

13<sup>th</sup> November 2018

To,

The Director (Industry - 2) - IA Division  
Ministry of Environment, Forest & Climate Change  
Indira Paryawaran Bhawan, Jor Bagh Road  
New Delhi - 110 003.

**Subject:** Proposed Expansion of Pulp Plant, VSF Plant, Sulphuric Acid Plant, Carbon-Disulphide Plant and Captive Power Plant along with new Excel Fibre Plant at Village: Kumarapatnam, Taluka: Ranebennuru, District: Haveri (Karnataka) by M/s. Grasim Industries Ltd. - **Reg. submission of reply of Essential Details Sought**

**Ref.:** (1) MoEFCC File No. J-11011/346/2016-IA II (I)  
(2) MoEFCC Proposal No. IA/KA/IND2/82389/2006  
(3) EDS generated on 17<sup>th</sup> Oct., 2018

Respected Sir,

With reference to the aforesaid subject and above cited reference matter, we would like to appraise your goodself that above mentioned proposal was uploaded on 'PARIVESH' on 13<sup>th</sup> Oct., 2018.

Thereafter, an EDS is generated by MoEFCC, New Delhi stating "Reply to our earlier observations dated 11/8/2018 regarding ECs for the existing production of Pulp, H<sub>2</sub>SO<sub>4</sub> and Carbon Di-sulphide, is still not available on the portal. In addition, please inform/clarify the following: - Categorization of each product as per schedule to the EIA Notification, 2006. - Entry at item 6 shows details as Nil and needs to be rectified. - Applicability of CRZ Notification, 2011".

In this regard, we are herewith submitting the reply of the EDS dated 17<sup>th</sup> Oct., 2018.

We request your goodself to kindly consider our proposal for further proceeding.

Thanking You and With Regards,

For M/s. Grasim Industries Ltd.,

Ajay Kumar Gupta  
Sr. President & Unit Head

Enclosed: as above



**Birla Cellulose**  
Fibres from Nature

Grasim Industries Limited

Units : Harihar Polyfibers & Grasilene Division  
Kumarapatnam 581 123, Dist. Haveri, Karnataka.

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Regd. Office: P.O. Birlagram, Nagda 456 331 (M.P.)

**Reply of Essential Details Sought**

**EDS:** “Reply to our earlier observations dated 11/8/2018 regarding ECs for the existing production of Pulp, H<sub>2</sub>SO<sub>4</sub> and Carbon Di-sulphide, is still not available on the portal. In addition, please inform/clarify the following:

- Categorization of each product as per schedule to the EIA Notification, 2006.
- Entry at item 6 shows details as Nil and needs to be rectified.
- Applicability of CRZ Notification, 2011.”

**Reply:** The Harihar unit of Grasim Industries Ltd. manufactures both Viscose Staple Fibre (VSF) and Rayon Grade Pulp, the basic raw material for VSF.

Harihar Unit comprises of two divisions i.e. Polyfibres Division (Pulp Plant) and Grasilene Division (Viscose Staple Fibre Plant).

**Status of ECs for the Existing Production:**

- Polyfibres Division (Pulp Plant) was established in 1971.
- In 2006, EIA Notification came into force; and since then, no expansion has been done in production capacity of Pulp Plant.
- Pulp Plant is presently operating on the basis of consent with production capacity of 6200 TPM (74,400 TPA). Copy of Latest renewed CTO has been enclosed as **Annexure - 1** along with this reply.
- EC for the existing production of H<sub>2</sub>SO<sub>4</sub> and Carbon Di-sulphide is not available on the portal. The company has also faced this problem while uploading proposal on ‘PARIVESH’; and therefore, uploaded it on the portal while filing Form-2 (point no.6). Copy of the same is enclosed as **Annexure - 2** along with this reply.
- Status of ECs of the existing production is given in table below:

| S. No.                                         | Name of Products / Units              | Unit | Existing Capacity | Existing EC / CTO                                                                                                                                                                                                                                 |
|------------------------------------------------|---------------------------------------|------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><i>Polyfibres Division (Pulp Plant)</i></b> |                                       |      |                   |                                                                                                                                                                                                                                                   |
| 1.                                             | Pulp                                  | TPA  | 74,400            | Pulp Plant is presently operating on the basis of consent with production capacity of 6200 TPM (74,400 TPA). Copy of Latest renewed CTO has been enclosed as <b>Annexure - 1</b> along with this reply.                                           |
| <b><i>Grasilene Division (Fibre Plant)</i></b> |                                       |      |                   |                                                                                                                                                                                                                                                   |
| 1.                                             | Viscose Staple Fibre (VSF)            | TPA  | 87,600            | Environment Clearance from MoEFCC, New Delhi vide letter no. J-11011/371/2006- IA II (I) dated 08 <sup>th</sup> Nov., 2007; amended on 30 <sup>th</sup> Dec., 2013.<br>Copy of the same is enclosed as <b>Annexure - 2</b> along with this reply. |
| 2.                                             | Sulphuric Acid                        | TPA  | 75,110            |                                                                                                                                                                                                                                                   |
| 3.                                             | Carbon Disulphide                     | TPA  | 14,365            |                                                                                                                                                                                                                                                   |
| 4.                                             | Byproduct - Anhydrous Sodium Sulphate | TPA  | 69,205            |                                                                                                                                                                                                                                                   |
| 5.                                             | Captive Power Plant                   | MW   | 20                |                                                                                                                                                                                                                                                   |

***Categorization of each product as per schedule to the EIA Notification, 2006***

| S. No.                                         | Name of Products / Units                    | Unit | Capacity |          |                       | Screening Category                                       |
|------------------------------------------------|---------------------------------------------|------|----------|----------|-----------------------|----------------------------------------------------------|
|                                                |                                             |      | Existing | Proposed | Total after Expansion |                                                          |
| <b><i>Polyfibres Division (Pulp Plant)</i></b> |                                             |      |          |          |                       |                                                          |
| 1.                                             | Pulp                                        | TPA  | 74,400   | 74,400   | 1,48,800              | 5(i) Pulp and Paper industry                             |
| <b><i>Grasilene Division (Fibre Plant)</i></b> |                                             |      |          |          |                       |                                                          |
| 1.                                             | Viscose Staple Fibre                        | TPA  | 87,600   | 87,600   | 1,75,200              | 5(d) Manmade Fibres manufacturing                        |
| 2.                                             | Sulphuric Acid                              | TPA  | 75,110   | 75,110   | 1,50,220              | Not listed in the Schedule to the EIA Notification, 2006 |
| 3.                                             | Carbon Disulphide                           | TPA  | 14,365   | 14,365   | 28,730                |                                                          |
| 4.                                             | By-product (Anhydrous sodium sulphate)      | TPA  | 69,205   | 69,205   | 1,38,410              | Byproduct of VSF Plant                                   |
| 5.                                             | Captive Power Plant                         | MW   | 20       | 30       | 50                    | 1(d) Thermal Power Plants                                |
| 6.                                             | Excel Fibre (Solvent Spun Cellulosic Fibre) | TPA  | NA       | 36,500   | 36,500                | 5(d) Manmade Fibres manufacturing                        |

***Entry at item 6 shows details as Nil and needs to be rectified***

As shown in the table above, existing capacity of item no. 6 i.e. Excel Fibre is mentioned as 'Nil / NA'; as Grasim Industries Ltd. is now proposing this new product in this proposal.

***Applicability of CRZ Notification, 2011***

CRZ Notification is not applicable to the proposed project proposal.

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**ADDITIONAL CONDITIONS TO ACCOMPANY CONSENT FOR OPERATION OF  
M/S. HARIHARA POLYFIBRES (UNIT OF GRASIM INDUSTRIES LTD)**

The consent is valid for the manufacture of:

| Sl. No. | Name of the Product | Maximum capacity |
|---------|---------------------|------------------|
| 1.      | Rayon Grade Pulp    | 6200 TPM         |

**The Consent is granted for the period from 01.07.2016 to 30.06.2021.**

**Consent fees: 10,00,000/- under both Water Act & Air Act.**

**Capital investment: Rs. 276.60 Crores**

**RTGS No: HDFCR52016051609361643 - Rs. 2,00,000/- Dt: 16.05.2016.**

**RTGS No: HDFCR52016062909996545- Rs. 4,00,000/- Dt: 29.06.2016.**

**RTGS No: HDFCR520160902109199284- Rs. 4,00,000/- Dt: 02.09.2016.**

**I. QUANTITY OF WATER USED:**

The total water consumption shall not exceed 36,000 M<sup>3</sup>/day.

**II. TREATMENT AND DISPOSAL OF TRADE AND SEWAGE EFFLUENT:**

- The discharge from the premises of the applicant shall pass through terminal manhole/ manholes where from the Board shall be free to collect samples at any time in accordance with the provisions of the Act or Rules made there under.
- The daily quantity of the treated trade and sewage effluent shall not exceed 33,000 M<sup>3</sup>/day.

| Sl No | Description       | Permitted Quantity of discharge in KLD | Place of discharge                                                                                                                                                                                                                                                                                                                                                                                             |
|-------|-------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Trade effluent    | 32,800 (Maximum)                       | Into Tungabhadra River after treating and mixing with the treated trade effluent of M/s. Grasilene Division, conforming to the standards stipulated in Annexure-I and also to use treated trade effluent on land for green belt development/plantation to the maximum extent possible during non monsoon season.<br><br>Septic tank overflow of factory shall be treated along with trade effluent in the ETP. |
| 2     | Domestic effluent | 200                                    |                                                                                                                                                                                                                                                                                                                                                                                                                |

- The applicant shall continue to monitor the flow of the treated effluent in integrated flow measuring/ recording device before mixing with treated effluent from Grasilene Division. A record of daily effluent discharge shall be maintained.

  
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4. The applicant shall treat the trade and the sewage effluent in combined ETP and;
  - a. The quality of the combined treated effluent of M/s Harihar Polyfibre and M/s Grasilene Division discharged into Tungabhadra River after mixing shall conform to the standards prescribed in **Annexure-I**.
  - b. In case the individual stream of treated effluents is discharged into the river separately, the effluent shall conform to the standards prescribed in **Annexure-I**.
  - c. The applicant shall use treated effluent on land for green belt/plantation to the extent possible during non monsoon season.
5. The industry shall hold the untreated trade effluent in secured guard pond in case of any emergency.
6. The industry shall connect all the drains to the gravity flow channel so that any possible overflow during the change over from one source of power to another or even at the time of total non-availability of power will not result in any bypass of the effluent. This gravity open channel arrangement shall be fool proof so as to direct entire effluent stream at all the times to effluent treatment plant without any bypass whatsoever.
7. The industry should provide alternate power supply to the ETP for its continuous operation.
8. The applicant shall provide a separate energy meter for effluent treatment units and maintain a log book for this purpose and shall be got checked by the inspecting Officers.
9. All the treatment units shall be impervious.
10. The ETP units shall be operated continuously.
11. The applicant shall ensure continuous and effective operation and maintenance of pollution control systems.
12. The applicant shall provide flow meters for measuring outflow of effluent treatment plant (ETP) and provide separate energy meter for ETP and record hourly readings in a log book for verification of inspecting Officers.
13. The ETP units should be made easily approachable for the inspecting Officers.
14. The factory authorities shall display the approved flow sheet in the ETP area on a board along with discharge standards stipulated in the consent order.
15. The applicant shall display the treated effluent parameters, as per the latest analysis report of the treated trade effluent, at the ETP location.
16. The applicant shall paint the name and capacity of each unit of ETP.
17. The applicant shall provide lined and closed drains to convey sewage/ trade effluents to ETP for further treatment and disposal.

  
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18. The applicant shall ensure that the dissolved oxygen (D.O) level in the treated effluent is boosted up so as to maintain minimum D.O. of 4 mg/l before discharged to the river. to maintain the aquatic life in the River. If the D.O. in the river falls below 4 mg/l. the effluent discharge point, industry shall regulate its effluent discharge.
19. The industry shall endeavor maximum efforts to reduce colour in the treated effluent as far as possible.

### **III. AIR POLLUTION CONTROL:**

1. The discharge of emissions from the premises of the applicant shall pass through the stacks / chimneys mentioned in **Annexure-II** where from the Board shall be free to collect the samples at any time in accordance with the provisions of the Act and Rules made there under. The stacks / chimney heights shall be as per **Annexure-II**.
2. The hourly rate of emissions discharged and the tolerance limits of the constituents forming the emissions in each of the chimneys/stacks shall not exceed the limits laid down in **Annexure-II**.
3. The applicant shall operate the air pollution control equipment as specified in the **Annexure-II** continuously so as to ensure that the emission does not exceed the limits specified. The operation of the control equipment shall be synchronized with the operation of the emission source.
4. The applicant shall maintain access platforms for carrying out stack sampling with electrical outlet points for sampling the emissions from port holes in all the stacks, as per the guidelines.
5. The applicant shall take measures to reduce smell nuisance around the industry as far as practicable.

### **IV. SPECIFIC CONDITIONS**

1. The industry shall explore the possibility of reducing the pollution load and effluent discharge quantity in a phased manner.
2. Efforts shall be made to utilize more quantity of treated effluent for Plantation.
3. The industry shall explore the possibility of utilizing treated effluent for green development in revenue land adjacent to the industry. In this regard the industry may take up the issue with the Deputy Commissioner Haveri and meet him along with Regional Officer, Davangere and work out the modalities.

### **V SELF MONITORING AND REPORTING:**

The applicant shall;

1. Continue self monitoring system



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2. Submit the monitoring results as under;

- a) Data monitored as per prescribed schedule shall be submitted to the Regional Office of the Board every month.
- b) A compiled data of all monitoring conducted as per schedule during the consent period shall be submitted in hard copy along with Consent application

**A) MONITORING TREATED EFFLUENT:**

1. The applicant shall at his own cost get the treated trade effluent samples collected from the place specified and analyze the same for the parameters as indicated in Annexure-I.
2. The industry shall continue to maintain continuous bio-monitoring unit with fish species predominant in the Tungabhadra River on the discharge line. The treated effluent shall be made to pass through this Unit, with an arrangement to ensure that the fish do not escape, the activity of the fish be noted and any untoward incident be reported to the Board. The test fish shall be replaced once in a fortnight.
3. The applicant shall conduct bio-assay test for evaluating acute toxicity of industrial effluent in accordance with IS 6582-1971. The test species selected being those which are predominant in Tungabhadra River in the vicinity of discharge point. The test shall be conducted for 96 hours duration each time and TLM value shall be reported.
4. The applicant shall monitor the Dissolved Oxygen (D.O) level in the effluent and also in the Tungabhadra River from the point of discharge up to about 500 m downstream during January to June every year. If the D.O. in the river falls below 4 mg/l. the industry shall regulate the discharge and inform the Board by fax. During the lean flow of river during January to June every year the industry shall maintain a close watch of D.O. as stipulated above on daily basis.
5. The applicant shall check the ground water quality around 500 m radius and monitor the ground water quality twice a year in pre-monsoon season and twice a year in post-monsoon season and furnish the reports to the Board once in a year compiled in Graphical format for pH, colour, EC, Nitrate, COD, TDS, SO<sub>4</sub>, BOD and Zn.
6. The applicant shall conduct fish flesh analysis for bio-accumulation of heavy metals once in six month for the fish in the Bio-monitoring unit and also for the fish in the river and furnish report. The test species shall be collected after a minimum stay of a fortnight in the Bio-monitoring unit.
7. The applicant shall continue to monitor the T.B. River at upstream and from 500 m downstream of discharge point up to Airani village once in a month and a yearly data submitted to Board.
8. The applicant shall monitor the treated effluent through on line continuous effluent quality monitoring system at the out let of ETP for flow, pH, COD, BOD, TSS. The data shall be connected & up loaded to KSPCB and CPCB servers.



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9. The max, min & Avg values and also the number of times the exigencies recorded shall be submitted to R.O. once a month.

**B) EMISSIONS:**

1. The applicant shall at his own cost get the samples of emissions analyzed for the parameters indicated in **Annexure-II**.
2. The applicant shall continue to monitor the ambient air quality from the present three Ambient Air Quality Monitoring stations for PM 2.5, PM10, NOx, Sox as specified in National Ambient Air Quality Monitoring Standards stipulated in the Schedule VII in Rule 3 (3B), as amended on 16.11.2009.
3. The applicant shall continue to maintain the meteorological station to collect the data on wind velocity, directions, temperature, humidity, rainfall etc., and compiled data shall be submitted once in a year.
4. (a) The applicant shall maintain continuous stack monitoring facilities for all the major stacks for parameters flow & particulate matter. The data shall be connected to CPCB server.  
(b) The max, min & Avg values and also the number of times the exigencies recorded shall be submitted to R.O. once a month.
5. The industry shall furnish statistical analysis for annual average of pollutants at all the locations as per Ambient Air Quality standards Notification once in a year.

**VI. SOLID WASTE DISPOSAL**

1. The industry shall continue to recycle the lime mud.
2. The industry shall continue to sell/reuse the cellulosic waste from ETP and centri-cleaners.
3. The applicant shall adhere to the directions contained in the fly ash utilization Notification issued by Ministry of Environment and Forest Government of India vide No.S.O. 763 (E) dated 14.9.1999 and amendment dated 03.11.2009.
4. The industry shall maintain records of the quantity of solid waste generated from the process as well as effluent treatment plant and mode of disposal and furnish the data once in a year.

**VII. HAZARDOUS & OTHER WASTE (MANAGEMENT, AND TRANSBOUNDARY MOVEMENT) RULES 2016:**

The applicant shall comply with the Hazardous & Other Waste (Management, And Transboundary Movement) Rules, 2016.



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## VIII. GENERAL

1. This consent for discharging sewage and/or trade effluents from the factory shall not be taken or construed as the Board's permission to continue to discharge the sewage and/or trade effluents from the factory into the place (as mentioned in this consent Order) which pollutes the water there-in endangering the life and property of the persons using the said water before, during or after the periods indicated in the Terms and Conditions of this Consent Order.
2. The applicant shall not change or alter either the quality or quantity or rate of emission or install/ replace or alter the air pollution control equipment, change in raw material or manufacturing process resulting in change in quality and/or quantity of emissions without the prior permission of the Board.
3. The industry shall not change or alter (a) raw materials or manufacturing process, (b) change the products or product mix (c) the quality, quantity or rate of discharge/ emissions and (d) install/replace/alter the water or air pollution control equipments without the prior information to the Board.
4. The applicant shall not store any raw materials on naked ground.
5. The applicant shall appoint a qualified environmental engineer/ scientist for environment management in the factory and also establish an environmental cell.
6. Applicant shall maintain the Environmental Management System in conformity with ISO 14001:2004 standards.
7. The applicant shall comply with the guidelines under Corporate Responsibilities for Environment Protection (CREP) 2003 issued by Ministry of Environmental Forests and CPCB.
8. The applicant shall continue the self monitoring system for monitoring the effluents and emissions.
9. The applicant shall maintain register recording the ambient air quality, stack monitoring and analysis report of treated effluents. The register shall be open for inspection by the Board Officers at all time.
10. An inspection Book shall be opened and made available to the Board Officers during their visit to the factory.
11. Industry shall comply with all the consent conditions and furnish report within 30 days to the Regional Office.
12. The applicant shall display EC, Environmental Statement and Consent orders in the website of the industry and update regularly.



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## ANNEXURE - I

| Sl. No. | Characteristics.                                                 | Tolerance limits.                                           |
|---------|------------------------------------------------------------------|-------------------------------------------------------------|
| 1.      | Colour & Odour.                                                  | See Note.                                                   |
| 2.      | Suspended Solids, mg/l. Max.                                     | 100                                                         |
| 3.      | Dissolved Solids (Inorganic) mg/l. Max.                          | 2100                                                        |
| 4.      | Temperature °C Max.                                              | Shall not exceed 5°C above the receiving water temperature. |
| 5.      | pH value.                                                        | 5.5 to 8.5                                                  |
| 6.      | Oils and Grease mg/l. Max.                                       | 10                                                          |
| 7.      | Total Residual Chlorine mg/l. Max.                               | 1.0                                                         |
| 8.      | Ammonical Nitrogen (as N) mg/l. Max.                             | 50                                                          |
| 9.      | Total Kjeldhal Nitrogen (as N) mg/l. Max.                        | 100                                                         |
| 10.     | Biochemical oxygen Demand,mg/l. (3 days at 27 °C) max.           | 30.0                                                        |
| 11.     | Free Ammonia (as NH <sub>3</sub> ) mg/l. Max.                    | 5.0                                                         |
| 12.     | Chemical Oxygen Demand mg/l.Max.                                 | 250.0                                                       |
| 13.     | Arsenic (as As) mg/l. Max.                                       | 0.2                                                         |
| 14.     | Mercury (as Hg) mg/l. Max.                                       | 0.01                                                        |
| 15.     | Hexavalent Chromium (as Cr <sup>+6</sup> )                       | 0.1                                                         |
| 16.     | Total Chromium(as Cr) mg/l. Max.                                 | 2.0                                                         |
| 17.     | Boron (as B) mg/l. Max.                                          | 2.0                                                         |
| 18.     | Chloride (as Cl) mg/l.Max.                                       | 1000                                                        |
| 19.     | Fluoride (as F) mg/l.Max.                                        | 2.0                                                         |
| 20.     | Dissolved Phosphates (as P) mg/l. Max.                           | 5.0                                                         |
| 21.     | Sulphate (as SO <sub>4</sub> ) mg/l. Max.                        | 1000                                                        |
| 22.     | Phenolic Compound as C <sub>6</sub> H <sub>5</sub> OH mg/l. Max. | 1.0                                                         |
| 23.     | Bio-assay as per IS 6582 - 1971.                                 | Not less than 90% of test animal shall survive in 96 hours. |
| 24.     | Sulphide (as S) mg/l.                                            | 2.0                                                         |
| 25.     | Absorbable Organic Halogens ( AOX)                               | 1.0 kg/tonne of product                                     |

### **NOTE:**

1. All efforts should be made to remove colour and unpleasant odour as far as practicable.
2. Item No.13, 14, 15, 16, 17, 19, 22 , 23 & 25 shall be analysed and reported once in a month.
3. Item No.18 shall be analyzed once in a week.
4. All other parameters stipulated above shall be analyzed once in a week between July to December and twice in a week between January to June, report shall be sent to the Board once in a month as per consent order Condition II (4).
5. The applicant shall ensure that the treated effluent after treatment and before discharge into river after mixing with Grasilene division effluent shall conform to the above tolerance limits.
6. The applicant shall ensure that DO in the treated effluent shall be at least 4 mg/l before discharged to the river. This shall be maintained on daily basis.

  
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## ANNEXURE - II

| Chimney | Chimney Attached to             | Minimum Chimney Height to be Provided Above ground level | Rate of emission Nm <sup>3</sup> /Hr. | Constituents to be controlled in the emission. | Tolerance limits Mg/Nm <sup>3</sup> | Air Pollution Control equipment to be installed, in addition to Chimney height as per Col (3) |
|---------|---------------------------------|----------------------------------------------------------|---------------------------------------|------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------|
| 1       | Recovery Boiler (105 TPH)       | 85 M AGL.                                                | 1,06,000                              | PM                                             | 150                                 | ESP                                                                                           |
| 2       | Lime Kiln.                      | 30 M AGL.                                                | 18,000                                | PM                                             | 150                                 | ESP                                                                                           |
| 3       | Hot Air Generators (3 numbers)  | Common chimney of 20 M AGL.                              | -                                     | -                                              | -                                   | -                                                                                             |
| 4       | Package Boiler at chipper House | 30 M AGL.                                                | -                                     | PM                                             | 350                                 | -                                                                                             |

**Note:**

- (1) The Ambient Noise shall be within the prescribed limit of 75 dB(A) leq. During day time and 70 dB(A) leq. During night time respectively.
- (2) The emissions shall be monitored once in a fortnight.



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**Copy to Regional officer, Davangere** for information and ensure compliance to following directions issued by CPCB.

While issuing Consent to operate or renewing CTO to a plant, industry or process under the Water Act and Air Act & installation handling hazardous substance (s) beyond the prescribed threshold limits as listed under the PLI Act, 1991, the SPCB shall ensure compliance to the following from the occupier ;

1. Details on current PLI policy would be compulsorily sought (as a checklist).
2. Shall seek a copy of successive Public liability Insurance Policies (year wise) since undertaking the use, trade or sewage of listed hazardous chemicals as under the PLI Act, 1991.
3. Shall seek a copy of Form III of ERF scheme under the PLI Act, 1991.
4. The SPCBs shall seek a copy of on-site emergency plan.

F. No. J-11011/371/2006- IA II (I)  
Government of India  
Ministry of Environment and Forests  
(I.A. Division)

Paryavaran Bhawan  
CGO Complex, Lodhi Road  
New Delhi - 110 003

E-mail : [pb.rastogi@nic.in](mailto:pb.rastogi@nic.in)  
Telefax : 011: 2436 7668  
Dated 8<sup>th</sup> November, 2007

To, ✓  
Grasim Industries Ltd.  
Grasilence Division  
Kumarapatnam - 581123, Haveri  
Karnataka

E-mail : [grsmhari@sancharnet.in](mailto:grsmhari@sancharnet.in) ;  
Fax No. : 08373 - 242875/ 242485

Subject : Expansion of Viscose Staple Fibre (51,100 TPA to 87,600 TPA) and Captive Power Plant (10 MW to 20 MW) at Kumarapatnam, Randennur, Haveri, Karnataka by M/s Grasim Industries Limited. - Environmental clearance reg.

Sir,

This has reference to your letter no. GRD/Sr EP/EIA/2006 dated 18<sup>th</sup> October, 2006 wherein you have submitted filled 'Form-1', 'Pre-feasibility Report' and EIA/EMP as per EIA Notification dated 14<sup>th</sup> September, 2006 and subsequent clarifications / additional information furnished vide your letters dated 14<sup>th</sup> August, 2007, 23<sup>rd</sup> August, 2007 and 22<sup>nd</sup> October, 2007.

2.0 Ministry has examined the proposal and it is noted that the proposal involves expansion of Viscose Staple Fibre (VSF) to enhance the capacity from 51,100 to 87,600 TPA and Captive Power Plant from 10 MW to 20 MW at Grasilence Division, Kumarapatnam, Randennur, Haveri, Karnataka. The proposed expansion activities will be carried out in 2 ha out of total 41 ha available in the existing plant premises. Details of the products being manufactured in the existing plant and to be manufactured during expansion will be as follows :

| S. N. | Particulars                            | Unit | Capacity |          |        |
|-------|----------------------------------------|------|----------|----------|--------|
|       |                                        |      | Existing | Proposed | Total  |
| 1     | Viscose Staple Fibre                   | TPA  | 51,100   | 36,500   | 87,600 |
| 2     | Sulphuric Acid                         | TPA  | 38,610   | 36,500   | 75,110 |
| 3     | CS <sub>2</sub> (Carbon Di - Sulphide) | TPA  | 8,360    | 5,985    | 14,365 |
| 4     | Byproduct - Anhydrous Sodium Sulphate  | TPA  | 36,485   | 32,720   | 69,205 |
| 5     | Power                                  | MW   | 10       | 10       | 20     |

3.0 The VSF manufacturing process adopted by M/s Grasim Industries Ltd. will be environment friendly due to elimination of Zinc from the process resulting into elimination of hazardous solid waste generation and Zinc free effluent. Total water requirement from Tungbhadra river after expansion will be 18,670 m<sup>3</sup>/day (7,640 m<sup>3</sup>/day for expansion). The effluent generation from the expansion plant will be 61.2 m<sup>3</sup>/Ton of product as against 150

- vii. Green belt of adequate width and density shall be developed in 14 ha out of total 41 ha project area to mitigate the effect of fugitive emissions all a round the plant. The development of green belt along the boundary wall, open space and avenue roads shall be provided in consultation with the local DFO as per the CPCB guidelines.
- viii. The project proponent shall comply with the environmental protection measures and safeguards recommended in EIA / EMP / Risk Analysis reports as well as the recommendations of the public hearing panel.

#### B. GENERAL CONDITIONS :

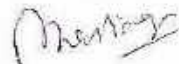
- i. The project authorities must strictly adhere to the stipulations made by the Karnataka Pollution Control Board (KPCB) and the State Government.
- ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess adequacy of the conditions imposed and to add additional environmental protection measures required, if any.
- iii. The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19<sup>th</sup> May, 1993 and standards prescribed from time to time. The State Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission levels shall go beyond the prescribed standards. Continuous monitoring system shall be installed in stacks to monitor SPM and interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.
- iv. At least three ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO<sub>2</sub> and NO<sub>x</sub> are anticipated in consultation with the KPCB. Data on ambient air quality and stack emissions shall be regularly submitted to this Ministry including its Regional Office at Bangalore / KPCB and CPCB once in six months.
- v. Fugitive emissions in the work zone environment shall be periodically monitored with instruments of proper range and emissions shall conform to the standards prescribed by the KPCB. Action shall be taken to reduce the fugitive emissions in the work zone environment as far as possible. Dust collectors shall be provided at transfer points to control fugitive emissions.
- vi. Adequate number of influent and effluent quality monitoring stations should be set up in consultation with the KPCB. Regular monitoring shall be carried out for relevant parameters.
- vii. Industrial wastewater shall be properly collected and treated so as to conform to the standards prescribed under GSR 422 (E) dated 19<sup>th</sup> May, 1993 and 31<sup>st</sup> December, 1993 or as amended from time to time. The treated wastewater shall be discharged into river only after meeting the standards prescribed by the KPCB or under E(P)A whichever are more stringent.

- xviii. 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 KPCB / Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bangalore.
- xix. 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.

5.0. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

6.0. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

7.0. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.



(Dr. P. B. Rastogi)  
Additional Director

Copy to :-

1. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -110032.
2. The Chairman, Karnataka State Pollution Control Board, Parisar Bhavan, No. 49, 4<sup>th</sup> & 5<sup>th</sup> Floor, Church Street, Bangalore - 560 001, Karnataka.
3. The Chief Conservator of Forests (Central), Regional Office (SZ), Kendriya Sadan, IV<sup>th</sup> Floor, E&F Wing, 17<sup>th</sup> Main Road, Koramangala, Bangalore-560034, Karnataka.
4. The Secretary, Department of Environment & Forests, Government of Karnataka, Bangalore, Karnataka.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi- 110003.
6. Guard file.
7. Monitoring file.
8. Record file.



(Dr. P. B. Rastogi)  
Additional Director