



Dated: 05.05.2021

The Advisor,
Ministry of Environment, Forest and Climate Change
Regional office, Western Region
"Kendriya Paryavaran Bhavan"
Link Road No.3, Ravishankar Nagar
Bhopal-462016 (M.P)

**Subject: Half Yearly Compliance Report of Environmental Clearance Compliance Report
for period of "Oct-20 to Mar-21"**

Dear Sir,

In view of above subject matter, we are submitting the hard copy as well as soft copy of half yearly Environmental Clearance Compliance report along with copy of EC-1997, No. J. 11012/85/95-IA II (I) dtd. 16.01.1997 for the report period from "**Oct-20 to Mar-21**".

Hope, the same is in order.

Yours Faithfully,
(For Birla Cellulosic)

Dharmesh Patel
DH- Environment

Encl. :

1. EC Copy
2. EC-1997 Compliance report (**Oct-20 to Mar-21**)

CC To:

1. **GPCB Regional office** - Gujarat pollution control board, Plot No. 1501, GIDC, Ankleshwar
2. **GPCB Head office** - Gujarat pollution control board, Paryavaran Bhavan, CHH Road, Sector 10A, Gandhinagar, Gujarat 382010



Birla Cellulose
Fibres from nature



Grasim Industries Limited
Unit - Birla Cellulosic

Works : Birladham, Kharach Kosamba R.S.
Dist. Bharuch (Gujarat) - 394 120 INDIA
CIN : L17124MP1947PLC000410

Telephone : +91 2646 270001-005, 270301-305
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Email : bc-kharach.info@adityabirla.com

Liaison Office : 11th Floor - 1101 & 1102 OCEAN, Opposite Vadodara Central Mall, Vikram Sarabhai Marg, Vadiwadi, Vadodara - 390023, Gujarat - India
Regd. Office : P.O. Birlagram, Nagda (MP) - 456 331. Phone : (07366) 246760-66, Fax : 255198, Website : www.grasim.com

GOVT. OF INDIA
MINISTRY OF ENVIRONMENT & FOREST
PARYAVARAN BHAWAN, CGO COMPLEX
LODHI ROAD, NEW DELHI-110003.

TELE : 4363964.

Dated 16.1.97

To,

The Chairman & Managing Director,
Birla Cellulosic (Grasim Industries Ltd.)
4th Floor, UCO Bank Building,
Parliament Street,
New Delhi-110001

Subject:- Viscose Staple Fibre Plant at Bharuch Environmental Clearance.

Sir,

This has reference to letter dated 1st August, 1995, 27th March, 1996 and 30th September, 1996 regarding your application for setting up a 60,000 TPA capacity Viscose Staple Fibre Plant and 15 MW coal based CPP at Bharuch District, Gujarat. The Ministry of Environment and Forests has carefully examined your application. It is observed that no forest land or rehabilitation is involved. The plant is based on imported pulp.

2. The Ministry of Environment and Forests hereby accords environmental clearance subject to the strict compliance of the terms and conditions mentioned below:-

- i. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ii. No further expansion or modifications in the plant should be carried out without prior approval of this Ministry.
- iii. The industry should set up a pilot plant and standardize the technology for incineration of CS₂/H₂S rich stream before commissioning the plant. The feasibility of incinerating the entire stream containing CS₂ and H₂S instead of segregating and burning only CS₂ and H₂S stream should also be explored and report submitted to the

Ministry within a period of 1 year for review. The emission of H₂S should not exceed 10 mg/Nm³.

iv. Gaseous and particulate emissions (H₂S, SO₂, CS₂, NO_x and SPM) from the various process units should conform to the standards prescribed by the concerned authorities from time to time. At no time, the emissions level should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the units, the respective unit should be put out of operation immediately and should not be restarted until the control measures are rectified to achieve the desired efficiency.

v. Six air quality monitoring stations should be set up in the down wind direction as well as where maximum ground level concentrations of H₂S, SPM, SO₂, CS₂, NO_x are anticipated in consultation with the State Pollution Control Board. The air quality monitoring stations should be selected on the basis of modelling exercise to represent short term ground level concentrations, sensitive targets etc.

Stack emissions should be monitored regularly by setting stack monitoring devices in consultation with the State Pollution Control Board.

Data on stack emissions and ambient air quality including work zone should be submitted to this Ministry once in six months and the State Pollution Control Board once in three months along with the statistical analysis.

vi. Work area air quality should meet the standards prescribed by the competent authorities/OSHA. CS₂ level should be less than 100 ppm in the work zone. Leakages from the ducts should be rectified, meshing windows should be sealed and better house keeping should be practiced to improve the work area air quality.

vii. Fugitive emissions should be controlled, regularly monitored and data recorded. Sensors for detection of CS₂ and H₂S and chlorine should be provided at appropriate places in the complex in consultation with the State Pollution Control Board.

viii. Liquid effluents coming out of the plant and the township should comply with the norms stipulated by the competent authorities from time to time. Recycling and reuse of the treated waste water should be maximised to the extent possible.

ix. Guard ponds of sufficient holding capacity should be provided to cope up with the effluent discharge during the process disturbances. The contributing units should be immediately shut down and should not be restarted without bringing the system back to normalacy.

- x. Adequate number of effluent quality monitoring stations should be set up in consultation with the State Pollution Control Board. Regular monitoring should be carried out for PH, S, BOD₃, COD, Zn and colour. The monitored data along with statistical analysis and interpretation in the form of a report should be submitted to this Ministry once in six months and the SPCB once in three months.
- xi. Marine Impact Assessment Study report should be submitted to the Ministry for review. Recommendations made by NIO in the Marine Impact Study should be strictly adhered to the Marine outfall point for discharge of treated effluent should also have the approval of SPCB.
- xii. The hazardous wastes should be handled as per Hazardous Waste (Management & Handling) Rules, 1989 of the Environment (Protection) Act, 1986.
- xiii. Handling, manufacturing, storage and transportation of hazardous chemicals should be carried out in accordance with the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994.

The approval of the Chief Inspector of Explosives should also be obtained.

- xiv. Medical surveillance and occupational health programme should be taken up on regular basis and record of the health status of the workers should be maintained. The worker's who may contract occupational diseases particularly due to carbon disulphide exposure should be monitored closely and adequate measures should be taken for their treatment and recovery.
- xv. A Green belt of adequate width and density (2000-2600 trees/ha) should be raised all around the factory complex and the township. Preferably native plant species should be selected for this purpose in consultation with the local DFO.
- xvi. The project authorities must set up adequate facilities for collection and analysis of samples under the supervision of competent technical personnel who will directly report to the Chief Executive.
- xvii. A separate Environmental Management Cell with suitably qualified people to carry out various functions should be set up under the control of Senior Executive, who will report directly to the Head of the organisation.
- xviii. The funds earmarked for the environmental protection measures should be kept in a separate account and should not be diverted for other purpose and year-wise expenditure

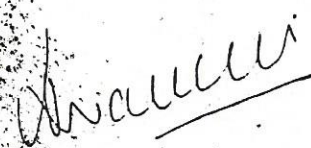
should be reported to this Ministry.

3. This Ministry or any competent authority may stipulate any further condition(s) after review of the monitoring reports. The above conditions will be monitored by the Regional Office of this Ministry located at Bhopal/CPCB/GSPCB.

4. The Ministry may revoke or suspend the clearance if implementation of any of the above condition is not satisfactory.

5. Any other condition(s) or alteration in the existing conditions will be fully implemented by the project authorities within the specified time frame.

6. The above conditions will be implemented under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, Environment (Protection) Act, 1986 and the Public (Liability) Act, 1991 along with their amendments.


(Dr. R. Warriar)
Joint Director

Copy to:-

1. Secretary, Ministry of Industry, Udyog Bhavan, New Delhi.
2. Chairman, Gujarat State Pollution Control Board, Old Assembly Bldg, 2nd Floor, Sector 10-A, Gandhinagar.
3. Chairman Central Pollution Control Board, Parivesh Bhavan, East Arjun Nagar, Delhi.
4. Secretary, State-Deptt. of Env. Govt. of Gujarat Sachivalaya, Block No. 5, 6th Floor, Gandhinagar.
5. Chief Conservator of Forests, Regional office, 3/240, Aarear Colony, Bhopal.
6. Adviser (H), EI Section, Ministry of Environment & Forest, New Delhi.
7. Additional Director (Monitoring Cell), Ministry of Environment and Forests, Paryavaran Bhavan, New Delhi.

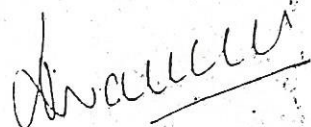
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(Dr. R. Warriar)
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2. Chairman, Gujarat State Pollution Control Board, Old Assembly Bldg, 2nd Floor, Sector 10-A, Gandhinagar.
3. Chairman Central Pollution Control Board, Parivesh Bhavan, East Arjun Nagar, Delhi.
4. Secretary, State Deptt. of Env. Govt. of Gujarat Sachivalaya, Block No. 5, 6th Floor, Gandhinagar.
5. Chief Conservator of Forests, Regional office, 3/240. Arear Colony, Bhopal.
6. Adviser (H), EI Section, Ministry of Environment & Forest, New Delhi.
7. Additional Director (Monitoring Cell), Ministry of Environment and Forests, Paryavaran Bhavan, New Delhi.

8. Guard File
9. Record File.
10. Monitoring File

(Dr.R.Warrier)
Joint Director

Expansion of Viscose Staple Fibre (VSF) from 60,000 TPA to 1,27,750 TPA

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Captive Power Plant (CPP) from 15 MW to 25 MW

**Compliance of Environmental Clearance Conditions by
M/s. Birla Cellulosic (A unit of Grasim Ind. Ltd.) at Kharach, Hansot, Bharuch, Gujarat**

Name of Project : Setting up of Viscose Staple fibre plant (60,000 TPA) and 15 MW coal based TPP

EC letter no. & Date : J-11012/85/95-IA II(I) dated 16-01-1997 Dtd: 16.01.1997

Address for Correspondence : M/s. Birla Cellulosic (A Unit of Grasim Industries Ltd.)
Birladham, Village: Kharach, Kosamba (R.S.),
Tehsil: Hansot, District: Bharuch (Gujrat) – 394120

Duration/Reporting period : Oct-20 to Mar-21

S. No	Conditions	Compliance Status
i.	The project authorities must strictly adhere to the stipulations made by the state pollution control board and the state Government.	o <u>Complied.</u> o All stipulations made by GPCB in various consent and authorizations are strictly complied.
ii.	No further expansion or modification in the plant should be carried out without prior approval of this ministry.	o <u>Noted.</u> o No further expansion or modifications in the plant will be carried out without prior approval of the Ministry of Environment, Forest and Climate Change.
iii.	The industry should set up a pilot plant and standardize the technology for incineration of CS ₂ /H ₂ S rich stream before commissioning the plant. The feasibility of incinerating the entire stream containing CS ₂ /H ₂ S instead of segregating and burning only CS ₂ /H ₂ S stream should also be explored and report submitted to the ministry within a period of 1 year for review. The emission of H ₂ S should not exceed 10 mg/Nm ³ .	o <u>Complied.</u> o The industry installed the pilot plant and standardize the technology for incineration of CS ₂ /H ₂ S rich stream before commissioning the plant. o Sulphur recovery plant has been provided to recover Sulphur from CS ₂ /H ₂ S rich stream coming from CS ₂ plant. o Presently there are 4 spinning machines and each of the spinning machines has been provided with a 3 stage CS ₂ condensing system along with CS ₂ recovery system comprising recovery through steam injection and a water scrubber for condensing the steam. The vapors from the scrubber are passed through the CS ₂ condensing system. o The emission concentration of CS ₂ /H ₂ S is

Expansion of Viscose Staple Fibre (VSF) from 60,000 TPA to 1,27,750 TPA

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Captive Power Plant (CPP) from 15 MW to 25 MW

**Compliance of Environmental Clearance Conditions by
M/s. Birla Cellulosic (A unit of Grasim Ind. Ltd.) at Kharach, Hansot, Bharuch, Gujarat**

S. No	Conditions	Compliance Status
		being maintained as per GPCB Norms.
iv.	Gaseous and particulate emission (H ₂ S, SO ₂ , CS ₂ , NO _x and PM) from the various process units should conform to the standards prescribed by the concerned authorities from time to time. At no time, the emission level should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the units, the respective unit should be put out of operation immediately and should not be restarted until the control measures are rectified to achieve the desired efficiency.	<ul style="list-style-type: none"> o <u>Being complied.</u> o Unit has appointed NABL accredited laboratory M/s. Pollucon laboratories pvt. ltd. for monthly monitoring of Stack concentration as well as ambient air quality. o As per the monitoring conducted by their team, The results are well within the prescribed norms as per consent condition. o Multiple gas sensors and alarm systems Inter-linking with the pollution control Equipments/units have been provided so that early indication of malfunctioning can be detected and control measures can be taken accordingly. In case of any event of completely failure of pollution control equipment, the respective unit(s) is stopped.

o A Summary for Flue gas emission from stack for the reporting period is given below:

Location	Boiler-1 & 2 (76 m)			Boiler-3 (86 m)			
Parameter	SPM	SO ₂	NO _x	SPM	SO ₂	NO _x	Mercury
Unit	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³
Limit	100	600	600	50	600	300	0.03
Oct-20	56.24	268	102	30.58	282	120	ND
Nov-20	42.86	293	108	34.23	272	110	ND
Dec-20	50.34	282	95	29.68	274	108	ND
Jan-21	58.78	279	107	36.24	291	111	ND
Feb-21	48.24	298	88	-	-	-	ND
Mar-21	54.37	257	73	30.52	273	130	ND

Expansion of Viscose Staple Fibre (VSF) from 60,000 TPA to 1,27,750 TPA

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Captive Power Plant (CPP) from 15 MW to 25 MW

**Compliance of Environmental Clearance Conditions by
M/s. Birla Cellulosic (A unit of Grasim Ind. Ltd.) at Kharach, Hansot, Bharuch, Gujarat**

S. No	Conditions	Compliance Status					
o A Summary for process gas emission from stack for the reporting period is given below:							
Location	CS2 Plant	Spinning	Total	Acid plant I		Acid plant II	
Parameter	CS2			SO2	Acid Mist	SO2	Acid Mist
Unit	Kg/ToF			Kg/ToA	mg/Nm3	Kg/ToA	mg/Nm3
Limit	125			2	25	2	25
Oct-20	0.03	85.68	85.71	0.72	19.95	0.56	8.12
Nov-20	0.03	91.70	91.73	0.84	15.69	0.69	9.25
Dec-20	0.03	92.52	92.55	0.76	18.60	0.86	6.32
Jan-21	0.03	92.80	92.83	0.91	16.81	0.75	8.12
Feb-21	0.04	82.68	82.72	0.69	13.67	0.82	7.22
Mar-21	0.03	90.63	91	0.80	20.40	0.62	9.48
v.	Six air quality monitoring stations should be set up in the downwind directions as well as where maximum ground level concentrations of H2S, SPM, SO2, CS2, NOx are anticipated in consultation with the state pollution control board. The air quality monitoring stations exercise to represent short term ground level concentrations, sensitive targets etc. Stack emission should be monitored regularly by setting stack monitoring devices in consultation with the state pollution control board. Data on stack emission and ambient air quality including work zone should be submitted to this ministry once in six months and the state pollution control board once in three months.			o <u>Being complied.</u> o Unit has installed 3 nos. of Continuous ambient air quality monitoring stations in consultation with GPCB. o Unit has also installed 4 nos. of offline Ambient air quality monitoring stations within premises. o Unit has appointed NABL accredited laboratory M/s. Pollucon laboratories for monthly monitoring of Stack concentration as well as ambient air quality, as per the monitoring conducted by their team, The results are well within the prescribed norms as per consent condition. o Stack Emissions are regularly monitored and the continuous emission monitoring system has been installed at the stacks.			

Expansion of Viscose Staple Fibre (VSF) from 60,000 TPA to 1,27,750 TPA

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Captive Power Plant (CPP) from 15 MW to 25 MW

**Compliance of Environmental Clearance Conditions by
M/s. Birla Cellulosic (A unit of Grasim Ind. Ltd.) at Kharach, Hansot, Bharuch, Gujarat**

S. No	Conditions			Compliance Status			
o A Summary for Ambient Air quality for the reporting period is given below:							
Location	Average of AAQMS Station 1, 2 & 3						
Parameter	PM10	PM2.5	SO2	NOx	H2S	CS2	
Unit	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	
Limit	100	60	80	80	150	100	
Oct-20	61.83	32.89	14.47	29.22	17.99	19.31	
Nov-20	62.07	34.23	14.21	26.40	18.84	19.32	
Dec-20	63.38	33.53	11.49	26.28	17.84	18.52	
Jan-21	62.07	29.81	22.4	16.79	24.42	34.97	
Feb-21	61.10	31.78	13.35	25.00	19.39	19.27	
Mar-21	62.06	29.00	13.87	25.30	14.82	18.19	
o							
vi.	Work area air quality should meet the standards prescribed by the competent authorities / OSHA. CS2 level should be less than 100 ppm in the work zone. Leakages from the ducts should be rectified, meshing windows should be sealed and better housekeeping should be practiced to improve the work area air quality.			o <u>Being complied.</u> o Work zone environment for emission of CS2, H2S and SO2 is being regularly monitored by our Laboratory twice in a week. o A Summary of Work area air quality for the reporting period is given below:			
				Area	CS2 (ppm)	H2S (ppm)	SO2 (ppm)
				Std. (As per GFR)	10	10	2
				Refinery-CS2 Area	Min: 1.2 Max: 2.1 Ave: 1.6	Min: 1.2 Max: 2.3 Ave: 1.7	Min: 00 Max: 00 Ave: 00
				Furnace-CS2 Area	Min: 1.3 Max: 2.1 Ave: 1.7	Min: 1.4 Max: 2.4 Ave: 1.8	Min: 00 Max: 00 Ave: 00
				Rayon plant	Min: 1.4 Max: 3.4 Ave: 2.2	Min: 1.5 Max: 2.7 Ave: 2.0	Min: 00 Max: 00 Ave: 00
				Spin Bath-Auxillary area	Min: 1.2 Max: 2.3 Ave: 1.7	Min: 1.4 Max: 2.3 Ave: 1.8	Min: 00 Max: 00 Ave: 00

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Captive Power Plant (CPP) from 15 MW to 25 MW

**Compliance of Environmental Clearance Conditions by
M/s. Birla Cellulosic (A unit of Grasim Ind. Ltd.) at Kharach, Hansot, Bharuch, Gujarat**

S. No	Conditions	Compliance Status			
		MSFE- Auxillary area	Min: 1.4 Max: 2.4 Ave: 1.8	Min: 1.4 Max: 2.4 Ave: 1.8	Min: 00 Max: 00 Ave: 00
		Anhydra- tion & Crystalization Auxillary	Min: 1.2 Max: 2.4 Ave: 1.7	Min: 1.2 Max: 2.4 Ave: 1.7	Min: 00 Max: 00 Ave: 00
		Acid plant	Min: 1.2 Max: 2.2 Ave: 1.6	Min: 1.5 Max: 2.5 Ave: 1.8	Min: 00 Max: 00 Ave: 00
		Xanthator- Viscose area	Min: 1.2 Max: 3.1 Ave: 1.9	Min: 1.3 Max: 2.5 Ave: 1.8	Min: 00 Max: 00 Ave: 00
		Ripening- Viscose area	Min: 1.2 Max: 2.9 Ave: 1.8	Min: 1.4 Max: 2.4 Ave: 1.8	Min: 00 Max: 00 Ave: 00
		Washing- Viscose area	Min: 1.2 Max: 2.8 Ave: 1.8	Min: 1.4 Max: 2.4 Ave: 1.9	Min: 00 Max: 00 Ave: 00
		<p>o Fugitive emissions in the work zone environment are being controlled by exploring techniques like Motorized shutter & suction hoods on spinning machines & cutters, shutters for stretch roller & gear box and perfect sealing of all the openings in various tanks of spin bath.</p> <p>o Provision of fresh air by induced draft fans is in place at the spinning machines for ease of working.</p> <p>o Online gas detectors installed in the work</p>			

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**Compliance of Environmental Clearance Conditions by
M/s. Birla Cellulosic (A unit of Grasim Ind. Ltd.) at Kharach, Hansot, Bharuch, Gujarat**

S. No	Conditions	Compliance Status
		zone around the spinning machines. Motorized shutters and completely closed after treatment machine with suction duct are there to control fugitive emission.
vii.	Fugitive emissions should be controlled, regularly monitored and data recorded. Sensors for detection of CS ₂ and H ₂ S and chlorine should be provided at appropriate places in the complex in consultation with the state pollution control board.	<p>o <u>Being complied.</u></p> <p>o Fugitive emissions are being controlled & regularly monitored.</p> <p>o Presently there are 5 Nos. of CS₂ sensors, 17 Nos. of H₂S sensors installed at CS₂ plant and 5 Nos. of Chlorine sensor installed at Chlorine area. 8 Nos. of CS₂ sensors and 7 Nos. of H₂S sensors installed at spinning machine area. 12 Nos. of SO₂ sensors installed at CS₂/Acid Plant.</p>
viii.	Liquid effluents coming out of the plant and the township should comply with the norms stipulated by the competent authorities from time to time.	<p>o <u>Being complied.</u></p> <p>o Unit has appointed NABL accredited laboratory M/s. Pollucon laboratories pvt. ltd. for monthly monitoring of waste water from the plant and township is/ treated in the well-established ETP and STP.</p> <p>o As per the monitoring conducted by their team, The results are well within the prescribed norms as per consent condition.</p>

o A Summary of treated effluent for the reporting period is given below:

Parameter	pH	Temp.	S.S.	COD	BOD	Amm. N	Color	Zinc
Unit	-	°C	mg/l	mg/l	mg/l	mg/l	Co-pt u.	mg/l
Limit	6.5-8.5	40.0	100.0	250.0	100.0	50.0	100	10.0
Oct-20	7.6	30.1	34	146	21.9	7.2	30	0.94
Nov-20	7.7	30.0	42	139	28.0	6.4	40	0.8
Dec-20	7.6	30.0	37	176	31.0	5.7	50	0.7
Jan-21	7.4	29.9	62	134	26.0	4.9	50	0.6

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S. No	Conditions				Compliance Status			
Feb-21	7.5	30.1	35	142	31.0	3.7	40	0.6
Mar-21	7.4	30.3	45	148	29.0	6.2	50	0.6

o A Summary of treated Domestic sewage for the reporting period is given below:

Parameter	TSS	BOD	Residual Free Chlorine	COD	Nitrogen	Fecal Coliform	pH
Unit	Mg/Lit.	Mg/Lit.	Mg/Lit.	Mg/Lit.	Mg/Lit.	MPN/ml	-
Limit	<30	<20	Min 0.5	-	-	-	-
Oct-20	18	12	0.80	87	5.60	540	7.42
Nov-20	21	15	0.60	68	4.32	420	7.63
Dec-20	27	16	0.80	79	5.16	430	7.51
Jan-21	24	11	0.60	93	6.28	540	7.39
Feb-21	19	14.30	0.80	87	7.56	430	7.53
Mar-21	25	13.20	0.60	73	5.82	540	7.41

ix.	Guard ponds of sufficient holding capacity should be provided to cope up with the effluent discharge during the process disturbances. The contributing units should be immediately shut down and should not be restarted without bringing the system back to normally.	o <u>Complied.</u> o Unit has constructed guard pond with sufficient holding capacity for effluent storage to cope up with the effluent discharge pipeline maintenance if any.
x.	Adequate number of effluent quality monitoring stations should be set up in consultation with the state pollution control board. Regular monitoring should be carried out for pH, SS, BOD, COD, Zn and color. The monitored data along with statistical analysis and interpretation in the form of a report should be submitted	o <u>Complied.</u> o Adequate number of effluent quality monitoring stations i.e. Online TOC Analyser, Online pH Analyser etc are set up in consultation with the Gujrat pollution control board. Regular monitoring is being carried out for pH, SS, BOD, COD, Zn & color by the internal laboratory on daily basis and NABL accredited Laboratory on

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S. No	Conditions	Compliance Status
	to this ministry once in six month and the SPCB once in three months.	monthly basis. o Results are enclosed in reply of point no. viii.
xi.	Marine Impact Assessment study report should be submitted to the ministry for review. Recommendations made by NIO in the Marine impact study should be strictly adhered to the Marine outfall point for discharge of treated effluent should also have the Approval of SPCB.	o <u>Complied.</u> o In FY'07, Unit has appointed NIO to carry out Pre-marine impact assessment study. o At present, NIO, Mumbai has carried out Post Monitoring study in FY'19.
xii.	The hazardous wastes should be handled as per Hazardous waste (management & Handling) Rules, 1989 of the Environment (Protection) Act, 1986.	o <u>Complied.</u> o Unit has segregated Hazardous/solid waste according to its characteristics and stored separately for treatment and disposal in safe manner as per Waste handling and disposal Rules.
xiii.	Handling, manufacturing, storage and transportation of hazardous chemicals should be carried out in accordance with the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994. The approval of the chief Inspector of Explosives should also be obtained.	o <u>Complied.</u> o Approval for chlorine storage has been taken for 10 tons on 26.09.2018 and valid up to 30-Sep- 2023. o Also, valid factory license #6059 and registration# 165/17114/1997 dated 15-oct-2016 and valid up to 31-Dec-2021 has been obtained. o Handling, manufacturing, storage and transportation of hazardous chemicals is being carried out in accordance with the Manufacture, Storage and Import of Hazardous Chemicals Rules.
xiv.	Medical surveillance and occupational health program should be taken up on regular basis and record of the health status of the workers should be maintained. The workers who may contract occupational diseases	o <u>Complied.</u> o Medical surveillance is being done in every six months, for the employees who engaged in handling hazardous substances at work place area. o First aid training being arranged on periodic

Expansion of Viscose Staple Fibre (VSF) from 60,000 TPA to 1,27,750 TPA

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Captive Power Plant (CPP) from 15 MW to 25 MW

**Compliance of Environmental Clearance Conditions by
M/s. Birla Cellulosic (A unit of Grasim Ind. Ltd.) at Kharach, Hansot, Bharuch, Gujarat**

S. No	Conditions	Compliance Status
	particularly due to carbon disulphide exposure should be monitored closely and adequate measures should be taken for their treatment and recovery.	interval, All the Employees are being covered under Health Survey through Periodic and pre-joining medical checkup for each and every employee and Contractual workers. o Medical records of employees and contract workers are maintained online and individual person can see the read only data for current and past health record for himself only from any computer in Unit.
xv.	A green belt of adequate width and density (2000-2600 trees/ha.) should be raised all around the factory complex and the township. Preferably native plant species should be selected for this purpose in consultation with the local DFO.	o <u>Complied.</u> o Green belt has been developed within the plant premises, along the boundary wall and open spaces. o As on date the ~1,85,000 trees have been planted in the premises covering the density as 1000 trees per acre. Native plant species has been selected in consultation with DFO and as per the directives of DoEF, Mangroves have been planted in 100 Ha. at Raniyo Island.
xvi.	The project authorities must set up adequate facilities for collection and analysis of samples under the supervision of competent technical personnel who will directly report to the chief executive.	o <u>Complied.</u> o Adequate facilities have been developed for the collection and analysis of samples under the supervision of competent technical personnel who directly reports to the chief executive at the plant.
xvii.	A separate Environmental Management Cell with suitably qualified people to carry out various functions should be set up under the control of senior executive, who will report directly to the Head of the organization.	o <u>Complied.</u> o A separate environment management cell has been constituted under the leadership of Facility Head.

Expansion of Viscose Staple Fibre (VSF) from 60,000 TPA to 1,27,750 TPA

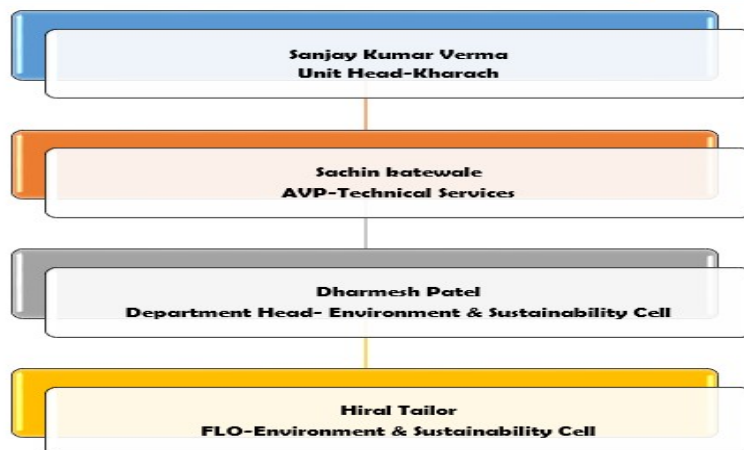
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Organization Structure for Environment Management Cell



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| xviii. | The funds earmarked for the environmental protection measures should be kept in a separate account and should not be diverted for other purpose and year – wise expenditure should be reported to this ministry. | <p>o Complied.</p> <p>o The funds earmarked for the environmental protection measures are being maintained and not diverted for diverted for other purpose.</p> <p>o A year wise expenditure on environment safeguards is being submitted to MOEF & CC at the end of each FY along with EC compliance report of each year.</p> |
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o Environment expenditure for FY-21 is given below:

Sl. No.	Particulars	Expenses on Env. Management (INR)
1	ETP/ STP Costing	71,067,769
2	Green belt development/Horticulture Expenses:	8,829,915
3	Waste handling Expenses	5,841,508
4	Improvement Projects Cost	159,600,000
5	APCM/CEMS/AAQMS cost (Power/Maintenance/Repairing cost)	47,251,656
6	Salaries & wages	19,083,258
7	Environmental audits & other legal activities	2,421,059
Total Expenses (Rs.)		314,095,164