.- 17.2	Collection, Storage, Transportation, Disposal by authorized/authorized actual users CTSDf of Safe Environ Projects Ltd., Jambusar.
6.	Toxic metal containing waste i.e. Spent Resin from DM Plant ( Solid)	2.5	Schedule-I Category No.- 35.2	Collection, Storage, Transportation, Disposal at CHWIF of SEPPL, Bhachau, Dist. Kutch for incineration.
7.	Oily Cotton Waste	1.5	Schedule-I Category No.- 5.2	Collection, Storage, Transportation, Disposal at CHWIF of SEPPL, Bhachau, Dist. Kutch./Co-Processing in Cement plant and allied industries
8.	Exhaust Membrane	2.5	Schedule-I Category No.- 36.1	Collection, Storage, Transportation, Disposal at CHWIF of SEPPL, Bhachau, Dist. Kutch for incineration/Co-Processing in Cement plant and allied industries

9.	E-Waste	20	<b>Schedule-IV Category No.-18</b>	Collection, Storage, Transportation, Sale to the authorized E-waste recycler
10.	Lead Acid Battery plates and other Lead Scrap not covered under Batteries Rules 2001	40	<b>Schedule-IV Category No.-17</b>	Collection, Storage, Transportation, Disposal by Sale to the authorized recycler
11.	Brine Sludge (Wet Basis)	3650	<b>Schedule-I Category No.-16.3</b>	Collection, Storage, Transportation, Disposal at approved TSDF Site/ Utilizing in Cement plant and allied industries.
12.	ETP Sludge (Wet Basis)	14500	<b>Schedule-I Category No.-35.3</b>	Collection, Storage, Transportation, Disposal at approved TSDF Site/ Utilizing in Cement plant and allied industries.
13.	Asbestos Containing Material and Asbestos Sheets	90	<b>Schedule-II Category No.-B01</b>	Collection, Storage, Transportation, Disposal at approved TSDF site.
14.	Bag filter Clothes	05	<b>Schedule-I Category No.-35.1</b>	Collection, Storage, Transportation, Disposal at CHWIF of SEPPL, Bhachau, Dist. Kutch for incineration/co-processing
15.	Glass Wool Insulation	05	<b>Schedule- other Category S2</b>	Collection, Storage, Transportation, Disposal at CTSDf of Safe Environ Projects Ltd., Jambusar.
16.	FRP waste	80	<b>Schedule-I Category No.-23.1</b>	Collection, Storage, Transportation, Disposal at CHWIF of SEPPL, Bhachau, Dist. Kutch for incineration/Co-Processing in Cement plant and allied industries.
17.	Spent Acid	2000	<b>Schedule-II Category No.-B15</b>	Collection, Storage, Transportation, Disposal by Sent to actual user having valid rule-9 permission of Haz waste rule-2016.
18.	R.O. membrane	10	<b>Schedule-I Category No.-36.1</b>	Collection, Storage, Transportation, Disposal at approved CHWIF site for incineration/Co-Processing in Cement plant and allied industries.

5.2 The authorization is granted to operate a facility for collection, storage within factory premises, transportation, incineration and ultimate disposal of Hazardous wastes at CTSDf, CHWIF and authorized recyclers.

5.3 The authorization shall be in force for a period of Five Years from the date of application.

5.4 The authorization shall be in force for a period up to 31/12/2028.

5.5 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

**5.6 SUBJECT TO THE FOLLOWING SPECIFIC CONDITIONS UNDER HAZ RULE:-**

- 5.6.1. Toxic Metal containing waste should be disposed only after & Encapsulation and compliance of toxicity test.
- 5.6.2. Cellulose waste shall be disposed by Co-incineration in the cement kiln of Ambuja, Kovaya and/or UCL, Kovaya/Amerli & unit shall have maintained separate record of it.
- 5.6.3. Unit shall carry out analysis of ETP waste every month & Submit its report to the board specifically with reference to zinc concentration and if it is found beyond prescribed limit, it shall be disposed of at CTSDf

**6. TERMS AND CONDITIONS OF AUTHORIZATION:**

- 6.1 The applicant shall comply with the provisions of the Environment (Protection) Act - 1986 and the rules made there under.





# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN, SECTOR 10-A,  
GANDHINAGAR - 382010,  
(T) 079-23232152


- 6.2 The authorization shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.
- 6.3 The persons authorized shall not rent, lend, sell, and transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Gujarat Pollution Control Board.
- 6.4 Any unauthorized change in personnel, equipment or working conditions as mentioned in the authorization order by the persons authorized shall constitute a breach of this authorization.
- 6.5 An application for the renewal of an authorization shall be made as laid down in rule 5 (6) (ii)
- 6.6 It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
- 6.7 Management of solid waste generated from industrial activities shall be as per Solid Waste Management Rules-2016 (Solid Waste as defined in Rule-3(46)).
- 6.8 Industry shall submit annual report within 15 days and subsequently by 30th June every year.

## 7. GENERAL CONDITIONS:

- 7.1 Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.
- 7.2 The waste generator shall be totally responsible for i.e. collection, storage, encapsulation, incineration treatment, transportation and ultimate disposal of the wastes generated.
- 7.3 Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form - 4 by 30th June of every year.
- 7.4 In case of any accident, details of the same shall be submitted in Form - 11 to Gujarat Pollution Control Board.
- 7.5 As per "Public Liability Insurance Act - 91" company shall get Insurance Policy, if applicable.
- 7.6 Empty drums and containers of toxic and hazardous material shall be treated as per guideline published for "Management & Handling of discarded containers". Record of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.
- 7.7 In no case any kind of hazardous waste shall be imported without prior approval of appropriate authority.
- 7.8 In case of transport of hazardous wastes to a facility for (i.e. treatment, storage and disposal) existing in a State other than the State where hazardous wastes are generated, the occupier shall obtain 'No Objection Certificate' from the State Pollution Control Board or Committee of the concerned State or Union territory Administration where the facility exists.
- 7.9 Unit shall take all concrete measures to show tangible results in waste generation, reduction, avoidance, reuse and recycle. Action taken in this regards shall be submitted within three months and along with Form-4.
- 7.10 Industry shall have to display the relevant information with regard to hazardous waste as indicated in the Courts Order in W.P. No.657 of 1995-dated 14th October-2003.
- 7.11 Industry shall have to display on-line data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including waste water and air emissions and solid hazardous wastes generated within factory premise.
- 7.12 Whenever due to accident or other unforeseen act or event, such emissions occur or is apprehended to occur in excess of standards laid down such information shall be forthwith reported to Board, Concerned Police Station, Office of Directorate of Health Service, Department of Explosives, Inspectorate of Factories and local body. In case of failure of pollution control equipments, the production process connected to it shall be stopped. Remedial actions/measures shall be implemented immediately to bring entire situation normal.
- 7.13 In order to enable the board to perform its functions of ascertaining the standards of effluent laid down by it for the discharge of the effluent under the condition no 3.4 of this order are complied with by the company while causing discharge of effluent, the applicant shall have to submit every

- month the analysis report of the samples of effluent got collected and analyzed by one of the laboratories recognized by the state Board.
- 7.14 The Board reserves the right to review and/or revoke the consent and/or make variations in the conditions, which the Board deems, fit in accordance with Section 27 of the Act.
- 7.15 In case of change of ownership/management the name and address of the new owners/partners/directors/proprietor should immediately be intimated to the Board.
- 7.16 The Environmental Management Unit / Cell shall be set up to ensure implementation on and monitoring of environmental safeguards and other conditions stipulated by statutory authorities The Environmental Management Cell / Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issues. These cells/units also coordinate the exercise of environmental audit and preparation of environmental statements.
- 7.17 The Environmental Audit shall be carried out yearly and the environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th September every year.
- 7.18 The consent to operate the industrial plant shall lapse if at any time the any conditions of this consent order is not complied with or any parameters of the liquid effluent are not within the tolerance limit specified in the condition no.3.4 above.
- 7.19 Industry shall have to obtain CRZ clearance if applicable & submit to this Board.

For and on behalf of  
Gujarat Pollution Control Board

  
(Smt. M.S. Bhatt)  
Unit Head

No. GPCB/CCA/JNG-1(35)/ID-17239/780188

Dated: 03 /01/2024

Issued To:

M/s. Grasim Industries Limited (Unit-Indian Rayon)  
Plot No. 1502, 1507, 1511, 1516, 1493 Veraval-362266  
Tal. Veraval, Dist. Gir-Somnath





# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN, SECTOR 10-A,

GANDHINAGAR - 382010,

(T) 079-23232152

BY R.P.A.D

## AMENDMENT OF CONSOLIDATED CONSENT AND AUTHORIZATION (C C & A)

W-132348, Dated: 13/02/2024

Date: 13/02/2024

NO. GPCB/CCA/JNG-1(35)/ID-17239/780188

To,  
M/s. Grasim Industries Limited (Unit-Indian Rayon)  
Plot No. 1502, 1507, 1511, 1516, 1493,  
Veraval-362266  
Ta. Veraval, Dist. Gir Somnath.

Sub	: Amendment to Consolidated Consent & Authorization
Ref	: 1. Your CCA Amendment Application Inward No: 304516 dated 04/01/2024. 2. This Board has issued CC&A (AWH-131279) vide letter No: GPCB/CCA/JNG-1(35)/ID-17239/780188 dated: 03/01/2024. 3. This Board has issued CTE Amendment vide letter No: GPCB/ID-17239/CCA-JNG-1(29)/526090 dated: 05/11/2019.

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution) Act-1981 and Authorization under rule 6(2) of the Hazardous and Other Waste (Management & Transboundary Movement) Rules 2016 framed under the Environment Protection Act- 1986.

The Board has granted CC&A order no.-AWH-131279, issued on 27/12/2023, vide letter no. GPCB/CCA/JNG-1(35)/ID-17239/780188 dated: 03/01/2024 is further amended as under for sea water Intake and Outfall in Arabian Sea of Veraval for reverse Osmosis (RO) Reject from Desalination plant. The validity period shall be up to dated 31/12/2028 for the following

1. Source of water: Sea water as well as water from Umrethi Dam.
2. The sea water Intake and Reject water quantity shall be as under.

Sr. No	Sea water intake in m <sup>3</sup> /d for Desalination	Reject water in m <sup>3</sup> /d	Disposal Details
1	45,000	27,000	To be discharge in to sea through outfall pipeline

3. The Unit has installed Desalination plant of 12,000 m<sup>3</sup>/Day capacity and the remaining 6,000 m<sup>3</sup>/Day will be installed as per the unit's future water requirement.
4. Sea water Intake shall not exceed 45000 m<sup>3</sup>/Day
5. RO reject water 27000 m<sup>3</sup>/Day from the desalination plant shall be discharged into sea as per final disposal point decided by NIO via outfall pipeline at selected location for various tidal conditions i.e. 20°54'32.40"N and 70°20'19.60"E.
6. All the conditions stipulated by Forests & Environment Department, Government of Gujarat, vide letter no. ENV-10-2019-126-E (T. Cell), dated. 25/02/2021 shall be strictly implemented for disposal of reject water from sea water reverse osmosis plant through outfall pipeline.
7. The other conditions of the CC&A (AWH-131279) vide letter No: GPCB/CCA/JNG-1(35)/ID-17239/780188 dated: 03/01/2024 shall remain unchanged.

For and on behalf of  
Gujarat Pollution Control Board

(Smt. M. S. Bhatt)  
Unit Head

Clean Gujarat Green Gujarat

Website : <https://gpcb.gujarat.gov.in>

**GRASIM INDUSTRIES LIMITED- UNIT : INDIAN RAYON  
VERAVAL.  
STACK MONITORING REPORT**

**Month : OCTOBER - 2023**

Sr.no.	Stack Location.	Type of pollutant.	Unit	Analysis Result	
				Sampling Date	Sampling Date
1	Sulphuric Acid Plant. (DCDA)	SO <sub>2</sub>  Acid Mist	Kg/MT of 100 % H <sub>2</sub> SO <sub>4</sub>  mg/Nm <sup>3</sup>	13-10-2023	26-10-2023
				0.16	0.10
				24.5	24.5
2	Sulphuric Acid Plant. (SCSA)	SO <sub>2</sub>  Acid Mist	Kg/MT of 100 % H <sub>2</sub> SO <sub>4</sub>  mg/Nm <sup>3</sup>	13-10-2023	26-10-2023
				0.17	0.17
				18.4	42.9
3	Boiler no. 4 (Coal fired)	SPM SOX NOX	mg/Nm <sup>3</sup> PPM PPM	PLANT STOPPED SINCE 01.06.2022	
4	Old Power Plant (Boiler No. 1 & 2)	SPM SOX NOX	mg/Nm <sup>3</sup> PPM PPM	BOILER NO. - 1 STOPPED SINCE 26.12.2022  BOILER NO. - 2 STOPPED SINCE 25.12.2022	
5	New Power Plant (Boiler No. 3 & 5)	SPM SOX NOX	mg/Nm <sup>3</sup> mg/Nm <sup>3</sup> mg/Nm <sup>3</sup>	14-10-2023	27-10-2023
				29.8	28.7
				503.0	547.6
				9.21	10.0
6	New Power Plant (Boiler No. 5)	SOX	mg/Nm <sup>3</sup>	14-10-2023 75.98	27-10-2023 83.84
7	Coal Crushing Unit	SPM	mg/Nm <sup>3</sup>	12-10-2023 89.6	
8	Rayon Process Stack. (a) Old	CS <sub>2</sub> Emission H <sub>2</sub> S Emission	Kg/ton of yarn Kg/ton of yarn	10-10-2023	24-10-2023
				105.0 24.7	110.0 20.4
	(b) New	CS <sub>2</sub> Emission H <sub>2</sub> S Emission	Kg/ton of yarn Kg/ton of yarn	10-10-2023	24-10-2023
				104.3 22.2	124.9 19.7
9	Hypochlorite Stack.	Cl <sub>2</sub>	mg/Nm <sup>3</sup>	15-10-2023 0.210	27-10-2023 0.230
10	HCL Plant Stack	HCL Vapour & Mist	mg/Nm <sup>3</sup>	15-10-2023	27-10-2023
		Chlorine	mg/Nm <sup>3</sup>	4.60 0.480	7.60 0.920

BDL = Below detectable limit

**GRASIM INDUSTRIES LIMITED- UNIT : INDIAN RAYON  
VERAVAL.  
STACK MONITORING REPORT**

**Month : NOVEMBER - 2023**

Sr.no.	Stack Location.	Type of pollutant.	Unit	Analysis Result	
				Sampling Date	Sampling Date
1	Sulphuric Acid Plant. (DCDA)	SO <sub>2</sub>  Acid Mist	Kg/MT of 100 % H <sub>2</sub> SO <sub>4</sub>  mg/Nm <sup>3</sup>	04-11-2023	28-11-2023
				0.14	0.17
				36.8	24.5
2	Sulphuric Acid Plant. (SCSA)	SO <sub>2</sub>  Acid Mist	Kg/MT of 100 % H <sub>2</sub> SO <sub>4</sub>  mg/Nm <sup>3</sup>	04-11-2023	28-11-2023
				0.42	0.13
				42.9	30.6
3	Boiler no. 4 (Coal fired)	SPM SOX NOX	mg/Nm <sup>3</sup> PPM PPM	PLANT STOPPED SINCE 01.06.2022	
4	Old Power Plant (Boiler No. 1 & 2)	SPM SOX NOX	mg/Nm <sup>3</sup> PPM PPM	BOILER NO. - 1 STOPPED SINCE 26.12.2022  BOILER NO. - 2 STOPPED SINCE 25.12.2022	
5	New Power Plant (Boiler No. 3 & 5)	SPM SOX NOX	mg/Nm <sup>3</sup> mg/Nm <sup>3</sup> mg/Nm <sup>3</sup>	10-11-2023	25-11-2023
				20.5	22.9
				377.28	466.39
6	New Power Plant (Boiler No. 5)	SOX	mg/Nm <sup>3</sup>	10-11-2023	25-11-2023
				89.08	96.94
				09-11-2023	
7	Coal Crushing Unit	SPM	mg/Nm <sup>3</sup>	98.1	
8	Rayon Process Stack. (a) Old	CS <sub>2</sub> Emission H <sub>2</sub> S Emission	Kg/ton of yarn Kg/ton of yarn	03-11-2023	20-11-2023
				108.0	88.5
				23.5	14.4
	(b) New	CS <sub>2</sub> Emission H <sub>2</sub> S Emission	Kg/ton of yarn Kg/ton of yarn	03-11-2023	20-11-2023
				149.9	156.8
				26.7	25.6
9	Hypochlorite Stack.	Cl <sub>2</sub>	mg/Nm <sup>3</sup>	15-11-2023	30-11-2023
10	HCL Plant Stack	HCL Vapour & Mist  Chlorine	mg/Nm <sup>3</sup>  mg/Nm <sup>3</sup>	15-11-2023	30-11-2023
				0.220	0.210
				4.53	4.66
				15-11-2023	30-11-2023
				0.400	0.362

BDL = Below detectable limit



**GRASIM INDUSTRIES LIMITED- UNIT : INDIAN RAYON  
VERAVAL.  
STACK MONITORING REPORT**

**Month : DECEMBER - 2023**

Sr.no.	Stack Location.	Type of pollutant.	Unit	Analysis Result	
				Sampling Date	Sampling Date
1	Sulphuric Acid Plant. (DCDA)	SO2 Acid Mist	Kg/MT of 100 % H2SO4 mg/Nm <sup>3</sup>	09-12-2023 0.19 24.5	20-12-2023 0.14 18.4
2	Sulphuric Acid Plant. (SCSA)	SO2 Acid Mist	Kg/MT of 100 % H2SO4 mg/Nm <sup>3</sup>	Under Annual Shutdown	
3	Boiler no. 4 (Coal fired)	SPM SOX NOX	mg/Nm <sup>3</sup> PPM PPM	PLANT STOPPED SINCE 01.06.2022	
4	Old Power Plant (Boiler No. 1 & 2)	SPM SOX NOX	mg/Nm <sup>3</sup> mg/Nm <sup>3</sup> mg/Nm <sup>3</sup>	23-12-2023 89.2 440.16 11.1	
5	New Power Plant (Boiler No. 3 & 5)	SPM SOX NOX	mg/Nm <sup>3</sup> mg/Nm <sup>3</sup> mg/Nm <sup>3</sup>	07-12-2023 19.2 416.58 11.5	29-12-2023 26.9 495.18 14.3
6	New Power Plant (Boiler No. 5)	SPM SOX NOX	mg/Nm <sup>3</sup> mg/Nm <sup>3</sup> mg/Nm <sup>3</sup>	14-12-2023 15.4 94.58 11.3	
7	Coal Crushing Unit	SPM	mg/Nm <sup>3</sup>	19-12-2023 91.7	
8	Rayon Process Stack. (a) Old	CS2 Emission H2S Emission	Kg/ton of yarn Kg/ton of yarn	05-12-2023 106.1 17.6	18-12-2023 97.9 20.3
	(b) New	CS2 Emission H2S Emission	Kg/ton of yarn Kg/ton of yarn	05-12-2023 170.4 21.4	18-12-2023 189.8 20.9
9	Hypochlorite Stack.	Cl2	mg/Nm <sup>3</sup>	14-12-2023 0.230	28-12-2023 0.210
10	HCL Plant Stack	HCL Vapour & Mist Chlorine	mg/Nm <sup>3</sup> mg/Nm <sup>3</sup>	14-12-2023 4.38 0.410	28-12-2023 4.46 0.380

BDL = Below detectable limit

**GRASIM INDUSTRIES LIMITED- UNIT : INDIAN RAYON  
VERAVAL.  
STACK MONITORING REPORT**

**Month : JANUARY - 2024**

Sr.no.	Stack Location.	Type of pollutant.	Unit	Analysis Result	
				Sampling Date	Sampling Date
1	Sulphuric Acid Plant. (DCDA)	SO2  Acid Mist	Kg/MT of 100 % H2SO4  mg/Nm <sup>3</sup>	15-01-2024	27-01-2024
				0.12	0.16
				42.9	30.6
2	Sulphuric Acid Plant. (SCSA)	SO2  Acid Mist	Kg/MT of 100 % H2SO4  mg/Nm <sup>3</sup>	15-01-2024	27-01-2024
				0.21	0.28
				36.8	24.5
3	Boiler no. 4 (Coal fired)	SPM SOX NOX	mg/Nm <sup>3</sup> PPM PPM	PLANT STOPPED SINCE 01.06.2022	
4	Old Power Plant (Boiler No. 1 & 2)	SPM SOX NOX	mg/Nm <sup>3</sup> mg/Nm <sup>3</sup> mg/Nm <sup>3</sup>	PLANT STOPPED SINCE 25.12.2023	
5	New Power Plant (Boiler No. 3 & 5)	SPM SOX NOX	mg/Nm <sup>3</sup> mg/Nm <sup>3</sup> mg/Nm <sup>3</sup>	09-01-2024	25-01-2024
				22.7	28.4
				516.14	372.04
				19.1	13.9
6	New Power Plant (Boiler No. 5)	SOX	mg/Nm <sup>3</sup>	09-01-2024 94.32	25-01-2024 73.36
7	Coal Crushing Unit	SPM	mg/Nm <sup>3</sup>	11-01-2024 93.6	
8	Rayon Process Stack. (a) Old	CS2 Emission H2S Emission	Kg/ton of yarn Kg/ton of yarn	05-01-2024	18-01-2024
				105.7	92.0
	(b) New	CS2 Emission H2S Emission	Kg/ton of yarn Kg/ton of yarn	05-01-2024	18-01-2024
				167.9	155.1
9	Hypochlorite Stack.	Cl2	mg/Nm <sup>3</sup>	12-01-2024	27-01-2024
				0.220	0.210
10	HCL Plant Stack	HCL Vapour & Mist  Chlorine	mg/Nm <sup>3</sup>  mg/Nm <sup>3</sup>	12-01-2024	27-01-2024
				3.84	3.88
				0.410	0.460

**BDL = Below detectable limit**

**GRASIM INDUSTRIES LIMITED- UNIT : INDIAN RAYON  
VERAVAL.  
STACK MONITORING REPORT**

**Month : FEBRUARY - 2024**

Sr.no.	Stack Location.	Type of pollutant.	Unit	Analysis Result	
				Sampling Date	Sampling Date
1	Sulphuric Acid Plant. (DCDA)	SO2  Acid Mist	Kg/MT of 100 % H2SO4  mg/Nm <sup>3</sup>	13-02-2024 0.11	27-02-2024 0.10
				18.4	24.5
2	Sulphuric Acid Plant. (SCSA)	SO2  Acid Mist	Kg/MT of 100 % H2SO4  mg/Nm <sup>3</sup>	13-02-2024 0.28	27-02-2024 0.25
				42.9	36.8
3	Boiler no. 4 (Coal fired)	SPM SOX NOX	mg/Nm <sup>3</sup> PPM PPM	PLANT STOPPED SINCE 01.06.2022	
4	Old Power Plant (Boiler No. 1 & 2)	SPM SOX NOX	mg/Nm <sup>3</sup> mg/Nm <sup>3</sup> mg/Nm <sup>3</sup>	PLANT STOPPED SINCE 25.12.2023	
5	New Power Plant (Boiler No. 3 & 5)	SPM SOX NOX	mg/Nm <sup>3</sup> mg/Nm <sup>3</sup> mg/Nm <sup>3</sup>	09-02-2024 22.0	29-02-2024 17.6
				447.0	448.0
				10.4	13.1
6	New Power Plant (Boiler No. 5)	SOX	mg/Nm <sup>3</sup>	09-02-2024 68.1	29-02-2024 78.6
7	Coal Crushing Unit	SPM	mg/Nm <sup>3</sup>	13-02-2024 84.5	
8	Rayon Process Stack. (a) Old	CS2 Emission H2S Emission	Kg/ton of yarn Kg/ton of yarn	12-02-2024 26.0 5.1	27-02-2024 28.9 6.7
	(b) New	CS2 Emission H2S Emission	Kg/ton of yarn Kg/ton of yarn	12-02-2024 139.1 26.1	27-02-2024 122.0 28.0
9	Hypochlorite Stack.	Cl2	mg/Nm <sup>3</sup>	13-02-2024 0.230	28-02-2024 0.240
10	HCL Plant Stack	HCL Vapour & Mist	mg/Nm <sup>3</sup>	13-02-2024 4.46	28-02-2024 4.50
		Chlorine	mg/Nm <sup>3</sup>	0.380	0.410

BDL = Below detectable limit

**GRASIM INDUSTRIES LIMITED- UNIT : INDIAN RAYON  
VERAVAL.  
STACK MONITORING REPORT**

**Month : MARCH - 2024**

Sr.no.	Stack Location.	Type of pollutant.	Unit	Analysis Result	
				Sampling Date	Sampling Date
1	Sulphuric Acid Plant. (DCDA)	SO <sub>2</sub>	Kg/MT of 100 % H <sub>2</sub> SO <sub>4</sub>	12-03-2024 0.09	26-03-2024 0.14
		Acid Mist	mg/Nm <sup>3</sup>	30.6	24.5
2	Sulphuric Acid Plant. (SCSA)	SO <sub>2</sub>	Kg/MT of 100 % H <sub>2</sub> SO <sub>4</sub>	12-03-2024 0.16	26-03-2024 0.14
		Acid Mist	mg/Nm <sup>3</sup>	42.9	36.8
3	Boiler no. 4 (Coal fired)	SPM SOX NOX	mg/Nm <sup>3</sup> PPM PPM	PLANT STOPPED SINCE 01.06.2022	
4	Old Power Plant (Boiler No. 1 & 2)	SPM SOX NOX	mg/Nm <sup>3</sup> mg/Nm <sup>3</sup> mg/Nm <sup>3</sup>	PLANT STOPPED SINCE 25.12.2023	
5	New Power Plant (Boiler No. 3 & 5)	SPM	mg/Nm <sup>3</sup>	13-03-2024 13.9	28-03-2024 11.8
		SOX	mg/Nm <sup>3</sup>	476.8	510.9
		NOX	mg/Nm <sup>3</sup>	9.8	10.2
6	New Power Plant (Boiler No. 5)	SOX	mg/Nm <sup>3</sup>	13-03-2024 70.7	28-03-2024 83.8
7	Coal Crushing Unit	SPM	mg/Nm <sup>3</sup>	15-03-2024 91.7	
8	Rayon Process Stack. (a) Old	CS <sub>2</sub> Emission	Kg/ton of yarn	11-03-2024 53.2	20-03-2024 76.0
		H <sub>2</sub> S Emission	Kg/ton of yarn	16.0	11.3
	(b) New	CS <sub>2</sub> Emission	Kg/ton of yarn	11-03-2024 129.3	20-03-2024 166.5
		H <sub>2</sub> S Emission	Kg/ton of yarn	27.4	20.7
9	Hypochlorite Stack.	Cl <sub>2</sub>	mg/Nm <sup>3</sup>	10-03-2024 0.220	20-03-2024 0.230
10	HCL Plant Stack	HCL Vapour & Mist	mg/Nm <sup>3</sup>	10-03-2024 4.47	20-03-2024 4.50
		Chlorine	mg/Nm <sup>3</sup>	0.390	0.400

**BDL = Below detectable limit**



# KADAM ENVIRONMENTAL CONSULTANTS

An ISO 9001-2015 Certified Company

(MoEF Approved)

871/B/3, Near Himalaya Machinery, GIDC Makarpura, Vadodara-10,  
Phone : (O) 0265 - 6131000, 6131001



## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT - STACK

REPORT NO.: FEB24/067/01 (ULR- TC70992400004179F)

#### SAMPLE DETAILS

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.			
2.	Sample ID: 1834918246 -- 067FB24SE01	3.	Client Representative: Mr.Shailendra Rathore	
4.	Sample Date: 16.02.2024	5.	Sampling Location: Power Plant New (Boiler 3 & 5)	
6.	Sampling Time: 11:20 hr	7.	Sampling Duration: 60 Mins	
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024	
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical	
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution	
14.	Sampling Procedure: IS Method	15.	Product: Stack Emission	
16.	Description of Sample:	Sampling Bottles: Sealed ✓	Thimble:Packed	Bladder: Clamped
17.	Sample Received Date: 21.02.2024			

#### STACK DETAILS

S.No.	Parameters	Unit (SI)	Description
1.	Source		: Power Plant New (Boiler 3 & 5)
2.	Height	m	: 121.5
3.	Diameter	mm	: 6500
4.	Temperature	°C	: 139
5.	Velocity	m/s	: 6.94
6.	Type of fuel used		: 30% Lignite + 70% Imported Coal
7.	Quantity of fuel used	MT/hr	: 14

#### TEST RESULTS

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/ BIS Standards	Method Used
1.	Particulate Matter	mg/Nm <sup>3</sup>	: 24	50	IS 11255 (Part 1) : 1985
2.	Sulphur Dioxide(SO <sub>2</sub> )	mg/Nm <sup>3</sup>	: 181.43	600	IS 11255 (Part 2) : 1985
3.	Oxides of Nitrogen (NOx)	mg/Nm <sup>3</sup>	: 89.46	300	IS 11255 (Part 7) : 2005

Remark :

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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  - 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

#### TEST REPORT FORMAT - STACK

DOC. NO.: LAB-FMT-052	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



TC-7098

**KADAM ENVIRONMENTAL CONSULTANTS**

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871/B/3, Near Himalaya Machinery, GIDC Makarpura, Vadodara-10.  
Phone : (O) 0265 - 6131000, 6131001**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - STACK**

REPORT NO.: FEB24/067/02 (ULR- TC709924000004180F)

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 1834918246 - 067FB24SE02	3.	Client Representative: Mr. Shailendra Rathore
4.	Sample Date: 16.02.2024	5.	Sampling Location: Coal Mill
6.	Sampling Time: 09:15 hr	7.	Sampling Duration: 30 Mins
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution
14.	Sampling Procedure: IS Method	15.	Product: Stack Emission
16.	Description of Sample:	Sampling Bottles: Sealed	Thimble: Packed✓ Bladder: Clamped
17.	Sample Received Date: 21.02.2024		

**STACK DETAILS**

S.No.	Parameters	Unit (SI)	Description
1.	Source		: Coal Mill
2.	Height	m	: 52
3.	Diameter	mm	: 600
4.	Temperature	°C	: 34
5.	Velocity	m/s	: 10.49
6.	Type of fuel used		: N.A.
7.	Quantity of fuel used		: N.A.

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	Particulate Matter	mg/Nm <sup>3</sup>	: 88	150	IS 11255 (Part 1) : 1985

Remark :

Authorized By

Name : Sapana Amin

Designation : Lab Incharge

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-----END OF REPORT-----

**TEST REPORT FORMAT - STACK**

DOC. NO.: LAB-FMT-052	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021





TC-709B

**KADAM ENVIRONMENTAL CONSULTANTS**

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Phone : (O) 0265 - 6131000, 6131001**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - STACK**

REPORT NO.: FEB24/067/03 (ULR- TC709924000004181F)

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.			
2.	Sample ID: 1834918246 - 067FB245E03	3.	Client Representative: Mr.Shailendra Rathore	
4.	Sample Date: 13.02.2024	5.	Sampling Location: Old Sulphuric Acid Plant	
6.	Sampling Time: 15:00 hr	7.	Sampling Duration: 20 Mins	
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024	
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical	
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution	
14.	Sampling Procedure: IS Method	15.	Product: Stack Emission	
16.	Description of Sample:	Sampling Bottles: Sealed <input checked="" type="checkbox"/>	Thimble:Packed	Bladder: Clamped
17.	Sample Received Date: 21.02.2024			

**STACK DETAILS**

S.No.	Parameters	Unit (SI)	Description
1.	Source		: Old Sulphuric Acid Plant
2.	Height	m	: 30
3.	Diameter	mm	: 500
4.	Temperature	°C	: 42
5.	Velocity	m/s	: 7.92
6.	Type of fuel used		: N.A.
7.	Quantity of fuel used		: N.A.

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	Sulphur Dioxide(SO <sub>2</sub> )	Kg/ton of 100% Add production	: 0.0051	2	IS 11255 (Part 2) : 1985

Remark :

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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-----END OF REPORT-----

**TEST REPORT FORMAT - STACK**

DOC. NO.: LAB-FMT-052	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



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## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT - STACK

REPORT NO.: FEB24/067/04 (ULR- TC709924000004182F)

#### SAMPLE DETAILS

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.			
2.	Sample ID: 1834918246 – 067FB24SED4	3.	Client Representative: Mr.Shailendra Rathore	
4.	Sample Date: 13.02.2024	5.	Sampling Location: New Sulphuric Acid Plant	
6.	Sampling Time: 16:00 hr	7.	Sampling Duration: 20 Mins	
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024	
10.	Reporting Date: 26.02.2024	11.	Disipline: Chemical	
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution	
14.	Sampling Procedure: IS Method	15.	Product: Stack Emission	
16.	Description of Sample:	Sampling Bottles: Sealed <input checked="" type="checkbox"/>	Thimble:Packed	Bladder: Clamped
17.	Sample Received Date: 21.02.2024			

#### STACK DETAILS

S.No.	Parameters	Unit (SI)	Description
1.	Source		: New Sulphuric Acid Plant
2.	Height	m	: 30
3.	Diameter	mm	: 350
4.	Temperature	°C	: 43
5.	Velocity	m/s	: 8.69
6.	Type of fuel used		: N.A.
7.	Quantity of fuel used		: N.A.

#### TEST RESULTS

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	Sulphur Dioxide(SO <sub>2</sub> )	Kg/ton of100% Acid production	: 0.0029	2	IS 11255 (Part 2) : 1985

Remark :

Authorized By

Name : Sapana Amin

Designation : Lab Incharge

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3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

#### TEST REPORT FORMAT - STACK

DOC. NO.: LAB-FMT-052	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - STACK**

REPORT NO.: FEB24/067/05

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362265.		
2.	Sample ID: 1834918246 - 067FB24SE05	3.	Client Representative: Mr. Shailendra Rathore
4.	Sample Date: 14.02.2024	5.	Sampling Location : HCL Stack (Caustic Soda Plant)
6.	Sampling Time: 11:15 hr	7.	Sampling Duration: 20 Mins
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution
14.	Sampling Procedure: IS Method	15.	Product: Stack Emission
16.	Description of Sample:	Sampling Bottles: Sealed <input checked="" type="checkbox"/>	Thimble: Packed      Bladder: Clamped
17.	Sample Received Date: 21.02.2024		

**STACK DETAILS**

S.No.	Parameters	Unit (SI)	Description
1.	Source		HCL Stack (Caustic Soda Plant)
2.	Height	m	34
3.	Diameter	mm	200
4.	Temperature	°C	30
5.	Velocity	m/s	6.59
6.	Type of fuel used		N.A.
7.	Quantity of fuel used		N.A.

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	HCL	mg/Nm <sup>3</sup>	20.73	35	IS 11255 (Part 1) :1985

Remark :

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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-----END OF REPORT-----

TEST REPORT FORMAT - STACK		
DOC. NO.: LAB-FMT-052	Issue No.: 02	Revision No.: 03
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TC-7899

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**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - STACK**

REPORT NO.: FEB24/067/06 (ULR- TC709924000004183F)

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road. Veraval, Gujarat 362266.		
2.	Sample ID: 1834918246 - 067FB24SE06	3.	Client Representative: Mr.Shailendra Rathore
4.	Sample Date: 14.02.2024	5.	Sampling Location: Old Rayon Plant
6.	Sampling Time: 10:00 hr	7.	Sampling Duration: 20 Mins
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution
14.	Sampling Procedure: IS Method	15.	Product: Stack Emission
16.	Description of Sample:	Sampling Bottles: Sealed ✓	Thimble:Packed      Bladder: Clamped
17.	Sample Received Date: 21.02.2024		

**STACK DETAILS**

S.No.	Parameters	Unit (SI)	Description
1.	Source		: Old Rayon Plant
2.	Height	m	: 52.5
3.	Diameter	mm	: 8500
4.	Temperature	°C	: 36
5.	Velocity	m/s	: 7.18
6.	Type of fuel used		: N.A.
7.	Quantity of fuel used		: N.A.

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	H <sub>2</sub> S	kg /MT of yarn production	: 2.40	30	IS 11255 (Part - 4 )-1985 Colorimetric Method

Remark :

Authorized By -

Name : Sapana Antin

Designation : Lab Incharge

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-----END OF REPORT-----

TEST REPORT FORMAT - STACK		
DOC. NO.: LAB-FMT-052	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



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Phone : (O) 0265 - 6131000, 6131001



## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT - STACK

REPORT NO.: FEB24/067/07 (ULR- TC709924000004184F)

#### SAMPLE DETAILS

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.
2.	Sample ID: 1834918246 - 067FB24SE07
3.	Client Representative: Mr. Shailendra Rathore
4.	Sample Date: 14.02.2024
5.	Sampling Location: New Rayon Plant
6.	Sampling Time: 10:30 hr
7.	Sampling Duration: 20 Mins
8.	Analysis commenced on: 21.02.2024
9.	Analysis Completed on: 21.02.2024
10.	Reporting Date: 26.02.2024
11.	Discipline: Chemical
12.	Sample Collected By: Mr. Parag Shah
13.	Group: Atmospheric Pollution
14.	Sampling Procedure: IS Method
15.	Product: Stack Emission
16.	Description of Sample: Sampling Bottles: Sealed ✓ Thimble: Packed Bladder: Clamped
17.	Sample Received Date: 21.02.2024

#### STACK DETAILS

S.No.	Parameters	Unit (SI)	Description
1.	Source		: New Rayon Plant
2.	Height	m	: 52.5
3.	Diameter	mm	: 5800
4.	Temperature	°C	: 37
5.	Velocity	m/s	: 8.02
6.	Type of fuel used		: N.A.
7.	Quantity of fuel used		: N.A.

#### TEST RESULTS

S. No.	Parameters	Unit (SI)	Results	Specification / SPCB Norms / BIS Standards	Method Used
1.	H/S	kg /MT of yarn production	: 1.45	30	IS 11255 (Part - 4 )-1985 Colorimetric Method

Remark :

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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\*\*\*\*\*END OF REPORT\*\*\*\*\*

TEST REPORT FORMAT - STACK		
DOC. NO.: LAB-FMT-052	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021





TC-7000

**KADAM ENVIRONMENTAL CONSULTANTS**

An ISO 9001-2015 Certified Company

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871/B/3, Near Himalaya Machinery, GIDC Makarpura, Vadodara-10.

Phone : (O) 0265 - 6131000, 6131001

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - STACK**

REPORT NO.: FEB24/067/08 (ULR- TC709824000004185F)

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 1834918246 - 067FB245E08	3.	Client Representative: Mr.Shallendra Rathore
4.	Sample Date: 14.02.2024	5.	Sampling Location: CL2 Stack (caustic soda plant)
6.	Sampling Time: 12:00 hr	7.	Sampling Duration: 20 Mins
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution
14.	Sampling Procedure: IS Method	15.	Product: Stack Emission
16.	Description of Sample:	Sampling Bottles: Sealed <input checked="" type="checkbox"/>	Thimble:Packed      Bladder: Clamped
17.	Sample Received Date: 21.02.2024		

**STACK DETAILS**

S.No.	Parameters	Unit (SI)	Description
1.	Source		: CL2 Stack (caustic soda plant)
2.	Height	m	: 34
3.	Diameter	mm	: 100
4.	Temperature	°C	: 32
5.	Velocity	m/s	: 6.97
6.	Type of fuel used		: N.A.
7.	Quantity of fuel used		: N.A.

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	CL <sub>2</sub>	mg /Nm <sup>3</sup>	: 3.15	15	IS : 5182 (Part XDX) : 1962

Remark :

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

NOTE:

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- 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

TEST REPORT FORMAT - STACK		
DOC. NO.: LAB-FMT-052	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - STACK**

REPORT NO.: FEB24/067/09

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362265.		
2.	Sample ID: 1834918246 - 067FB245E03	3.	Client Representative: Mr.Shailendra Rathore
4.	Sample Date: 13.02.2024	5.	Sampling Location: Old Sulphuric Acid Plant
6.	Sampling Time: 15:00 hr	7.	Sampling Duration: 20 Mins
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution
14.	Sampling Procedure: IS Method	15.	Product: Stack Emission
16.	Description of Sample:	Sampling Bottles: Sealed <input checked="" type="checkbox"/>	Thimble:Packed Bladder: Clamped
17.	Sample Received Date: 21.02.2024		

**STACK DETAILS**

S.No.	Parameters	Unit (SI)	Description
1.	Source		: Old Sulphuric Acid Plant
2.	Height	m	: 30
3.	Diameter	mm	: 500
4.	Temperature	°C	: 42
5.	Velocity	m/s	: 7.92
6.	Type of fuel used		: N.A.
7.	Quantity of fuel used		: N.A.

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	Acid Mist	mg/Nm <sup>3</sup>	: 11.7	50	APHA 23 <sup>rd</sup> Edition (2310 B)

Remark :

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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\*\*\*\*\*END OF REPORT\*\*\*\*\*

TEST REPORT FORMAT - STACK		
DOC. NO.: LAB-FMT-052	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - STACK**

REPORT NO.: FEB24/067/10

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 1834918246 - 067FB24SE04	3.	Client Representative: Mr. Shailendra Rathore
4.	Sample Date: 13.02.2024	5.	Sampling Location: New Sulphuric Acid Plant
6.	Sampling Time: 16:00 hr	7.	Sampling Duration: 20 Mins
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution
14.	Sampling Procedure: IS Method	15.	Product: Stack Emission
16.	Description of Sample:	Sampling Bottles: Sealed ✓	Thimble: Packed Bladder: Clamped
17.	Sample Received Date: 21.02.2024		

**STACK DETAILS**

S.No.	Parameters	Unit (SI)	Description
1.	Source		: New Sulphuric Acid Plant
2.	Height	m	: 30
3.	Diameter	mm	: 350
4.	Temperature	°C	: 43
5.	Velocity	m/s	: 8.69
6.	Type of fuel used		: N.A.
7.	Quantity of fuel used		: N.A.

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	Acid Mist	mg/Nm <sup>3</sup>	: 15.2	50	APHA 23 <sup>rd</sup> Edition (2310 B)

Remark :

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - STACK**

DOC. NO.: LAB-FMT-052	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - STACK**

REPORT NO.: FEB24/067/11

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 1834918246 - 067FB24SE06	3.	Client Representative: Mr. Shailendra Rathore
4.	Sample Date: 14.02.2024	5.	Sampling Location : Old Rayon Plant
6.	Sampling Time: 10:00 hr	7.	Sampling Duration: 20 Mins
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution
14.	Sampling Procedure: IS Method	15.	Product: Stack Emission
16.	Description of Sample:	Sampling Bottles: Sealed ✓	Thimble: Packed Bladder: Clamped
17.	Sample Received Date: 21.02.2024		

**STACK DETAILS**

S.No.	Parameters	Unit (SI)	Description
1.	Source		: Old Rayon Plant
2.	Height	m	: 52.5
3.	Diameter	mm	: 8500
4.	Temperature	°C	: 36
5.	Velocity	m/s	: 7.18
6.	Type of fuel used		: N.A.
7.	Quantity of fuel used		: N.A.

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	CS <sub>2</sub>	kg /MT of yarn production	: 65.50	200	IS 11255 (Part - 4 )-1985

Remark :

Authorized By

Name : Sapana Amin

Designation : Lab Incharge

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3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - STACK**

DOC. NO.: LAB-FMT-052	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - STACK**

REPORT NO.: FEB24/067/12

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 1834918246 - 067FB24SE07	3.	Client Representative: Mr.Shailendra Rathore
4.	Sample Date: 14.02.2024	5.	Sampling Location : New Rayon Plant
6.	Sampling Time: 10:30 hr	7.	Sampling Duration: 20 Mins
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution
14.	Sampling Procedure: IS Method	15.	Product: Stack Emission
16.	Description of Sample:	Sampling Bottles: Sealed ✓	Thimble:Packed      Bladder: Clamped
17.	Sample Received Date: 21.02.2024		

**STACK DETAILS**

S.No.	Parameters	Unit (SI)	Description
1.	Source		: New Rayon Plant
2.	Height	m	: 52.5
3.	Diameter	mm	: 5800
4.	Temperature	°C	: 37
5.	Velocity	m/s	: 8.02
6.	Type of fuel used		: N.A.
7.	Quantity of fuel used		: N.A.

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	CS <sub>2</sub>	kg /MT of yarn production	: 66.11	200	IS 11255 (Part - 4 )-1985

Remark :

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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-----END OF REPORT-----

**TEST REPORT FORMAT - STACK**

DOC. NO.: LAB-FMT-052	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021





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Phone : (O) 0265 - 6131000, 6131001



## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT - AMBIENT

REPORT NO.: FEB24/067/13 (ULR- TC70992400004186F)

#### SAMPLE DETAILS

1. Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3. Client Representative: Mr. Shailendra Rathore
2. Sample ID: 1834918246 - 067FB24AQ01	5. Sampling Location: ON The Adm Office Terrace
4. Sampling Date: 13.02.2024	7. Sampling Duration: 24 Hrs
6. Sampling time: 12:20 hr	9. Analysis Completed on: 21.02.2024
8. Analysis commenced on: 21.02.2024	11. Discipline: Chemical
10. Reporting Date: 26.02.2024	13. Group: Atmospheric Pollution
12. Sample Collected By: Mr. Parag Shah	15. Product: Ambient Air
14. Sampling Procedure: IS Method	
16. Description of Sample: Sampling Bottles: Sealed ✓ Filter Paper: Packed ✓ Bladder: Clamped	
17. Environment Condition: Temp: Normal Humidity: Moderate Wind speed: Moderate Cloud cover: Clear sky Rain: No Rain Wind Direction: Down wind Wind blowing from: WSW Station category: Industrial	
18. Sample Received Date: 21.02.2024	

#### TEST RESULTS

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	PM <sub>10</sub>	µg /m <sup>3</sup>	: 69	100	IS 5182 (Part 23) : 2006
2.	PM <sub>2.5</sub>	µg /m <sup>3</sup>	: 31	60	Guidelines By CPCB(Vol-1)
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg /m <sup>3</sup>	: 7.24	80	IS 5182 (Part 2) :2001
4.	Oxides of Nitrogen (NO <sub>x</sub> )	µg /m <sup>3</sup>	: 10.39	80	IS 5182 (Part 6) :2006
5.	Cl <sub>2</sub>	µg /m <sup>3</sup>	: B.D.L	100	IS : 5182 (Part XIX) : 1982
6.	H <sub>2</sub> S	µg /m <sup>3</sup>	: B.D.L	150	IS: 11255 (Part - 4)-1985 Colorimetric Method

Remark: B.D.L. - Below Detection Limit.

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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  - 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

#### TEST REPORT FORMAT - AMBIENT

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



TC-2099

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**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - AMBIENT**

REPORT NO.: FEB24/067/14 (ULR- TC709924000004187F)

**SAMPLE DETAILS**

1. Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3. Client Representative: Mr. Shallendra Rathore
2. Sample ID: 1834918246 - 067FB24AQ02	5. Sampling Location: On Guest house Terrace
4. Sampling Date: 13.02.2024	7. Sampling Duration: 24 Hrs
6. Sampling time: 12:20 hr	9. Analysis Completed on: 21.02.2024
8. Analysis commenced on: 21.02.2024	11. Discipline: Chemical
10. Reporting Date: 26.02.2024	13. Group: Atmospheric Pollution
12. Sample Collected By: Mr. Parag Shah	15. Product: Ambient Air
14. Sampling Procedure: IS Method	
16. Description of Sample:	Sampling Bottles: Sealed ✓
	Filter Paper: Packed ✓
	Bladder: Clamped
17. Environment Condition:	Temp: Normal
	Humidity: Moderate
	Wind speed: Moderate
	Cloud cover: Clear sky
	Rain: No Rain
	Wind Direction: Down wind
	Wind blowing from: WSW
	Station category: Industrial
18. Sample Received Date: 21.02.2024	

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	PM <sub>10</sub>	µg /m <sup>3</sup>	64	100	IS 5182 (Part 23) : 2006
2.	PM <sub>2.5</sub>	µg /m <sup>3</sup>	28	60	Guidelines By CPCB(Vol-1)
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg /m <sup>3</sup>	8.27	80	IS 5182 (Part 2) : 2001
4.	Oxides of Nitrogen (NO <sub>x</sub> )	µg /m <sup>3</sup>	13.28	80	IS 5182 (Part 6) : 2006
5.	Cl <sub>2</sub>	µg /m <sup>3</sup>	B.D.L	100	IS : 5182 (Part XIX) : 1982
6.	H <sub>2</sub> S	µg /m <sup>3</sup>	B.D.L	150	IS: 11255 (Part - 4)-1985 Colorimetric Method

Remark: B.D.L: - Below Detection Limit.

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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-----END OF REPORT-----

**TEST REPORT FORMAT - AMBIENT**

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021





TC-7099

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**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - AMBIENT**

REPORT NO.: FEB24/067/15 (ULR- TC70992400004188F)

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.			
2.	Sample ID: 1834918246 - 067FB24AQ03	3.	Client Representative: Mr. Shailendra Rathore	
4.	Sampling Date: 13.02.2024	5.	Sampling Location: On Hostel Terrace	
6.	Sampling time: 11:55 hr	7.	Sampling Duration: 24 Hrs	
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024	
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical	
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution	
14.	Sampling Procedure: IS Method	15.	Product: Ambient Air	
16.	Description of Sample:	Sampling Bottles: Sealed <input checked="" type="checkbox"/>	Filter Paper: Packed <input checked="" type="checkbox"/>	Bladder: Clamped
17.	Environment Condition:	Temp: Normal	Humidity: Moderate	Wind speed: Moderate
	Rain: No Rain	Wind Direction: Down wind	Wind blowing from: WSW	Cloud cover: Clear sky
18.	Sample Received Date: 21.02.2024			
			Station category: Industrial	

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	PM <sub>10</sub>	µg /m <sup>3</sup>	: 61	100	IS 5182 (Part 23) : 2006
2.	PM <sub>2.5</sub>	µg /m <sup>3</sup>	: 26	60	Guidelines By CPCB(Vol-1)
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg /m <sup>3</sup>	: 9.31	80	IS 5182 (Part 2) : 2001
4.	Oxides of Nitrogen (NO <sub>x</sub> )	µg /m <sup>3</sup>	: 12.37	80	IS 5182 (Part 6) : 2006
5.	CL <sub>2</sub>	µg /m <sup>3</sup>	: B.D.L	100	IS : 5182 (Part XIX) : 1982
6.	H <sub>2</sub> S	µg /m <sup>3</sup>	: B.D.L	150	IS: 11255 (Part - 4)-1985 Colorimetric Method

Remark: B.D.L: - Below Detection Limit.

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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-----END OF REPORT-----

**TEST REPORT FORMAT - AMBIENT**

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



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## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT - AMBIENT

REPORT NO.: FEB24/067/16 (ULR- TC709924000004189F)

#### SAMPLE DETAILS

1. Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3. Client Representative: Mr. Shailendra Rathore
2. Sample ID: 1834918246 - 067FB24AQ04	5. Sampling Location: On Caustic plant Terrace
4. Sampling Date: 13.02.2024	7. Sampling Duration: 24 Hrs
6. Sampling time: 11:20 hr	9. Analysis Completed on: 21.02.2024
8. Analysis commenced on: 21.02.2024	11. Discipline: Chemical
10. Reporting Date: 26.02.2024	13. Group: Atmospheric Pollution
12. Sample Collected By: Mr. Parag Shah	15. Product: Ambient Air
14. Sampling Procedure: IS Method	
16. Description of Sample:	Sampling Bottles: Sealed ✓
	Filter Paper: Packed ✓
	Bladder: Clamped
17. Environment Condition:	Temp: Normal
	Humidity: Moderate
	Wind speed: Moderate
	Cloud cover: Clear sky
	Rain: No Rain
	Wind Direction: Down wind
	Wind blowing from: WSW
	Station category: Industrial
18. Sample Received Date: 21.02.2024	

#### TEST RESULTS

S. No.	Parameters	Unit (SI)	Results	Specification/SPCII Norms/BIS Standards	Method Used
1.	PM <sub>10</sub>	µg /m <sup>3</sup>	59	100	IS 5182 (Part 23) : 2006
2.	PM <sub>2.5</sub>	µg /m <sup>3</sup>	29	60	Guidelines By CPCB(Vol-1)
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg /m <sup>3</sup>	6.21	80	IS 5182 (Part 2) :2001
4.	Oxides of Nitrogen (NO <sub>x</sub> )	µg /m <sup>3</sup>	10.91	80	IS 5182 (Part 6) :2006
5.	CL <sub>2</sub>	µg /m <sup>3</sup>	B.D.L	100	IS : 5182 (Part XIX) : 1982
6.	H <sub>2</sub> S	µg /m <sup>3</sup>	B.D.L	150	IS: 11255 (Part - 4)-1985 Colorimetric Method

Remark: B.D.L: - Below Detection Limit.

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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  - 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

#### TEST REPORT FORMAT - AMBIENT

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021





TC-7999

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**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - AMBIENT**

REPORT NO.: FEB24/067/17 (ULR- TC709924000004190F)

**SAMPLE DETAILS**

1. Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3. Client Representative: Mr. Shailendra Rathore
2. Sample ID: 1834918246 - 067FB24AQ05	5. Sampling Location: Jaleshwar Temple
4. Sampling Date: 14.02.2024	7. Sampling Duration: 24 Hrs
6. Sampling time: 14:10 hr	9. Analysis Completed on: 21.02.2024
8. Analysis commenced on: 21.02.2024	11. Discipline: Chemical
10. Reporting Date: 26.02.2024	13. Group: Atmospheric Pollution
12. Sample Collected By: Mr. Parag Shah	15. Product: Ambient Air
14. Sampling Procedure: IS Method	
16. Description of Sample: Sampling Bottles: Sealed ✓	Filter Paper: Packed ✓ Bladder: Clamped
17. Environment Condition: Temp: Normal Humidity: Moderate	Wind speed: Moderate Cloud cover: Clear sky
Rain: No Rain Wind Direction: Up wind	Wind blowing from: NW Station category: Industrial
18. Sample Received Date: 21.02.2024	

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	PM <sub>10</sub>	µg /m <sup>3</sup>	: 68	100	IS 5182 (Part 23) : 2006
2.	PM <sub>2.5</sub>	µg /m <sup>3</sup>	: 33	60	Guidelines By CPCB(Vol-1)
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg /m <sup>3</sup>	: 8.27	80	IS 5182 (Part 2) :2001
4.	Oxides of Nitrogen (NO <sub>x</sub> )	µg /m <sup>3</sup>	: 11.88	80	IS 5182 (Part 6) :2006
5.	CL <sub>2</sub>	µg /m <sup>3</sup>	: B.D.L	100	IS : 5182 (Part XIX) : 1982
6.	H <sub>2</sub> S	µg /m <sup>3</sup>	: B.D.L	150	IS 11255 (Part - 4 )-1985 Colorimetric Method

Remark: B.D.L: - Below Detection Limit.

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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-----END OF REPORT-----

**TEST REPORT FORMAT - AMBIENT**

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



TC-7099

**KADAM ENVIRONMENTAL CONSULTANTS**

An ISO 9001-2015 Certified Company

(MoEF Approved)

871/B/3, Near Himalaya Machinery, GIDC Makarpura, Vadodara-10.

Phone : (O) 0265 - 6131000, 6131001

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - AMBIENT**

REPORT NO.: FEB24/067/18 (ULR- TC70992400004191F)

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 1834918246 - 067FB24AQ06	3.	Client Representative: Mr. Shailendra Rathore
4.	Sampling Date: 14.02.2024	5.	Sampling Location: Kirmani Nagar
6.	Sampling time: 14:40 hr	7.	Sampling Duration: 24 Hrs
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution
14.	Sampling Procedure: IS Method	15.	Product: Ambient Air
16.	Description of Sample:	Sampling Bottles: Sealed <input checked="" type="checkbox"/>	Filter Paper: Packed <input checked="" type="checkbox"/> Bladder: Clamped
17.	Environment Condition:	Temp: Normal Humidity: Moderate	Wind speed: Moderate Cloud cover: Clear sky
	Rain: No Rain	Wind Direction: Up wind	Wind blowing from: NW Station category: Industrial
18.	Sample Received Date: 21.02.2024		

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	PM <sub>10</sub>	µg /m <sup>3</sup>	: 57	100	IS 5182 (Part 23) : 2006
2.	PM <sub>2.5</sub>	µg /m <sup>3</sup>	: 27	60	Guidelines By CPCB(Vol-1)
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg /m <sup>3</sup>	: 7.24	80	IS 5182 (Part 2) : 2001
4.	Oxides of Nitrogen (NO <sub>x</sub> )	µg /m <sup>3</sup>	: 11.86	80	IS 5182 (Part 6) : 2006
5.	Cl <sub>2</sub>	µg /m <sup>3</sup>	: B.D.L	100	IS : 5182 (Part XIX) : 1982
6.	H <sub>2</sub> S	µg /m <sup>3</sup>	: B.D.L	150	IS 11255 (Part - 4) : 1985 Colorimetric Method

Remark: B.D.L: - Below Detection Limit.

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

NOTE:

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- 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - AMBIENT**

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021





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Phone : (O) 0265 - 6131000, 6131001



## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT - AMBIENT

REPORT NO.: FEB24/067/19 (ULR- TC709924000004192F)

#### SAMPLE DETAILS

1. Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3. Client Representative: Mr. Shallendra Rathore
2. Sample ID: 1834918246 - 067FB24AQ07	5. Sampling Location: IMD Station
4. Sampling Date: 15.02.2024	7. Sampling Duration: 24 Hrs
6. Sampling time: 15:00 hr	9. Analysis Completed on: 21.02.2024
8. Analysis commenced on: 21.02.2024	11. Discipline: Chemical
10. Reporting Date: 26.02.2024	13. Group: Atmospheric Pollution
12. Sample Collected By: Mr. Parag Shah	15. Product: Ambient Air
14. Sampling Procedure: IS Method	
16. Description of Sample:	Sampling Bottles: Sealed <input checked="" type="checkbox"/> Filter Paper: Packed <input checked="" type="checkbox"/> Bladder: Clamped
17. Environment Condition:	Temp: Normal Humidity: Moderate Wind speed: Moderate Cloud cover: Clear sky
Rain: No Rain Wind Direction: Up wind	Wind blowing from: NW Station category: Industrial
18. Sample Received Date: 21.02.2024	

#### TEST RESULTS

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	PM <sub>10</sub>	µg /m <sup>3</sup>	: 62	100	IS 5182 (Part 23) : 2006
2.	PM <sub>2.5</sub>	µg /m <sup>3</sup>	: 33	60	Guidelines By CPCB(Vol-1)
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg /m <sup>3</sup>	: 9.73	80	IS 5182 (Part 2) : 2001
4.	Oxides of Nitrogen (NO <sub>x</sub> )	µg /m <sup>3</sup>	: 12.70	80	IS 5182 (Part 6) : 2006
5.	CL <sub>2</sub>	µg /m <sup>3</sup>	: B.D.L	100	IS : 5182 (Part XIX) : 1982
6.	H <sub>2</sub> S	µg /m <sup>3</sup>	: B.D.L	150	IS 11255 (Part - 4 )-1985 Colorimetric Method

Remark: B.D.L. - Below Detection Limit.

Authorized By: 

Name : Sapana Ansin

Designation : Lab Incharge

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  - 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

#### TEST REPORT FORMAT - AMBIENT

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



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## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT - AMBIENT

REPORT NO.: FEB24/067/20 (ULR- TC709924000004193F)

#### SAMPLE DETAILS

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 1834918246 - 06/FB24AQ08	3.	Client Representative: Mr. Shailendra Rathore
4.	Sampling Date: 15.02.2024	5.	Sampling Location: Hudko Society
6.	Sampling time: 15:25 hr	7.	Sampling Duration: 24 Hrs
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution
14.	Sampling Procedure: IS Method	15.	Product: Ambient Air
16.	Description of Sample:	Sampling Bottles: Sealed ✓	Filter Paper: Packed ✓ Bladder: Clamped
17.	Environment Condition:	Temp: Normal Humidity: Moderate	Wind speed: Moderate Cloud cover: Clear sky
	Rain: No Rain	Wind Direction: Up wind	Wind blowing from: NW Station category: Industrial
18.	Sample Received Date: 21.02.2024		

#### TEST RESULTS

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	PM <sub>10</sub>	µg /m <sup>3</sup>	: 58	100	IS 5182 (Part 23) : 2006
2.	PM <sub>2.5</sub>	µg /m <sup>3</sup>	: 30	60	Guidelines By CPCB(Vol-1)
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg /m <sup>3</sup>	: 7.24	80	IS 5182 (Part 2) : 2001
4.	Oxides of Nitrogen (NO <sub>x</sub> )	µg /m <sup>3</sup>	: 13.75	80	IS 5182 (Part 6) : 2006
5.	CL <sub>2</sub>	µg /m <sup>3</sup>	: B.D.L	100	IS : 5182 (Part XIX) : 1982
6.	H <sub>2</sub> S	µg /m <sup>3</sup>	: B.D.L	150	IS 11255 (Part - 4) -1985 Colorimetric Method

Remark: B.D.L. - Below Detection Limit.

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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-----END OF REPORT-----

#### TEST REPORT FORMAT - AMBIENT

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - AMBIENT**

REPORT NO.: FEB24/067/21

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 1834918246 - 067FB24AQ01	3.	Client Representative: Mr. Shailendra Rathore
4.	Sampling Date: 13.02.2024	5.	Sampling Location: ON The Adm. Office Terrace
6.	Sampling time: 12:20 hr	7.	Sampling Duration: 24 Hrs
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution
14.	Sampling Procedure: IS Method	15.	Product: Ambient Air
16.	Description of Sample:	Sampling Bottles: Sealed ✓	Filter Paper: Packed ✓ Bladder: Clamped
17.	Environment Condition:	Temp: Normal Humidity: Moderate	Wind speed: Moderate Cloud cover: Clear sky
	Rain: No Rain	Wind Direction: Down wind	Wind blowing from: WSW Station category: Industrial
18.	Sample Received Date: 21.02.2024		

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCL Norms/BIS Standards	Method Used
1.	HCL	$\mu\text{g}/\text{m}^3$	: B.D.L	200	IS 11255 (Part 1) :1985
2.	CS <sub>2</sub>	$\mu\text{g}/\text{m}^3$	: B.D.L	100	IS 11255 (Part - 4) :1985

Remark: B.D.L: - Below Detection Limit.

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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-----END OF REPORT-----

**TEST REPORT FORMAT - AMBIENT**

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - AMBIENT**

REPORT NO.: FEB24/067/22

**SAMPLE DETAILS**

1. Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3. Client Representative: Mr. Shailendra Rathore
2. Sample ID: 1834918246 - 06/FB24AQ02	5. Sampling Location: On Guest house Terrace
4. Sampling Date: 13.02.2024	7. Sampling Duration: 24 Hrs
6. Sampling time: 12:20 hr	9. Analysis Completed on: 21.02.2024
8. Analysis commenced on: 21.02.2024	11. Discipline: Chemical
10. Reporting Date: 26.02.2024	13. Group: Atmospheric Pollution
12. Sample Collected By: Mr. Parag Shah	15. Product: Ambient Air
14. Sampling Procedure: IS Method	
16. Description of Sample: Sampling Bottles: Sealed ✓ Filter Paper: Packed ✓ Bladder: Clamped	
17. Environment Condition: Temp: Normal Humidity: Moderate Wind speed: Moderate Cloud cover: Clear sky Rain: No Rain Wind Direction: Down wind Wind blowing from: WSW Station category: Industrial	
18. Sample Received Date: 21.02.2024	

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCL Norms/BIS Standards	Method Used
1.	HCL	$\mu\text{g}/\text{m}^3$	: B.D.L	200	IS 11255 (Part 1) :1985
2.	CS <sub>2</sub>	$\mu\text{g}/\text{m}^3$	: B.D.L	100	IS 11255 (Part - 4) :1985
Remark: B.D.L: - Below Detection Limit.					
Authorized By -					
Name : Sapana Amin			Designation : Lab Incharge		

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-----END OF REPORT-----

**TEST REPORT FORMAT - AMBIENT**

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - AMBIENT**

REPORT NO.: FEB24/067/23

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.			
2.	Sample ID: 1834918246 - 067FB24AQ03	3.	Client Representative: Mr. Shailendra Rathore	
4.	Sampling Date: 13.02.2024	5.	Sampling Location: On Hostel Terrace	
6.	Sampling time: 11:55 hr	7.	Sampling Duration: 24 Hrs	
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024	
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical	
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution	
14.	Sampling Procedure: IS Method	15.	Product: Ambient Air	
16.	Description of Sample:	Sampling Bottles: Sealed ✓	Filter Paper: Packed ✓	Bladder: Clamped
17.	Environment Conditions:	Temp: Normal	Humidity: Moderate	Wind speed: Moderate
	Rain: No Rain	Wind Direction: Down wind	Wind blowing from: WSW	Cloud cover: Clear sky
				Station category: Industrial
18.	Sample Received Date: 21.02.2024			

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/ISPCB Norms/BIS Standards	Method Used
1.	HCL	$\mu\text{g}/\text{m}^3$	: B.D.L	200	IS 11255 (Part 1) :1985
2.	CS <sub>2</sub>	$\mu\text{g}/\text{m}^3$	: B.D.L	100	IS 11255 (Part - 4) :1985
Remark: B.D.L: - Below Detection Limit.					
Authorized By -					
Name : Sapana Amin			Designation : Lab Incharge		

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-----END OF REPORT-----

TEST REPORT FORMAT - AMBIENT		
DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - AMBIENT**

REPORT NO.: FEB24/067/24

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.			
2.	Sample ID: 1834918246 - 067FB24AQ04	3.	Client Representative: Mr. Shailendra Rathore	
4.	Sampling Date: 13.02.2024	5.	Sampling Location: On Caustic plant Terrace	
6.	Sampling time: 11:20 hr	7.	Sampling Duration: 24 Hrs	
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024	
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical	
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution	
14.	Sampling Procedure: IS Method	15.	Product: Ambient Air	
16.	Description of Sample:	Sampling Bottles: Sealed <input checked="" type="checkbox"/>	Filter Paper: Packed <input checked="" type="checkbox"/>	Bladder: Clamped
17.	Environment Condition:	Temp: Normal	Humidity: Moderate	Wind speed: Moderate
	Rain: No Rain	Wind Direction: Down wind	Wind blowing from: WSW	Cloud cover: Clear sky
				Station category: Industrial
18.	Sample Received Date: 21.02.2024			

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	HCL	$\mu\text{g}/\text{m}^3$	: B.D.L	200	IS 11255 (Part 1) :1985
2.	CS <sub>2</sub>	$\mu\text{g}/\text{m}^3$	: B.D.L	100	IS 11255 (Part - 4) :1985

Remark: B.D.L. - Below Detection Limit.

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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-----END OF REPORT-----

**TEST REPORT FORMAT - AMBIENT**

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - AMBIENT**

REPORT NO.: FEB24/067/25

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.				
2.	Sample ID: 1834918246 – 067FB24AQ05		3.	Client Representative: Mr. Shailendra Rathore	
4.	Sampling Date: 14.02.2024		5.	Sampling Location: Jaleshwar Temple	
6.	Sampling time: 14:10 hr		7.	Sampling Duration: 24 Hrs	
8.	Analysis commenced on: 21.02.2024		9.	Analysis Completed on: 21.02.2024	
10.	Reporting Date: 26.02.2024		11.	Discipline: Chemical	
12.	Sample Collected By: Mr. Parag Shah		13.	Group: Atmospheric Pollution	
14.	Sampling Procedure: IS Method		15.	Product: Ambient Air	
16.	Description of Sample:	Sampling Bottles: Sealed ✓		Filter Paper: Packed ✓	Bladder: Clamped
17.	Environment Conditions:	Temp: Nonnal	Humidity: Moderate	Wind speed: Moderate	Cloud cover: Clear sky
	Rain: No Rain	Wind Direction: Up wind		Wind blowing from: NW	Station category: Industrial
18.	Sample Received Date: 21.02.2024				

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	HCL	µg /m <sup>3</sup>	: B.D.L	200	IS 11255 (Part 1) :1985
2.	CS <sub>2</sub>	µg /m <sup>3</sup>	: B.D.L	100	IS 11255 (Part - 4) :1985

Remark: B.D.L: - Below Detection Limit.

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - AMBIENT**

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - AMBIENT**

REPORT NO.: FEB24/067/26

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.			
2.	Sample ID: 1834918246 - 067FB24AQ06	3.	Client Representative: Mr. Shailendra Rathore	
4.	Sampling Date: 14.02.2024	5.	Sampling Location: Kirmani Nagar	
6.	Sampling time: 14:40 hr	7.	Sampling Duration: 24 Hrs	
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024	
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical	
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution	
14.	Sampling Procedure: IS Method	15.	Product: Ambient Air	
16.	Description of Sample:	Sampling Bottles: Sealed ✓	Filter Paper: Packed ✓	Bladder: Clamped
17.	Environment Condition:	Temp: Normal	Humidity: Moderate	Wind speed: Moderate
	Rain: No Rain	Wind Direction: Up wind	Wind blowing from: NW	Cloud cover: Clear sky
				Station category: Industrial
18.	Sample Received Date: 21.02.2024			

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	HCL	$\mu\text{g}/\text{m}^3$	: B.D.L	200	IS 11255 (Part 1) :1985
2.	CS <sub>2</sub>	$\mu\text{g}/\text{m}^3$	: B.D.L	100	IS 11255 (Part - 4) :1985

Remark: B.D.L: - Below Detection Limit.

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - AMBIENT**

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - AMBIENT**

REPORT NO.: FEB24/067/27

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.			
2.	Sample ID: 1834918246 - 067FB24AQ07	3.	Client Representative: Mr. Shailendra Rathore	
4.	Sampling Date: 15.02.2024	5.	Sampling Location: IMD Station	
6.	Sampling time: 15:00 hr	7.	Sampling Duration: 24 Hrs	
8.	Analysis commenced on: 21.02.2024	9.	Analysis Completed on: 21.02.2024	
10.	Reporting Date: 26.02.2024	11.	Discipline: Chemical	
12.	Sample Collected By: Mr. Parag Shah	13.	Group: Atmospheric Pollution	
14.	Sampling Procedure: IS Method	15.	Product: Ambient Air	
16.	Description of Sample:	Sampling Bottles: Sealed ✓	Filter Paper: Packed ✓	Bladder: Clamped
17.	Environment Condition:	Temp: Normal	Humidity: Moderate	Wind speed: Moderate
	Rain: No Rain	Wind Direction: Up wind	Wind blowing from: NW	Cloud cover: Clear sky
				Station category: Industrial
18.	Sample Received Date: 21.02.2024			

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	HCL	µg /m <sup>3</sup>	: B.D.L.	200	IS 11255 (Part 1) :1985
2.	CS <sub>2</sub>	µg /m <sup>3</sup>	: B.D.L.	100	IS 11255 (Part - 4) :1985

Remark: B.D.L. - Below Detection Limit.

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

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  - 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - AMBIENT**

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT - AMBIENT**

REPORT NO.: FEB24/067/28

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.			
2.	Sample ID: 1834918246 – 067FB24AQ08		3.	Client Representative: Mr. Shailendra Rathore
4.	Sampling Date: 15.02.2024		5.	Sampling Location: Hudko Society
6.	Sampling time: 15:25 hr		7.	Sampling Duration: 24 Hrs
8.	Analysis commenced on: 21.02.2024		9.	Analysis Completed on: 21.02.2024
10.	Reporting Date: 26.02.2024		11.	Discipline: Chemical
12.	Sample Collected By: Mr. Parag Shah		13.	Group: Atmospheric Pollution
14.	Sampling Procedure: IS Method		15.	Product: Ambient Air
16.	Description of Sample:	Sampling Bottles: Sealed ✓	Filter Paper: Packed ✓	Bladder: Clamped
17.	Environment Conditions:	Temp: Normal	Humidity: Moderate	Wind speed: Moderate
	Rain: No Rain	Wind Direction: Up wind	Wind blowing from: NW	Cloud cover: Clear sky
18.	Sample Received Date: 21.02.2024			
	Station category: Industrial			

**TEST RESULTS**

S. No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	HCL	µg /m <sup>3</sup>	: B.D.L	200	IS 11255 (Part 1) :1985
2.	CS <sub>2</sub>	µg /m <sup>3</sup>	: B.D.L	100	IS 11255 (Part - 4) :1985

Remark: B.D.L. - Below Detection Limit.

Authorized By -

Name : Sapana Amin

Designation : Lab Incharge

- NOTE:
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  - 2) Re analysis of sample will be done, if requested within 7 days from the date of Reporting of sample if the samples are not consumed during analysis.
  - 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - AMBIENT**

DOC. NO.: LAB-FMT-051	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



TC-7999

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871/B/3, Near Himalaya Machinery, GIDC Makarpura, Vadodara-10.  
Phone : (O) 0265 - 6131000, 6131001**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT – EFFLUENT**

REPORT NO.: FEB24/067/29 [ULR- TC709924000004194F]

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3.	Client Representative: Mr. Shailendra Rathore
2.	Sample ID: 2356538246 – 067FB24EF01	4.	Sample Collected By: M/s. Parag Shah
4.	Sample Date: 14.02.2024	5.	Analysis Completed on: 28.02.2024
6.	Analysis commenced on: 20.02.2024	7.	Disipline: Chemical
8.	Reporting Date: 01.03.2024	9.	Group: Pollution and Environment
10.	Packing Condition & Quantity: Sealed ✓	11.	Product: Waste Water
12.	Sampling Location: ETP Waste Water Inlet	13.	Sample Received Date: 20.02.2024
14.	Sampling Method: IS : 3025 (Part 1) – 1987		

**TEST RESULTS**

S.No.	Parameters	Unit (SI)	Results	Specification/ SPCB Norms/ BIS Standards	Method Used
1.	pH		1.94	N.A.	APHA 23 <sup>rd</sup> Edition 4500-H <sup>+</sup> B
2.	Temperature	°C	27.6	N.A.	APHA 23 <sup>rd</sup> Edition 2540 C
3.	Colour	Pl-CO	25	N.A.	APHA 23 <sup>rd</sup> Edition 2120 B
4.	Suspended Solids	mg/L	29	N.A.	APHA 23 <sup>rd</sup> Edition 2540 D
5.	COD	mg/L	363	N.A.	APHA 23 <sup>rd</sup> Edition 5220 B
6.	Oil & Grease	mg/L	<1	N.A.	APHA 23 <sup>rd</sup> Edition 5520 B
7.	Zinc	mg/L	17.8	N.A.	APHA 23 <sup>rd</sup> Edition 3111 B

Remark :

Authorised By -

Name : Sapana Amin

Designation : Lab Incharge

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2) Re analysis of sample will be done, if requested within 15 days from the date of Reporting of sample if the samples are not consumed during analysis.  
3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - EFFLUENT**

DOC. NO.: LAB-FMT-050	Issue No.: 02	Revision No.: 04
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021





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## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT – EFFLUENT

REPORT NO.: FEB24/067/30 (ULR- TC70992400004195F)

#### SAMPLE DETAILS

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3.	Client Representative: Mr. Shailendra Rathore
2.	Sample ID: 2356538246 – 067FB24EF02	5.	Sample Collected By: M/s. Parag Shah
4.	Sample Date: 14.02.2024	7.	Analysis Completed on: 28.02.2024
6.	Analysis commenced on: 20.02.2024	9.	Discipline: Chemical
8.	Reporting Date: 01.03.2024	11.	Group: Pollution and Environment
10.	Packing Condition & Quantity: Sealed ✓	13.	Product: Waste Water
12.	Sampling Location: ETP Waste Water Outlet	15.	Sample Received Date: 20.02.2024
14.	Sampling Method: IS : 3025 (Part 1) – 1987		

#### TEST RESULTS

S.No.	Parameters	Unit (SI)	Results	Specification/ SPCB Norms/ BIS Standards	Method Used
1.	pH		6.39	6.0 - 8.5	APHA 23 <sup>rd</sup> Edition 4500-H <sup>+</sup> B
2.	Temperature	°C	27.6	45	APHA 23 <sup>rd</sup> Edition 2540 C
3.	Colour	Pl-CO	15	100	APHA 23 <sup>rd</sup> Edition 2120 B
4.	Suspended Solids	mg/L	16	100	APHA 23 <sup>rd</sup> Edition 2540 D
5.	COD	mg/L	233	250	APHA 23 <sup>rd</sup> Edition 5220 B
6.	Oil & Grease	mg/L	<1	10	APHA 23 <sup>rd</sup> Edition 5520 B
7.	Zinc	mg/L	4.6	15	APHA 23 <sup>rd</sup> Edition 3111 B

Remark :

Authorised By -

Name : Sapana Amin

Designation : Lab Incharge

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  - 2) Re analysis of sample will be done, if requested within 15 days from the date of Reporting of sample if the samples are not consumed during analysis.
  - 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

#### TEST REPORT FORMAT - EFFLUENT

DOC. NO.: LAB-FMT-050	Issue No.: 02	Revision No.: 04
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



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## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT – EFFLUENT

REPORT NO.: FEB24/067/31 (ULR- TC709924000004196F)

#### SAMPLE DETAILS

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road. Veraval, Gujarat 362266.	3.	Client Representative: Mr. Shailendra Rathore
2.	Sample ID: 2356538246 – 067FB24EF03	5.	Sample Collected By: M/s. Parag Shah
4.	Sample Date: 14.02.2024	7.	Analysis Completed on: 28.02.2024
6.	Analysis commenced on: 20.02.2024	9.	Discipline: Chemical
8.	Reporting Date: 01.03.2024	11.	Group: Pollution and Environment
10.	Packing Condition & Quantity: Sealed ✓	13.	Product: Waste Water
12.	Sampling Location: Sewage Waste Water Inlet	15.	Sample Received Date: 20.02.2024
14.	Sampling Method: IS : 3025 (Part 1) – 1987		

#### TEST RESULTS

S.No.	Parameters	Unit (ST)	Results	Specification/ SPCB Norms/ BIS Standards	Method Used
1.	pH	:	7.22	N.A.	APHA 23 <sup>rd</sup> Edition 4500-H <sup>+</sup> B
2.	Suspended Solids	mg/L	71	N.A.	APHA 23 <sup>rd</sup> Edition 2540 D
3.	COD	mg/L	111	N.A.	APHA 23 <sup>rd</sup> Edition 5220 B
4.	BOD (3 days at 27 °C)	mg/L	32	N.A.	IS 3025 (Part 44) : 1993
5.	Residual Chlorine	mg/L	<0.1	N.A.	IS 3025 (Part – 26): 1986
6.	Ammonical Nitrogen	mg/L	22.19	N.A.	IS 3025 (PP 34 )
7.	Oil & Grease	mg/L	<1	N.A.	APHA 23 <sup>rd</sup> Edition 5520 B

Remark :

Authorised By -

Name : Sapana Amin

Designation : Lab Incharge

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- 1) Reports may be reproduced, if required, but only in full and only with written approval of the laboratory.
  - 2) Re analysis of sample will be done, if requested within 15 days from the date of Reporting of sample if the samples are not consumed during analysis.
  - 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

#### TEST REPORT FORMAT - EFFLUENT

DOC. NO.: LAB-FMT-050	Issue No.: 02	Revision No.: 04
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021





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Phone : (O) 0265 - 6131000, 6131001



## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT – EFFLUENT

REPORT NO.: FEB24/067/32 (ULR- TC709924900004197F)

#### SAMPLE DETAILS

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3.	Client Representative: Mr. Shailendra Rathore
2.	Sample ID: 2356538246 – 067FB24EF04	5.	Sample Collected By: M/s. Parag Shah
4.	Sample Date: 14.02.2024	7.	Analysis Completed on: 28.02.2024
6.	Analysis commenced on: 20.02.2024	9.	Discipline: Chemical
8.	Reporting Date: 01.03.2024	11.	Group: Pollution and Environment
10.	Packing Condition & Quantity: Sealed ✓	13.	Product: Waste Water
12.	Sampling Location: Sewage Waste Water Outlet	15.	Sample Received Date: 20.02.2024
14.	Sampling Method: IS : 3025 (Part 1) – 1987		

#### TEST RESULTS

S.No.	Parameters	Unit (SI)	Results	Specification/ SPCB Norms/ BIS Standards	Method Used
1.	pH	:	7.15	6.5 - 9.0	APHA 23 <sup>rd</sup> Edition 4500-H <sup>+</sup> B
2.	Suspended Solids	mg/L	9	<100	APHA 23 <sup>rd</sup> Edition 2540 D
3.	COD	mg/L	88	N.A.	APHA 23 <sup>rd</sup> Edition 5220 B
4.	BOD (3 days at 27 °C)	mg/L	25	<30	IS 3025 (Part 44) : 1993
5.	Residual Chlorine	mg/L	<0.1	N.A.	IS 3025 (Part – 26): 1986
6.	Ammonical Nitrogen	mg/L	27.10	N.A.	IS 3025 (PP-34)
7.	Oil & Grease	mg/L	<1	N.A.	APHA 23 <sup>rd</sup> Edition 5520 B

Remark :

Authorised By -

Name : Sapana Amin

Designation : Lab Incharge

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  - 2) Re analysis of sample will be done, if requested within 15 days from the date of Reporting of sample if the samples are not consumed during analysis.
  - 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

#### TEST REPORT FORMAT - EFFLUENT

DOC. NO.: LAB-FMT-050	Issue No.: 02	Revision No.: 04
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021


**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT – EFFLUENT**

REPORT NO.: FEB24/067/33

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 2356538246 – 067FB24EF01	3.	Client Representative: Mr. Shailendra Rathore
4.	Sample Date: 14.02.2024	5.	Sample Collected By: M/s. Parag Shah
6.	Analysis commenced on: 20.02.2024	7.	Analysis Completed on: 25.02.2024
8.	Reporting Date: 01.03.2024	9.	Discipline: Chemical
10.	Packing Condition & Quantity: Sealed ✓	11.	Group: Pollution and Environment
12.	Sampling Location: ETP Waste Water Inlet	13.	Product: Waste Water
14.	Sampling Method: IS : 3025 (Part 1) – 1987	15.	Sample Received Date: 20.02.2024

**TEST RESULTS**

S.No.	Parameters	Unit (SI)	Results	Specification/ SPCB Norms/ BIS Standards	Method Used
1.	BOD (5 days at 20 °C)	mg/l	104	N.A.	APHA: 23rd Edition (5210-B)
Remark :					
Authorised By - 					
Name : Sapana Amin			Designation : Lab Incharge		

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3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - EFFLUENT**

DOC. NO.: LAB-FMT-050	Issue No.: 02	Revision No.: 04
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



## ENVIRONMENTAL MONITORING REPORT


### LABORATORY TEST REPORT – EFFLUENT

REPORT NO.: FEB24/067/34

#### SAMPLE DETAILS

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 2356538246 – 067FB24EF02	3.	Client Representative: Mr. Shailendra Rathore
4.	Sample Date: 14.02.2024	5.	Sample Collected By: M/s. Parag Shah
6.	Analysis commenced on: 20.02.2024	7.	Analysis Completed on: 25.02.2024
8.	Reporting Date: 01.03.2024	9.	Discipline: Chemical
10.	Packing Condition & Quantity: Sealed ✓	11.	Group: Pollution and Environment
12.	Sampling Location: ETP Waste Water Outlet	13.	Product: Waste Water
14.	Sampling Method: IS : 3025 (Part 1) – 1987	15.	Sample Received Date: 20.02.2024

#### TEST RESULTS

S.No.	Parameters	Unit (SI)	Results	Specification/ SPCB Norms/ BIS Standards	Method Used
1.	BOD (5 days at 20 °C)	mg/L	67	100	APHA: 23 <sup>rd</sup> Edition (5210-B)
Remark :					
Authorised By - 					
Name : Sapana Amin			Designation : Lab Incharge		

- NOTE:
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  - 2) Re analysis of sample will be done, if requested within 15 days from the date of Reporting of sample if the samples are not consumed during analysis.
  - 3) The results reported above relate to the sample identified under Sample Details.

\*\*\*\*\*END OF REPORT\*\*\*\*\*

#### TEST REPORT FORMAT - EFFLUENT

DOC. NO.: LAB-FMT-050	Issue No.: 02	Revision No.: 04
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT – EFFLUENT**

REPORT NO.: FEB24/067/35

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.				
2.	Sample ID: 2356538246 – 067FB24EF03	3.	Client Representative: Mr. Shaikendra Rathore		
4.	Sample Date: 14.02.2024	5.	Sample Collected By: M/s. Parag Shah		
6.	Analysis commenced on: 20.02.2024	7.	Analysis Completed on: 28.02.2024		
8.	Reporting Date: 01.03.2024	9.	Discipline: Chemical		
10.	Packing Condition & Quantity: Sealed ✓	11.	Group: Pollution and Environment		
12.	Sampling Location: Sewage Waste Water Inlet	13.	Product: Waste Water		
14.	Sampling Method: IS : 3025 (Part 1) – 1987	15.	Sample Received Date: 20.02.2024		

**TEST RESULTS**

S.No.	Parameters	Unit (SI)	Results	Specification/ SPCB Norms/ BIS Standards	Method Used
1.	Total Phosphorus	mg/L	2.48	N.A.	APHA: (4500 P D) 23 <sup>rd</sup> Edition
2.	Total Nitrogen	mg/L	24.72	N.A.	IS 3025 (PP34)

Remark :

Authorised By -

Name : Sapana Amin

Designation : Lab Incharge

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3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - EFFLUENT**

DOC. NO.: LAB-FMT-050	Issue No.: 02	Revision No.: 04
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT – EFFLUENT**

REPORT NO.: FEB24/067/36

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.				
2.	Sample ID: 2356538246 – 067FB24EF04	3.	Client Representative: Mr. Shailendra Rathore		
4.	Sample Date: 14.02.2024	5.	Sample Collected By: M/s. Parag Shah		
6.	Analysis commenced on: 20.02.2024	7.	Analysis Completed on: 28.02.2024		
8.	Reporting Date: 01.03.2024	9.	Discipline: Chemical		
10.	Packing Condition & Quantity: Sealed ✓	11.	Group: Pollution and Environment		
12.	Sampling Location: Sewage Waste Water Outlet	13.	Product: Waste Water		
14.	Sampling Method: IS : 3025 (Part 1) – 1987	15.	Sample Received Date: 20.02.2024		

**TEST RESULTS**

S.No.	Parameters	Unit (SI)	Results	Specification/ SPCB Norms/ BIS Standards	Method Used
1.	Total Phosphorus	mg/L	2.76	N.A.	APHA: (4500 P-D) 23 <sup>rd</sup> Edition
2.	Total Nitrogen	mg/L	30.10	N.A.	IS 3025 (PP34)

Remark :

Authorised By -

Name : Sapana Amin

Designation : Lab Incharge

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2) Re analysis of sample will be done, if requested within 15 days from the date of Reporting of sample if the samples are not consumed during analysis.  
3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - EFFLUENT**

DOC. NO.: LAB-FMT-050	Issue No.: 02	Revision No.: 04
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021





TC-7100

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**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT FORMAT – BIO-ASSAY**

REPORT NO.: FEB24/067/37 (ULR- TC709924000004198F)

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 2356538246 - 067FB24EF02	3.	Client Representative: Mr. Shailendra Rathore
4.	Sample Date: 14.02.2024	5.	Sample Collected By: Parag Shah
6.	Analysis commenced on: 20.02.2024	7.	Analysis Completed on: 24.02.2024
8.	Reporting Date: 01.03.2024	9.	Sample Category:
10.	Sampling Location: ETP Final Outlet	14.	Sample Received Date: 20.02.2024
11.	Discipline: Chemical		
12.	Group: Pollution and Environment		
13.	Product: Waste Water		

**TEST RESULTS**

S. No.	Part of the Dilution Water to be added to 1 part of Waste Water	Test Method: IS 6582 (Part-2): 2001 (RA 2013)					
		Survival after					
		2 hrs.	6 hrs.	24 hrs.	48 hrs.	96 hrs.	% Survival
1	0	✓	✓	✓	✓	✓	100%
2	1	✓	✓	✓	✓	✓	100%
3	3	✓	✓	✓	✓	✓	100%
4	7	✓	✓	✓	✓	✓	100%
5	15	✓	✓	✓	✓	✓	100%
6	31	✓	✓	✓	✓	✓	100%
7	63	✓	✓	✓	✓	✓	100%
8	124	✓	✓	✓	✓	✓	100%
9	249	✓	✓	✓	✓	✓	100%
10	499	✓	✓	✓	✓	✓	100%
11	999	✓	✓	✓	✓	✓	100%

Remark : 90 % survival of fish after 96 hrs. in 100% concentration.

Authorized By:

Name : Sapana Amin

Designation : Lab Incharge

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  - 2) Re-analysis of sample will be done, if requested within 7 days from the date of Reporting of sample if the samples are not consumed during analysis.
  - 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT- BIO-ASSAY**

DOC. NO.: LAB-FMT-050	Issue No.: 02	Revision No.: 04
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



TC-799B

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871/B/3, Near Himalaya Machinery, GIDC Makarpura, Vadodra-10,  
Phone : (O) 0265 - 6131000, 6131001**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT – WATER**

REPORT NO.: FEB24/067/38 (ULR- TC709924000004199F)

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3.	Client Representative : Mr. Shailendra Rathore
2.	Sample ID: - 2356538246 - 067FB24WD1	5.	Sample Collected By: Parag Shah
4.	Sample Date: 14.02.2024	7.	Analysis Completed on: 28.02.2024
6.	Analysis commenced on: 20.02.2024	9.	Discipline : Chemical
8.	Reporting Date: 01.03.2024	11.	Group : Water
10.	Packing Condition & Quantity: Sealed ✓	13.	Product: Storage Tank Water
12.	Sampling Location: Main Storage Tank	15.	Sample Received Date: 20.02.2024
14.	Sampling Method: IS : 3025 (Part 1) – 1987		

**TEST RESULTS**

S.No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	pH		7.33	6.5-8.5	APHA 23 <sup>rd</sup> Edition 4500-H <sup>+</sup> B
2.	Turbidity	NTU	<0.1	1	APHA 23 <sup>rd</sup> Edition 2130- B
3.	Colour	Pl-CD	<1	5	APHA 23 <sup>rd</sup> Edition 2120 B
4.	Total Dissolved Solids	mg/L	280	500	APHA 23 <sup>rd</sup> Edition 2540 C
5.	Chlorides	mg/L	43	250	APHA 23 <sup>rd</sup> Edition 4500 Cl <sup>-</sup> B
6.	Sulphates	mg/L	13	200	APHA 23 <sup>rd</sup> Edition 4500 SO <sub>4</sub> <sup>2-</sup> E
7.	Fluoride	mg/L	<0.05	1	APHA 23 <sup>rd</sup> Edition 4500 F—D
8.	Phenolic Compound	mg/L	<0.001	0.001	APHA 23 <sup>rd</sup> Edition 5530 D
9.	Hexavalent Chromium	mg/L	<0.02	0.05	APHA 23 <sup>rd</sup> Edition 3500 Cr - B
10.	Residual Chlorine	mg/L	0.44	0.2(Minimum)	IS 3025 (Part - 26): 1986
11.	Iron	mg/L	<0.006	0.3	APHA 23 <sup>rd</sup> Edition 3125 B
12.	Total Hardness	mg/L	170	200	APHA 23 <sup>rd</sup> Edition 2340 C
13.	Copper	mg/L	<0.001	0.05	APHA 23 <sup>rd</sup> Edition 3125 B
14.	Nitrate	mg/L	<0.1	45	IS 3025 (Part 34) (I): 1988
15.	Mercury	mg/L	<0.001	0.001	APHA 23 <sup>rd</sup> Edition 3125 B
16.	Arsenic	mg/L	<0.001	0.01	APHA 23 <sup>rd</sup> Edition 3125 B
17.	Zinc	mg/L	<0.003	5	APHA 23 <sup>rd</sup> Edition 3125 B
18.	Calcium	mg/L	42	75	APHA 23 <sup>rd</sup> Edition 3500 - Ca B
19.	Magnesium	mg/L	16	30	APHA 23 <sup>rd</sup> Edition 3500 - Mg B
20.	Cadmium	mg/L	<0.001	0.003	APHA 23 <sup>rd</sup> Edition 3125 B
21.	Manganese	mg/L	<0.001	0.1	APHA 23 <sup>rd</sup> Edition 3125 B
22.	Aluminum	mg/L	<0.01	0.03	APHA 23 <sup>rd</sup> Edition 3125 B
23.	Lead	mg/L	<0.001	0.01	APHA 23 <sup>rd</sup> Edition 3125 B
24.	Boron	mg/L	<0.01	0.5	APHA 23 <sup>rd</sup> Edition 3125 B
25.	Alkalinity	mg/L	180	200	APHA 23 <sup>rd</sup> Edition 2320 B

Remark : Specification are given as per IS : 10500 : 2012 (Acceptable Limits)

Authorised By -

Name : Sapana Amin

Designation : Lab Incharge

NOTE:

- 1) Reports may be reproduced, if required, but only in full and only with written approval of the laboratory.
- 2) Re analysis of sample will be done, if requested within 7 days from the date of Reporting of sample if the samples are not consumed during analysis.
- 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - WATER**

DOC. NO.: LAB-FMT-055	Issue No.: 02	Revision No.: 04
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021





TC-7999

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571/B/3, Near Himalaya Machinery, GIDC Makarpura, Vadodara-10.  
Phone : (0) 0265 - 6131000, 6131001**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT – WATER****REPORT NO. : FEB24/067/39 (ULR- TC709924000004200F)****SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3.	Client Representative : Mr. Shalendra Rathore
2.	Sample ID: - 2356538246 - 067FB24W02	4.	Sample Collected By: Parag Shah
4.	Sample Date: 14.02.2024	5.	Analysis Completed on: 28.02.2024
6.	Analysis commenced on: 20.02.2024	7.	Discipline : Chemical
8.	Reporting Date: 01.03.2024	9.	Group : Water
10.	Packing Condition & Quantity: Sealed ✓	11.	Product: Drinking Water
12.	Sampling Location: Main Store in New Textile	13.	Sample Received Date: 20.02.2024
14.	Sampling Method: IS : 3025 (Part 1) - 1987	15.	

**TEST RESULTS**

S.No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	pH	:	7.38	6.5-8.5	APHA 23 <sup>rd</sup> Edition 4500-H <sup>+</sup> B
2.	Turbidity	NTU	<0.1	1	APHA 23 <sup>rd</sup> Edition 2130- B
3.	Colour	Pt-CO	<1	5	APHA 23 <sup>rd</sup> Edition 2120 B
4.	Total Dissolved Solids	mg/L	232	500	APHA 23 <sup>rd</sup> Edition 2540 C
5.	Chlorides	mg/L	43	250	APHA 23 <sup>rd</sup> Edition 4500 Cl <sup>-</sup> B
6.	Sulphates	mg/L	12	200	APHA 23 <sup>rd</sup> Edition 4500 SO <sub>4</sub> <sup>2-</sup> E
7.	Fluoride	mg/L	<0.05	1	APHA 23 <sup>rd</sup> Edition 4500 F-D
8.	Phenolic Compound	mg/L	<0.001	0.001	APHA 23 <sup>rd</sup> Edition 5530 D
9.	Hexavalent Chromium	mg/L	<0.02	0.05	APHA 23 <sup>rd</sup> Edition 3500 Cr - B
10.	Residual Chlorine	mg/L	0.35	0.2 (Minimum)	IS 3025 (Part - 26): 1986
11.	Iron	mg/L	<0.006	0.3	APHA 23 <sup>rd</sup> Edition 3125 B
12.	Total Hardness	mg/L	170	200	APHA 23 <sup>rd</sup> Edition 2340 C
13.	Copper	mg/L	<0.001	0.05	APHA 23 <sup>rd</sup> Edition 3111 B
14.	Nitrate	mg/L	<0.1	45	IS 3025 (Part 34) (i): 1988
15.	Mercury	mg/L	<0.001	0.001	APHA 23 <sup>rd</sup> Edition 3125 B
16.	Arsenic	mg/L	<0.001	0.01	APHA 23 <sup>rd</sup> Edition 3125 B
17.	Zinc	mg/L	<0.003	5	APHA 23 <sup>rd</sup> Edition 3125 B
18.	Calcium	mg/L	40	75	APHA 23 <sup>rd</sup> Edition 3500 - Ca B
19.	Magnesium	mg/L	17	30	APHA 23 <sup>rd</sup> Edition 3500 - Mg B
20.	Cadmium	mg/L	<0.001	0.003	APHA 23 <sup>rd</sup> Edition 3125 B
21.	Manganese	mg/L	<0.001	0.1	APHA 23 <sup>rd</sup> Edition 3125 B
22.	Aluminum	mg/L	<0.01	0.03	APHA 23 <sup>rd</sup> Edition 3125 B
23.	Lead	mg/L	<0.001	0.01	APHA 23 <sup>rd</sup> Edition 3125 B
24.	Boron	mg/L	<0.01	0.5	APHA 23 <sup>rd</sup> Edition 3125 B
25.	Alkalinity	mg/L	180	200	APHA 23 <sup>rd</sup> Edition 2320 B

Remark : Specification are given as per IS : 10500 : 2012 (Acceptable Limits)

Authorised By -

Name : Sapana Amin

Designation : Lab Incharge

NOTE:

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- 2) Re analysis of sample will be done, if requested within 7 days from the date of Reporting of sample if the samples are not consumed during analysis.
- 3) The results reported above relate to the sample identified under Sample Details.

\*\*\*\*\*END OF REPORT\*\*\*\*\*

**TEST REPORT FORMAT - WATER**

DOC. NO. : LAB-FMT-055	Issue No.: 02	Revision No.: 01
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT – WATER**

REPORT NO.: FEB24/067/40

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3.	Client Representative : Mr. Shailendra Rathore
2.	Sample ID: - 2356538245 - 067FB24WD1	5.	Sample Collected By: Parag Shah
4.	Sample Date: 14.02.2024	7.	Analysis Completed on: 28.02.2024
6.	Analysis commenced on: 20.02.2024	9.	Discipline : Chemical
8.	Reporting Date: 01.03.2024	11.	Group : Water
10.	Packing Condition & Quantity: Sealed ✓	13.	Product: Storage Tank Water
12.	Sampling Location: Main Storage Tank	15.	Sample Received Date: 20.02.2024
14.	Sampling Method: IS : 3025 (Part 1) - 1987		

**TEST RESULTS**

S.No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/BIS Standards	Method Used
1.	Odour	-	Agreeable	Agreeable	APHA: (2150 B) 23 <sup>rd</sup> Edition
2.	Cyanide	mg/L	<0.05	0.05	APHA: (4500 CN E) 23 <sup>rd</sup> Edition

Remark : Specification are given as per IS : 10500 : 2012 (Acceptable Limits)

Authorised By -

Name : Sapana Amin

Designation : Lab Incharge

NOTE:

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- 2) Re analysis of sample will be done, if requested within 7 days from the date of Reporting of sample if the samples are not consumed during analysis.
- 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - WATER**

DOC. NO.: LAB-FMT-055	Issue No.: 02	Revision No.: 04
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT – WATER**

REPORT NO.: FEB24/067/41

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3.	Client Representative : Mr. Shailendra Rathore
2.	Sample ID: - 2356538246 – 067FB24WD2	5.	Sample Collected By: Parag Shah
4.	Sample Date: 14.02.2024	7.	Analysis Completed on: 28.02.2024
6.	Analysis commenced on: 20.02.2024	9.	Discipline : Chemical
8.	Reporting Date: 01.03.2024	11.	Group : Water
10.	Packing Condition & Quantity: Sealed ✓	13.	Product: Drinking Water
12.	Sampling Location: Main Store in New Textile	15.	Sample Received Date: 20.02.2024
14.	Sampling Method: IS : 3025 (Part 1) – 1987		

**TEST RESULTS**

S.No.	Parameters	Unit (SI)	Results	Specification/SPCB Norms/ BIS Standards	Method Used
1.	Odour	-	Agreeable	Agreeable	APHA: (2150 B) 23 <sup>rd</sup> Edition
2.	Cyanide	mg/L	<0.05	0.05	APHA: (4500 CN E) 23 <sup>rd</sup> Edition

Remark : Specification are given as per IS : 10500 : 2012 (Acceptable Limits)

Authorised By -

Name : Sapana Amin

Designation : Lab Incharge

NOTE:

- 1) Reports may be reproduced, if required, but only in full and only with written approval of the laboratory.
- 2) Re analysis of sample will be done, if requested within 7 days from the date of Reporting of sample if the samples are not consumed during analysis.
- 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - WATER**

DOC. NO.: LAB-FMT-055	Issue No.: 02	Revision No.: 04
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021



TC-7999

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Phone : (O) 0265 - 6131000, 6131001**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT – MICROBIOLOGY**

REPORT NO. : FEB24/067/42 (ULR- TC709924000004201F)

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 2356538246 – 067FB24EF03	9.	Client Representative: Mr. Shailendra Rathore
3.	Sample Date: 14.02.2024	10.	Sample Collected By: Parag Shah
4.	Packing Condition & Quantity: Sealed ✓	11.	Discipline: Biological
5.	Analysis commenced on: 20.02.2024	12.	Group: Environment & Pollution
6.	Analysis Completed on: 23.02.2024	13.	Product: Waste Water
7.	Reporting Date: 01.03.2024	14.	Sampling Method: IS 1622
8.	Sampling Location: Sewage Waste Water Inlet	15.	Sample Received Date: 20.02.2024

**TEST RESULTS**

S. No.	Parameters	Results	Unit (SI)	Specification/ SPCB Norms/ BIS Standards	Method Used
1.	Fecal Coliform Bacteria	1600	MPN/ 100ml	N.A	APHA 23 <sup>rd</sup> Edition(9221 C, E)

Remark :

Authorised By-

Name: Priyanka Kotak

Designation: Microbiologist

- NOTE : 1) Reports may be reproduced, if required, but only in full and only with written approval of the laboratory.  
2) Re-sampling may be done, if required, with written approval of the laboratory.  
3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - MICROBIOLOGY**

DOC. NO.: LAB-FMT-217	Issue No.: 01	Revision No.: 01
Effective Date: 01.03.2021	Issue Date: 01.07.2020	Revision Date: 01.03.2021



TC-7998

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Phone : (O) 0265 - 6131000, 6131001

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT – MICROBIOLOGY**

REPORT NO.: FEB24/067/43 (ULR- TC709924000004202F)

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 2356538246 – 067FB24EF04	9.	Client Representative: Mr. Shailendra Rathore
3.	Sample Date: 14.02.2024	10.	Sample Collected By: Parag Shah
4.	Packing Condition & Quantity: Sealed ✓	11.	Discipline: Biological
5.	Analysis commenced on: 20.02.2024	12.	Group: Environment & Pollution
6.	Analysis Completed on: 23.02.2024	13.	Product: Waste Water
7.	Reporting Date: 01.03.2024	14.	Sampling Method: IS 1622
8.	Sampling Location: Sewage Waste Water Outlet	15.	Sample Received Date: 20.02.2024

**TEST RESULTS**

S. No.	Parameters	Results	Unit (SI)	Specification/ SPCB Norms/ BIS Standards	Method Used
1.	Fecal Coliform Bacteria	N.D (<1.8)	MPN/ 100ml	<1000	APHA 23 <sup>rd</sup> Edition/9221 C, E)
Remark : N.D. - Not Detected.					
Authorised By-					
Name: Priyanka Kotak			Designation: Microbiologist		

NOTE : 1) Reports may be reproduced, if required, but only in full and only with written approval of the laboratory.

4) Re-sampling may be done, if required, with written approval of the laboratory.

5) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT - MICROBIOLOGY**

DOC. NO.: LAB-FMT-217	Issue No.: 01	Revision No.: 01
Effective Date: 01.03.2021	Issue Date: 01.07.2020	Revision Date: 01.03.2021





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Phone : (O) 0265 - 6131000, 6131001



## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT – MICROBIOLOGY

REPORT NO.: FEB24/067/44 (ULR- TC709924000004203F)

#### SAMPLE DETAILS

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	9.	Client Representative : Mr. Shailendra Rathore
2.	Sample ID: 2356538246 – 067FB24W01	10.	Sample Collected By: Parag Shah
3.	Sample Date: 14.02.2024	11.	Discipline: Biological
4.	Packing Condition & Quantity: Sealed ✓	12.	Group: Water
5.	Analysis commenced on: 20.02.2024	13.	Product: Drinking Water
6.	Analysis Completed on: 23.02.2024	14.	Sampling Method: IS 1622
7.	Reporting Date: 01.03.2024	15.	Sample Received Date: 20.02.2024
8.	Sampling Location: Main Storage Tank		

#### TEST RESULTS

S. No.	Parameters	Results	Unit (SI)	Specification/ SPCB Norms/ BIS Standards	Method Used
1.	Total Coliform Bacteria	: N.D(<1.1)	MPN/100ml	Shall not be detectable in any 100ml Sample	APHA 23 <sup>rd</sup> Edition (9221 B, C)
2.	Fecal Coliform Bacteria	: N.D(<1.1)	MPN/100ml		APHA 23 <sup>rd</sup> Edition (9221 C, E)
3.	E. coli	: Absent	/100ml		APHA 23 <sup>rd</sup> Edition (9221 B, G)

Remark : N.D. - Not Detected.

Authorised By-

*Priyanka Kotak*

Name: Priyanka Kotak

Designation: Microbiologist

- NOTE :
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  - 2) Re-sampling may be done, if required, with written approval of the laboratory.
  - 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

#### TEST REPORT FORMAT- MICROBIOLOGY

DOC. NO.: LAB-FMT-203	Issue No.: 01	Revision No.: 04
Effective Date: 01.03.2021	Issue Date: 01.04.2019	Revision Date: 01.03.2021





TC-7996

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871/B/3, Near Himalaya Machinery, GIDC Makarpura, Vadodara-10.  
Phone : (O) 0265 - 6131000, 6131001**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT – MICROBIOLOGY**

REPORT NO.: FEB24/067/45 (ULR- TC709924000004204F)

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 2356538246 – 067FB24W02	9.	Client Representative: Mr. Shailendra Rathore
3.	Sample Date: 14.02.2024	10.	Sample Collected By: Parag Shah
4.	Packing Condition & Quantity: Sealed ✓	11.	Discipline: Biological
5.	Analysis commenced on: 20.02.2024	12.	Group: Water
6.	Analysis Completed on: 23.02.2024	13.	Product: Drinking Water
7.	Reporting Date: 01.03.2024	14.	Sampling Method: IS 1622
8.	Sampling Location: Main Store in New Textile	15.	Sample Received Date: 20.02.2024

**TEST RESULTS**

S. No.	Parameters	Results	Unit (SI)	Specification/ SPCB Norms/ BIS Standards	Method Used
1.	Total Coliform Bacteria	: N.D(<1.1)	MPN/100ml	Shall not be detectable in any 100ml Sample	APHA 23 <sup>rd</sup> Edition (9221 B, C)
2.	Fecal Coliform Bacteria	: N.D(<1.1)	MPN/100ml		APHA 23 <sup>rd</sup> Edition (9221 C, E)
3.	E. coli	: Absent	/100ml		APHA 23 <sup>rd</sup> Edition (9221 B, G)

Remark : N.D. - Not Detected.

Authorised By-

*Priyanka Kotak*

Name: Priyanka Kotak

Designation: Microbiologist

- NOTE : 1) Reports may be reproduced, if required, but only in full and only with written approval of the laboratory.  
2) Re-sampling may be done, if required, with written approval of the laboratory.  
3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT- MICROBIOLOGY**

DOC. NO.: LAB-FMT-203	Issue No.: 01	Revision No.: 01
Effective Date: 01.03.2021	Issue Date: 01.04.2019	Revision Date: 01.03.2021

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT – SOLID WASTE**

REPORT NO.: FEB24/067/46

**SAMPLE DETAILS**

SAMPLE DETAILS			
1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 2356538246 – 067FB24HW01	3.	Client Representative: Mr. Shailendra Rathore
4.	Sampling Date: 17.02.2024	5.	Sampling location: ETP Sludge
6.	Analysis commenced on: 20.02.2024	7.	Analysis Completed on: 27.02.2024
8.	Reporting Date: 01.03.2024	9.	Sample Collected By: Mr. Parag Shah
10.	Physical Status: Solid	11.	Discipline: Chemical
12.	Sample Category:	13.	Group: Pollution and Environment
14.	Colour: Brown	15.	Product: Solid Waste
16.	Description of sample: Packed and sealed in polythene bags.		
17.	Sample Received Date: 20.02.2024		

**TEST RESULTS**

S.No.	Parameters	Unit (SI)	Results	Specification/ SPCB Norms/ BIS Standards	Method Used
1.	pH	:	7.58	N.A.	APHA: 23 <sup>rd</sup> Edition 4500-H <sup>+</sup> B
2.	COD	gm/Kg	3.84	N.A.	APHA : 23 <sup>rd</sup> Edition 5220 B
3.	BOD	gm/Kg	1.04	N.A.	IS 3025 PP-44
4.	Total Dissolved Solids	gm/Kg	9.44	N.A.	APHA: 23 <sup>rd</sup> Edition 2540 C
5.	Moisture	%	53	N.A.	Loss on drying Method
6.	Zinc	gm/Kg	<0.0006	N.A.	APHA: 23 <sup>rd</sup> Edition 3111 B

Remark : 5 % leachate solution prepared in DM Water

Authorised By :

Name : Bhavisha Pandya

Designation : Sr.Chemist

- NOTE:
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  - 2) Re analysis of sample will be done, if requested within 7 days from the date of Reporting of sample if the samples are not consumed during analysis.
  - 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

**TEST REPORT FORMAT – SOLID WASTE**

DOC. NO.: LAB-FMT-053	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021

**ENVIRONMENTAL MONITORING REPORT****LABORATORY TEST REPORT – SOLID WASTE**

REPORT NO.: FEB24/067/47

**SAMPLE DETAILS**

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 2356538246 – 067FB24HW02	3.	Client Representative: Mr. Shailendra Rathore
4.	Sampling Date: 17.02.2024	5.	Sampling location: Sulphur Sludge
6.	Analysis commenced on: 20.02.2024	7.	Analysis Completed on: 27.02.2024
8.	Reporting Date: 01.03.2024	9.	Sample Collected By: Mr. Parag Shah
10.	Physical Status: Solid	11.	Discipline: Chemical
12.	Sample Category:-	13.	Group: Pollution and Environment
14.	Colour: Brown	15.	Product: Solid Waste
16.	Description of sample: Packed and sealed in polythene bags.		
17.	Sample Received Date: 20.02.2024		

**TEST RESULTS**

S.No.	Parameters	Unit (SI)	Results	Specification/ SPCB Norms/ BIS Standards	Method Used
1.	pH	:	6.49	N.A.	APHA: 23 <sup>rd</sup> Edition 4500-H <sup>+</sup> B
2.	COD	gm/Kg	2.68	N.A.	APHA : 23 <sup>rd</sup> Edition 5220 B
3.	BOD	gm/Kg	0.80	N.A.	IS 3025 PP-44
4.	Total Dissolved Solids	gm/Kg	6.48	N.A.	APHA: 23 <sup>rd</sup> Edition 2540 C
5.	Moisture	%	4.90	N.A.	Loss on drying Method
6.	Zinc	gm/Kg	<0.0006	N.A.	APHA: 23 <sup>rd</sup> Edition 3111 B

Remark : 5 % leachate solution prepared in DM Water

Authorised By:

Name : Bhavisha Pandya

Designation : Sr.Chemist

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3) The results reported above relate to the sample identified under Sample Details.

\*\*\*\*\*END OF REPORT\*\*\*\*\*

**TEST REPORT FORMAT – SOLID WASTE**

DOC. NO.: LAB-FMT-053	Issue No.: 02	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-01-2015	Revision Date: 01.03.2021





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## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT – NOISE

REPORT NO.: FEB24/067/48 (ULR- TC709924000004205F)

#### SAMPLE DETAILS

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3.	Client Representative: Mr. Shailendra Rathore
2.	Sample ID: 1834918246 – 067FB24NO01	5.	Sample Collected By: Parag Shah
4.	Sample Date: 13.02.2024	7.	Analysis Completed on: 13.02.2024
6.	Analysis commenced on: 13.02.2024	9.	Sampling Location:- ---
8.	Reporting Date: 26.02.2024	13.	Sample Received Date : 13.02.2024
10.	Discipline: Chemical		
11.	Group: Atmospheric Pollution		
12.	Product: Source Noise Levels		

#### TEST RESULTS

S. No.	Location	Day		Night		Method
		Time	Reading dB(A)	Time	Reading dB(A)	
<b>I</b>	<b>Caustic Plant</b>					
1.	Sodium Hypo Chloride	09:00 hr	66.8	22:02 hr	62.2	IS 9989: 1981
2.	HCl Synthesis	09:02 hr	68.9	22:05 hr	64.7	IS 9989: 1981
3.	Chloride Bottling Plant	09:03 hr	68.7	22:07 hr	65.6	IS 9989: 1981
4.	Liq. Chlorine Storage	09:05 hr	65.7	22:08 hr	63.6	IS 9989: 1981
5.	Compressor House	09:07 hr	74.0	22:10 hr	70.0	IS 9989: 1981
6.	Compressor & Brine Purifier Filter	09:08 hr	74.5	22:12 hr	69.8	IS 9989: 1981
7.	Outside salt Storage yard – 1	09:10 hr	68.2	22:14 hr	66.3	IS 9989: 1981
8.	Outside salt Storage yard – 2	09:11 hr	67.3	22:15 hr	65.2	IS 9989: 1981
9.	Center of Primary Brine Dept	09:12 hr	68.4	22:17 hr	64.3	IS 9989: 1981
10.	Center of Secondary Brine Dept	09:13 hr	65.8	22:18 hr	62.7	IS 9989: 1981
11.	Cell House	09:14 hr	65.2	22:20 hr	61.8	IS 9989: 1981
12.	Caustic Evaporation Plant	09:15 hr	68.9	22:22 hr	63.7	IS 9989: 1981
13.	Flaker Furnaces	09:17 hr	72.7	22:23 hr	69.6	IS 9989: 1981
14.	Hydrogen Bottling	09:18 hr	73.6	22:25 hr	69.2	IS 9989: 1981
15.	Nr. ADM Block	09:19 hr	60.1	22:27 hr	58.1	IS 9989: 1981
16.	Nr. Caustic Storage Tank	09:20 hr	62.7	22:30 hr	58.4	IS 9989: 1981

Remark : Limit as per Factory Act 85 dB(A)

Authorized By -

Name : Sapana Amin

Designation: Lab Incharge

- NOTE :
- 1) Reports may be reproduced, if required, but only in full and only with written approval of the laboratory.
  - 2) Re analysis of sample will be done, if requested within 7 days from the date of Reporting of sample if the samples are not consumed during analysis.
  - 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

#### TEST REPORT FORMAT - NOISE

DOC. NO.: LAB-FMT-087	Issue No.: 01	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-05-2015	Revision Date: 01.03.2021





# KADAM ENVIRONMENTAL CONSULTANTS

An ISO 9001-2015 Certified Company

(MoEF Approved)

871/B/3, Near Himalaya Machinery, GIDC Makarpura, Vadodara-10.  
Phone : (O) 0265 - 6131000, 6131001



## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT – NOISE

REPORT NO.: FEB24/067/49 (ULR- TC709924000004206F)

#### SAMPLE DETAILS

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 1834918246 – 067FB24N001	3.	Client Representative: Mr. Shailendra Rathore
4.	Sample Date: 13.02.2024	5.	Sample Collected By: Parag Shah
6.	Analysis commenced on: 13.02.2024	7.	Analysis Completed on: 13.02.2024
8.	Reporting Date: 26.02.2024	9.	Sampling Location: —
10.	Discipline: Chemical	13.	Sample Received Date: 13.02.2024
11.	Group: Atmospheric Pollution		
12.	Product: Source Noise Levels		

#### TEST RESULTS

S. No.	Location	Day		Night		Method
		Time	Reading dB(A)	Time	Reading dB(A)	
II	Viscose Plant					
17.	Slurry Mixer	09:22 hr	73.9	22:32 hr	69.7	IS 9989: 1981
18.	Dissolver	09:23 hr	72.8	22:35 hr	69.2	IS 9989: 1981
19.	Spinning Old	09:24 hr	74.9	22:38 hr	68.6	IS 9989: 1981
20.	Spinning New	09:25 hr	73.2	22:40 hr	70.0	IS 9989: 1981
21.	Xanther Sec.	09:28 hr	65.4	22:45 hr	62.4	IS 9989: 1981
III	After Treatment Plant					
22.	At Old Office Floor	09:30 hr	62.2	22:47 hr	60.0	IS 9989: 1981
23.	At Old Dryer	09:32 hr	67.7	22:48 hr	64.2	IS 9989: 1981
24.	At New Dryer	09:35 hr	73.2	22:50 hr	69.7	IS 9989: 1981
IV	Textile					
25.	Textile Old	09:38 hr	70.9	22:52 hr	68.2	IS 9989: 1981
26.	Textile New	09:40 hr	69.2	22:55 hr	66.3	IS 9989: 1981
V	H2SO4 Plant					
27.	Old Plant	09:42 hr	74.6	22:58 hr	69.7	IS 9989: 1981
28.	New Plant	09:45 hr	74.5	23:00 hr	68.4	IS 9989: 1981

Remark : Limit as per Factory Act 85 dB(A)

Authorized By -

Name : Sapana Amin

Designation: Lab Incharge

NOTE :

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- 2) Re-analysis of sample will be done, if requested within 7 days from the date of Reporting of sample if the samples are not consumed during analysis.
- 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

#### TEST REPORT FORMAT - NOISE

DOC. NO.: LAB-FMT-067	Issue No.: 01	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-05-2015	Revision Date: 01.03.2021



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Phone : (O) 0265 - 6131000, 6131001



## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT – NOISE

REPORT NO.: FEB24/067/50 (ULR- TC709924000004207F)

#### SAMPLE DETAILS

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.		
2.	Sample ID: 1834918246 – 067FB24NO01	3.	Client Representative: Mr. Shailendra Rathore
4.	Sample Date: 13.02.2024	5.	Sample Collected By: Parag Shah
6.	Analysis commenced on: 13.02.2024	7.	Analysis Completed on: 13.02.2024
8.	Reporting Date: 26.02.2024	9.	Sampling Location:- ---
10.	Discipline: Chemical	13.	Sample Received Date: 13.02.2024
11.	Group: Atmospheric Pollution		
12.	Product: Source Noise Levels		

#### TEST RESULTS

S. No.	Location	Day		Night		Method
		Time	Reading dB(A)	Time	Reading dB(A)	
<b>VI</b>	<b>Boiler House</b>					
29	Shift End Office	09:48 hr	73.8	23:00 hr	68.6	IS 9989: 1981
30	Dissolver	09:50 hr	72.6	23:05 hr	69.7	IS 9989: 1981
<b>VII</b>	<b>Power Plant</b>					
31	Nr. Office	09:52 hr	70.9	23:10 hr	67.3	IS 9989: 1981
32	Near Control room	09:55 hr	72.4	23:15 hr	69.8	IS 9989: 1981
33	Turbin Room	09:58 hr	80.0	23:18 hr	74.9	IS 9989: 1981
34	Injector System	10:00 hr	77.8	23:20 hr	73.2	IS 9989: 1981
<b>VIII</b>	<b>CS2 Plant</b>					
35	Storage Tank	10:05 hr	68.5	23:22 hr	65.7	IS 9989: 1981
36	Nr. Alkali Scrubber	10:07 hr	65.7	23:25 hr	63.8	IS 9989: 1981
37	D.G. Set	-	-	-	-	IS 9989: 1981
38	D.P.H	-	-	-	-	IS 9989: 1981
39	R O Plant	10:14 hr	68.9	23:26 hr	66.4	IS 9989: 1981
40	D M Plant (New)	10:15 hr	67.3	22:28 hr	64.8	IS 9989: 1981
<b>IX</b>	<b>Residential Area</b>					
41	Nr. Colony Gate (Birla Temple)	10:45 hr	60.7	22:20 hr	45.2	IS 9989: 1981
42	Nr. Guest House	10:50 hr	58.9	22:05 hr	46.8	IS 9989: 1981
43	Nr. Presidents Bunglow	10:55 hr	56.7	22:12 hr	42.3	IS 9989: 1981
44	Aditya Near Block J	11:00 hr	58.8	22:17 hr	44.6	IS 9989: 1981

Remark : Limit as per Factory Act 85 dB(A)

Authorized By - 

Name : Sapana Amil

Designation: Lab Incharge

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  - 2) Re analysis of sample will be done, if requested within 7 days from the date of Reporting of sample if the samples are not consumed during analysis.
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-----END OF REPORT-----

#### TEST REPORT FORMAT - NOISE

DOC. NO.: LAB-FMT-087	Issue No.: 01	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-05-2015	Revision Date: 01.03.2021





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Phone : (O) 0265 - 6131000, 6131001



## ENVIRONMENTAL MONITORING REPORT

### LABORATORY TEST REPORT – NOISE

REPORT NO.: FEB24/067/51 (ULR- TC709924000004208F)

#### SAMPLE DETAILS

1.	Name & Address of Client: M/s. Grasim Industries Ltd. Unit - Indian Rayon, Veraval - Junagadh Highway Road, Veraval, Gujarat 362266.	3.	Client Representative: Mr. Shailendra Rathore
2.	Sample ID: 1834918246 - 067FB24NO02	4.	Sample Collected By: Parag Shah
4.	Sample Date: 13.02.2024	5.	Analysis Completed on: 13.02.2024
6.	Analysis commenced on: 13.02.2024	7.	Sampling Location:-----
8.	Reporting Date: 26.02.2024	9.	Sample Received Date: 13.02.2024
10.	Discipline: Chemical		
11.	Group: Atmospheric Pollution		
12.	Product: Source Noise Levels		

#### TEST RESULTS

S. No.	Location	Day		Night		Method
		Time	Reading dB(A)	Time	Reading dB(A)	
1.	Caustic Plant (16 Point)	09:15 hr	69.4	22:20 hr	65.7	IS 9989: 1981
2.	Viscose Plant (05 Point)	09:25 hr	73.9	22:35 hr	69.8	IS 9989: 1981
3.	After Treatment Plant (03 Point)	09:35 hr	66.2	22:40 hr	65.4	IS 9989: 1981
4.	Textile (02 Point)	09:40 hr	69.4	22:55 hr	66.2	IS 9989: 1981
5.	H2SO4 Plant (02 Point)	09:45 hr	74.5	23:00 hr	69.4	IS 9989: 1981
6.	Boiler House (02 Point)	09:50 hr	73.7	23:10 hr	68.9	IS 9989: 1981
7.	Power Plant (04 Point)	10:00 hr	78.9	23:15 hr	75.6	IS 9989: 1981
8.	CS2 Plant (06 Point)	10:15 hr	66.4	23:25 hr	64.2	IS 9989: 1981
9.	Residential Area Plant (04 Point)	10:45 hr	60.2	22:10 hr	46.7	IS 9989: 1981

Remark : Limit as per Factory Act 85 dB(A)

Authorized By -

Name : Sapana Amin

Designation: Lab Incharge

NOTE :

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- 3) The results reported above relate to the sample identified under Sample Details.

-----END OF REPORT-----

#### TEST REPORT FORMAT - NOISE

DOC. NO.: LAB-FMT-087	Issue No.: 01	Revision No.: 03
Effective Date: 01.03.2021	Issue Date: 01-05-2015	Revision Date: 01.03.2021

GRASIM INDUSTRIES LIMITED- UNIT : INDIAN RAYON VERAVAL. AMBIENT AIR MONITORING REPORT															
Month : OCTOBER - 2023															
Sr. no.	LOCATION OF AMBIENT STATION	WIND VELOCITY Km/Hr.	WIND DIRECTION	SAMPLING TIME (MIN.)	AIR FLOW QUANTITY			ANALYSIS FOR							
					GAS (LPM)	SPM M3/MIN.	GAS LITRE	PM 2.5	PM 10	CS <sub>2</sub>	H <sub>2</sub> S	SO <sub>2</sub>	NO <sub>2</sub>	HCL	Cl <sub>2</sub>
1	ON THE GUEST HOUSE TERRACE 03-10-2023	3.7	W - E	1440	0.5	1.3	720	38	89	21	25	27	28	BDL	BDL
	ON THE GUEST HOUSE TERRACE 18-10-2023	4.5	W - E	1440	0.5	1.3	720	33	94	27	30	24	33	BDL	BDL
2	ON THE ENGG. HOSTEL TERRACE 03-10-2023	3.7	W - E	1440	0.5	1.3	720	17	68	11	9	16	20	BDL	BDL
	ON THE ENGG. HOSTEL TERRACE 18-10-2023	4.5	W - E	1440	0.5	1.3	720	22	71	17	13	19	23	BDL	BDL
3	ON THE CAUSTIC PLANT TERRACE 03-10-2023	3.7	W - E	1440	0.5	1.3	720	21	61	9	13	21	26	BDL	BDL
	ON THE CAUSTIC PLANT TERRACE 18-10-2023	4.5	W - E	1440	0.5	1.3	720	25	67	13	17	25	29	BDL	BDL
4	ON THE ADMIN. OFFICE TERRACE 03-10-2023	3.7	W - E	1440	0.5	1.3	720	32	98	39	41	29	27	BDL	BDL
	ON THE ADMIN. OFFICE TERRACE 18-10-2023	4.5	W - E	1440	0.5	1.3	720	30	93	45	39	25	21	BDL	BDL

BDL = Below detectable limit

GRASIM INDUSTRIES LIMITED- UNIT : INDIAN RAYON VERAVAL. AMBIENT AIR MONITORING REPORT															
Month : NOVEMBER - 2023															
Sr. no.	LOCATION OF AMBIENT STATION	WIND VELOCITY Km/Hr.	WIND DIRECTION	SAMPLING TIME (MIN.)	AIR FLOW QUANTITY			ANALYSIS FOR							
					GAS (LPM)	SPM M3/MIN.	GAS LITRE	PM 2.5	PM 10	CS <sub>2</sub>	H <sub>2</sub> S	SO <sub>2</sub>	NO <sub>2</sub>	HCL	Cl <sub>2</sub>
1	ON THE GUEST HOUSE TERRACE 07-11-2023	3.5	N - S	1440	0.5	1.3	720	58	98	28	34	28	24	BDL	BDL
	ON THE GUEST HOUSE TERRACE 21-11-2023	2.8	N - S	1440	0.5	1.3	720	53	93	34	30	22	23	BDL	BDL
2	ON THE ENGG. HOSTEL TERRACE 07-11-2023	3.5	N - S	1440	0.5	1.3	720	27	63	BDL	8	19	23	BDL	BDL
	ON THE ENGG. HOSTEL TERRACE 21-11-2023	2.8	N - S	1440	0.5	1.3	720	36	74	10	12	25	29	BDL	BDL
3	ON THE CAUSTIC PLANT TERRACE 07-11-2023	3.5	N - S	1440	0.5	1.3	720	41	71	13	19	12	21	BDL	BDL
	ON THE CAUSTIC PLANT TERRACE 21-11-2023	2.8	N - S	1440	0.5	1.3	720	49	84	21	27	19	27	BDL	BDL
4	ON THE ADMIN. OFFICE TERRACE 07-11-2023	3.5	N - S	1440	0.5	1.3	720	49	92	36	47	23	29	BDL	BDL
	ON THE ADMIN. OFFICE TERRACE 21-11-2023	2.8	N - S	1440	0.5	1.3	720	57	97	40	49	21	25	BDL	BDL

BDL = Below detectable limit

GRASIM INDUSTRIES LIMITED- UNIT : INDIAN RAYON VERAVAL. AMBIENT AIR MONITORING REPORT															
Month : DECEMBER - 2023															
Sr. no.	LOCATION OF AMBIENT STATION	WIND VELOCITY Km/Hr.	WIND DIRECTION	SAMPLING TIME (MIN.)	AIR FLOW QUANTITY			ANALYSIS FOR							
					GAS (LPM)	SPM M3/MIN.	GAS LITRE	PM 2.5	PM 10	CS <sub>2</sub>	H <sub>2</sub> S	SO <sub>2</sub>	NO <sub>2</sub>	HCL	Cl <sub>2</sub>
1	ON THE GUEST HOUSE TERRACE 13-12-2023	3.1	N - S	1440	0.5	1.3	720	49	87	39	46	19	21	BDL	BDL
	ON THE GUEST HOUSE TERRACE 29-12-2023	2.2	E - W	1440	0.5	1.3	720	53	96	32	29	25	23	BDL	BDL
2	ON THE ENGG. HOSTEL TERRACE 13-12-2023	3.1	N - S	1440	0.5	1.3	720	58	78	12	10	15	13	BDL	BDL
	ON THE ENGG. HOSTEL TERRACE 29-12-2023	2.2	E - W	1440	0.5	1.3	720	19	46	BDL	BDL	13	11	BDL	BDL
3	ON THE CAUSTIC PLANT TERRACE 13-12-2023	3.1	N - S	1440	0.5	1.3	720	55	81	27	25	28	17	BDL	BDL
	ON THE CAUSTIC PLANT TERRACE 29-12-2023	2.2	E - W	1440	0.5	1.3	720	41	73	12	17	16	14	BDL	BDL
4	ON THE ADMIN. OFFICE TERRACE 13-12-2023	3.1	N - S	1440	0.5	1.3	720	49	95	34	37	34	26	BDL	BDL
	ON THE ADMIN. OFFICE TERRACE 29-12-2023	2.2	E - W	1440	0.5	1.3	720	50	87	29	32	26	19	BDL	BDL

BDL = Below detectable limit



GRASIM INDUSTRIES LIMITED- UNIT : INDIAN RAYON VERAVAL. AMBIENT AIR MONITORING REPORT															
Month : JANUARY - 2024															
Sr. no.	LOCATION OF AMBIENT STATION	WIND VELOCITY Km/Hr.	WIND DIRECTION	SAMPLING TIME (MIN.)	AIR FLOW QUANTITY			ANALYSIS FOR							
					GAS (LPM)	SPM M3/MIN.	GAS LITRE	PM 2.5	PM 10	CS <sub>2</sub>	H <sub>2</sub> S	SO <sub>2</sub>	NO <sub>2</sub>	HCL	Cl <sub>2</sub>
1	ON THE GUEST HOUSE TERRACE 07-01-2024	2.7	N - S	1440	0.5	1.3	720	44	85	22	22	27	24	BDL	BDL
	ON THE GUEST HOUSE TERRACE 29-01-2024	2.8	S - N	1440	0.5	1.3	720	46	93	27	31	22	29	BDL	BDL
2	ON THE ENGG. HOSTEL TERRACE 07-01-2024	2.7	N - S	1440	0.5	1.3	720	38	71	10	13	15	22	BDL	BDL
	ON THE ENGG. HOSTEL TERRACE 29-01-2024	2.8	S - N	1440	0.5	1.3	720	43	86	12	17	19	28	BDL	BDL
3	ON THE CAUSTIC PLANT TERRACE 07-01-2024	2.7	N - S	1440	0.5	1.3	720	40	76	13	17	14	21	BDL	BDL
	ON THE CAUSTIC PLANT TERRACE 29-01-2024	2.8	S - N	1440	0.5	1.3	720	49	88	25	20	17	21	BDL	BDL
4	ON THE ADMIN. OFFICE TERRACE 07-01-2024	2.7	N - S	1440	0.5	1.3	720	41	80	20	25	19	27	BDL	BDL
	ON THE ADMIN. OFFICE TERRACE 29-01-2024	2.8	S - N	1440	0.5	1.3	720	46	95	33	39	25	22	BDL	BDL

BDL = Below detectable limit

GRASIM INDUSTRIES LIMITED- UNIT : INDIAN RAYON VERAVAL. AMBIENT AIR MONITORING REPORT															
Month : FEBRUARY - 2024															
Sr. no.	LOCATION OF AMBIENT STATION	WIND VELOCITY Km/Hr.	WIND DIRECTION	SAMPLING TIME (MIN.)	AIR FLOW QUANTITY			ANALYSIS FOR							
					GAS (LPM)	SPM M3/MIN.	GAS LITRE	PM 2.5	PM 10	CS <sub>2</sub>	H <sub>2</sub> S	SO <sub>2</sub>	NO <sub>2</sub>	HCL	Cl <sub>2</sub>
1	ON THE GUEST HOUSE TERRACE 13-02-2024	3.9	N - S	1440	0.5	1.3	720	51	88	18	22	23	17	BDL	BDL
	ON THE GUEST HOUSE TERRACE 26-02-2024	3.5	N - S	1440	0.5	1.3	720	43	84	25	25	28	24	BDL	BDL
2	ON THE ENGG. HOSTEL TERRACE 13-02-2024	3.9	N - S	1440	0.5	1.3	720	35	66	12	9	14	17	BDL	BDL
	ON THE ENGG. HOSTEL TERRACE 26-02-2024	3.5	N - S	1440	0.5	1.3	720	40	77	14	10	18	20	BDL	BDL
3	ON THE CAUSTIC PLANT TERRACE 13-02-2024	3.9	N - S	1440	0.5	1.3	720	41	93	22	20	24	19	BDL	BDL
	ON THE CAUSTIC PLANT TERRACE 26-02-2024	3.5	N - S	1440	0.5	1.3	720	45	89	22	17	26	15	BDL	BDL
4	ON THE ADMIN. OFFICE TERRACE 13-02-2024	3.9	N - S	1440	0.5	1.3	720	50	86	28	30	20	21	BDL	BDL
	ON THE ADMIN. OFFICE TERRACE 26-02-2024	3.5	N - S	1440	0.5	1.3	720	52	91	27	20	24	17	BDL	BDL

BDL = Below detectable limit

GRASIM INDUSTRIES LIMITED- UNIT : INDIAN RAYON VERAVAL. AMBIENT AIR MONITORING REPORT															
Month : MARCH - 2024															
Sr. no.	LOCATION OF AMBIENT STATION	WIND VELOCITY Km/Hr.	WIND DIRECTION	SAMPLING TIME (MIN.)	AIR FLOW QUANTITY			ANALYSIS FOR							
					GAS (LPM)	SPM M3/MIN.	GAS LITRE	PM 2.5	PM 10	CS <sub>2</sub>	H <sub>2</sub> S	SO <sub>2</sub>	NO <sub>2</sub>	HCL	Cl <sub>2</sub>
1	ON THE GUEST HOUSE TERRACE 14-03-2024	4.0	E - W	1440	0.5	1.3	720	33	72	26	18	14	11	BDL	BDL
	ON THE GUEST HOUSE TERRACE 27-03-2024	7.2	W - E	1440	0.5	1.3	720	41	85	22	13	10	7	BDL	BDL
2	ON THE ENGG. HOSTEL TERRACE 14-03-2024	4.0	E - W	1440	0.5	1.3	720	40	78	6	7	BDL	BDL	BDL	BDL
	ON THE ENGG. HOSTEL TERRACE 27-03-2024	7.2	W - E	1440	0.5	1.3	720	30	73	11	8	BDL	BDL	BDL	BDL
3	ON THE CAUSTIC PLANT TERRACE 14-03-2024	4.0	E - W	1440	0.5	1.3	720	25	77	18	13	12	9	BDL	BDL
	ON THE CAUSTIC PLANT TERRACE 27-03-2024	7.2	W - E	1440	0.5	1.3	720	34	68	21	17	14	10	BDL	BDL
4	ON THE ADMIN. OFFICE TERRACE 14-03-2024	4.0	E - W	1440	0.5	1.3	720	34	82	24	20	15	13	BDL	BDL
	ON THE ADMIN. OFFICE TERRACE 27-03-2024	7.2	W - E	1440	0.5	1.3	720	37	79	26	22	17	11	BDL	BDL

BDL = Below detectable limit

GRASIM INDUSTRIES LIMITED. UNIT : INDIAN RAYON - VERAVAL Analysis of Treated Effluent Water Month: OCTOBER - 2023														
DATE	PLANT INLET						PLANT OUTLET							
	pH	ZINC Mg/L	S.S. Mg/L	O & G Mg/L	C.O.D. Mg/L	B.O.D Mg/L	pH	ZINC Mg/L	S.S Mg/l	O & G Mg/L	COD Mg/L	B.O.D Mg/L	COLOUR Units.	Temp. °C
1	1.28	54.9					7.17	< 1.0	23					34.10
2	1.77	45.8					8.38	< 1.0	19					33.68
3	1.31	68.0					6.90	< 1.0	13					35.33
4	1.47	73.2					7.14	< 1.0	16		178	54		35.57
5	1.56	68.0					6.54	5.2	30					35.13
6	1.46	45.8	127	31	489	139	6.97	6.5	26	1	133	42	10	35.00
7	0.98	116.4					7.31	5.2	20					35.93
8	1..38	53.6					8.35	< 1.0	14					32.69
9	1.40	92.9					6.90	6.5	21					35.35
10	1.20	54.9					6.65	< 1.0	17					35.04
11	1.26	51.0					7.75	< 1.0	34		184	47		35.52
12	1.18	41.9					6.64	< 1.0	24					35.64
13	1.35	41.9	112	19	406	117	6.70	< 1.0	17	Tr	192	57	10	35.68
14	1.08	103.3					7.91	< 1.0	22					35.29
15	1.12	64.1					7.88	< 1.0	27					33.10
16	1.13	71.9					7.98	< 1.0	22					35.29
17	1.15	56.2					6.80	2.6	24					35.06
18	1.68	43.2					7.70	< 1.0	18		165	46		34.79
19	1.39	28.8					7.87	< 1.0	27					34.63
20	1.20	51.0	119	39	471	131	7.08	3.9	16	1	138	38	10	35.92
21	1.14	113.8					6.81	< 1.0	14					36.65
22	1.27	52.3					6.80	< 1.0	21					36.76
23	1.07	70.6					7.56	< 1.0	20					35.36
24	1.49	53.6					8.47	< 1.0	19					35.91
25	1.53	52.3					8.44	5.2	56		201	59		34.94
26	1.07	94.2					7.91	< 1.0	49					33.43
27	1.10	62.8	104	23	354	108	7.00	< 1.0	14	Tr	173	48	10	33.71
28	0.95	81.1					7.50	< 1.0	72					35.24
29	1.12	98.1					7.25	< 1.0	19					34.72
30	1.03	105.9					6.40	< 1.0	22					35.41
31	2.65	27.5					7.95	5.2	14					34.67

GRASIM INDUSTRIES LIMITED. UNIT : INDIAN RAYON - VERAVAL Analysis of Treated Effluent Water Month: NOVEMBER - 2023														
DATE	PLANT INLET						PLANT OUTLET							
	pH	ZINC Mg/L	S.S. Mg/L	O & G Mg/L	C.O.D. Mg/L	B.O.D Mg/L	pH	ZINC Mg/L	S.S Mg/l	O & G Mg/L	COD Mg/L	B.O.D Mg/L	COLOUR Units.	Temp. °C
1	0.95	120.3					7.16	3.9	29		141	42		36.00
2	1.24	66.7					7.16	< 1.0	21					36.00
3	1.17	82.4	123	32	421	133	7.94	< 1.0	16	Tr	194	62	10	36.00
4	1.00	117.7					8.03	< 1.0	17					35.00
5	1.07	56.2					6.85	< 1.0	16					35.00
6	1.15	57.6					7.07	< 1.0	27					36.00
7	1.23	92.9					8.02	< 1.0	31					36.00
8	1.73	40.5					8.22	< 1.0	18		126	37		35.00
9	1.07	77.2					7.02	< 1.0	20					37.00
10	1.40	69.3	96	27	352	97	6.76	< 1.0	15	Tr	173	54	10	37.00
11	0.93	116.4					7.29	< 1.0	14					36.00
12	1.34	68.0					6.67	< 1.0	23					37.00
13	1.00	90.3					8.37	< 1.0	21					36.00
14	1.14	74.6					6.90	< 1.0	23					35.00
15	0.97	149.1					6.71	6.5	42		183	51		35.00
16	1.26	34.0					6.75	< 1.0	17					35.00
17	0.70	136.0	92	19	402	126	6.37	< 1.0	15	3	208	63	10	35.00
18	1.14	58.9					7.55	< 1.0	17					36.00
19	1.15	69.3					7.12	< 1.0	19					35.00
20	1.19	94.2					6.79	< 1.0	22					35.00
21	0.88	102.0					6.45	7.8	28					36.00
22	1.03	128.2					7.72	7.8	21		178	49		37.00
23	1.25	58.9					8.37	< 1.0	33					36.00
24	1.26	58.9	62	28	308	98	7.35	< 1.0	21	3	165	47	10	35.00
25	1.34	40.5					7.10	< 1.0	22					36.00
26	1.33	70.6					7.10	< 1.0	21					36.00
27	1.20	75.9					8.35	< 1.0	30					36.00
28	1.48	58.9					7.65	< 1.0	27					34.00
29	1.31	83.7					7.15	5.2	19		198	65		34.00
30	1.36	65.4					7.70	< 1.0	23					35.00

GRASIM INDUSTRIES LIMITED. UNIT : INDIAN RAYON - VERAVAL Analysis of Treated Effluent Water Month: DECEMBER - 2023														
DATE	PLANT INLET						PLANT OUTLET							
	pH	ZINC Mg/L	S.S. Mg/L	O & G Mg/L	C.O.D. Mg/L	B.O.D Mg/L	pH	ZINC Mg/L	S.S Mg/l	O & G Mg/L	COD Mg/L	B.O.D Mg/L	COLOUR Units.	Temp. °C
1	1.49	79.8	126	28	452	127	7.60	< 1.0	24	2	206	59	10	35.00
2	1.85	102.0					8.15	< 1.0	21					35.00
3	1.20	109.9					6.35	< 1.0	23					35.00
4	1.60	74.6					7.12	< 1.0	20					36.00
5	1.82	104.6					7.19	< 1.0	26					33.00
6	1.49	64.1					6.77	< 1.0	36		171	49		31.00
7	1.52	79.8					7.33	< 1.0	18					36.00
8	1.80	88.9	108	37	375	113	7.70	< 1.0	11	3	138	41	10	33.00
9	2.05	45.8					6.70	7.8	17					35.00
10	1.32	92.9					7.75	< 1.0	12					35.00
11	1.81	48.4					8.01	< 1.0	24					34.00
12	1.69	126.9					7.29	6.5	19					34.00
13	1.82	70.6					7.60	5.2	27		131	41		34.00
14	1.74	82.4					7.18	< 1.0	22					34.00
15	1.59	75.9	86	26	240	75	6.80	< 1.0	20	5	92	24	10	34.00
16	1.62	91.6					7.39	< 1.0	14					36.00
17	1.77	87.6					7.13	< 1.0	20					35.00
18	2.35	85.0					6.85	< 1.0	15					33.00
19	1.83	65.4					7.50	< 1.0	12					33.00
20	1.81	56.2					6.73	< 1.0	13		173	52		32.00
21	1.70	133.4					8.30	< 1.0	12					33.00
22	1.80	62.8	102	32	364	104	6.46	< 1.0	15	3	157	42	10	34.00
23	2.09	62.8					6.21	< 1.0	21					35.00
24	1.88	70.6					7.28	< 1.0	19					30.00
25	1.55	124.3					8.36	< 1.0	22					31.00
26	1.60	95.5					6.88	< 1.0	11					34.00
27	1.79	79.8					7.88	< 1.0	13		131	41		32.00
28	1.82	77.2					8.29	< 1.0	11					32.00
29	1.75	64.1	95	21	342	98	7.35	< 1.0	12	2	178	51	10	34.00
30	1.68	69.3					7.29	< 1.0	13					33.00
31	1.94	44.4					7.80	< 1.0	52					30.00

GRASIM INDUSTRIES LIMITED. UNIT : INDIAN RAYON - VERAVAL Analysis of Treated Effluent Water Month: JANUARY - 2024														
DATE	PLANT INLET						PLANT OUTLET							
	pH	ZINC Mg/L	S.S. Mg/L	O & G Mg/L	C.O.D. Mg/L	B.O.D Mg/L	pH	ZINC Mg/L	S.S Mg/l	O & G Mg/L	COD Mg/L	B.O.D Mg/L	COLOUR Units.	Temp. °C
1	1.75	60.2					8.37	5.2	25					31
2	1.70	77.2					8.13	< 1.0	37					34
3	1.84	52.3					8.05	< 1.0	22		168	48		33
4	1.60	133.4					6.68	< 1.0	18					33
5	1.64	71.9	121	27	387	109	6.58	< 1.0	15	3	186	54	10	32
6	1.37	105.9					8.34	< 1.0	17					33
7	1.58	64.1					7.29	< 1.0	24					34
8	1.45	141.3					7.50	< 1.0	18					34
9	1.41	69.3					7.80	< 1.0	25					32
10	1.32	113.8					7.45	< 1.0	16		207	67		31
11	1.65	81.1					6.83	< 1.0	21					29
12	1.76	94.2	106	38	408	117	7.62	< 1.0	25	3	172	46	10	34
13	2.30	56.2					7.74	< 1.0	19					35
14	1.98	64.1					7.65	< 1.0	13					35
15	1.47	92.9					7.96	5.2	61					34
16	11.31	< 1.0					7.43	< 1.0	16					34
17	1.90	102.0					7.83	< 1.0	23		153	38		35
18	1.56	94.2					7.07	< 1.0	17					32
19	1.50	85.0	84	23	321	95	6.40	7.8	15	1	201	56	10	30
20	1.40	120.3					8.19	< 1.0	29					34
21	1.88	69.3					7.14	< 1.0	22					34
22	1.69	95.5					7.31	< 1.0	18					34
23	1.83	48.4					8.38	< 1.0	10					34
24	1.80	81.1					8.11	< 1.0	14		151	42		33
25	1.87	90.3					7.37	3.9	22					34
26	1.97	66.7	111	31	407	109	7.00	< 1.0	16	1	187	49	10	33
27	1.74	83.7					7.71	3.1	23					30
28	2.03	54.9					6.79	< 1.0	15					29
29	2.41	45.8					6.97	< 1.0	20					33
30	1.79	75.9					8.40	< 1.0	18					34
31	1.80	75.9					8.25	< 1.0	26		198	55		33

GRASIM INDUSTRIES LIMITED. UNIT : INDIAN RAYON - VERAVAL Analysis of Treated Effluent Water Month: FEBRUARY - 2024														
DATE	PLANT INLET						PLANT OUTLET							
	pH	ZINC Mg/L	S.S. Mg/L	O & G Mg/L	C.O.D. Mg/L	B.O.D Mg/L	pH	ZINC Mg/L	S.S Mg/l	O &G Mg/L	COD Mg/L	B.O.D Mg/L	COLOUR Units.	Temp. °C
1	2.18	64.1					6.96	< 1.0	22					33
2	1.57	98.1	98	27	318	72	8.22	< 1.0	25	1	146	38	10	34
3	2.12	60.2					8.00	< 1.0	34					34
4	2.01	66.7					6.91	< 1.0	24					33
5	1.90	94.2					6.87	7.8	21					34
6	2.48	31.4					6.86	< 1.0	18					34
7	1.60	94.2					6.77	< 1.0	17		186	54		32
8	1.65	64.1					7.22	< 1.0	26					33
9	1.88	64.1	119	29	367	108	7.06	< 1.0	14	3	203	63	10	32
10	1.77	54.9					6.56	7.8	14					32
11	1.84	73.2					7.30	< 1.0	22					32
12	1.69	54.9					7.70	3.9	17					30
13	1.66	75.9					7.60	< 1.0	15					29
14	2.28	54.9					6.87	2.6	19		206	63		30
15	1.85	69.3					6.33	< 1.0	17					28
16	1.60	193.6	127	32	412	114	7.15	< 1.0	13	2	188	56	10	29
17	1.85	51.1					7.38	< 1.0	14					30
18	1.69	77.2					6.70	< 1.0	11					29
19	1.42	70.6					8.08	< 1.0	15					29
20	1.68	81.1					6.65	< 1.0	21					28
21	1.75	57.6					7.06	< 1.0	14		206	61		28
22	1.71	43.2					7.05	< 1.0	41					29
23	1.09	126.9	104	28	367	92	7.07	< 1.0	29	3	187	52	10	29
24	1.72	92.9					7.06	< 1.0	13					28
25	1.56	109.9					7.13	< 1.0	19					30
26	2.03	79.8					7.38	< 1.0	17					31
27	2.25	74.6					7.18	< 1.0	13					30
28	1.86	82.4					7.18	5.2	17		176	45	10	31
29	3.81	36.6					7.87	< 1.0	19					30

GRASIM INDUSTRIES LIMITED. UNIT : INDIAN RAYON - VERAVAL Analysis of Treated Effluent Water Month: MARCH - 2024														
DATE	PLANT INLET						PLANT OUTLET							
	pH	ZINC Mg/L	S.S. Mg/L	O & G Mg/L	C.O.D. Mg/L	B.O.D Mg/L	pH	ZINC Mg/L	S.S Mg/l	O &G Mg/L	COD Mg/L	B.O.D Mg/L	COLOUR Units.	Temp. °C
1	1.76	74.6	72	31	160	49	6.85	< 1.0	13	4	204	66	10	28
2	1.84	68.0					6.85	6.5	12					28
3	1.60	105.9					6.73	< 1.0	19					30
4	1.67	77.2					7.79	< 1.0	15					30
5	1.59	92.9					6.67	< 1.0	21					29
6	1.18	95.5					6.41	< 1.0	22		187	52		28
7	1.21	149.1					6.87	< 1.0	26					30
8	1.68	204.0	104	23	325	98	7.55	< 1.0	15	2	203	63	10	30
9	1.76	45.8					6.66	< 1.0	13					29
10	1.77	83.7					6.70	< 1.0	11					30
11	1.65	54.9					6.50	< 1.0	51					30
12	1.66	109.9					6.61	< 1.0	15					31
13	1.81	61.5					8.12	< 1.0	11		196	59		30
14	1.64	45.8					8.29	< 1.0	17					30
15	2.04	35.3	96	27	404	119	7.28	< 1.0	13	3	164	51	10	30
16	1.83	105.9					6.75	< 1.0	18					31
17	2.04	52.3					6.96	< 1.0	21					31
18	1.85	78.5					6.62	< 1.0	11					30
19	1.87	81.1					6.40	< 1.0	13					32
20	2.14	70.6					8.12	< 1.0	15		164	48		33
21	1.94	94.2					7.80	< 1.0	14					32
22	1.94	83.7	124	36	513	146	6.28	< 1.0	16	2	206	56	10	30
23	2.61	54.9					6.89	< 1.0	19					31
24	2.20	43.2					7.73	< 1.0	22					31
25	1.85	91.6					7.11	< 1.0	15					32
26	1.95	47.1					8.23	< 1.0	19					33
27	2.29	66.7					6.55	< 1.0	15		142	41		32
28	2.12	87.6					6.75	< 1.0	61					34
29	2.07	58.9	106	27	372	109	6.70	< 1.0	27	4	173	53	10	33
30	1.89	100.7					6.61	6.5	11					34
31	2.23	64.1					7.88	< 1.0	34					34



# CSR REPORT

FY : 2023 – 24

Period : October 23 to March 24

## CSR Activities Education

- **Science Exhibition:** We have extended support to the Government Education dept., in organizing Block Level Science Exhibition. 125 students participated.



- **Career Counselling Session:** Career Counselling was conducted in 4 different high schools for class 10<sup>th</sup> and 12<sup>th</sup> students where 315 students participated in the session.



- **Drawing and Essay Writing Competition:** A drawing and essay writing competition was organized in 2 Govt Primary Schools where 80 Students took part in the competition.



- **Village Library Program:** In 1 Village where students are pursuing Higher Education after 10<sup>th</sup> and 12<sup>th</sup> were facilitated and appreciated, where in total 85 students were facilitated for their achievement, and 95 students participated for a cultural program





- **Support of Water tank in Govt school:** A water tank of 2000 liters with a submersible motor was provided at Hudco primary school benefitting 430 students.






- **Smart Anganwadi:** A newly constructed smart Anganwadi centre was inaugurated at Chatroda village






CSR Activities Education	
<ul style="list-style-type: none"> <li>▪ <b>Poster making and Quiz competition:</b> A Poster making, and quiz competition was organized at JM Science College where 220 students participated in the events.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ <b>Drinking Water Station-</b> A drinking water station was built at Govt school Govindpara to provide safe drinking water to 300 students of the school.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ <b>Safety Awareness and Disaster Management Sessions-</b> In collaboration with the NDRF team and our safety department, we conducted the disaster management and safety awareness sessions in 9 govt schools where a total of 752 students attended the session.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ <b>Cultural Programme-</b> On the occasion of Republic Day, we provided gifts to 147 students who participated in the cultural program at 3 govt schools.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ <b>National Level Workshop on AI's Role in Education-</b> Support was provided to govt. science college to conduct a national-level workshop on AI's Role in education, which was attended by 100 participants.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ <b>Infrastructure Aid-</b> Aid was provided for the construction of the Dome in 3 govt schools and furniture support was provided in two govt schools benefitting 1800 students</li> </ul>	

Education	Healthcare
<ul style="list-style-type: none"> <li>▪ <b>Support in Government schools</b></li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Nutrition Kit - TB Patients</b> :26 Villages - 153 Patients</li> </ul>
<ul style="list-style-type: none"> <li>▪ Construction of Wash room facility in 2 govt schools.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Annual Day Function in 1 school</li> </ul>	<p>Appreciation from DDO and Collector of Gir Somnath For TB nutrition Kit distribution</p>
<ul style="list-style-type: none"> <li>▪ Fun Fair in 1 school</li> </ul>	

## CSR Activities Healthcare

- **HB testing camp** The camp was conducted in 2 KGBVs ( Kasturba Gandhi Balika Vidyalaya). A total of 443 girls students were benefitted from this. 
- **HB testing & Blood Group Testing Camp:** The Blood testing & HB testing camp was conducted in 3 Kasturba Gandhi Balika Vidyalaya in coordination with Aditya Birla Hospital. A total of 505 Students were benefitted from this. 
- **Medical Camp:** General Medical Camp Was Organized in coordination with Aditya Birla Hospital where 180 Patients were medicated and treated. 

- **Mother and Child Immunization:** Mamta Session was regularly organized in five of the adopted villages. A total of 552 Beneficiaries were benefitted from this program. 
- **School Health Check-up Camp:** A school Health check-up camp was conducted in 3 Govt schools where 244 students get medication free of cost. 
- **Pulse Polio Immunization drive phase 2** The drive was supported on 10 December 2023. We Distributed biscuits to the children Getting Immunized in 53 Booths of the adopted Villages & and in Veraval City where in a total of 10206 children were Immunized. 

## CSR Activities Healthcare

- **Aid to Poor Patients for Cancer Treatment:** Financial Aid to 23 Patients from adopted villages were given for their ongoing cancer treatment and also counselling to their family members. 
- **Aid for Artificial Limb:** Financial Aid to 2 Patients from our adopted villages was given for artificial limbs. 
- **Safe Drinking Water - WASMO:** In coordination with the Govt. department, the Gram Panchayat Foundation Stone Ceremony for Drinking Water project was carried out in the village where 2800 people will receive benefits for the same. 

- **Safe Drinking Water- Bore well** A bore well facility was provided at 1 of our adopted villages which will benefit 950 villagers to get access to clean and safe drinking water. 
- **Nutrition Kit Distribution-** A 3-day Nutrition kit distribution drive was carried out at govt. hospital, where we provided nutrition kits to lactating mothers. A total of 32 kits were distributed in a span of 3 days. 
- **Sanitation Block** - Aid to Samst Kharva Samaj for the construction of a Toilet near the temple at Jhaleswar benefitting 3000 people
- **Family Planning Camps:** Sterilization of Mother - 160 Female
- **Dist. Level Ayush Camp** -In collaboration with dist. Ayush department the camp was conducted where a total of 3000 patients were treated





## CSR Activities

### Sustainable Livelihood

- **KVK Farmers training Program:** Group of 56 female farmers from 2 villages have undergone training at Krishi Vigyan Kendra, Kodinar on how to grow mushrooms. 
- **Farmers Training - FPO** To form the FPO 3 farmers were sent to the Shyadari Farms Nashik, to learn in detail the process of the FPO working. A meeting was conducted with our 3 farmers who visited Shyadari farms in Nashik. They shared their knowledge with 56 farmers from 2 villages 
- **Farmers Meeting -** A farmers' meeting was held in which 88 dedicated individuals attended the session from two villages. 

- **Project Pahal:** A meeting was organized with 10 SHGs / 90 women have participated from the slum area of Veraval city. 
- **Animal Treatment camps:** In coordination with Government Husbandry dept. we have organized camps in 8 villages, where a total of 1799 animals were treated by a Govt doctor and the prescribed medicines were provided by us. 
- **Vocational Training- Certificate Distribution Program** to 19 Tailoring Trainees of the 58<sup>th</sup> batch 



## CSR Activities

### Sustainable Livelihood

- **Tailoring Machine Aid-** 4 Beneficiaries 
- **Vocational Training- Computer Class-** 104 Students 
- **Natural Resource Governance - Solar Cooker** aid 15 Beneficiaries. 
- **Vocational Training-** Inaugurated new male tailoring class at our current tailoring center with the 1<sup>st</sup> batch of 12 students 

**Diwali Mela 2023**


To Boost the Regional Entrepreneurs and support their livelihood we conducted the 4 day Diwali Mela where 42 People kept their stalls, of 12 Different Varieties, Like Clothing, Purse, Handloom, Food, and beverages, Products made from Cow Milk, Urine, and Dung, Products made from Mud, etc. During the 4-day program, approximately 4200 people visited the Mela. Highest Income for stall was 1,50,000 INR while Lowest was 2,500 INR








CSR Activities	
<h3>Sustainable Livelihood</h3> <p><b>Water Harvesting Initiatives</b></p> <ul style="list-style-type: none"> <li>○ Farm well Recharge - 1</li> <li>○ Pond Deepening - 3</li> <li>○ Underwater Tank- 2</li> </ul> <div>       </div>	<h3>Social</h3> <ul style="list-style-type: none"> <li>▪ <b>Women's Day celebration-</b> We have celebrated at all the 3 KGBVs ( Kasturba Gandhi Balika Vidyalaya). We have organized lecture on Mental Health by Dist. Gov. Doctor and Importance of Education by Chairperson of B.K Computer Centre. 346 Girls received benefit from the same.</li> <li>▪ <b>Swimming Competition-</b> support was extended to conduct the Veer Savarkar All Indian Sea Swimming Competition, wherein 100 participated in the event organized by Commissioner, Youth Services and Cultural Activities</li> <li>▪ <b>Uttrayan Celebration-</b> On the occasion of Makar Sankranti, we celebrated this kite flying festival with the specially-abled people from Hudco Divyang Ashram.</li> </ul> <div>    </div>

CSR Activities	
<h3>Social</h3> <ul style="list-style-type: none"> <li>▪ <b>Swachh Bharat Abhiyan</b> On the day of Gandhi Jayanti, we have conducted a cleanliness drive in collaboration with the Village Gram Panchayat and Healthcare Department. A total of 30 villagers took part in the event.</li> <li>▪ <b>Camp on Linkages Govt. schemes:</b> In coordination with Gram Panchayat, we have organized 2 camps/ 185 E-Shram cards issued.</li> <li>▪ <b>Mass Marriage-</b> Support was extended to 6 community marriages benefitting 230 couples</li> </ul> <div>    </div>	<ul style="list-style-type: none"> <li>▪ <b>12<sup>th</sup> January-</b> On the occasion of the 103<sup>rd</sup> birth anniversary of Shri B.K Birla Ji, we organized a dinner at Divyang Ashram in the Hudco region where we provided food to 35 Disabled and Specially abled people</li> <li>▪ <b>Model Sports School-</b> A new sports school was adopted, to build Kabaddi, long jump, and Kho-Kho ground and supported old model school as well benefitting 910 students</li> <li>▪ <b>Blanket Distribution-</b> The distribution of 50 blankets to poor people in the Railway station, Somnath, and nearby regions was done</li> </ul> <div>    </div>

## CSR Activities

### Infrastructure Development

- **Community Hall-** Aid was provided for the renovation of the Community Hall at Beej village. Support was provided for the construction of a community hall in Veraval City, benefiting 1700 individuals from the local community. The event marked a significant milestone, providing a dedicated space for various communal activities and gatherings
- **Furniture aid:** We have extended furniture support in 3 newly constructed Gram Panchayat. Benefitting 9750 people
- **Support in Village:**
  - To construct new cremation bed in 1 village. Benefiting 2400 people
  - Dome construction in Sub Centre – Health in 1 village for conducting Yoga and having Waiting area for Villagers

- **Project Ujas:** To enhance safety and security in one of the adopted village, we have extended support with 100% illumination in village and peripheral areas by installing 130 Solar street lights.
- **Support extended to the Gram Panchayat of Umrethi village:**
  - Provided a fogging machine to eradicate the malaria problem.
  - Aid to Umrethi village for renovation of Anganwadi.
  - Aid to Umrethi village for renovation of Cremation Ground
- **Support in Village:**
  - Renovation of 2 Government Anganwadi under BALA concept.

## Press Notes



**ABG CSR Meet 2024 CSR Team**

**Fund Utilization : Rs. 119.76 lakhs  
No. of Beneficiaries covered: 78376**

13



**Thank You**