

Your (**Half Yearly Compliance Report**) has been **Submitted** with following details

Proposal No	SEIAA 10 IND 2015
Compliance ID	128644761
Compliance Number(For Tracking)	EC/M/COMPLIANCE/128644761/2025
Reporting Year	2025
Reporting Period	01 Dec(01 Apr - 30 Sep)
Submission Date	24-11-2025
RO/SRO Name	Shri S Senthil Kumar
RO/SRO Email	jk083.ifs@nic.in
State	KARNATAKA
RO/SRO Office Address	Integrated Regional Offices, Bengaluru

Note:- SMS and E-Mail has been sent to Shri S Senthil Kumar, KARNATAKA with Notification to Project Proponent.

Your (**Half Yearly Compliance Report**) has been **Submitted** with following details

Proposal No	SW/153231/2023
Compliance ID	557197178
Compliance Number(For Tracking)	EC/M/COMPLIANCE/557197178/2025
Reporting Year	2025
Reporting Period	01 Dec(01 Apr - 30 Sep)
Submission Date	24-11-2025
RO/SRO Name	Shri S Senthil Kumar
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ADM/ENV/2025-26/ 37

22.11.2025

To,
Addl. Principal Chief Conservator of Forest (C)
Ministry of Env., Forest and Climate Change
Regional Office (SZ), Kendriya Sadan, 4th Floor, E&F
Wings, 17th Main Road, Koramangala II Block, Bangalore - 560034

Dear Sir,

Sub: Six Monthly Compliance report of Environment Clearance issued Ref No. SEIAA 10 IND 2015 dated 10.11.2016 and Amendment in EC File No.- IA-J-11011/420/2023-IA-II(I) dated 15.03.2024 for the period April 2025 to September-2025.

At the outset we thank you very much for granting Environment Clearance Amendment to our unit for the expansion of membrane cell based Caustic Soda Plant (Brown Field Chlor-Alkali Plant) from 59400 MTPA to 100000 MTPA at Binaga, Karwar Taluk Uttar Kannada.

As per the EC & Amendment EC condition, kindly find attached our compliance report for the period from April 2025 to September-2025.

Hope we have complied /clarified all the points referred in Environmental Clearance & Amendment EC.

Thanking You,

Yours faithfully,

For Grasim Industries Ltd,
Chemical Division, Karwar

(Kush Sharma)

Unit Head

Encl: Annexure-1 to Annexure-8

Cc- The Secretary
State Level Impact Assessment Authority
Dept. Of Forest Ecology & Environment 7th Floor, 4th Gate MS Building, Bengaluru-560001

Grasim Industries Limited

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


Name of the Project	:	Expansion of Membrane Cell Based Caustic Soda Plant (Brown Field Chlor-Alkali Plant) from 59,400 MTPA to 1,00,000 MTPA at Binaga, Karwar Taluk, Ultra Kannada District of M/s Grasim Industries Limited –Issue of Environment Clearance –Reg.
Environment Clearance Letter No.	:	SEIAA 10 IND 2015
Period of Compliance Report	:	April 2025 to September 2025

S.N.	Details of Conditions			Compliance Status
1.	The proposal is for the manufacturing the following Chlor-Alkali chemical products			April 2025 to September 2025
	S. N.	Products	Installed capacity MT/ Annum	Production in MT (April 2025 to September 2025)
	1	Caustic Soda	100000	35954
	2	Chlorine Generation	88750	31909
	3	Hydrochloric Acid (100%)	50400	22157
	4	Liquid Chlorine	39011	10574
	5	Sodium Hypo Chlorite	720	226
	6	Compressed Hydrogen	7956000 NM3	1061423
	7	Dilute Sulphuric Acid (78 %)	1029	207

Part A – SPECIFIC CONDITION

1.	Fresh Water 3326 KLD after the proposed expansion shall be met through the Karnataka urban water supply and drainage board only. No ground water shall be tapped in any case for the project requirement.	Noted & Complied. Fresh Water consumption for the period from April 2025 to September 2025 is 2128 KLD.
2.	Waste water generated from DM plant, Boiler blow down, HCl preparation, recovery from Caustic Soda evaporation plant of total 570 KLD shall be reused in process plant.	Total 518 KLD Waste water reused in process plant for the Period from April 2025 to September 2025
3.	1410 KLD of treated effluent from ETP confirming to CPCB/ KSPCB norms shall be discharged into the sea through existing pipeline.	Being Complied. Treated effluent from ETP is discharged into the sea. Treated effluent is monthly monitored for required parameters & meets with KSPCB stipulated norms. Details of the same is attached in Annexure-1. (NABL/MoEF approved Laboratory Analysis report)
4.	ETP shall be operated regularly and efficiently so as to achieve the prescribed norms at the final outlet.	Noted & Being complied. ETP is operated regularly and efficiently in order to meet norms at the final outlet. Analysis results of treated effluent is given in Annexure- 1 (NABL/MoEF approved Laboratory Analysis report)
5.	The unit shall provide metering facility at the inlet and outlet of the ETPs and maintain the records of the same. The unit shall also provide online pH and	Noted & Being complied. Flow meter has been provided at ETP.

	TDS meter for the online monitoring of the treated effluent.	Online pH, TSS and Flow monitoring system has been provided and is connected to CPCB server. As per CPCB Guidelines for Real-time Effluent Quality Monitoring System dated 07.11.2017 & its first revision in July, 2018. For Online Monitoring of treated effluent, parameters applicable for Chlor alkali Plant are pH, TSS & Flow only & the same is monitored. TDS Meter has been provided.
6.	A Proper logbook of STP/ETP operation and also showing quantity of effluent generated utilised Plantation /Gardening etc. shall be maintained and timely furnish to the KSPCB from time to time.	Being Complied. Logbook of ETP/STP is maintained on daily basis and treated effluent use for gardening.
7.	The gaseous emission from the boiler /DG set shall be dispersed to stack of adequate height as per CPCB/KSPCB standard shall be provided. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.	Being Complied. Boiler stack height is as per CPCB norms and DG Sets have been provided with acoustic enclosure to prevent noise pollution. Noise levels are measured and are well within the limit.
8.	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 level of PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO, NH ₃ , BaP, Cl ₂ VOC, and HCl shall be monitored in the ambient air and emission from the stack shall be displayed at convenient location at 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-Bangalore, SEIAA – Karnataka, the respective zonal office of CPCB and KSPCB.	Being complied. Ambient Air Quality monitoring is being carried out at three identified locations as per NAAQS for the mentioned parameters. Report of Ambient Air quality and Stack emission monitoring report from NABL/MoEF approved Laboratory is attached as Annexure 2 & 3 . A display board has been set up on the factory's main gate at National Highway gate for display and the display board is updated on monthly basis as per format provided by board. Photograph of the display board is given below  Monitoring data is uploaded at Grasim Website on regular basis. Also monitoring reports are being sent to the mentioned authorities regularly.

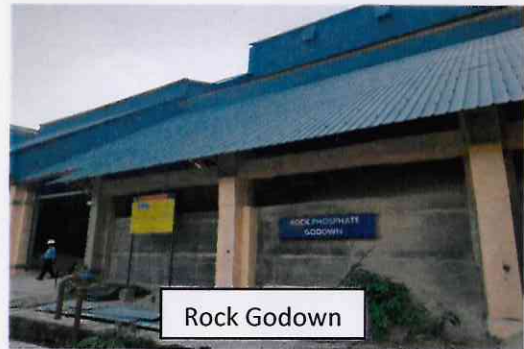
9.	Online Monitoring system shall be installed on the flue gas and process stacks to monitor the pollutant concentrations. An arrangement shall also be made for reflecting the online Monitoring results on the company's server, which can be accessed by the CPCB/KSPCB on real time basis.	<p>Being complied.</p> <p>Online CEMS has been already installed at process vent like HCL-A, B, C, D, E & F Furnaces, Sodium Hypochlorite vents, 10 TPH Coal Fired Boiler & 18 TPH Coal Fired Boiler stacks. Online CEMS was commissioned on 02.09.2015 and 31.07.2019. For Monitoring of flue gas (SO₂/NO_x) & PM Online CEMS has been also installed at 10 & 18 TPH boilers (Coal Fired). All online CEMS are connected to CPCB server on real time basis. Photographs of OCEMS Analyser is given below:</p> 
10.	The company shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on its website and shall update the same periodically it shall simultaneously be sent to the regional office of MoEF –Bengaluru, SEIAA- Karnataka, the respective zonal office of CPCB and The KSPCB. The levels of PM ₁₀ , PM _{2.5} SO ₂ , NO _x , CO, Cl ₂ and VOC (ambient levels) and emissions from the stack shall be monitored and displayed at a convenient location near the main gate of the company and at important public places.	<p>Being complied.</p> <p>Environment Clearance conditions compliances, Monitoring data is regularly updated on the company's website. Also monitoring reports are being sent to the mentioned authorities regularly.</p> <p>A display board has been set up on the factory's main gate at National Highway gate for public domain and the display board is updated on monthly basis as per format provided by board.</p>
11.	The project proponent shall obtain authorisation for collection, storage and disposal of Hazardous waste under the hazardous and other wastes (Management and Transboundary Movement) Rules, 2016 for management of hazardous wastes and prior permission from KSPCB shall be obtained for collection / treatment / storage /disposal of hazardous wastes. The concerned company shall undertake measures for firefighting facilities in case of emergency.	<p>Noted & being complied.</p> <p>We have obtained authorisation for collection, storage and disposal of Hazardous waste under the hazardous and other wastes (Management and Transboundary Movement) Rules, 2016</p> <p>Number of authorization 331384 dated 20/05/2022 Valid up to: 30/06/2026</p>
12.	In plant control measures for checking fugitive emission for all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling &	<p>Being complied.</p> <p>For Raw material storage areas like Salt storage, Rock phosphate storage, coal storage closed shed has been provided.</p>

conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading & unloading areas to control dust emission. Fugitive emission in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emission shall conform to the limits stipulated by the KSPCB.

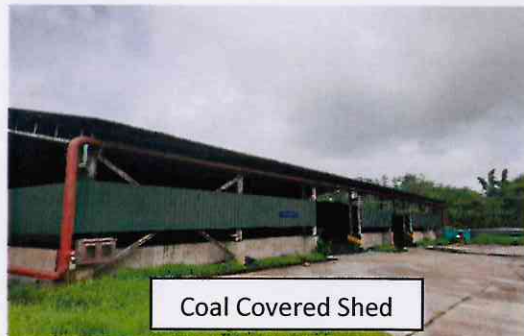
Also, shed has been provided for Lime Godown and sodium sulphite bags storage. Photograph attached as annexure 4.



Salt Yard



Rock Godown





Coal Covered Shed

Water spray arrangements has been made at Coal yard area to control dust emission.

10 TPH & 18 TPH Coal Fired boiler is provided with bag filter to control the stack emission. Also Silo ash conditioner is provided to minimize the fugitive dust emission while unloading of fly ash from silo.

Fugitive emission monitoring is being carried out on regular basis and it is well within the limit. Details of the same is attached at **Annexure-4**

13.	Regular monitoring of ground level concentration of PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , Cl ₂ , NH ₃ , CO, and HCl shall be carried out in the impact zone and its records shall be maintained. Ambient air quality level shall not exceed the standards stipulated by Karnataka State Pollution Control Board. If at any stage these levels are found to exceed the prescribed limits, necessary additional control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with KSPCB.	Being complied. Regular Monitoring is being carried out by NABL/ MoEF approved laboratory and the report is attached as Annexure 2 . Monitoring locations has been decided in consultation with KSPCB and monitoring results of all parameters are well within the prescribed norms.
14.	Caustic scrubber shall be provided with Chlorine Absorption unit -Hypo Plant and Water/Caustic scrubber shall be provided with HCL plant as Air Pollution Control Equipment for control of Cl ₂ & HCL.	Being complied. For control measures, Caustic scrubber has been provided at hypo plant and water scrubbers at HCL plant to control Cl ₂ & HCL emissions are well within stipulated norms.
15.	The air pollution control systems shall be operated efficiently & effectively to achieve the norms prescribed by the CPCB/KSPCB at vent/stack outlets.	Being complied. Suitable APCEs has been installed at various units of the Plant & are working efficiently and emissions are well within the norms. Details of APCE's are given in Annexure-5 .
16.	The air pollution control system shall be designed and bag filter shall be provided to the boilers to control particulate emissions.	Being complied. Bag filters have been provided to boilers (Coal fired) of 10 & 18 TPH to control Particulate emissions (PM)
17.	Third party monitoring of the functioning of the bag filter along with its efficiency shall be carried out once in a year through a reputed institute/organization.	Being complied. Third party monitoring of bag filter is being carried out by MoEF /NABL approved laboratory. Bag filter efficiency test for Coal fired Boilers of 18 TPH is done in the month of June'25 & Sep'25. Annexure-6 .
18.	Imported Coal used in the Coal fire Boiler shall not exceeds 31,104 MT/Annum	Being complied. Imported coal used in the coal fire Boiler for the period of April 2025 to September 2025 is 8162.5 MT.
19.	Imported Coal to be used shall have Sulphur content and Ash content not exceeding 1% and 20% respectively.	Being complied. GIL, Karwar is using Imported Coal with Sulphur content below 1% & Ash Content is < 10%.
20.	Emission of Sulphur shall not exceed the prescribed standards.	Noted & being complied. However, SO ₂ & NO _x is monitor & result is within Boiler norms.
21.	Boiler ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.	Noted & being complied. Boiler Ash is being stored separately. Fly ash is stored in Covered flyash shed.

		 <p>No direct exposure of fly ash & dust is there with the workers. Also, all workers are provided with the required PPEs.</p>
22.	The coal to be stored in stockyard on impervious layer in a covered shed and along the boundary garland canal to be provided leading to an exit pond/tank to arrest coal dust run-off and to allow settling of coal fines. The coal fines to be removed periodically.	<p>Noted & being complied.</p> <p>Coal is stored in covered shed. Covered shed is having RCC ground floor, dedicated boundary with RCC is there to covered surrounding of shed.</p>  <p>RCC open drain has been provided surrounding to ensure rain water flow and also coal fines are removed from time to time.</p>
23.	Adequate storage facility for the fly ash in term of closed silos shall be provided at site. No ash pond shall be constructed.	<p>Noted.</p> <p>Closed Silo has been provided for Fly ash in the Boiler area. Also, the fly ash generation is very less and is being supplied to brick manufacturers and care is being taken.</p>
24.	Handling of the fly ash shall be through a closed pneumatic system and ash shall be handled only in dry state.	Noted & being complied.
25.	The fly ash shall be supplied to the manufactures of fly ash based products such as cement, bricks manufacturing, etc. The unit shall strictly comply with the Fly Ash Notification under E (P) ACT, 1986 and it shall be ensured that there is 100% utilization fly ash to be generated from the unit.	<p>Noted & being complied.</p> <p>Total 551 MT fly ash disposed to the Brick manufacturer from April 2025 to September 2025.</p>
26.	The fugitive emission in the work zone environment shall be monitored. Emission shall confirm to the standard prescribed by the concerned authorities	<p>Being complied.</p> <p>Fugitive emission monitoring is carried out on regular basis and is within the limits.</p>

from time to time. Following indicative guidelines shall also be followed to reduce the fugitive emission

a. All handling and transport of imported coal shall be excessive through covered coal conveyers only.

b. Enclosure shall be provided at coal loading and unloading operations.

c. Water shall be sprinkled on Coal stock piles periodically to retain some moisture in top layer and also while compacting to reduce the fugitive emission.

d. All the vessels used and transfer points in the manufacturing process shall be closed to reduce the fugitive emission.

e. Adequate dust separation/extraction system at crusher house as well as for the Coal stock yard and other vulnerable areas shall be provided to abate dust nuisance.

f. Accumulated Coal dust/fly ash on the ground and other surfaces shall be removed/swept regularly and water the area after sweeping.

g. Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement.

h. Air born dust shall be controlled with water sprinklers at suitable location in the plant.

i. Coal shall be transported through covered trucks only whereas fly ash shall be transported through closed trucks only.

j. A greenbelt shall be developed all around the plant boundary and also along the roads to mitigate fugitive and transport dust emission.

a) Coal Handling is done under covered area & is transported via covered conveyor belt.

b) Coal unloading is done in covered coal storage by JCB.

c) Water Spraying is done on coal at coal storage yard.

d) Conveyor belt has been covered to avoid dust emissions.

e) Closed crusher house has been installed due to less capacity of coal plant. Coal storage area is covered with the shed.

f) Coal dust and Fly ash collecting area is maintained well at regular basis.

g) RCC concrete roads are constructed inside the plant and from NH gate to Material Gate to avoid/reduce, the fugitive emission during the regular movement of vehicles.


h) Water Spraying is done on coal at coal storage yard.

i) Coal truck is being covered by tarpaulin. Fly ash is being transported in tippers covered by tarpaulin.



		j) Green belt has been developed around the plant boundary and also in the plant area and colony .
27	Unit shall strictly comply with the provision made in Manufacture Storage and Import of Hazardous Chemicals Rules as amended in 2000 for handling of Hazardous Chemicals. All necessary approvals from the concern Government Authorities shall be obtained before expansion of the project	<p>Noted & Complied.</p> <p>Unit is being strictly complying with the provision made in Manufacture Storage and Import of Hazardous Chemicals Rules as amended in 2000 for handling of Hazardous Chemicals.</p> <p>All necessary approvals from the concern Government Authorities has been obtained for the projects as per applicability.</p>
28.	All necessary precautionary measures shall be taken to avoid any kind of accident during storage and handling of toxic/hazardous chemicals , especially chlorine, hydrogen etc.	<p>Being Complied</p> <p>All necessary precautionary measures are being taken during storage and handling of toxic/hazardous chemicals, especially chlorine, hydrogen to avoid accident.</p>
29.	Chlorine sensor and Hydrogen sensor with alarm system shall be provided at various locations within plant premises.	<p>Being complied.</p> <p>46 Nos. Chlorine & 09 Nos. Hydrogen sensors are provided at respective sections inside plant boundaries.</p> <div data-bbox="954 1003 1474 1292" data-label="Image"> </div> <div data-bbox="954 1305 1474 1615" data-label="Image"> </div> <p>Sensor details attached as Annexure-7.</p>
30.	All the materials especially chlorine, hydrogen etc. shall be stored in optimum quantity and all necessary permissions in this regards shall be obtained before commencing the expansion activities.	<p>Noted & Complied.</p> <p>Chlorine is being stored within approved quantity as per PESO approval in Chlorine bullets.</p> <p>Hydrogen is being generated from electrolysis process is utilized in production HCL manufacturing.</p>
31.	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. A well-designed fire	<p>Being complied</p> <p>Fire hydrant line has been installed at all sections and also fire tender is available in case of any emergency.</p>

	hydrant system shall be installed as per the prevailing standards.	
32.	Storage and use of hazardous chemicals shall be minimized to the extent possible and all necessary precautions shall be taken to mitigate the risk generated out of it. Storage of hazardous chemicals shall be in multiple small capacity tanks/containers instead of one single large capacity tank for safety purpose.	Noted & being complied. Storage and use of hazardous chemicals is being done according to the prevailing rules & regulation.
33.	During material transfer, spillages shall be avoided and garland drain be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.	Noted & being complied. For the storage of materials, concrete floor having RCC ground floor dedicated boundary of RCC is there to covered surrounding of sheds, closed system has been provided at the unit in order to avoid spillages. RCC open drain has been provided at surrounding to ensure rain water flow to avoid mixing of accidental spillages with domestic wastewater or storm water.
34.	All the storage tanks shall be fitted with appropriate controls to avoid any leakages. Bund /dyke walls shall be provided for storage tanks for Hazardous Chemicals. Close handling system for chemicals shall be provided.	Noted & being complied. Bund and dyke walls have been provided for storage tank for hazardous chemical closed handling system for chemical are also provided.
35.	Personal Protective Equipment's shall be provided to workers and its usage shall be ensured and supervised.	Noted & being complied. All employees & contract workers have been provided with necessary required PPE's.
36.	Training shall be imparted to all the workers on safety and health aspects of chemicals handling.	Noted & being complied. Trainings are imparted to the employees and workers on safety and health aspects of chemicals handling.
37.	Occupational health surveillance of the workers shall be done and its record shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken as per the factory Act and Rules.	Noted & being complied. Occupational health surveillance of the all employees is being done on regular basis and records are maintained. Pre-employment and periodical medical examination for all the workers is being carried out as per the factory Act and Rules
38.	Handling and charging of the chemicals shall be done in such a manner that minimal human exposure occurs.	Noted & being complied. Handling and Charging of chemical is being done with minimal human exposure.
39.	Transportation of Hazardous Chemicals shall be done as per the provision of the Motor Vehicle Act and Rules.	Noted & being complied. Transportation of Hazardous Chemicals is being done as per the provision of the Motor Vehicle Act and Rules

40.	The overall noise level in and around the plant area shall be kept well within the prescribed standards by providing Noise control measures including acoustic insulation, hoods, silencers, enclosures, vibration, dampers etc. on all sources of noise generation. The Ambient noise levels shall confirm to the standards prescribed under the Environment (protection) Act and Rules. Work place noise level for workers shall be as per the Factories Act and Rules.	Noted & being complied Regular monitoring of ambient noise level is carried out and the report is enclosed as Work place noise level monitoring for workers is regularly conducted. Annexure 8.
41.	Greenbelt shall be developed in at least 33% of area with suitable places of the plant as per the CPCB guidelines to mitigate the effects of fugitive emission. Selection of plant species shall be as per the CPCB guidelines.	Noted & being Complied. Total Plant area is 256.51 acres and out of total area, more than 60 % area is already under greenbelt and plantation. We have planted 100 Nos. of saplings inside Plant Premises & Colony during World environment day June'2025 , Varieties of plants planted are Teak , mango ,Bellaptra , Neral , Nelli , Maavu etc.
42.	The company shall harvest surface as well as rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.	Noted & Being Complied. The Company has provided Wells for collecting Rainwater and run off water to recharge the ground water level and a system is in place to pump and reuse the water inside the plant to conserve fresh water.  <u>Roof Top Rainwater Harvesting Structure at Balbhavan School & Guest House</u>
43.	To project proponent shall install energy efficient devices and appliances confirming to the bureau of energy efficiency norms.	Noted & Complied. GIL, Karwar has installed VFD's, IE3 Class Motors, Replaced conventional lights by LED's.

44.	The energy audit shall be conducted at regular intervals and the recommendation of the audit report shall be implemented.	Energy Audit done by BEE authorized auditor & report submitted to BEE Delhi and carried out every 3 Years. Next due March 2026.
45.	<p>The company shall undertake following waste minimisation measures</p> <p>a. Metering and control of quantities of active ingredients to minimise waste.</p> <p>b. Re use of by products from the process as raw materials or raw materials substitute in other process.</p> <p>c. Use of automated and enclosed filling to minimise spillages.</p> <p>d. Use of washing of high pressure hoses for cleaning to reduce waste water generation.</p> <p>e. Leakages from the pipes, pumps shall be minimal and if occurs shall be arrested promptly.</p>	<p>Noted & Complied.</p> <p>a) Company is taking care for the reduction of waste by using quality purity of raw material for the minimization of waste.</p> <p>b) Chlorine & Hydrogen are two by product in Caustic Soda plant, which is being utilized in manufacturing in HCL and liquid chlorine, also waste chlorine is gets absorbed in caustic solution resulting by-product Sodium Hypochlorite.</p> <p>c) Filling is done through automatic system with enclosed containment provision.</p> <p>d) No major washing activity required in the process. However, the waste water is recycled in various other process to reduce waste water generation. Floor washing waste water is being treated in Caustic ETP and Treated waste water is being consumed in the PA Plant ETP.</p> <p>e) In place of single seal pump, double seal pump is provided to ensure no leakages from the pump. Daily inspection is carried out, for better monitoring and leakages also dyke wall is provided at Hazardous chemical storage area.</p>
46.	Pucca flooring/impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination.	<p>Noted & being complied.</p> <p>Work areas are provided with the Flooring. At chemical storage handling area flooring with acid tiling is done with dyke wall. At filling station containment provision is provided.</p>
47.	The adequate financial provisions shall be made in the budget of project for implementation of the above suggested environmental safeguards. Fund so earmarked shall not be diverted for any other purpose.	<p>Noted Being Complied.</p> <p>Every year, taken budget for implementation of the environmental safeguards and fund is utilised for environment protection and abatement of pollution.</p>
48.	All the recommendation made in the EIA/EMP and other documents submitted by the project proponent shall be strictly implemented.	<p>Being complied.</p> <p>All the recommendation made in the EIA/EMP and other documents submitted by the Company are being implemented strictly.</p>

49.	The project proponent shall comply with the recommendation made in the EIA/EMP/Risk assessment report. Recommendations made in the Risk Assessment Study Report submitted by the project proponent shall be vigorously implemented.	GIL, Karwar is complying with the recommendation made in the EIA/EMP/Risk Assessment Report.
50.	Storage facilities for the fuel shall be made in the plant area in consultation with Department of Explosives, Nagpur. Disaster Management plan shall be prepared to meet any eventuality in case of an accident taking place due to storage or Fuel.	Being complied. Storage facilities for the fuel has been made in the plant area in consultation with Department of Explosives, Nagpur. On Site Emergency plan, Disaster Management plan has been prepared. Onsite as well as Offsite emergency plan has been prepared.
51.	The Project authorities also shall earmark at least 5% of the total cost of the project towards the corporate social responsibility and item-wise details along with time bound action plan shall be prepared and submitted to the Authority.	Noted Please. CSR activities are guided by the ABG Group. CSR amount spent towards different work April'25 to September 2025 is 10 Lacs.

B. GENERAL CONDITIONS		
S.N.	Details of Conditions	Compliance Status
1.	The project authorities shall strictly adhere to the stipulations made by the Karnataka State Pollution Control Board (KSPCB).	Noted & being complied.
2.	At no time, the emission shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	Noted Please. At no time, the emission levels exceed the stipulated standards as proper measure are being taken for the same. No event of failure of pollution control system(s) has occurred till date. Control measures are being/will be adopted to avoid such an event.
3.	No further expansion or modification in the plant shall be carried out without prior approval of the SEIAA/Ministry of Environment and Forests as the case may be. In case of deviations or alternations in the project proposal from those submitted to this Authority for clearance, a fresh reference shall be made to the Authority to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted Please. No further expansion or modification in the plant has been carried out without prior approval of the SEIAA/Ministry of Environment and Forests.

4.	The gaseous emission (PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , NH ₃ , BaP, CO, VOC) and Particulate Matter along with RSPM levels from various process units shall confirm to the standards prescribed by the concerned authorities from time to time. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack monitoring for PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO, VOC shall be carried.	Noted and Complied. Ambient & Stack Monitoring results are attached as Annexure-2 & 3 . At no time, the emission levels exceed the stipulated standards as proper measure are being taken for the same. No event of failure of pollution control system(s) has occurred till date. Control measures are being/will be adopted to avoid such an event.
5.	The project authorities shall strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as mentioned in October 1994 and January 2000. All transportation of Hazardous Chemicals shall be as per the MVA, 1989. Authorisation from the KSPCB shall be obtained for collection, treatment, storage, and disposal of hazardous wastes.	Noted & being complied. Rules and regulations under Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as mentioned in October 1994 and January 2000 are complied. All transportation of Hazardous chemicals is being done as per Motor Vehicles Act, 1989. We have obtained authorisation for collection, storage and disposal of Hazardous waste under the hazardous and other wastes (Management and Transboundary Movement) Rules, 2016 Authorisation no 331384 dated 20.05.2022 Valid up to 30/06/2026.
6.	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016. Authorisation from the KSPCB must be obtained for collection/treatment/storage/disposal of hazardous wastes.	Noted & being complied. We have obtained authorisation for collection, storage and disposal of Hazardous waste under the hazardous and other wastes (Management and Transboundary Movement) Rules, 2016 Authorisation no 331384 dated 20/05/2022 Valid up to 30/06/2026.
7.	Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid system or fully solar system for lighting and heating should be provided. Details in this regard should be submitted to the SEIAA.	We are procuring solar power through grid network. About 75 % off our total power is procured through renewable energy .

8.	The overall noise level in and around the plant area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencer, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, Rules, 1989 viz. dBA (day time) and 70 dBA (night time).	Noted & being complied. Acoustic enclosure has been provided for the DG sets and the area is covered by trees. Ambient Noise level is monitored at regular intervals. Report is attached as Annexure-8 .
9.	The project proponent shall also comply with all the environmental protection measures and safeguards as per the information provided.	Noted & Being Complied.
10.	The implementation of the project vis-a-vis environmental action plans shall be monitored by MoEF, Regional Office at Bengaluru/KSPCB/CPCB and the Regional Director (Environment), Department of Environment and Ecology, Government of Karnataka, Karwar. A six monthly compliance status report shall be submitted to monitoring agencies.	Noted and compiled GIL, Karwar have been submitting the six monthly EC compliance report every year. Last Six monthly EC compliance report was submitted on 30.05.2025
11.	The project proponent shall inform the public that the project has been accorded environmental clearance by the SEIAA and copies of the clearance letter are available with the KSPCB and may also be seen at Website of the Authority at http://www.seiaa.kar.nic.in or http://www.seiaa.karnataka.gov.in , http://www.environmentclearance.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 widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the MoEF Regional Office at Bengaluru/KSPCB/CPCB/ and the Regional Director (Environment), Department of Environment and Ecology, Government of Karnataka, Karwar.	Noted & complied. EC letter has been already published in the local newspaper.
12.	The project authorities shall inform the MoEF Regional Office at Bengaluru/KSPCB/CPCB and the Department of Ecology and Environment, Bengaluru, the date of financial closure and financial approval of the project by the concerned authorities and the date of start of the project.	<ul style="list-style-type: none"> • Date of Financial approval-30.06.2016. • Date of Start of the project –20.05.2017
13.	The SEIAA, Karnataka may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted Please.

14.	The SEIAA, Karnataka reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.	Noted Please.
15.	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted Please.
16.	The issue of Environment Clearance doesn't confer any right to the project proponent to operate/ run the project without obtaining statutory clearances/ sanctions from all other concerned Authorities.	Noted Please.
17.	Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted Please.
18.	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted Please.
19.	Officials from the Department of Environment and Ecology, Bengaluru/ Regional Office of MoEF, Bengaluru who would be monitoring the implementation of Environmental safeguards should be given full cooperation, facilities and documents/ data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF/ SEIAA should be forwarded to the APCCF, Regional Office of MoEF, Bengaluru the Regional Director (Environment), Department of Environment and Ecology, Government of Karnataka, Karwar/ Regional Officer, KSPCB Bengaluru	Noted and Being Complied.
20.	In case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.	Agreed & Noted Please.

21.	The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provision of the Environment(Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.	Agreed & Noted Please.
22.	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the competent authorities.	Noted and Complied. All statutory clearances has been obtained as applicable for the project.
23.	These stipulations would be enforced among others under the provision of water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 2006.	Noted and Complied.
24.	Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it is found that construction of the project has been started without obtaining environmental clearance.	Noted Please.

Name of the Project	:	Amendment in Existing Environment Clearance letter issued for Membrane Cell based Caustic Soda Plant at Binaga, Taluk: Karwar, District: Uttara Kannada, Karnataka by M/s. Grasim Industries Limited (Chemical Division, Karwar)
Environment Clearance Letter No.	:	IA-J-11011/420/2023-IA-II(I) dated 22.02.2024 & EC letter dated 15.03.2024
Period of Compliance Report	:	April 2025 to September 2025

6. The project proposal or the detailed description of the existing granted, existing operating, proposed capacities & total capacity after amendment are given in table below:

S.N	Products	Existing Granted Capacity (As per EC dated 10th Nov., 2016)	Existing Operation Capacity	Capacity for Proposed Amendment	Total Capacity after Amendment	Remarks	Compliance Status April '25 to Sep'25
Main product							
1	Caustic Soda(TPA)	1,00,000	1,00,000	Nil	1,00,000	No Change	35954
Other Product							
2	Chlorine Generation (TPA)	88,750	88,750	Nil	88,750	No Change	31909
3	Hydrochloric Acid (100%)	50,400	50,400	Combined Capacity of Hydrochloric Acid (100%) and Liquid Chlorine i.e. 88750 TPA	88,750 (Hydrochloric Acid (100%) / Liquid chlorine)	With production of 1,00,000 TPA Caustic Soda, there will be 88,750 TPA chlorine gas production. In proposed amendment, as per market demand, the generated chlorine will either be used to manufacture Hydrochloric acid or Liquid chlorine with the consideration to produce minimum Liquid Chlorine and maximum Hydrochloric Acid production. This is due to the high hazard of Liquid Chlorine. Higher Hydrochloric Acid Production will ultimately reduce the liquid Chlorine generation and will enhance the safety by reducing the high hazard operation.	32731
4	Liquid Chlorine (TPA)	39,011	39,011				
5	Sodium hypochlorite (TPA)	720	2,208***	Nil	2208	.	226
6	Compressed Hydrogen (Nm3)	7,956,000	7,956,000	Nil	7,956,000	No Change	1061423
7	Dilute sulphuric acid (78%) (TPA)	1,029	1,029	Nil	1,029	No Change	207
8	Calcium Phosphate (TPA)	Nil	12,000***	Nil	Nil	Machinery will be dismantled but building will be used for Organic Fertilizer Unit.	Not Applicable

9	Phosphoric Acid (TPA)	Nil	24,000***	Nil	24,000	Replacement of existing old technology Phosphoric Acid Plant with new technology Phosphoric Acid Plant of same capacity.	9326 Proposed phosphoric acid plant yet to be establish.
10	Poly Aluminium Chloride (TPA)	Nil	73,000***	Nil	73,000	No Change	---
11	Crushed Phosphate Sludge (TPA)	Nil	Nil	18,000	18,000**	To be added	5292
12	Organic Fertilizer Unit (TPA)	Nil	Nil	36,000	36,000**	To be added	Nil
13	Anhydrous Sodium Sulphate (TPA)	Nil	Nil	540	540**	To be added	Nil

Associated Activities

14	D.G. Set (KVA)	1 x 2000	1 x 2000	1 x 1010	1 x 2000 1 x 1010	Increase in capacity by 1,010 KVA for backup purpose
15	Coal Fired Boiler (TPH)	1 x 10 1 x 18	1 x 10 1 x 18	Nil	1 x 10 1 x 18	No Change
	Oil Fired Boiler (TPH)	Nil	1 x 3	1 x 8 (-) 1 x 3	1 x 8	To be added Installation of 8 TPH Oil Fired Boiler (LDO based) in replacement of existing 3 TPH Oil Fired Boiler (FO based) as a backup for 1 x18 TPH Coal Fired Boiler.


7. The project proponent has requested for amendment in the EC with the details are as under:

S.N	Reference (EC dated 10th Nov., 2016)	As per EC dated 10th Nov., 2016 obtained from SEIAA, Karnataka	Proposed Amendment	Justification / Reason	Compliance Status April '25 to Sep'25
1	Point No. 3, Line - 7	Total water consumption is 3,326 KLD will be met from Karnataka Urban Water Supply & Drainage Board and Recycled Water, out of which 250 KLD for domestic and gardening purpose, 1876 KLD for Caustic Soda Plant, 1200 KLD for Phosphoric Acid Plant.	Total water consumption is 3,326 KLD will be met from Karnataka Urban Water Supply & Drainage Board, Ground Water and Recycled Water, out of which, 250 KLD for domestic and gardening purpose, 1876 KLD for Caustic Soda Plant, 1200 KLD for Phosphoric Acid Plant & Process Boiler, Poly Aluminium Chloride (PAC) & Organic Fertilizer Unit.	There will be no change in the total water consumption. Ground Water will be used for drinking purpose only. Permission for extraction of ground water for drinking use has been obtained from Karnataka Ground Water Authority (KGWA), Government of Karnataka.	Total Water Consumption is 2128KLD. Domestic- 234KLD Caustic Plant- 1041KLD Phosphoric acid Plant-598KLD
2	Point No. 3, Line - 11	Existing D.G. Set of capacity 1 No. x 2000 KVA for emergency power back-up.	Existing D.G. Set of capacity 1 No. x 2000 KVA and installation of new 1 No. x 1010 KVA for emergency power backup.	Addition of DG Set for emergency power back-up only.	01 no. 1010 KVA DG Installed for emergency power backup
3	Point No. 3, Line - 12	Existing 1 No. x 10 TPH & 1 No. x 18 TPH capacity of Coal Fired Boiler.	Existing 1 No. x 10 TPH & 1 No. x 18 TPH capacity of Coal Fired Boiler along with installation of 1 No. x 8 TPH Oil Fired Boiler.	1 x 8 TPH boiler (proposed) will be utilized for steam requirement in emergency / maintenance of existing boilers.	01 No. 8 TPH Oil fired Boiler installed.
4	Point No. 4, Line - 1	The wastewater generation will be 1,525 KLD, out of which 85 KLD	The wastewater generation will be 1,695 KLD, out of which, 225 KLD domestic	Earlier, part of domestic sewage was disposed off in	Total Waste water

		will be the domestic sewage and treated in STP of capacity 60 KLD and remaining 25 KLD shall be sent to septic tank followed by soak pit, 1410 KLD will be the Phosphoric Acid Plant effluent shall be treated in ETP of capacity 1440 KLD, 60 KLD will be the Caustic Soda Plant effluent shall be treated in ETP of capacity 120 KLD.	wastewater will be treated in proposed 250 KLD capacity of Sewage Treatment Plant of MBBR technology with ultrafiltration system; 1410 KLD effluent (1200 KLD from Phosphoric Acid Plant and 210 KLD from Caustic Soda Plant) is treated in ETP of capacity 1440 KLD; 60 KLD wastewater generated from Chlorine tonner & floor washings from Caustic Soda plant is either used for Milk of lime preparation in ETP or treated in Caustic Soda plant ETP of capacity 120 KLD.	soak pit via septic tank, which will now be treated in the proposed 250 KLD STP. 100% domestic waste water will now be treated in STP and treated water will be used in cooling tower make up and greenbelt development/ plantation within the premises. There will be no change in the industrial effluent.	generation is 795KLD (733 KLD Industrials & 62 KLD Domestic)
5	Point No. 4, Line - 6	The solid waste generated are Brine Sludge from Caustic Soda Plant of 5 MTPD, Sludge generated in Caustic Soda ETP of 2.5 MTPA, Sludge from Phosphoric acid Plant ETP of 30 MTPD shall be consolidated within the factory premises, STP sludge of 5 Kg/day shall be used as manure and Hazardous waste generated are Used/Spent lubricant oil of 1.625 KL/Annum shall be sold to Authorized Recyclers, fly ash from boiler of 6.05 TPD shall be sent to brick manufacturing unit and cement plant.	The solid waste generated are Brine Sludge from Caustic Soda Plant of 5 MTPD, Sludge generated in Caustic Soda ETP of 2.5 MTPA, Sludge from Phosphoric acid Plant ETP of 30 MTPD shall be consolidated within the factory premises, STP sludge of 50 kg/day shall be used as manure and Hazardous waste generated are Used/Spent lubricant oil of 1.625 KL/Annum shall be sold to Authorized Recyclers, fly ash from boiler of 7.55 TPD shall be sent to brick manufacturing unit and cement plant.	Change in the quantity of STP sludge is due to increase in STP capacity. Change in the quantity of fly ash is due to variation in the ash content in coal.	Solid waste generation Brine sludge- 204 MT (dry) Phosphoric acid sludge -6674 MT (dry) 551 MT Flyash Disposed to brick manufacturing unit.
6	Part - A Specific Condition No. 1	Fresh water requirement of 3326 KLD after the proposed expansion shall be met through the Karnataka Urban Water Supply and Drainage Board only. No ground water shall be tapped in any case for the project requirements.	Fresh water requirement of 3326 KLD after the proposed expansion shall be met through the Karnataka Urban Water Supply and Drainage Board & Ground Water (drinking purpose only). No ground water shall be tapped in any case for the industrial requirements.	There will be no change in the total water consumption. Ground Water will be used for drinking purpose only. Permission for extraction of ground water for drinking use has been obtained from Karnataka Ground Water Authority (KGWA), Government of Karnataka.	Complied. Total fresh Water Consumption is 2128KLD.
7	Part - A Specific Condition No. 2	Wastewater generated from the DM plant, Boiler blow down, HCl preparation, recovery from caustic soda evaporation plant of total 570 KLD shall be reused in process plant.	Wastewater generated from the DM plant regeneration, ion exchange, Boiler blow down, HCl preparation, recovery from Caustic Soda Evaporation Plant of total 410 KLD shall be reused in process plant.	--	Total 518 KLD Waste water reused in process plant for the Period from April 2025 to September 2025.

8	Part - A Specific Condition No. 3	1410 KLD of treated effluent from the existing ETP conforming to the CPCB / KSPCB norms shall be discharged into the sea through existing pipeline.	1410 KLD of treated effluent from the existing ETP conforming to the CPCB / KSPCB norms shall be discharged into the sea through re-routed pipeline.	The existing treated effluent discharge line was passing through the Grasim premises, Village: Binaga, Naval Base and then finally enter into the Arabian Sea. M/s. Indian Navy is expanding their residential colony in that area & therefore, put a request to M/s. Grasim Industries Limited (Chemical Division, Karwar) for rerouting of existing discharge line. CRZ clearance for proposed laying/ re-routing of pipeline of treated effluent into the sea from plant to outfall diffuser at Village: Binaga, Taluk: Karwar, District: Uttara Kannada, Karnataka was obtained from MoEFCC, New Delhi vide Letter No. 11-7/2021-IA III dated 19th May, 2021.	Being Complied. Treated effluent from ETP is discharged into the sea. Treated effluent is monthly monitored for required parameters & meets with KSPCB stipulated norms. Details of the same is attached in Annexure-1.
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Specific EC Conditions for (Chlor-alkali Industry) as per Annexure 1

S.N.	EC Conditions	Compliance Status -April 2025 to September 2025
1.1	Stack height of 50 m shall be provided to the proposed 8 TPH Oil Fired Boiler and Stack height of 30 m shall be provided to the proposed D.G. Sets (1 x 1010 KVA). At no time, the emission levels shall go beyond the prescribed standards.	Stack heights provided as below: 1. Stack height of 8 TPH oil fired Boiler= 50 meter 2. DG Set height 1010 KVA = 30 meter Emission levels of prescribed parameters complied.
1.2	All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration site or sent for coprocessing. Solid waste shall be segregated into dry and wet garbage at site in accordance to the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development. Fly ash shall be collected in the silo and handed over to the brick manufacturers.	All hazardous wastes disposed as per the HWM Rules 2016. Hazardous waste authorization as per HWM Rules ,2016 already obtained from the board. All the solid wastes in form of garbage sent through local municipality to their dedicated location as per Solid Waste Management Rules, 2016. Unit already donate one special vehicle to the Karwar Municipality for collection of solid wastes generated from our colony & plant. 

		<p>Fly ash collected in the silo and disposed to the brick manufacturers. Total 551 MT fly ash disposed to the Brick manufacturer from April 2025 to September 2025.</p>
1.3	<p>PP shall store sludge /waste including Phosphate Sludge generated from Phosphoric Acid Plant in the environmentally sound manner as per CPCB guidelines. PP shall ensure that leachate generated from the waste storage site shall be collected, treated and disposed in an environmentally sound manner as per CPCB guidelines.</p>	<p>All the hazardous waste stored in a covered shed only as per HWM Rules ,2016 guidelines. Phosphate sludge, which is non-hazardous in nature and have nutrient value for plants is stored in unit premises.</p> <p>In rainy season the fresh phosphate sludge generated from process will be stored under shed. The leachate collection pit along with leachate transfer facility is provided near the shed for collection and treatment if required as per analysis of leachate.</p> <div data-bbox="678 591 1469 1070" data-label="Image"> </div> <div data-bbox="684 1120 1469 1637" data-label="Image"> </div>
1.4	<p>The total domestic wastewater (225 KLD) shall be treated in STP (proposed 250 KLD) and treated water shall be used within the premises.</p>	<p>Complied.</p> <p>Total Waste water generation from STP is 62KLD.</p>
1.5	<p>Furnace oil (FO) should not be allowed to use in 3TPH oil fired boiler. Accordingly, PP shall change the fuel to LDO instead of FO.</p>	<p>In place of 3 TPH oil fired Boiler One Oil fired Boiler of capacity 8 TPH is installed and fuel changed to LDO instead of FO.</p>



MSV Analytical Laboratories

Recognition by MoEF under Environment (Protection) Act, 1986 and Accredited by NABL

(Certified by ISO 14001:2015, ISO 45001:2018, ISO 9001:2015, ISO 22000:2018)

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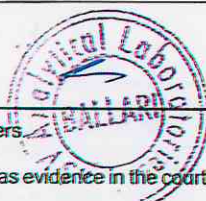
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ANALYSIS REPORT OF WASTE WATER QUALITY

1. Name and Address of Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Sample Marked as : Treated water
3. Name of the location : Effluent Treatment Plant
4. Sample Collected By : MSV Analytical Laboratories
5. Sample quantity : Pet Bottle, 10 Liter.
6. Sample Description/condition : Good/Satisfactory
7. Date of Sample Collection : 23.09.2025
8. Date of sample receipt : 23.09.2025
9. Sample Code : WW/757
10. Analysis Starting Date : 23.09.2025
11. Analysis Completion Date : 29.09.2025
12. Report Issue Date : 29.09.2025

Discipline: Chemical Group: Pollution & Environment Sub Group: Waste Water ULR NO: TC407125000021807F

S.no	Parameters	Protocol	Unit	Result	Tolerance Limit as per KSPCB Standards
1	Color	IS 3025 Part 4, Method (b)	-	Colorless	Colorless
2	Odor	IS 3025 Part 5, Annex A	-	Odorless	Odorless
3	Temperature	IS 3025 Part 9	°C	27	Should not exceed 5°C above receiving water temperature
4	pH	IS 3025 Part 11	-	7.90	5.5 - 9.0
5	Oil & Grease	IS 3025 Part 39, Method (a)	mg/L	2.0	Max 20
6	Total Residual chlorine	IS 3025 Part 26, Method (a)	mg/L	0.45	Max 1
7	Ammonical Nitrogen as N	IS 3025 Part 34, Method A	mg/L	4.67	Max 50
8	Total kjeldhal Nitrogen as N	APHA 24th Edition -4500-N org B	mg/L	10.4	Max 100
9	Bio-chemical Oxygen Demand (3 days at 27°C)	IS 3025 Part 44	mg/L	62.0	Max 100
10	Chemical Oxygen Demand	IS 3025 Part 58	mg/L	170.0	Max 250
11	Lead as Pb	APHA 24th Edition - 3120 B	mg/L	<0.05	Max 2
12	Copper as Cu	APHA 24th Edition - 3120 B	mg/L	<0.01	Max 3
13	Zinc as Zn	APHA 24th Edition - 3120 B	mg/L	1.06	Max 15
14	Fluoride (as F)	APHA 24th Edition - 4500-F--(D)	mg/L	5.73	Max 15
15	Sulphide	APHA 24th Edition-4500 S2--(F)	mg/L	0.90	Max 5
16	Nitrate Nitrogen	IS 3025 (PART 34/SEC 1)	mg/L	13.2	Max 20
17	Total Suspended solids	IS 3025 Part 17	mg/L	47.0	Max 100



- Note: 1. The results listed only to the tested samples & applicable parameters.
 2. Samples Will be disposed after the specified retention period.
 3. This report is not to reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing
 4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction Only.
 5. Sampling is not done by us unless otherwise specified



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ANALYSIS REPORT OF WASTE WATER QUALITY

1. Name and Address of Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Sample Marked as : Treated water
3. Name of the location : Effluent Treatment Plant
4. Sample Collected By : MSV Analytical Laboratories
5. Sample quantity : Pet Bottle, 10 Liter.
6. Sample Description/condition : Good/Satisfactory
7. Date of Sample Collection : 23.09.2025
8. Date of sample receipt : 23.09.2025
9. Sample Code : 8735
10. Analysis Starting Date : 23.09.2025
11. Analysis Completion Date : 29.09.2025
12. Report Issue Date : 29.09.2025

Discipline: Chemical Group: Pollution & Environment Sub Group: Waste Water ULR NO: MSVAL/2025/3876

S.no	Parameters	Protocol	Unit	Result	Tolerance Limit as per KSPCB Standards
18	Free Ammonia	IS 2488(Part-6)	mg/L	BDL	Max 5
19	Mercury (as Hg)	IS 3025(part-48)	mg/L	<0.001	-
20	Bioassay	IS:6582-1971(RA-2003)	-	As per condition C - 7	
21	Bio - Monitoring Test	-	-	Fish Survives in 5% solution of treated effluent	

INFERENCE	As per KSPCB Standards Report Status: - The analyzed values for above measured parameters are within the limits.
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Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



- Note: 1. The results listed only to the tested samples & applicable parameters.
2. Water, Pollution & Environment & Food samples will be discarded after 10 days. Ores and minerals Filter papers & Thimbles will be discarded in 3 months from the date of issue of test reports, unless otherwise specified. ILC samples will be discarded after 1 month from the date of test reports.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Bellary jurisdiction only.
5. Sampling is not done by us unless otherwise specified.



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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. Name and Address of Industry : M/s. Grasim Industries Limited,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada-- 581 307
2. Name of the location : Station - 1 OHC(Occupational Health Center)
3. Sample Collected By : MSV Analytical Laboratories
4. Particulars of the sampling Equipments : Sample collected with FDS GTI-131, RDS APM-460,
Banzene Sampler & CO Meter
5. Duration of Monitoring : 24 Hours
6. Date of Monitoring : 23.09.2025 & 24.09.2025
7. Date of Sample Receipt : 25.09.2025
8. Sample Code : AAQ/3584
9. Analysis Starting Date : 25.09.2025
10. Analysis Completion Date : 29.09.2025
11. Report Issue Date : 29.09.2025
12. Sampling Protocol : IS 5182: Part 14: 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407125000021792F

S.No	Parameter	Protocols	Units	Result in Avg.	Standards
1	Particulate Matter PM ₁₀	IS 5182 (Part-23)	µg / m ³	46.27	100
2	Particulate Matter PM _{2.5}	IS 5182 Part 24	µg / m ³	12.36	60
3	Sulphur Dioxide as SO ₂	IS 5182 (Part-2)	µg / m ³	14.71	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	µg / m ³	18.69	80
5	Ozone as O ₃	IS 5182(part-9)	µg/m ³	<0.01	180
6	Carbon Monoxide as CO	MSVAL/SOP/A/007,Issue No.1	mg/m ³	0.51	4
7	Ammonia as NH ₃	IS 5182 Part 25	µg/m ³	3.68	400
8	Arsenic as As	MSVAL/SOP/AA/005,IssueNo1	ng/m ³	<0.01	6
9	Benzene as C ₆ H ₆	IS 5182 PART 11	µg/m ³	<0.1	5
10	Benzo (α) Pyrene (BaP)	IS 5182 PART 12	ng/m ³	<0.1	1

INFERENCE	As per NAAQS Standards
	Report Status: - The analyzed values for above measured parameter are within the limits.

Analysed by



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

Note: 1. The results listed only to the tested samples & applicable parameters.

2. Samples Will be disposed after the specified retention period.

3. This report is not to reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing

4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction Only.

5. Sampling is not done by us unless otherwise specified



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E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com Website : www.msvalbellary.com

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. Name and Address of Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada-- 581 307
2. Name of the location : Station - 1 OHC(Occupational Health Center)
3. Sample Collected By : MSV Analytical Laboratories
4. Particulars of the sampling Equipments : Sample collected with FDS GTI-131, RDS APM-460,
Banzene Sampler
5. Duration of Monitoring : 24 Hours
6. Date of Monitoring : 23.09.2025 & 24.09.2025
7. Date of Sample Receipt : 25.09.2025
8. Sample Code : 8726
9. Analysis Starting Date : 25.09.2025
10. Analysis Completion Date : 29.09.2025
11. Report Issue Date : 29.09.2025
12. Sampling Protocol : IS 5182: Part 14: 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: MSVAL/2025/3867

S.No	Parameter	Protocols	Units	Result in Avg.	Standards
11	Lead	IS-5182(Part22)	µg/m ³	<0.01	1
12	Nickel as Ni	IS-5182(Part-26)	ng/m ³	<0.01	20
13	Toluene	IS 5182 (Part 11)	µg/m ³	<0.5	-
14	Xylene	IS 5182 (Part 11)	µg/m ³	<0.5	-
15	Cl ₂	IS 5182 (Part 19)	µg/m ³	Not Detected	-
16	HCL	EPA METHOD - 8	mg/Nm ³	Not Detected	-

INFERENCE	As per NAAQS Standards
	Report Status: - The analyzed values for above measured parameter are within the limits.

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

*** End of Report ***



- Note: 1.The results listed only to the tested samples & applicable parameters.
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E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvalbellary.com



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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. Name and Address of Industry : M/s. Grasim Industries Limited,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada-- 581 307
2. Name of the location : Station 2 - Geca Club
3. Sample Collected By : MSV Analytical Laboratories
4. Particulars of the sampling Equipments : Sample collected with FDS GTI-131, RDS APM-460,
Banzene Sampler & CO Meter
5. Duration of Monitoring : 24 Hours
6. Date of Monitoring : 23.09.2025 & 24.09.2025
7. Date of Sample Receipt : 25.09.2025
8. Sample Code : AAQ/3585
9. Analysis Starting Date : 25.09.2025
10. Analysis Completion Date : 29.09.2025
11. Report Issue Date : 29.09.2025
12. Sampling Protocol : IS 5182: Part 14: 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407125000021793F

S.No	Parameter	Protocols	Units	Result in Avg.	Standards
1	Particulate Matter PM ₁₀	IS 5182 (Part-23)	µg / m ³	39.69	100
2	Particulate Matter PM _{2.5}	IS 5182 Part 24	µg / m ³	11.30	60
3	Sulphur Dioxide as SO ₂	IS 5182 (Part-2)	µg / m ³	12.58	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	µg / m ³	19.74	80
5	Ozone as O ₃	IS 5182(part-9)	µg/m ³	<0.01	180
6	Carbon Monoxide as CO	MSVAL/SOP/A/007,Issue No.1	mg/m ³	0.34	4
7	Ammonia as NH ₃	IS 5182 Part 25	µg/m ³	3.29	400
8	Arsenic as As	MSVAL/SOP/AA/005,IssueNo1	ng/m ³	<0.01	6
9	Benzene as C ₆ H ₆	IS 5182 PART 11	µg/m ³	<0.1	5
10	Benzo (α) Pyrene (BaP)	IS 5182 PART 12	ng/m ³	<0.1	1

INFERENCE	As per NAAQS Standards
	Report Status: - The analyzed values for above measured parameter are within the limits.

Analysed by



Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

Note: 1. The results listed only to the tested samples & applicable parameters.

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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. Name and Address of Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada-- 581 307
2. Name of the location : Station 2 - Geca Club
3. Sample Collected By : MSV Analytical Laboratories
4. Particulars of the sampling Equipments : Sample collected with FDS GTI-131, RDS APM-460,
Banzene Sampler
5. Duration of Monitoring : 24 Hours
6. Date of Monitoring : 23.09.2025 & 24.09.2025
7. Date of Sample Receipt : 25.09.2025
8. Sample Code : 8727
9. Analysis Starting Date : 25.09.2025
10. Analysis Completion Date : 29.09.2025
11. Report Issue Date : 29.09.2025
12. Sampling Protocol : IS 5182: Part 14: 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: MSVAL/2025/3868

S.No	Parameter	Protocols	Units	Result in Avg.	Standards
11	Lead	IS-5182(Part22)	µg/m ³	<0.01	1
12	Nickel as Ni	IS-5182(Part-26)	ng/m ³	<0.01	20
13	Toluene	IS 5182 (Part 11)	µg/m ³	<0.5	-
14	Xylene	IS 5182 (Part 11)	µg/m ³	<0.5	-
15	Cl ₂	IS 5182 (Part 19)	µg/m ³	Not Detected	-
16	HCL	EPA METHOD - 8	mg/Nm ³	Not Detected	-

INFERENCE	As per NAAQS Standards
	Report Status: - The analyzed values for above measured parameter are within the limits.

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

*** End of Report ***



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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. Name and Address of Industry : M/s. Grasim Industries Limited,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada-- 581 307
2. Name of the location : Station 3 – Guest House
3. Sample Collected By : MSV Analytical Laboratories
4. Particulars of the sampling Equipments : Sample collected with FDS GTI-131, RDS APM-460,
Banzene Sampler & CO Meter
5. Duration of Monitoring : 24 Hours
6. Date of Monitoring : 23.09.2025 & 24.09.2025
7. Date of Sample Receipt : 25.09.2025
8. Sample Code : AAQ/3586
9. Analysis Starting Date : 25.09.2025
10. Analysis Completion Date : 29.09.2025
11. Report Issue Date : 29.09.2025
12. Sampling Protocol : IS 5182: Part 14: 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: TC407125000021794F

S.No	Parameter	Protocols	Units	Result in Avg.	Standards
1	Particulate Matter PM ₁₀	IS 5182 (Part-23)	µg / m ³	35.53	100
2	Particulate Matter PM _{2.5}	IS 5182 Part 24	µg / m ³	10.42	60
3	Sulphur Dioxide as SO ₂	IS 5182 (Part-2)	µg / m ³	7.11	80
4	Oxides of Nitrogen as NO _x	IS-5182(Part-6)	µg / m ³	12.64	80
5	Ozone as O ₃	IS 5182(part-9)	µg/m ³	<0.01	180
6	Carbon Monoxide as CO	MSVAL/SOP/A/007,Issue No.1	mg/m ³	0.40	4
7	Ammonia as NH ₃	IS 5182 Part 25	µg/m ³	2.87	400
8	Arsenic as As	MSVAL/SOP/AA/005,IssueNo1	ng/m ³	<0.01	6
9	Benzene as C ₆ H ₆	IS 5182 PART 11	µg/m ³	<0.1	5
10	Benzo (α) Pyrene (BaP)	IS 5182 PART 12	ng/m ³	<0.1	1

INFERENCE	As per NAAQS Standards
	Report Status: - The analyzed values for above measured parameter are within the limits.

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



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ANALYSIS REPORT OF AMBIENT AIR QUALITY

1. Name and Address of Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttara Kannada-- 581 307
2. Name of the location : Station 3 - Guest House
3. Sample Collected By : MSV Analytical Laboratories
4. Particulars of the sampling Equipments : Sample collected with FDS GTI-131, RDS APM-460,
Benzene Sampler
5. Duration of Monitoring : 24 Hours
6. Date of Monitoring : 23.09.2025 & 24.09.2025
7. Date of Sample Receipt : 25.09.2025
8. Sample Code : 8728
9. Analysis Starting Date : 25.09.2025
10. Analysis Completion Date : 29.09.2025
11. Report Issue Date : 29.09.2025
12. Sampling Protocol : IS 5182: Part 14: 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Air ULR No: MSVAL/2025/3869

S.No	Parameter	Protocols	Units	Result in Avg.	Standards
11	Lead	IS-5182(Part22)	µg/m ³	<0.01	1
12	Nickel as Ni	IS-5182(Part-26)	ng/m ³	<0.01	20
13	Toluene	IS 5182 (Part 11)	µg/m ³	<0.5	-
14	Xylene	IS 5182 (Part 11)	µg/m ³	<0.5	-
15	Cl ₂	IS 5182 (Part 19)	µg/m ³	Not Detected	-
16	HCL	EPA METHOD - 8	mg/Nm ³	Not Detected	-

INFERENCE	As per NAAQS Standards
	Report Status: - The analyzed values for above measured parameter are within the limits.

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

*** End of Report ***



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E-mail : msvbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvbellary.com



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MSVAL/QR/7.8/1

ANALYSIS REPORT FOR SOURCE EMISSION

1. Name and Address of the Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Stack ID : 18 TPH Boiler
3. Sample Collected By : MSV Analytical Laboratories
4. Date of Monitoring : 23.09.2025
5. Date of Sample Receipt : 24.09.2025
6. Sample Code : SE/2578
7. Analysis Starting Date : 24.09.2025
8. Analysis Completion Date : 29.09.2025
9. Report Issue date : 29.09.2025

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Stack emission ULR No: TC407125000021797F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with GTI-121
Fuel Used	Coal
Ambient Temperature (°C)	27
Stack Temperature (°C)	127
Velocity (m/s)	7.99
Oxygen(%)	8.5
Height (m)	36
Diameter (m)	1.1
Cross sectional area (m ²)	0.9507

RESULTS

Parameters	Protocol	Unit	Result	Standard
Particulate Matter	IS 11255 (Part-1)	mg/Nm ³	53.11	150
Sulphur dioxide(corrected at 6%O ₂)	IS 11255 (Part-2)	mg/Nm ³	227.2	-
Nitrogen dioxide(corrected at 6%O ₂)	IS 11255 (Part-7)	mg/Nm ³	209.6	-
Moisture	IS 11255 (Part-3)	%/mass	2.57	-
Gas Discharge Rate	IS 11255(Part-3)	Nm ³ /hr	20511	-

INFERENCE	As per KSPCB Standards,
	Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



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TC- 4071

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ANALYSIS REPORT FOR SOURCE EMISSION

1. Name and Address of the Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Stack ID : 2000 KVA DG Set
3. Sample Collected By : MSV Analytical Laboratories
4. Date of Monitoring : 23.09.2025
5. Date of Sample Receipt : 24.09.2025
6. Sample Code : SE/2585
7. Analysis Starting Date : 24.09.2025
8. Analysis Completion Date : 29.09.2025
9. Report Issue date : 29.09.2025

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Stack emission ULR No: TC407125000021804F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with GTI-121
Fuel Used	Diesel
Ambient Temperature (°C)	27
Stack Temperature (°C)	144
Velocity (m/s)	8.97
Height (m)	36
Diameter (m)	0.5
Cross sectional area (m ²)	0.1964

RESULTS

Parameters	Protocol	Unit	Result	Standard
Particulate Matter	IS 11255 (Part-1)	mg/Nm ³	45.23	75
Sulphur dioxide	IS 11255 (Part-2)	mg/Nm ³	15.40	-
Nitrogen dioxide	IS 11255 (Part-7)	mg/Nm ³	24.11	710
Carbon Monoxide	IS 13270(Orsat Apparatus USEPA 3A:1989)	mg/Nm ³	4.05	150
NMHC	MSVAL/SOP/SE/003, Issue No 1	mg/Nm ³	0.76	100
Gas Discharge Rate	IS 11255(Part-3)	Nm ³ /hr	4564	-

INFERENCE	As per KSPCB Standards,
	Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

*** End of Report ***



Note: 1. The results listed only to the tested samples & applicable parameters.

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E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvalbellary.com



TC- 4071

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ANALYSIS REPORT FOR SOURCE EMISSION

1. Name and Address of the Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Stack ID : 1010 KVA DG Set
3. Sample Collected By : MSV Analytical Laboratories
4. Date of Monitoring : 23.09.2025
5. Date of Sample Receipt : 24.09.2025
6. Sample Code : SE/2586
7. Analysis Starting Date : 24.09.2025
8. Analysis Completion Date : 29.09.2025
9. Report Issue date : 29.09.2025

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Stack emission ULR No: TC407125000021805F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with GTI-121
Fuel Used	Diesel
Ambient Temperature (°C)	28
Stack Temperature (°C)	128
Velocity (m/s)	8.20
Height (m)	30
Diameter (m)	0.5
Cross sectional area (m ²)	0.1964

RESULTS

Parameters	Protocol	Unit	Result	Standard
Particulate Matter	IS 11255 (Part-1)	mg/Nm ³	41.18	75
Sulphur dioxide	IS 11255 (Part-2)	mg/Nm ³	13.69	-
Nitrogen dioxide	IS 11255 (Part-7)	mg/Nm ³	21.41	710
Carbon Monoxide	IS 13270(Orsat Apparatus USEPA 3A:1989)	mg/Nm ³	4.24	150
NMHC	MSVAL/SOP/SE/003, Issue No 1	mg/Nm ³	1.45	100
Gas Discharge Rate	IS 11255(Part-3)	Nm ³ /hr	4353	-

INFERENCE	As per KSPCB Standards, Report Status :- The analyzed values for above measured parameter are within the limits
-----------	--

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

*** End of Report ***

Note: 1. The results listed only to the tested samples & applicable parameters.

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ANALYSIS REPORT FOR SOURCE EMISSION

1. Name and Address of the Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Stack ID : HCL E Furnace
3. Sample Collected By : MSV Analytical Laboratories
4. Date of Monitoring : 23.09.2025
5. Date of Sample Receipt : 24.09.2025
6. Sample Code : SE/2579
7. Analysis Starting Date : 24.09.2025
8. Analysis Completion Date : 29.09.2025
9. Report Issue date : 29.09.2025

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Stack emission ULR No: TC407125000021798F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with GTI-121
Fuel Used	-
Velocity (m/s)	7.40
Height (m)	30
Diameter (m)	0.15
Cross sectional area (m ²)	0.0176

RESULTS

Parameters	Protocol	Unit	Result	Standard
Acid Mist	MSVAL/SOP/USEPA/SE/002, Issue No 1	mg/Nm ³	6.84	35
Gas Discharge Rate	IS 11255(Part-3)	Nm ³ /hr	355	-

INFERENCE	As per KSPCB Standards,
	Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



Note: 1. The results listed only to the tested samples & applicable parameters.

2. Samples Will be disposed after the specified retention period.

3. This report is not to reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing

4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction Only.

5. Sampling is not done by us unless otherwise specified



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Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 08392-255169,

E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvalbellary.com



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ANALYSIS REPORT FOR SOURCE EMISSION

1. Name and Address of the Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Stack ID : HCL B Furnace
3. Sample Collected By : MSV Analytical Laboratories
4. Date of Monitoring : 23.09.2025
5. Date of Sample Receipt : 24.09.2025
6. Sample Code : SE/2580
7. Analysis Starting Date : 24.09.2025
8. Analysis Completion Date : 29.09.2025
9. Report Issue date : 29.09.2025

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Stack emission ULR No: TC407125000021799F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with GTI-121
Fuel Used	-
Velocity (m/s)	7.05
Height (m)	21.5
Diameter (m)	0.15
Cross sectional area (m ²)	0.0176

RESULTS

Parameters	Protocol	Unit	Result	Standard
Acid Mist	MSVAL/SOP/SE/002	mg/Nm ³	5.34	35
Gas Discharge Rate	IS 11255(Part-3)	Nm ³ /hr	338	-

INFERENCE	As per KSPCB Standards, Report Status :- The analyzed values for above measured parameter are within the limits
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Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



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ANALYSIS REPORT FOR SOURCE EMISSION

1. Name and Address of the Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Stack ID : HCL C Furnace
3. Sample Collected By : MSV Analytical Laboratories
4. Date of Monitoring : 23.09.2025
5. Date of Sample Receipt : 24.09.2025
6. Sample Code : SE/2581
7. Analysis Starting Date : 24.09.2025
8. Analysis Completion Date : 29.09.2025
9. Report Issue date : 29.09.2025

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Stack emission ULR No: TC407125000021800F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with GTI-121
Fuel Used	-
Velocity (m/s)	7.42
Height (m)	30
Diameter (m)	0.15
Cross sectional area (m ²)	0.0176

RESULTS

Parameters	Protocol	Unit	Result	Standard
Acid Mist	MSVAL/SOP/USEPA/SE/002, Issue No 1	mg/Nm ³	7.86	35
Gas Discharge Rate	IS 11255(Part-3)	Nm ³ /hr	337	-

INFERENCE	As per KSPCB Standards, Report Status :- The analyzed values for above measured parameter are within the limits
-----------	--

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



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ANALYSIS REPORT FOR SOURCE EMISSION

1. Name and Address of the Industry : M/s. Grasim Industries Limited,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttara Kannada- 581 307
2. Stack ID : HCL F Furnace
3. Sample Collected By : MSV Analytical Laboratories
4. Date of Monitoring : 23.09.2025
5. Date of Sample Receipt : 24.09.2025
6. Sample Code : SE/2582
7. Analysis Starting Date : 24.09.2025
8. Analysis Completion Date : 29.09.2025
9. Report Issue date : 29.09.2025

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Stack emission ULR No: TC407125000021801F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with GTI-121
Fuel Used	-
Velocity (m/s)	7.32
Height (m)	30
Diameter (m)	0.15
Cross sectional area (m ²)	0.0176

RESULTS

Parameters	Protocol	Unit	Result	Standard
Acid Mist	MSVAL/SOP/USEPA/SE/002, Issue No 1	mg/Nm ³	6.95	35
Gas Discharge Rate	IS 11255(Part-3)	Nm ³ /hr	351	-

INFERENCE	As per KSPCB Standards, Report Status :- The analyzed values for above measured parameter are within the limits
-----------	--

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



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Sanganakallu Road, KEB Circle, Bellary - 583103. Contact No : Mob: 9449803895, (0):9945456764, 08392-255169
E-mail : msvbellary2018@gmail.com, labmsv@gmail.com Website : www.msvbellary.com

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ANALYSIS REPORT FOR SOURCE EMISSION

1. Name and Address of the Industry : M/s. Grasim Industries Limited,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Stack ID : Sodium Hypochlorite Plant
3. Sample Collected By : MSV Analytical Laboratories
4. Date of Monitoring : 23.09.2025
5. Date of Sample Receipt : 24.09.2025
6. Sample Code : 8733
7. Analysis Starting Date : 24.09.2025
8. Analysis Completion Date : 29.09.2025
9. Report Issue date : 29.09.2025

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Stack emission ULR No: MSVAL/2025/3874

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with GTI-121
Fuel Used	-
Velocity (m/s)	7.68
Height (m)	21.5
Diameter (m)	0.3
Cross sectional area (m ²)	0.0707

RESULTS

Parameters	Protocol	Unit	Result	Standard
Chlorine	MSVAL/SOP/SE/002	mg/Nm ³	1.51	15
Gas Discharge Rate	IS 11255(Part-3)	Nm ³ /hr	1474	-

INFERENCE	As per KSPCB Standards, Report Status :- The analyzed values for above measured parameter are within the limits
-----------	--

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

*** End of Report ***



Note: 1. The results listed only to the tested samples & applicable parameters.

2. Water, Pollution & Environment & Food samples will be discarded after 10 days. Ores and minerals Filter papers & Thimbles will be discarded in 3 months from the date of issue of test reports, unless otherwise specified. ILC samples will be discarded after 1 month from the date of test reports.

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ANALYSIS REPORT FOR SOURCE EMISSION

1. Name and Address of the Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttara Kannada- 581 307
2. Stack ID : Phosphoric Acid Plant L 23
3. Sample Collected By : MSV Analytical Laboratories
4. Date of Monitoring : 23.09.2025
5. Date of Sample Receipt : 24.09.2025
6. Sample Code : SE/2587
7. Analysis Starting Date : 24.09.2025
8. Analysis Completion Date : 29.09.2025
9. Report Issue date : 29.09.2025

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Stack emission ULR No: TC407125000021818F

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with GTI-121
Fuel Used	-
Velocity (m/s)	7.81
Height (m)	19.2
Diameter (m)	0.15
Cross sectional area (m ²)	0.0176

RESULTS

Parameters	Protocol	Unit	Result	Standard
Acid Mist as HCL	MSVAL/SOP/USEPA/SE/002, Issue No 1	mg/Nm ³	6.33	35
Gas Discharge Rate	IS 11255(Part-3)	Nm ³ /hr	375	-

INFERENCE	As per KSPCB Standards,
	Report Status :- The analyzed values for above measured parameter are within the limits

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



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E-mail : msvallbellary2018@gmail.com, labmsv@gmail.com Website : www.msvallbellary.com

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ANALYSIS REPORT FOR SOURCE EMISSION

1. Name and Address of the Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Stack ID : Phosphoric Acid Plant L 23
3. Sample Collected By : MSV Analytical Laboratories
4. Date of Monitoring : 23.09.2025
5. Date of Sample Receipt : 24.09.2025
6. Sample Code : 8734
7. Analysis Starting Date : 24.09.2025
8. Analysis Completion Date : 29.09.2025
9. Report Issue date : 29.09.2025

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Stack emission ULR No: ULR No: MSVAL/2025/3875

GENERAL DETAILS

Instrument Used for Sampling	Sample collected with GTI-121
Fuel Used	-
Velocity (m/s)	7.81
Height (m)	19.2
Diameter (m)	0.15
Cross sectional area (m ²)	0.0176

RESULTS

Parameters	Protocol	Unit	Result	Standard
Flouride	IS 5182 (Part 13) : 1991	mg/Nm ³	3.16	25

INFERENCE	As per KSPCB Standards, Report Status :- The analyzed values for above measured parameter are within the limits
-----------	--

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

*** End of Report ***



Note: 1. The results listed only to the tested samples & applicable parameters.
2. Water, Pollution & Environment & Food samples will be discarded after 10 days. Ores and minerals Filter papers & Thimbles will be discarded in 3 months from the date of issue of test reports, unless otherwise specified. ILC samples will be discarded after 1 month from the date of test reports.
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E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvalbellary.com



TC- 4071

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ANALYSIS REPORT OF FUGITIVE EMISSION

- | | | |
|---|---|---|
| 1. Name and Address of Industry | : | M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307 |
| 2. Name of the location | : | Coal Handling Area |
| 3. Sample Collected By | : | MSV Analytical Laboratories |
| 4. Particulars of the sampling Equipments | : | Sample collected with High Volume Sampler |
| 5. Duration of Monitoring | : | 8 Hours |
| 6. Date of Monitoring | : | 23.09.2025 |
| 7. Date of Sample Receipt | : | 24.09.2025 |
| 8. Sample Code | : | FE/836 |
| 9. Analysis Starting Date | : | 24.09.2025 |
| 10. Analysis Completion Date | : | 29.09.2025 |
| 11. Report Issue Date | : | 29.09.2025 |
| 12. Sampling Protocol | : | IS 5182: Part 14: 2019 |

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Fugitive Emission

ULR No: TC407125000021806F

S. No	Parameter	Protocols	Units	Results
1	Suspended Particulate Matter	IS 5182 Part 4	mg/m ³	2.73

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



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ANALYSIS REPORT OF FUGITIVE EMISSION

1. Name and Address of Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Name of the location : Lime Handling Area
3. Sample Collected By : MSV Analytical Laboratories
4. Particulars of the sampling Equipments : Sample collected with High Volume Sampler
5. Duration of Monitoring : 8 Hours
6. Date of Monitoring : 23.09.2025
7. Date of Sample Receipt : 24.09.2025
8. Sample Code : FE/837
9. Analysis Starting Date : 24.09.2025
10. Analysis Completion Date : 29.09.2025
11. Report Issue Date : 29.09.2025
12. Sampling Protocol : IS 5182: Part 14: 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Fugitive Emission

ULR No: TC407125000021806F

S. No	Parameter	Protocols	Units	Results
1	Suspended Particulate Matter	IS 5182 Part 4	mg/m ³	2.48

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

*** End of Report ***



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ANALYSIS REPORT OF FUGITIVE EMISSION

1. Name and Address of Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Name of the location : Rock Handling Area
3. Sample Collected By : MSV Analytical Laboratories
4. Particulars of the sampling Equipments : Sample collected with High Volume Sampler
5. Duration of Monitoring : 8 Hours
6. Date of Monitoring : 23.09.2025
7. Date of Sample Receipt : 24.09.2025
8. Sample Code : FE/838
9. Analysis Starting Date : 24.09.2025
10. Analysis Completion Date : 29.09.2025
11. Report Issue Date : 29.09.2025
12. Sampling Protocol : IS 5182: Part 14: 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Fugitive Emission

ULR No: TC407125000021806F

S. No	Parameter	Protocols	Units	Results
1	Suspended Particulate Matter	IS 5182 Part 4	mg/m ³	0.72

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

*** End of Report ***



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ANALYSIS REPORT OF FUGITIVE EMISSION

1. Name and Address of Industry : M/s. Grasim Industries Limited,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Name of the location : HCL Storage Caustic Soda
3. Sample Collected By : MSV Analytical Laboratories
4. Particulars of the sampling Equipments : Sample collected with High Volume Sampler
5. Duration of Monitoring : 8 Hours
6. Date of Monitoring : 23.09.2025
7. Date of Sample Receipt : 24.09.2025
8. Sample Code : FE/839
9. Analysis Starting Date : 24.09.2025
10. Analysis Completion Date : 29.09.2025
11. Report Issue Date : 29.09.2025
12. Sampling Protocol : IS 5182: Part 14: 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Fugitive Emission
ULR No: TC407125000021806F

S. No	Parameter	Protocols	Units	Results
1	HCL	IS 5182 Part 4	mg/m ³	Not Detected

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

*** End of Report ***



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E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvalbellary.com



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ANALYSIS REPORT OF FUGITIVE EMISSION

1. Name and Address of Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Name of the location : HCL Storage Phosphoric Acid
3. Sample Collected By : MSV Analytical Laboratories
4. Particulars of the sampling Equipments : Sample collected with High Volume Sampler
5. Duration of Monitoring : 8 Hours
6. Date of Monitoring : 23.09.2025
7. Date of Sample Receipt : 24.09.2025
8. Sample Code : FE/840
9. Analysis Starting Date : 24.09.2025
10. Analysis Completion Date : 29.09.2025
11. Report Issue Date : 29.09.2025
12. Sampling Protocol : IS 5182: Part 14: 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Fugitive Emission

ULR No: TC407125000021806F

S. No	Parameter	Protocols	Units	Results
1	Suspended Particulate Matter	IS 5182 Part 4	mg/m ³	1.52
2	HCL	IS 5182 Part 4	mg/m ³	Not Detected
3	HF	IS 5182 Part 13	mg/m ³	Not Detected

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



Note: 1. The results listed only to the tested samples & applicable parameters.

2. Samples Will be disposed after the specified retention period.

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4. Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Bellary Jurisdiction Only.

5. Sampling is not done by us unless otherwise specified



MSV Analytical Laboratories

Recognition by MoEF under Environment (Protection) Act, 1986 and Accredited by NABL

(Certified by ISO 14001:2015, ISO 45001:2018, ISO 9001:2015, ISO 22000:2018)

C.M.C Ward No 18 & C.T.C W.No.16 T.S No. 695/A/32/B1, Block No 19 (1st & 2nd Floor)

Sanganakallu Road, KEB Circle, Ballari - 583103 Contact No : Mob : 94498 03895, (O) : 08392-255169,

E-mail : msvalbellary2018@gmail.com, labmsv@gmail.com, Website : www.msvalbellary.com



TC- 4071

MSVAL/QR/7.8/1

ANALYSIS REPORT OF FUGITIVE EMISSION

1. Name and Address of Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Name of the location : Liquid Chlorine Area
3. Sample Collected By : MSV Analytical Laboratories
4. Particulars of the sampling Equipments : Sample collected with High Volume Sampler
5. Duration of Monitoring : 8 Hours
6. Date of Monitoring : 23.09.2025
7. Date of Sample Receipt : 24.09.2025
8. Sample Code : FE/841
9. Analysis Starting Date : 24.09.2025
10. Analysis Completion Date : 29.09.2025
11. Report Issue Date : 29.09.2025
12. Sampling Protocol : IS 5182: Part 14: 2019

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Fugitive Emission
ULR No: TC407125000021806F

S. No	Parameter	Protocols	Units	Results
1	Chlorine	IS 5182 Part 4	mg/m ³	Not Detected

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

*** End of Report ***



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Annexure- 5

Grasim Industries Limited
(Chemical Division, Binaga, Karwar)

Air Pollution Control Equipment Details (APC'S)

Sr. No	Air Pollution Sources	Name of APCE's	Attached to	Status
1	10 TPH Boiler (Coal Fired)	Bag Filter	10 TPH Stack	APCE's in working condition
2	18 TPH Boiler (Coal Fired)	Bag Filter	18 TPH Stack	APCE's in working condition
3	Sodium Hypochlorite Scrubber	Caustic Scrubber	Hypo Plant stack	APCE's in working condition
4	Absorption tower for HCL plant	Water Scrubber	HCL Plant Furnace stacks	APCE's in working condition
5	Scrubber for Phosphoric Plant	Water Scrubber	Phosphoric Acid stack	APCE's in working condition



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TC- 4071

MSVAL/QR/7.8/1

ANALYSIS REPORT FOR SOURCE EMISSION

1. Name and Address of the Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Stack ID : 18 TPH Boiler (Bag Filter Efficiency)
3. Sample Collected By : MSV Analytical Laboratories
4. Date of Monitoring : 23.09.2025
5. Date of Sample Receipt : 24.09.2025
6. Sample Code : SE/2583
7. Analysis Starting Date : 24.09.2025
8. Analysis Completion Date : 29.09.2025
9. Report Issue date : 29.09.2025

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Stack Emission ULR No: TC407125000021802F

RESULTS

Sl. No	PARTICULARS	BEFORE APCD (Inlet)	AFTER APCD (Outlet)	DIFFERENCE	% of EFFICIENCY
1	Fuel Used	Coal	Coal		
2	Height (M)	-	36		
3	Diameter (M)	-	1.10		
4	Stack Temperature °C	148	127	1385.39	96.30
5	Ambient Temperature °C	28	27		
6	Flue Gas Velocity (m/sec.)	9.30	7.99		
7	Particulate Matter (mg/Nm ³)	1438.5	53.11		

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory



Note: 1. The results listed only to the tested samples & applicable parameters.

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MSV Analytical Laboratories

Accredited by NABL

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TC- 4071

MSVAL/QR/7.8/1

ANALYSIS REPORT FOR SOURCE EMISSION

1. Name and Address of the Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada - 581 307
2. Stack ID : 18 TPH Boiler (Bag Filter Efficiency)
3. Sample Collected By : MSV Analytical Laboratories
4. Date of Monitoring : 24.06.2025
5. Date of Sample Receipt : 25.06.2025
6. Sample Code : SE/527
7. Analysis Starting Date : 25.06.2025
8. Analysis Completion Date : 30.06.2025
9. Report Issue date : 30.06.2025

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Stack Emission ULR No: TC407125000013054F

RESULTS

Sl. No	PARTICULARS	BEFORE APCD (Inlet)	AFTER APCD (Outlet)	DIFFERENCE	% of EFFICIENCY
1	Fuel Used	Coal	Coal		
2	Height (M)	-	36		
3	Diameter (M)	-	1.10		
4	Stack Temperature °C	150	128	1423.97	95.55
5	Ambient Temperature °C	31	29		
6	Flue Gas Velocity (m/sec.)	9.75	8.20		
7	Particulate Matter (mg/Nm ³)	1490.2	66.23		

Analysed by

Authorized Signatory

Hanumanthaiah.P
Technical Manager



- Note: 1. The results listed only to the tested samples & applicable parameters,
2. Water samples will destroyed after 10days, Filter papers & Thimbles will be destroyed 3months from the date of issue of test certificate unless otherwise specified. ILC sample will be destroyed after 1 month from the date of test certificate issue.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Ballari Jurisdiction only.
5. Sampling is not done by us unless otherwise specified. 6. The tests and/or calibrations marked with an are not accredited by NABL.

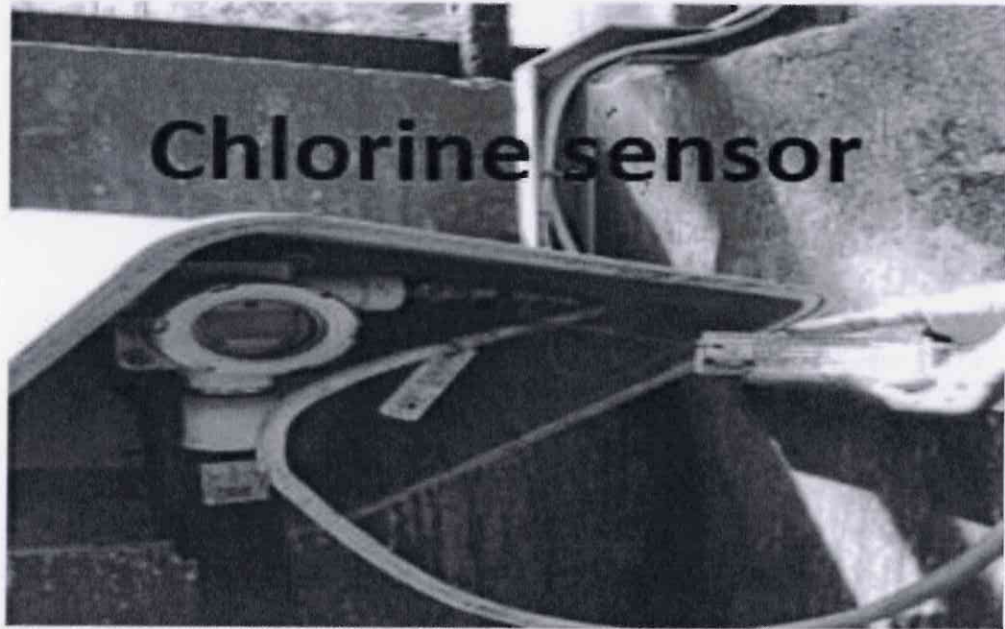
Chlorine Sensor Details				
Sl	Location	Tag No.	Type of detector	ID No.
1	Cl2 compressor	AT-2201	Chlorine detector	D-035
2	Cl2 compressor	AT-2202	Chlorine detector	D-036
3	Cl2 Storage	AT-2401	Chlorine detector	D-008
4	Cl2 Storage	AT-2402	Chlorine detector	D-009
5	Cl2 Storage	AT-2403	Chlorine detector	D-010
6	Cl2 filling	AT-2404	Chlorine detector	D-037
7	Cl2 filling	AT-2405	Chlorine detector	D-038
8	Cl2 filling	AT-2406	Chlorine detector	D-039
9	Cl2 filling	AT-2407	Chlorine detector	D-040
10	Cl2 Storage	AT-2408	Chlorine detector	D-073
11	Cl2 Storage	AT-2409	Chlorine detector	D-074
12	Cl2 cell house	AT-1151	Chlorine detector	D-034
13	Cl2 filling	AT-2411	Chlorine detector	D-267
14	Cl2 filling	AT-2412	Chlorine detector	D-268
15	Cl2 filling	AT-2413	Chlorine detector	D-269
16	Hypo	AT-2602	Chlorine detector	D-041
17	Padding air	AT-2603	Chlorine detector	D-317
18	Cl2 filling	AT-2410	Chlorine detector	D-266
19	Nr. Electrolizer	AT-1154	Chlorine detector	D-318
20	Washing tower	AT-2101	Chlorine detector	D-319
21	CL2 CDT TNK BLDG	AT-2102	Chlorine detector	D-320
22	CL2 HYPO BLDG	AT-2604	Chlorine detector	D-321
23	CL2 WESTSIDE CELL HOUSE	AT-2605	Chlorine detector	D-322
24	CL2 HYPO DISPATCH	AT-2606	Chlorine detector	D-323
25	CL2 BOUNDARY WALL	AT-2414	Chlorine detector	D-324
26	CL2 MATERIAL GATE	AT-2415	Chlorine detector	D-325
27	CL2 SALT GDWN	AT-0101	Chlorine detector	D-326
28	CL2 CLNG TWR	AT-7502	Chlorine detector	D-327

29	CL2 TIME OFFICE	AT-0102	Chlorine detector	D-328
30	CL2 Header HCL Plant	AT-5101	Chlorine detector	D-329
31	Old HCL Furnace	AT-5102	Chlorine detector	D-330
32	Cl2 Light up for Furnace E &F	AT-5103	Chlorine detector	D-331
33	Cl2 Near cl2 HDR E&F	AT-5104	Chlorine detector	D-332
34	Cl2 tonner roadside	At-2416	Chlorine detector	D-332
35	Cl2 tonner Boundary wall	AT-2417	Chlorine detector	D-333
36	Drying tower 1st floor	AT-2104	Chlorine detector	D-334
37	Drying tower top floor	AT-2105	Chlorine detector	D-335
38	H2so4 Tank area	AT-2106	Chlorine detector	D-336
39	Chiller entrance Road side	AT-2204	Chlorine detector	D-337
40	S. Brine 1st floor near ion exchange	AT-2103	Chlorine detector	D-338
41	Near Air compressor room	AT-2111	Chlorine detector	D-339
42	HCL Loading point	AT-5105	Chlorine detector	D-340
43	CCU 1 st floor	AT-2107	Chlorine detector	D-341
44	Near Polish brine tank	AT-2108	Chlorine detector	D-342
45	Process Building near PV-1159	AT-2109	Chlorine detector	D-343
46	Process Building near Vacuum pump	AT-2110	Chlorine detector	D-344

Hydrogen Sensor Details

1	Cell house 1-12	AT-1152	H2 detector	
2	Cell house 1-13	AT-1153	H2 detector	
3	H2 sensor at manifold 1	AI-4156	H2 detector	
4	H2 sensor at manifold 2	AI-4157	H2 detector	
5	H2 sensor near H2 com 2	AI-4155	H2 detector	
6	H2 sensor near H2 comp 1	AI-4154	H2 detector	
7	H2 holder outlet near u seal	AI-4158	H2 detector	
8	H2 holder inlet near u seal	AI-4159	H2 detector	
9	H2 seal pot	AI-4160	H2 detector	

Chlorine sensor



Hydrogen sensor





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TC- 4071

MSVAL/QR/7.8/1

AMBIENT NOISE LEVEL MONITORING REPORT

1. Name and Address of the Industry : M/s. Grasim Industries Limited.,
Chemical Division, Karwar, P.O. Binaga
Dist - Uttar Kannada- 581 307
2. Sample Collected By : MSV Analytical Laboratories
3. Particulars of Sample Collected : Noise meter
4. Date of Monitoring : 23.09.2025 & 24.09.2025
5. Report Issue Date : 29.09.2025
6. Method Adopted : IS 9989: 2020

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Noise ULR NO: TC407125000021795F

S.No	Sample Location	Sample Code	Time Frequency	Results (Day time)			
				Maximum in dB(A) Leq	Minimum in dB(A) Leq	Leq. in dB(A)	Permissible limits in dB(A) Leq
1	Station 1- OHC (Occupational Health Center)	AN/3621	23.09.2025 @ 06.00am to 10.00pm	67.9	64.1	66.4	75* (6.00am to 10.00pm)
2	Station 4 - Boiler	AN/3622	23.09.2025 @ 06.00am to 10.00pm	69.3	66.5	67.7	
3	Station 5 - ETP Plant	AN/3623	23.09.2025 @ 06.00am to 10.00pm	71.2	68.4	69.3	
4	Station 2 - Geca Club	AN/3624	24.09.2025 @ 06.00am to 10.00pm	52.1	50.7	51.0	55** (6.00am to 10.00pm)
5	Station 3 - Guest House	AN/3625	24.09.2025 @ 06.00am to 10.00pm	49.9	46.6	48.1	

* Industrial Area Noise Limits, **Residential Area Noise Limits.

INFERENCE	As per KSPCB Standards, Report Status :- The Noise level for the all locations is within the limits
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Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

*** End of Report ***



Note: 1. The results listed only to the tested samples & applicable parameters.

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MSVAL/QR/7.8/1

AMBIENT NOISE LEVEL MONITORING REPORT

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Dist - Uttar Kannada- 581 307
2. Sample Collected By : MSV Analytical Laboratories
3. Particulars of Sample Collected : Noise meter
4. Date of Monitoring : 23.09.2025 & 24.09.2025
5. Report Issue Date : 29.09.2025
6. Method Adopted : IS 9989: 2020

Discipline: Chemical Group: Atmospheric Pollution Sub Group: Ambient Noise ULR NO: TC407125000021796F

S.No	Sample Location	Sample Code	Time Frequency	Results (Night time)			
				Maximum in dB(A) Leq	Minimum in dB(A) Leq	Leq. in dB(A)	Permissible limits in dB(A) Leq
1	Station 1- OHC (Occupational Health Center)	AN/3626	23.09.2025 @ 10.00pm to 24.09.2025 @ 06.00am	54.6	51.0	52.4	70* (10.00pm to 6.00am)
2	Station 4 - Boiler	AN/3627	23.09.2025 @ 10.00pm to 24.09.2025 @ 06.00am	57.0	55.6	56.1	
3	Station 5 - ETP Plant	AN/3628	23.09.2025 @ 10.00pm to 24.09.2025 @ 06.00am	52.9	50.2	51.0	
4	Station 2 - Geca Club	AN/3629	24.09.2025 @ 10.00pm to 25.09.2025 @ 06.00am	40.3	37.6	39.6	45** (10.00pm to 6.00am)
5	Station 3 - Guest House	AN/3630	24.09.2025 @ 10.00pm to 25.09.2025 @ 06.00am	37.9	34.1	36.2	

* Industrial Area Noise Limits, **Residential Area Noise Limits.

INFERENCE	As per KSPCB Standards,
	Report Status :- The Noise level for the all locations is within the limits

Analysed by

Authorized Signatory

B.Chinna Lingana Gouda
Chief executive of the laboratory

*** End of Report ***



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