



GRASIM/ENV/ /2017
November 27, 2017

To
Ministry of Environment, Forests & Climate Change
Western Region Office,
Kendriya Paryavaran Bhawan, Link Road No. 3,
E-5, Ravi Shankar Nagar,
Bhopal – 462016

Kind Attention: Mr. B B Barman

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 1st May 2017 to 31st October 2017 as **Annexure - A**.

We hope you will find the above in order.

Yours Faithfully,
For **Grasim Industries Limited; Unit – Indian Rayon**


Harendra Singh Dagur
Jt. President – Unit Head

CC:

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

A.	As per Letter No. J-11011/343/2013-IA II (I) dated 22 nd June, 2015 by MoEF & CC for Expansion Project for production of Viscose Filament Yarn (1650 to 2400 MTPM), Sodium Sulphate (Na ₂ SO ₄) Plant (2050 to 2350 MTPM), Captive Power Plant (34.5 to 54.5 MW) along with Installation of Sodium Sulphite (Na ₂ SO ₃) Plant (3000 MTPM) & Liquid Sulphur Dioxide (SO ₂) Plant (1500 MTPM).	
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 _x burner shall be provided in captive Co-generation power plant to reduce the NO _x emissions.	<p>Our existing Captive Power Plant is operating with CFBC technology having capacity of 34.5 MW, for which we have installed three nos. of Electrostatic Precipitator to control particulate emission. Opacity meter has been installed for Continuous PM Emission Monitoring. The height of chimney of both Old & New Power plant Stacks is of 122 m as per the CPCB standards.</p> <p>Compliance of Condition is noted and planned accordingly. Moreover, It is expected that 20 MW Captive power Plant with CFBC technology will be commissioned by April'2018. Flue gas of proposed Captive Power Plant shall be exhausted through the existing chimney. Further, we will ensure actualization of all particulars during commissioning of the project.</p>
ii.	The gaseous emissions (SO ₂ , NO _x , CS ₂ , H ₂ S, CO, HC) and particulate matter from process and CPP units shall conform 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 desired efficiency. Continuous emission monitoring system (CEMS) should be installed to measure SO ₂ ,	<p>At present in our existing Chlor-Alkali plant, we have installed Online Continuous Emission analyzer for parameter Cl₂ and HCl in Hypo and HCl Stack respectively. Similarly, Online Continuous Emission Monitoring System have been installed for Parameter Particulate Matter (PM), SO₂, NO_x for both Old and New Power Plant and data w.r.t. all above mentioned parameter has been transmitted to GPCB/CPCB server.</p> <p>We have installed Online Continuous Emission Monitoring System for parameter SO₂ for both of Sulphuric Acid Plant and it is in operation.</p>

	<p>NOx and particulate from the CPP stack and SO₂, CS₂ and H₂S from process plant stacks.</p>	<p>We have installed three Nos. of H₂S monitors & Three Nos. of CS₂ monitors within CS₂ Plant to indicate the Work Zone concentration of CS₂ & H₂S gas. In addition, we have installed Online Continuous Emission Monitoring System for parameter CS₂ & H₂S for both Rayon Stack and now analyzer performance is kept under stabilization.</p> <p>We have also installed 32 Nos. of Chlorine Sensors in our Caustic Soda Plant which are inter-connected to the Distributed Control System through which whole lot of manufacturing process are carried out.</p> <p>5 No's Online hydrogen monitoring hooked up with DCS is installed onsite at hydrogen handling area of Caustic Soda Plant.</p> <p>The gaseous emission from process stacks conform to the standard as per prescribed by GPCB/MoEF & CC. The reports are submitted to GPCB every month and Six monthly reports are being submitted to RO, MoEF & CC, Bhopal. Copy of the Stack monitoring results from May'2017 to October'2017 are annexed and marked hereto as Annexure – I. Apart from above, stack monitoring results performed by GPCB approved Environmental Auditor namely “Marwadi Educational Foundation”, Rajkot.</p>
iii.	<p>Exhaust containing CS₂ and H₂S gas from rayon plant shall be passed through scrubber.</p>	<p>In the existing Rayon Plant, H₂S is scrubbed with Caustic Soda in 2 stage Absorption system to recover Sodium Sulphide. The gaseous emission from the Carbon di-Sulphide plant in the form of CS₂ are recovered by condenser.</p> <p>Exhaust gas containing CS₂ & H₂S gas is controlled by supplying humidified air through Air Washers continuously. The exhausting dilute gases through 2 Nos. of process stack and</p>

		<p>the emission level of both CS₂ & H₂S concentration is being maintained within permissible limit.</p> <p>The project will be expanded in three phases within 5 years for which EC & CTE have been granted.</p> <p>Phase-1: 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.</p> <p>The existing pollution control facilities are adequate to maintain the stipulated norms by GPCB.</p> <p>Phase -2: In order to further increase the production of Viscose Filament Yarn (1950 to 2200 MTPM), Sodium Sulphate (Na₂SO₄) Plant (2050 to 2350 MTPM), Captive Power Plant (34.5 to 54.5 MW) within the existing plant premises, we shall seek prior approval for CTO from GPCB prior to production.</p> <p>Phase – 3: In order to further increase the production of Viscose Filament Yarn (2200 MTPM to 2400 MTPM) & new product Sodium Sulphite (Na₂SO₃) Plant (3000 MTPM) and Liquid Sulphur Dioxide (SO₂) 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 -2 & 3, concentration of CS₂ & H₂S 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 th September, 2009. The levels of PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO,	In the existing plant, four Nos. of AAQ stations are established and ambient air quality is being measured for PM ₁₀ , PM _{2.5} , SO _x , NO _x , CS ₂ , H ₂ S, HCl, and Cl ₂ . Location of Stations are concluded after consultation with GPCB officials. Copy of the

	<p>CS₂, H₂S, 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 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>AAQ results from May'2017 to October'2017 are annexed and marked hereto as Annexure – II. The AAQ results are being displayed in main gate and the same is being updated regularly. The AAQ results are being uploaded in our website (http://adityabirlanuvo.com/indianRayon.php) regularly. Simultaneously, the same AAQ results are sent to all the statutory body. Apart from above, Ambient Air Quality is performed by GPCB approved Environmental Auditor namely Marwadi Educational Foundation, Rajkot.</p> <p>Further, we have installed Two nos. of online Continuous Ambient Air Quality Monitoring System (CAAQMS) over Rooftop of our Rayon Administrative Building and over rooftop of Caustic soda Administrative Building. Online Data from both the 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 & 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>In existing plant, 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"> • 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. • Bag Filters & Cyclone Separator (Mechanical dust collector) with Coal fired boilers to control particulate emissions. • Water sprinkler system in Coal Handling Plant to control fugitive emissions • Dry fog based Dust suppression system (114 Nos. Nozzles) provided in Coal Handling plant with

		<p>investment of Rs. 30 lacs to control of sub-micron particle of dust</p> <ul style="list-style-type: none"> • Water sprinkler system in coal yard to control particulate emissions • Water sprinkler system in ash pond area to control particulate emissions • Further, to improve the Ambient Air Quality, 26 Nos. of Rain Guns are provided for suppression of Coal Dust in Coal Storage & Handling Unit. <p>Work environment is being monitored on continuous basis by chlorine sensors, installed at different locations as per the requirement. CS₂ and H₂S are also being monitored with sensor and results are continuously monitored and maintained and it is being reported to statutory Authority in Form No- 37.</p>
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"> ➤ 6 Nos. of D.G Sets (2279 KVA) 40 m each ➤ 2 Nos. of D.G Sets (1450KVA) 11m each ➤ 1 Nos. of D.G set (1500 KVA) 30 m <p>The DG sets are provided with the acoustic enclosures to mitigate the noise.</p>
vii.	Total fresh water requirement from Umrethi Dam supply should not exceed 15938 m ³ /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>Agreed.</p> <p>Total fresh water requirement from Umrethi Dam supply will be maintained within the limit as per stipulated condition. We will further reduce fresh Water consumption through water conservation measures such as 3R's (Reduce, Reuse and Recycle).</p>

viii.	<p>Total industrial wastewater generation shall not exceed 10540 m³/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>	<p>Indian Rayon has Consolidated Consents and Authorization from Gujarat Pollution Control Board (GPCB) for generation of 11372 m³/day of treated effluent. However, after the expansion, our wastewater generation will be 10540 m³/day. We have Effluent Treatment Plant (ETP) having Capacity of 12000 m³/day and it will be adequate for treatment of wastewater after Expansion. The treated effluent is processed through guard pond. Thereafter it is being discharged into sea through pipeline having design discharge capacity of 15,000 m³/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 & 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 m³/day. However, we are generating sewage within limits of 388 m³/day. The treated effluent from STP is being utilized as source of make-up Water for cooling Towers & in Plantation.</p> <p>Copy of Treated Effluent Analysis report for the period from May'2017 to October'2017 is annexed and marked hereto as <u>Annexure – III</u>. Apart from above, Treated Effluent Analysis Results by GPCB approved Environmental Auditor namely Marwadi Educational Foundation, Rajkot. Also, We have installed Online Continuous Emission Monitoring System for parameter TOC at site and it is in operation.</p>
ix)	<p>As proposed, effluent recycling RO plant shall be installed to produce 2000 m³/day recycle water. Efforts shall be made for recovery of sodium thiosulphate.</p>	<p>In Phase -1, we have installed RO Plant of 500 m³/day and it is in operation. The remaining 1500 m³/day of effluent recycling will be achieved in subsequent phases i.e. phase-2 & 3.</p>

		Efforts for recovery of Sodium thiosulphate 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 m³/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 & Flow 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>With regard to TOC Meter, kindly refer <u>reply to pt. vii</u></p>
xi)	Process effluent/ any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	We are very conscious and alert to take all precautions regularly so that mixing of both the streams (Storm & Process) will not take place. It is being done by formulating periodic schedule for cleaning of all Effluent Channel as well as storm channels to eliminate chocking of the same and we have instructed all the concerned departments / sections for implementation of the same 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 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.	<ul style="list-style-type: none"> We have been granted with Authorization from the Gujarat State Pollution Control Board for collections/treatment/storage/disposal of hazardous wastes in Consolidated Consent & Authorization (CC&A) vide Letter No. GPCB/CCA/JNG-1(18)/ID-17239/162847 dated 18th October, 2013 and its amendment vide letter no. GPCB/CCA/JNG-1(23)/ID17239/345269 dated 12.02.2016 valid up to 20th Feb, 2018. Copy of CCA has also been submitted at your good office.

		<ul style="list-style-type: none"> • Solid/Hazardous Waste Generated from process are being disposed off through GPCB approved TSDF with prior permission.
xiii)	<p>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.</p>	<ul style="list-style-type: none"> • We have been granted authorization for handling and storage of Hazardous waste, generated in the plant and relevant procedures are followed. We have approvals from Chief Inspectorate of Factories, Gandhinagar, Chief Controller of Explosives, Nagpur and Fire Safety Inspectorate. • 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. • All transportation of hazardous chemicals are being done as per the Motor Vehicle Act (MVA), 1989 as registered vehicles are only used for transportation.
xiv)	<p>All the recommendations mentioned in the Environment Management Plan, Rapid Risk Assessment Report, Disaster Management Plan and safety guidelines shall be implemented.</p>	<ul style="list-style-type: none"> • We have onsite Emergency plan and offsite Emergency plan having duly approved by Deputy –Director (Industrial Safety and Health), Government of Gujarat. • We are adhering to the recommendations mentioned in Environmental Management Plan & Rapid Risk Assessment Report. Moreover, we are also carrying out safety audit regularly and the report is submitted to various Government bodies. • We have adopted Aditya Birla Sustainability Framework for Safety System in VFY, CSP & CPP as the part of which we have Implemented 11 safety standards to maintain and improve work place safety culture.

		<ul style="list-style-type: none"> 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. 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, OHSAS 18001:2007 from reputed international agency Intertek and SA 8000:2014 & ISO 50001:2011 from reputed international agency DNV.
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.	At present, we are having 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. The persons working there use the appropriate PPEs to avoid exposure. The same practices shall be followed for the proposed power plant.
xvi)	All the fly ash shall be utilized as per fly ash Notification, 1999 subsequently amended in 2003 and 2008.	The fly ash generated in our Captive Thermal Power Plant is utilized in our Group Cement Plant. Kindly, also note that Fly ash is being given to GPCB approved vendor to ensure disposal of fly ash. Fly ash is also being sent to National Highway Authority of India for road construction. Thus, we are complying the guidelines of Fly ash Notifications. Further to inform that we are regularly submitting yearly return in Standard Proforma provided by MoEF&CC, New Delhi as per Fly Ash Notification to the Head Office, Gandhinagar and your Regional Office at Junagadh as well.
xvii)	The unit shall make the arrangement for protection of possible fire hazards during	Recommendations of Fire study & Risk Assessment are being implemented to prevent fire hazards.

	<p>manufacturing process in material handling. Firefighting system shall be as per norms.</p>	<p>Routine Assessment are being done with implementation of Preventive measures and recommendations of the study.</p> <p>Fire safety measures is incorporated within factory premises. All the fire extinguishing media such as Water, dry chemicals, CO₂, 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)	<p>Occupational health surveillance programme 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.</p>	<ul style="list-style-type: none"> • Occupational health surveillance programme are undertaken as regular exercise for all the employees, specifically for those engaged in handling hazardous substances. • The first aid facilities in the occupational Health Centre are strengthened and the medical records of each employee have been maintained separately.
xix)	<p>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.</p>	<p>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.</p>
xx)	<p>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 sides etc. selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.</p>	<ul style="list-style-type: none"> • We have developed 33.64 % of plant area viz. Rayon, Power Plant and Caustic Soda Plant into Green belt with local species. There are 113899 nos. existing trees as on 1st August 2017. Besides above 1.147 acre area is used/developed with lawn (Hariyali). Total 10.3 Km length of hedges are planted and maintained. • Plant Area breakup: <ul style="list-style-type: none"> ➤ Plant Boundary: 176.26 acre

		<ul style="list-style-type: none"> ➤ Green Belt Area: 59.31 acre (33.64% of total area) ➤ Open Area: 114.18 acre <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 2017-18, we planted 1218 nos. of sapling in side plant premises till date.</p>
xxi)	All the commitments made to the public during public hearing/Public consultation meeting held on 4 th 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 will be earmarked to satisfactorily implement the same. We shall submit the aforesaid report 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 bring 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 company and/or stakeholders or shareholders.	Complied We do have 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.
xxiii)	At least 5% of the total cost of the project (i.e. Rs. 43 Crore) shall be earmarked towards the	Noted for Compliance

	Enterprise Social Commitment (ESC) 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.	A separate budget has been earmarked for CSR/ESC activities. CSR study report has already been submitted to your good office. CSR/ESC activities is being carried out by IR Jan Seva. CSR Report for the period April 2017 to September 2017 year 2017-18 is annexed hereto and marked as <u>Annexure – IV</u> .
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.
General Condition		
i)	The project authorities must strictly adhere to the stipulations made by the Gujarat State 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	Noted we have received the Environmental Clearance for Expansion of Viscose Filament Yarn (1650 to 2400 MTPM), Sodium Sulphate (Na ₂ SO ₄) Plant (2050 to 2350 MTPM), Captive Power Plant (34.5 to 54.5 MW) along with Installation of Sodium Sulphite (Na ₂ SO ₃) Plant (3000 MTPM) & Liquid Sulphur Dioxide (SO ₂) Plant (1500 MTPM) from Ministry of

	adequacy of conditions imposed and to add additional environmental protection measures required, if any.	<p>Environment, Forests & Climate Change, New Delhi vide letter no. J-11011/343/2013-IA II (I) dated 22nd June, 2015</p> <p>We have been granted amendment in CTE/NOC from Gujarat Pollution Control Board for Expansion of production Capacity of Viscose Filament Yarn & 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.</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 12.02.2016.</p>
iii)	The National Ambient Air Quality Emission standards issued by the Ministry vide G.S.R. No 826 (E) dated 16 th 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 that at least one stations is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	Complied. Refer Specific Condition No. (iv)
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,	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

	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).	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 activities shall be undertaken by involving local villages and administration.	We actively participate in activities meant for improving Socio-economic conditions of surrounding.
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 & Vice President leads Environment Management system. Qualified & Competent Engineers to maintain the aspects and implement Environment Management System effectively and ensure its continuous improvement. A well-equipped laboratory & dedicated EMC are established in the factory to regularly analyze & 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"> a) Jt. President – Unit Head b) Sr. GM – VFY

		<p>d) Sr. GM – Caustic & Power Plant</p> <p>e) Assistant General Manager – Environment & Sustainability</p> <p>f) DGM – Civil</p> <p>g) Manager – ETP</p> <p>h) Manager - Safety</p> <p>i) Engineer – Environment & Sustainability</p> <p>k) Environmental Analyst</p> <p>l) Assistant General Manager – Estate & Security</p>
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 funds so provided should not be diverted for any other purpose	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.
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.	Complied We have Intimated to Local Administration (District Collector/ Add. District Collector) about accordance of Environmental Clearance on 30.06.2015.
xv)	The Project Proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance	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>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>	<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 1st 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 & CC, Western Regional Office, Bhopal, Zonal Officer, CPCB, Vadodara, GPCB, Gandhinagar, GPCB, Junagadh vide our Letter dated 22nd June 2017, 3rd July 2017 and 15th 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 9th October 2017.</p>
xvi)	<p>The environmental statement for each financial year ending 31st 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>	<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 & CC. Henceforth, we will be regularly submitting the same in the form of softcopy through Email as well.</p>
xvii)	<p>The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/ Committee and may also be seen at Website of the Ministry at</p>	<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 June 27th 2015. i.e. within 7 days period.</p>

	<p>http://www.moef.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office.</p>	
xviii)	<p>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>	<p>Noted for compliance. Moreover, we have been granted Provisional NOC/CTE dated 15th September 2015 for aforesaid project.</p>
8)	<p>The ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.</p>	<p>We will implement all the conditions in its true and spirit.</p>
9)	<p>The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner shall implement these conditions.</p>	<p>We will comply any additional conditions may be imposed by your esteemed department from time to time.</p>
10)	<p>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>	<p>We are complying all the provisions under Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & 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 & Clearances accorded from Gujarat Pollution Control Board, Gandhinagar and Ministry of Environment, Forests & Climate Change, New Delhi respectively.</p>

B.	As per EC Letter No. J-11011/445/2008 – IA.II (I), Dated: 18.07.2008 by MoEF&CC for Expansion Project for production of Viscose Filament Yarn from 1300 MTPM to 1650 MTPM & Caustic Soda production from 200 TPD to 400 TPD.	
S. No.	Conditions	Reply to Stipulated Conditions
A. Specific Conditions		
i.	The effluent generation shall not exceed 8540 m ³ /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 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.	Complied
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 ₂ and H ₂ S shall be recovered by condensers and H ₂ 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 ₂ .	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. General Conditions		
i.	The project authorities shall strictly adhere to the stipulations made by the Gujarat State Pollution Control Board (GPCB)	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 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.	Complied
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	Being Complied

	shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB (A) (day time) and 70 dB (A) (night time).	
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 centre should be strengthened and the medical records of each employee should be maintained separately	Being Complied
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	Complied

	status report should be submitted to monitoring agencies.	
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 http://envfor.nic.in . This should 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.	Complied
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.	Complied 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 GPCB/CCA-JNG-1 (16) ID – 17239/96938 dated 18 th November 2011 for commissioning of New Superior Spool Technology for Manufacturing of Viscose Filament Yarn within the existing production capacity of 1650 MTPM.
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	Noted.

	company in a time bound manner shall implement these conditions.	
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.	Noted. We are operating our plant under statutory consents & clearances from Gujarat Pollution Control Board (GPCB), Gandhinagar and Ministry of Environment & Forests (MoEF), New Delhi respectively.

C.	As per Amendment in EC vide Letter No. J-11011/382/2008-IA.II (I) dated 02.08.2011 by MoEF&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	
S. No.	Conditions	Reply to Stipulated Conditions
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

D.	As per EC no. J -11012/25/95-IA.II (I) dated 19.06.1995 & amendment dated 31.08.1998 by MoEF&CC (Expansion Project)	
S. No.	Conditions	Reply to Stipulated Conditions
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 ₂ & H ₂ 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 concentrations of SPM, SO ₂ , NO _x , CS ₂ , H ₂ S and Cl ₂ 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	Being Complied

	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 my 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 wind sock should be provided at appropriate place within the plant in consultation with the SPCB.	Complied
10	Necessary approval should also be taken from the Explosive Department and the Chief	Complied We are renewing the approvals periodically.

	Inspector of Factories, Gujarat regarding the design and safety of the pressure vessels, storage tanks etc.	
11	Work place air quality should be monitored regularly for acid mist, CS ₂ , H ₂ S and Cl ₂ 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 ₂ , H ₂ 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

	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 Heat of the organization.	Complied
23	The ministry may revoke or suspend the clearance, is implementation of any of the above conditions is not satisfactory.	Noted

E.	As per EC Letter No. 11-80/2008-IA.III (Part - II) dated 07.12.2009 by MoEF&CC for Marine Pipeline Project	
S. No.	Conditions	Reply to Stipulated Conditions
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 ₂ , NO _x (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 st 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
F.	As per Letter No. ENV-10-2008-1177-E dated 12.02.2009 by GCZMA for Marine Pipeline Project	
S. No.	Conditions	Reply to Stipulated Conditions
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 ³ /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 ³ / 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	Complied

	shall be disposed of as per the guidelines of the GPCB.	
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	Complied

	implement Environmental Management Plan and a separate budget shall be provided for this purpose.	
15	The cost of external agency that may be appointed by this department for supervision/ monitoring of the project activities during constructions operational phases shall be borne by the M/s Indian Rayon.	We will bear cost of external agency appointed by DoEF, Gandhinagar for supervision/ monitoring of the project activities during constructions operational phases.
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 enrout 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. We have submitted the Marine Monitoring Report for the year 2016 on date 18.04.2017.
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

G. As per EC Letter No. 11-80/2008-IA.III dated 20.10.2008 by MoEF&CC for Marine Pipeline Project		
S. No.	Conditions	Reply to Stipulated Conditions
A. Specific Conditions		
(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. We have submitted the Marine Monitoring Report for the year 2016 on date 18.04.2017.
(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	Complied

	station would be manned round the clock .The buried lines will be protected with anticorrosive 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. We have submitted the Marine Monitoring Report for the year 2016 on date 18.04.2017.

B. General Conditions		
(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 approval of the concerned state government department/ agencies.	Complied
(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
Proposed Environmental Expenditure in Financial Year 2017 -18		
S. 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	Retrofitting of ESP	100

	5	Socio Economic Environment	250
	6	Green Belt Development	60
		Total	600
(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
(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 compiled 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 compiled 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		Complied

	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 http://www.envfor.nic.in .	
(xiii)	The Project Proponents shall inform to Regional office, Bhopal as well as Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of work.	Complied
(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, within 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	Being Complied

<p>(Manufacturing, Storage and Import) Rules, 1989, the Coastal 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 18th April, 1996 in the Writ Petition No. 1993 to the extent the same are applicable to this proposal.</p>	
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