सत्यमेव जयते

**File No:** J-11011/284/2006-IA.II(I)
**Government of India**
**Ministry of Environment, Forest and Climate Change**
**IA Division**
*******

Date **15/10/2025**

To,

Manish Garg
GRASIM INDUSTRIES LIMITED
Grasim Industries Limited, Chemical Division, Renukoot, Murdhawa Compartment 6, P.O. Renukoot, Tehsil – Duddhi, District – Sonebhadra (Uttar Pradesh) - 231217 , SONBHADRA, UTTAR PRADESH, , 231217
grcd-rnq.environment@adityabirla.com

**Subject:** Grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 -regarding.

**Sir/Madam,**

This is in reference to your application submitted to MoEF&CC vide proposal number IA/UP/IND3/529741/2025 dated 14/05/2025 for grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and as amended thereof.

2. The particulars of the proposal are as below :

| | |
|---|---|
| **(i) EC Identification No.** | EC25A1601UP5881917N |
| **(ii) File No.** | J-11011/284/2006-IA.II(I) |
| **(iii) Clearance Type** | Fresh EC |
| **(iv) Category** | A |
| **(v) Project/Activity Included Schedule No.** | 4(d) Chlor-alkali industry,1(d) Thermal Power Plants,5(f) Synthetic organic chemicals industry |
| **(vi) Sector** | Industrial Projects - 3 |
| **(vii) Name of Project** | Expansion of Caustic Soda Plant{129000-219000TPA;17000 Debottlenecking (DB),73000 new machinery (NM)},Liquid Chlorine(103560-183435TPA;15088-DB,64788-NM),Hydrogen(3300-5602TPA;435-DB,1867-NM),HCl(25284-54750TPA;7566-DB,21900-NM),NaOCl(1836-7921TPA),SBP(64800-87600TPA),CPW(21600-43500TPA),AlCl3(18000-36500TPA),PAC(72000-164250TPA) & CPP(50-85MW) with add. of new |

| | |
|---|---|
| | products-Sod. Sulphate(3000TPA),H2SO4(3650TPA),PAC-Powder(12775TPA) & HCl from VAPs(27375TPA) at Renukoot, UP by Grasim Industries Ltd. |
| **(viii) Name of Company/Organization** | GRASIM INDUSTRIES LIMITED |
| **(ix) Location of Project (District, State)** | SONBHADRA, UTTAR PRADESH |
| **(x) Issuing Authority** | MoEF&CC |
| **(xi) Applicability of General Conditions as per EIA Notification, 2006** | No |

3. The The Ministry of Environment, Forest and Climate Change has examined the proposal seeking environmental clearance for "Expansion of Caustic Soda Plant (1,29,000 to 2,19,000 TPA - 17,000 TPA by Debottlenecking & 73,000 TPA by installation of new machinery), Liquid Chlorine (1,03,560 to 1,83,435 TPA - 15,088 TPA by Debottlenecking & 64,788 TPA by installation of new machinery), Hydrogen (3,300 to 5,602 TPA - 435 TPA by Debottlenecking & 1,867 TPA by installation of new machinery), Hydrochloric Acid (25,284 to 54,750 TPA - 7,566 TPA by Debottlenecking & 21,900 TPA by installation of new machinery ), Sodium Hypochlorite (1,836 to 7,921 TPA), Stable Bleaching Powder (64,800 to 87,600 TPA), Chlorinated Paraffin Wax (21,600 to 43,500 TPA), Aluminium Chloride (18,000 to 36,500 TPA), Poly-Aluminium Chloride (72,000 to 1,64,250 TPA) & CPP (50 to 85 MW) along with addition of new products - Sodium Sulphate (3,000 TPA), Sulphuric Acid (3,650 TPA), Poly-Aluminium Chloride (PAC)-Powder (12,775 TPA) & Hydrochloric Acid (HCl) from VAPs (27,375 TPA) at Murdhawa Compartment - 6, P.O.: Renukoot, Tehsil: Dudhi, District - Sonebhadra (Uttar Pradesh)" by M/s. Grasim Industries Limited (Chemical Division, Renukoot)".

4. The project is covered under the Category "A" Project or Activity - 4(d) Chlor-alkali Industry; and minor activities - 5(f) Synthetic Organic Chemicals Industry & 1(d) Thermal Power Plants of the Environment Impact Assessment (EIA) Notification, 2006 (amended from time to time) and hence the proposal is appraised at the Central Level by the Expert Appraisal Committee (EAC).

5. Ministry has issued EC vide letter no. J-11011/284/2006-IA-II(I) dated 21st May, 2007 to M/s. Kanoria Chemicals & Industries Ltd for the existing Membrane Cell based Caustic Soda Plant of 365 TPD. Thereafter, MoEFCC vide Letter No. 11011/284/2006-IA-II-(I) dated 28th Nov., 2022 has transferred EC dated 21st May, 2007 from M/s. Kanoria Chemicals & Industries Ltd. to M/s. Grasim Industries Limited.

6. ToR has been issued by Ministry vide Letter No J-11011/284/2006-IA-II-(I) dated 15th July, 2024. The project proposal was considered by the Expert Appraisal Committee (Industry-3) in its 101st meeting held on 23rd May 2025 and the Committee deferred the project for want of addl. Information and site visit. Further, the proposal was considered by the EAC in its 105th meeting held on 15th – 16th July 2025 wherein the Project Proponent and the accredited Consultant namely M/s. J.M. EnviroNet Pvt. Ltd. (NABET Accreditation Number: NABET/EIA/23-26/RA 0308 valid till 7th August,2026) made a detailed presentation on the salient features of the project.

7. PP reported that the existing land area is 325 acres (~131.52 ha). Proposed expansion will be done within existing plant premises; thus, no additional land will be required.

PP reported that the existing plant of Grasim Industries Ltd. (GIL) at Renukoot (U.P.) was initially established by M/s. Kanoria Chemicals & Industries Ltd. in 1963 on forest land (325 acres) transferred by Govt. of U.P. under Government Grants Act, 1882 through Sale Deeds dated 20th April, 1963, with a condition that the said land shall be used by the company for construction of Caustic Soda Industry. Presently, GIL is using that 325 acres land for the same purpose as for which Govt. of U.P. has transferred that forest land.

8. The details of products and capacity as under:

| S. No. | Product | UOM | Existing Capacity | Additional Capacity | | | Total Capacity After Expansion | CAS No. | Uses |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Modification by debottlenecking | New Machinery | Total | | | |
| **A.** | **Main Product** | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1. | Caustic Soda | TPA | 1,29,000 | 17,000 | 73,000 | 90,000 | 2,19,000 | 1310-73-2 | Soap and detergent making |
| **B** | **Other Products** | | | | | | | | |
| **1.** | **By-Products** | | | | | | | | |
| i. | Liquid Chlorine* | TPA | 1,03,560 | 15,088 | 64,787 | 79,876 | 1,83,435 | 7782-50-5 | Water treatment and other products |
| ii. | Hydrogen* | TPA | 3,300 | 435 | 1,867 | 2,302 | 5,602 | 1333-74-0 | Other products manufacturing, green fuel |
| iii. | Hydrochloric Acid (HCl)* | TPA | 25,284 | 7,566 | 21,900 | 29,466 | 54,750 | 7647-01-0 | Fertilizers and dye industry |
| **2.** | **Value-added Products** | | | | | | | | |
| i. | Sodium Hypochlorite (NaOCl)* | TPA | 1,836 | Nil | 6,085 | 6,085 | 7,921 | 7681-52-9 | Disinfectant |
| ii. | Stable Bleaching Powder (SBP)* | TPA | 64,800 | Nil | 22,800 | 22,800 | 87,600 | 7778-54-3 | Bleaching agent and disinfection |
| iii. | Chlorinated Paraffin Wax (CPW) | TPA | 21,600 | Nil | 21,900 | 21,900 | 43,500 | 85535-85-9 | Flame retardant and plasticizers |
| iv. | Aluminium Chloride (ALCP)* | TPA | 18,000 | Nil | 18,500 | 18,500 | 36,500 | 7446-70-0 | Pharmaceuticals and paint industry use |
| v. | Poly-Aluminium Chloride (PAC)* | TPA | 72,000 | Nil | 92,250 | 92,250 | 1,64,250 | 1327-41-9 | Deodorants, antiperspirants and in water treatment |
| vi. | Sodium Sulphate* | TPA | Nil | Nil | 3,000 | 3,000 | 3,000 | 7757-82-6 | Detergents and laxatives |
| vii. | Sulphuric Acid* | TPA | Nil | Nil | 3,650 | 3,650 | 3,650 | 7664-93-9 | Fertilizers, petroleum products |
| viii. | Poly-Aluminium Chloride (PAC)-Powder* | TPA | Nil | Nil | 12,775 | 12,775 | 12,775 | 1327-41-9 | Water treatment |
| ix. | Hydrochloric Acid (HCl) from VAPs* | TPA | Nil | Nil | 27,375 | 27,375 | 27,375 | 7647-01-0 | Fertilizers and dye industry |
| **C.** | **Associated Activities** | | | | | | | | |
| 1. | Power CPP | MW | 50 (2 x 25) | Nil | 35 | 35 | 85 | - | For Power Generation |

Note: *EC is not required as per EIA Notification, 2006; as amended from time to time.

9. The PP reported that there is no violation as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act.

Certified Compliance Report was obtained vide letter no. IV/ENV/UP/IND-70/ 184/2005 & IV/ENV/UP/IND-89/233/2007/227 dated 30th September, 2024 from IRO, Lucknow. It is reported that out of 46 conditions; 4 are complied, 2 agreed to comply, 4 not applicable and 36 being complied .

10. Details/Chronology of existing EC, CTO, CTE:

- 1st EC was obtained for the existing Membrane Cell based Caustic Soda Plant of 365 TPD was obtained from MoEFCC, New Delhi vide Letter No. J-11011/284/2006-IA-II(I) dated 21st May, 2007 in the name of M/s. Kanoria Chemicals & Industries Ltd
- Transfer of EC from M/s. Kanoria Chemicals & Industries Ltd. to M/s. Grasim Industries Limited was obtained from MoEFCC, New Delhi vide Letter No. 11011/284/2006-IA-II-(I) dated 28th Nov., 2022.
- Consolidated Consent to Operate (CTO) for Caustic Soda, Liquid Chlorine, Hydrogen, Hydrochloric Acid, Sodium Hypochlorite, Stable Bleaching Powder, Chlorinated Paraffin Wax, Aluminium Chloride and Poly-Aluminium Chloride was obtained from Uttar Pradesh Pollution Control Board vide Letter No.222667/UPPCB/Sonebhadra (UPPCBRO)/ CTO/both/ SONBHADRA/ 2024 dated 16th Dec., 2024 (valid upto 31st Dec., 2029)
- Consolidated Consent to Operate (CTO) for Captive Power Plant was obtained from Uttar Pradesh Pollution Control Board Vide letter 220187/UPPCB/Sonebhadra (UPPCBRO)/CTO/both/ SONBHADRA/2024 dated 15th Dec., 2024 (valid upto 31st Dec., 2029).

11. PP reported that there are no National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger/Elephant Reserve, Wildlife Corridor etc. within 10 km distance from the plant site. Rihand River (3.0 km in West direction) is the perennial river flowing in

10 km radius of plant site. Other water bodies in 10 km radius study area are -Govind Ballabh Pant Sagar Reservoir (0.5 km in South direction) , Lauwa Nadi (7.5 km in SE direction), Pokhari Nadi (8.5 km in NW direction), Dongiya Nala (1.5 km in SE direction) ,Bhaisa Nala (2.0 km in SSE direction), Murdhauwa Nala (3.0 km in NW direction), Kanal Nala (6.0 km in SSW direction), Belguri Nala (6.5 km in North direction), Bakia Nala (9.0 km in NW direction), Baghuwa Nala (9.0 km in North direction), Jatkhair Nala (9.5 km in South direction). Thirty four Schedule - I species were recorded within 10 km radius of the study area namely Blackbuck (Antilope cervicapra), Jackal (Canis aureus), Indian Wolf (Canis lupus), Asiatic Wild Dog/Dhole (Cuon alpinus), Jungle Cat (Felis chaus), Indian Porcupine (Hystrix indica), Honey Badger/Ratal (Mellivora capensis), Sambhar (Rusa unicolor), Indian Grey Mongoose (Urva edwardsii), Indian Retal (Mellivora indica), Otter (Lutra perspicillata), Indian Gazelle (Gazella gazella), Indian Fox (Vulpes bengalensis), Striped Hyena (Hyaena hyaena), Leopard (Panthera pardus), Red Necked Falcon (Falco chicquera), Sarus Crane (Grus antigone), White-Rumpe Vulture (Gyps bengalensis), Griffon Vulture (Gyps fulvus), Brahminy Kite (Haliastur indus), Egyptian Vulture (Neophron percnopterus), Peafowl (Pavo cristatus), Brown Wood Owl (Strix leptogrammica), Shikra (Accipiter badius), Marsh Crocodile (Crocodylus palustris), Russell Viper (Daboia russelii), Indian Cobra (Naja naja), Indian Rat Snake/Dhaman (Ptyas mucosa), Indian Python (Python molurus), Indian Star Tortoise (Testudo elegans), Indian Monitor Lizard (Varanus bengalensis), Indian Chameleon (Chamaeleo zeylanicus), King Cobra (Naja hannah scheleg), and Water Snake (Trimeresurus fuscomaculatus) according to (IWPA) Indian Wildlife (Protection) Amendment Act, 2022. Wildlife Conservation Plan for Schedule - I species has been prepared and submitted to DFO, Renukoot with an allocation budget of Rs. 50.45 Lacs vide letter no. GIL/ENV/2024-25/67 dated 07th Oct., 2024 for authentication.

12. PP reported that Ambient air quality monitoring was carried out at 8 locations during Winter Season (i.e. December, 2023 to February,2024) and the baseline indicates the ranges of concentration as PM10 between 55.6 to 88.3 µg/$m^3$, PM2.5 between 24.3 to 47.8 µg/$m^3$, SO2 5.9 to 16.3 µg/$m^3$, NOx 13.1 to 26.6 µg/$m^3$. AAQ Modelling Study for point source emission indicates that the maximum incremental GLCs after proposed project would be 0.65 µg/$m^3$, 0.44 µg/$m^3$, 1.01 µg/$m^3$, 1.12 µg/$m^3$ with respect to $PM_{10}$, $PM_{2.5}$, $SO_2$, & NOx. The resultant concentration are within the National Ambient Air Quality Standards (NAAQS).

13. PP reported that total water requirement is 12,223 KLD (Fresh water - 10771 KLD & Recycled water - 1452 KLD) will be met from Rihand Reservoir & Recycled Water. The Permission / NOC has already been obtained from Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL) dated 16th January, 2019 (valid till 31st Dec., 2028) for water intake from Rihand Reservoir.

14. PP reported that effluent of 607 KLD will be treated in the existing ETP having designed capacity of 1000 KLD. Sewage will be treated in the Sewage Treatment Plant. The plant will maintain Zero Liquid Discharge (ZLD) System.

15. Rainwater storage capacity: PP reported that the existing plant includes two storage ponds having dimension 20*20*2 with area of 800 sq. m. Each pond is filled nine times per year. The rainwater storage capacity is 1600 cubic meters. The combined total capacity for rainwater harvesting across all ponds is 14400 cubic meters.

16. PP reported that Power requirement after expansion will be 77 MW including existing 45 MW and will be met from Captive Power Plant (85 MW), Rihand Power Station & D.G. Sets (for back-up). Existing unit has 11 nos. of D.G Sets having capacity - (7 x 500 KVA), (2 x 320 KVA), (1 x 125 KVA) and (1 x 1875 KVA) which are being used as standby during power failure. Stack height of existing D.G Sets are between 11 - 36 m as per CPCB norms. No additional D.G Sets are proposed.

17. PP reported that Existing unit has 28 TPH Coal fired boilers and 12 TPH hydrogen fired boilers. No additional Boiler will be installed. Boiler details are given in table below:

| **Boiler No.** | **Type of fuel** | **Capacity (TPH)** | | | **Existing Emission (mg/$Nm^3$)** | **Air Pollution Control Measures** | **Stack height** |
|---|---|---|---|---|---|---|---|
| | | **Existing** | **Additional** | **Total** | | | |
| 1. | Coal fired | 28 | Nil | 28 | Max. 150 | Bag filters | 60 m and 55 m |
| 2. | Hydrogen fired | 12 | Nil | 12 | -- | No emission | - |

18. Details of fuel to be used:

| S. No. | Particular | Required Quantity | | | Approx. Distance of Source | Source | Mode of Transportation |
|---|---|---|---|---|---|---|---|
| | | Existing | Additional | Total after proposed expansion | | | |
| **For CPP** | | | | | | | |
| 1. | Coal (TPA) | 4,32,000 | 3,06,600 | 7,38,600 | 75 | Northern Coal Fields Limited, Bina; NCL – Block – B | Road / Rail |
| 2. | HS Diesel (KL) | 84 | 60 | 144 | 150 | Indian Oil, Mughalsarai Depot | Road |
| **For Boiler** | | | | | | | |
| 1. | Coal (TPA) | 25,550 | 25,550 | 51,100 | 75 | Northern Coal Fields Limited, Bina; NCL – Block – B | Road / Rail |
| 2. | Hydrogen ($NM^3$ /hr.) | 2,700 | Nil | 2,700 | Captive | By-product of Caustic Lye Preparation | Pipeline |
| **For D.G. Set** | | | | | | | |
| 1. | HSD (KL/year) | 8.0 | Nil | 8.0 | 150 | Indian Oil, Mughalsarai Depot | Road |

19. Details of Process emission generation and its management:

| Source | Pollutants | Pollution Control Equipment's / Devices |
|---|---|---|
| Chlor-Alkali Plant | HCl Vapors | Water Scrubbers/ Caustic Scrubbers |
| | Chlorine gas | Caustic Scrubbers |
| | HCl vapors | Water Scrubbers/ Caustic Scrubbers |
| | Chlorine gas | Alkali Scrubbers |
| SBP Plant | SPM & Chlorine Gas | Dust Suppression & Bag Filters & Caustic Scrubbers |
| CPP | PM, SOx, NOx, CO | Electrostatic Precipitators |
| CPW | Chlorine & HCl vapors | Alkali Scrubbers & Water Scrubbers |
| DG Sets | PM, SOx, NOx, CO | Adequate Stack Height |
| Construction Work | PM | Greenbelt, Dust Suppression |
| Transportation | PM, SO2, Nox | Green belt, internal roads are asphalted and swept regularly |

20. Details of Solid waste/ Hazardous waste generation and its management:

**Solid Waste Management**

| S. No. | Type of Waste | Waste Category | MT per Year | | | Treatment/ Disposal |
|---|---|---|---|---|---|---|
| | | | Existing | Additional | Total | |
| 1. | Metal Scrap | Non-Hazardous | 1200 | 500 | 1700 | Sold to recyclers |
| 2. | HDPE/LDPE Bags, etc. | Non-Hazardous | 250 | 150 | 400 | |
| 3. | Battery Waste | Hazardous | 300 | 150 | 450 | |
| 4. | E-waste | Hazardous | 30 | 20 | 50 | |
| 5. | Fly Ash | Non-Hazardous | 150000 | 95000 | 245000 | Send to cement / brick manufacturers |

**Hazardous Waste Management**

| S. No. | Type of Waste | Waste Category | MT per Year | | | Treatment/ Disposal |
|---|---|---|---|---|---|---|
| | | | Existing | Additional | Total | |
| 1. | Spent Resin | Sch - I Cat : 35.2 | 50 | 25 | 75 | TSDF |
| 2. | Spent Carbon | Sch - I Cat : 36.2 | 20 | 10 | 30 | TSDF |
| 3. | Used or spent oil | Sch - I Cat : 5.1 | 50 | - | 50 | Authorized Recycler |
| 4. | Wastes or residues containing oil | Sch - I Cat : 5.2 | 5 | 2 | 7 | TSDF |
| 5. | Brine Sludge | Sch - I Cat : 16.3 | 10000 | - | 10000 | TSDF |
| 6. | Molten Salt | Sch - I Cat : 16.2 | 6 | 4 | 10 | TSDF |
| 7. | Asbestos Waste | Sch - II Cat : B 21 | 100 | - | 100 | TSDF |
| 8. | Discarded Filter medium ETP, RO, PAC | Sch - I Cat : 36.2 | 5 | 5 | 10 | TSDF |
| 9. | Contaminated Barrels/liners/FRP/Used | Sch - I Cat : 33.1 | 100 | 50 | 150 | TSDF |

| | | | | | | |
|---|---|---|---|---|---|---|
| | membrane | | | | | |
| 10. | Discarded rubber waste | Sch - III Cat : B3040 | 5 | 15 | 20 | TSDF |
| 11. | Discarded Welding rods | Sch - II Cat : B28 | 1 | - | 1 | TSDF |
| 12. | ETP Sludge | Sch - I Cat : 35.3 | 150 | 100 | 250 | TSDF |
| 13. | MEE/ATFD salt | Sch - I Cat : 35.3 | 2800 | 1200 | 4000 | TSDF |
| 14. | Aluminium Dross | Sch - I Cat : 11.5 | 100 | - | 100 | TSDF |
| 15. | Discarded APCD Filters | Sch - I Cat : 35.1 | 10 | 5 | 15 | TSDF |
| 16. | PAC Sludge | Sch - II Cat : B30 | 120 | 200 | 320 | TSDF |
| 17. | SBP Sludge | Sch - II Cat : B30 | 800 | 200 | 1000 | TSDF |

21. PP reported that Public hearing for the proposed expansion project has been conducted by Uttar Pradesh State Pollution Control Board on 28th Jan., 2025 (Tuesday). Public hearing notice was published on date 28th December, 2024 in 02 nos. of newspapers namely “Dainik Jagran” & “The Times of India”. The Public hearing was attended by 130 people. Public hearing was conducted at M/s. Grasim Industries Limited, Murdhawa, Renukoot, Tehsil: Dudhi, District: Sonebhadra, Uttar Pradesh on 28th January, 2025, which was presided by Shri Rohit Yadav, Additional District Magistrate (Namami Gange and Rural Water Supply), Sonebhadra and in the presence of Shri Ritesh Kumar Tiwari, Regional Officer, Uttar Pradesh Pollution Control Board, Sonebhadra.

PP submitted Action Plan to address the issues raised during public hearing, which is as given below:

| S. No. | Issue | Response / commitment from Project Proponent | Action Plan along with Budgetary Allocation |
|---|---|---|---|
| 1. | Employment | § Presently around 80% of the manpower working in our unit is from the nearby villages within 15 km radius.<br>§ After expansion of the project, additional manpower requirement will be fulfilled by giving preference to the local youth as per their qualification and company’s requirement. | § The total manpower requirement (regular) for the proposed expansion project is around 80 people during operation phase and 20 people during construction phase.<br>§ In addition to this, approx. 288 (Contractual) people will be employed during operation phase & 300 people will be employed during construction phase.<br>§ Thus, a total of 320 will be employed during construction phase and 368 will be employed during operation phase.<br>§ Near-by villagers will also be benefited with indirect employment i.e. Commercial, Travelling & Auxiliary activities. |
| 2. | Environment & Pollution | § Company will install Electrostatic Precipitator (ESP) in the proposed boiler for control of air pollution.<br>§ Also, to reduce fugitive emission from storage & handling of raw material & product and from vehicles and machineries, company has already taken appropriate measures for control of fugitive emission such as all storage tanks of low boiling solvents / chemical with Conservation Vents, Mechanical seals, concreted roads inside the plant premises, use of vacuum sweeping machines, greenbelt development etc. The same will be continued after expansion.<br>§ Our company is focusing on Environment and Stability and ensuring to disposal of its waste through TSDF and authorized recyclers. In the future, we will ensure the same.<br>§ Waste emissions or any other waste will not be disposed on any agricultural land outside the premises.<br>§ However, company will provide training to farmers for skill development regarding healthy farm yield for increasing yield. Also, distribution of good quality vegetable seeds to farmers, encouragement for organic farming & kitchen gardening will be done.<br>§ Regional officer, Uttar Pradesh Pollution Control Board, Sonebhadra informed that the issue is related to the Power Plant present in Shakti Nagar still we will request Industries to sprinkle water as much as possible.<br>Also, Grasim is sending 100% fly ash to cement plant and the route for the same is different where villagers will not get affected. Fly ash is being transported through closed bulker to avoid any spillage and all vehicles used are PUC certified. | The company has earmarked an amount of Rs. 25 Crores as capital cost and Rs. 2.3 Crores/annum as recurring cost for Environment Protection measures. Out of this, Rs. 10 Crores as capital cost and Rs. 1.0 Crores as recurring cost will be spent for Air Pollution Control measures.<br>Out of total EMP cost (i.e. Rs. 25 Crores) earmarked, company has allocated Rs. 3.0 Crores as capital cost for Waste Management.<br>The company has allocated Rs. 45 Lacs for providing training to farmers and other activities such as distribution of good quality seeds etc.<br>- |
| 3. | Socio - Economic | § Villagers of Renukoot will benefit from the company's | · An amount of Rs. 31 Lacs has been allocated by the |

| | | |
|---|---|---|
| Development | CER & CSR activities. After expansion, company will work to improve health, education, infrastructure and skill development courses (from institutes in Varanasi). Following activities are proposed for Renukoot village:<br>ü Development of Skill Development training center<br>ü Construction / Repairing of internal roads in village<br>ü Supply of drinking water<br>§ These 3 villages (Renukoot, Murdhawa & Pipri) have already been adopted by Hindalco Industries Limited, Renukoot; and they are doing various developmental activities in these villages. Grasim will also work to identify the disadvantaged people with the help or collaboration of other company.<br>§ The visit to village Kirwani by GIL team has been done and stated problem i.e. imparting training to the farmers for healthy farm yield has been incorporated in CER plan.<br>§ Grasim Industries Limited has agreed to the demand; and will supply drinking water for extended hours in summer months.<br>§ Repairing of road in Renukoot village will be done.<br>§ The company will provide training to farmers for skill development regarding healthy farm yield for increasing yield. Also, distribution of good quality vegetable seeds to farmers, encouragement for organic farming & kitchen gardening will be done. | company for carrying out said developmental activities in Renukoot village.<br>The company has allocated Rs. 10 Lacs for providing training to farmers of Village Kirwani.<br>Rs. 6 Lacs has been earmarked by the company for supply of drinking water.<br>The company has allocated Rs. 5 Lacs for construction / Repairing of Internal Roads in Renukoot village.<br>The company has allocated Rs. 45 Lacs for providing training to farmers and other activities such as distribution of good quality seeds etc. |

22. PP reported that Water Supply Permission / NOC has already been obtained from Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL) dated 16th January, 2019 (valid till 31st Dec., 2028) for water intake from Rihand Reservoir.

23. PP reported that Wildlife Conservation Plan (for 10 years) for all the Schedule - I species (34 nos.) found in 10 km of radius study area has been prepared and submitted to DFO, Renukoot vide letter no. GIL/ENV/2024-25/67 dated 07th Oct., 2024 for authentication.

24. PP reported that Status of Litigation Pending against the project: At present, there is only one matter (CASE NO. C.A. No. 008401 - 008404 / 2019 - Environment Compensation and Mercury Sludge Shifting) regarding Mercury Brine Sludge stored by Erstwhile company Kanoria Chemicals & Industries Limited, (Renukoot Chemical Works Division) which is presently sub-judiced before Hon'ble Supreme Court. This matter has been presently pending at the Hon'ble Supreme court.

25. Industry has already developed greenbelt in an area of 82.28 ha (203 acers) (i.e. 62.56% of the total plant area). Around 2,05,000 trees have been planted @2492 trees / ha. The existing greenbelt & plantation will be maintained after the proposed expansion.

26. Total employment will be 1863 persons as direct and approx. 320 persons indirect after expansion. Industry proposes to allocate Rs. 197 lakhs which is approximately 0.5 % towards CER.

27. The estimated project cost is Rs. 448 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 25 Crores and the Recurring cost (operation and maintenance) will be about Rs 2.3 Crores/annum. The breakup of capital and recurring cost is as follows:

| S. No. | Item Description | Approximate Capital Cost (Crores) | Recurring Cost (Crores) | Basis of cost estimates |
|---|---|---|---|---|
| 1. | Air Pollution Control | 10 | 1.0 | Cost of ESP and Scrubbers for Power plant and Chemical Division |
| 2. | Water Pollution Control | 4 | 0.6 | Upgradation of RO systems in ZLD |
| 3. | Noise Pollution Control | 1 | 0.07 | Acoustic Enclosures of high noise area |
| 4. | Solid Waste Management | 3.0 | 0.30 | Hazardous and Domestic Waste Management |
| 5. | Environmental Monitoring and | 7 | 0.28 | Installation of Monitoring (Continuous and |

| | | | | |
|---|---|---|---|---|
| | Management | | | Manual) |
| 6. | Green Belt Development | - | 0.05 | Plantation work |
| **Subtotal** | | **25** | **2.3** | |
| 7. | Occupational Health (OHC) | 0.229 | - | Medical equipments, training, audit and doctor's visit |
| 8. | CER Activity | 1.97 | - | Socio-economic Development expenses |
| 9. | Cost of conservation plan for Schedule – I species | 0.5045 | - | Wild Life conservation plan |
| **Total** | | **27.7035** | **2.3** | |

28. Deliberations by the EAC:

The following points were discussed in the meeting:
1. Officials of CPCB (namely Sh. V.P. Yadav, Scientist F (Div. Head, waste management – I Div.) & Sh. G. Rambabu Scientist E) handling the subject matter attended the EAC meeting held on 15th July 2025. The committee desired to know the findings of the study undertaken by the CPCB. CPCB officials informed the committee regarding recent development in the case of dumped waste within the premises. It was informed that joint committee has carried out detailed analysis of the site. It was informed that the whole exercise is being done in reference of court directions. CPCB will file its findings to the Hon'ble court by 22nd July 2025. CPCB said that there is concern of dumped waste in the landfill site as there is no liner present in the bottom of the SLF. The dumped waste contains mercury bearing waste as well as other contaminates. They will come out with disposal plan in a scientific way for dumped hazardous waste either through new SLF nearby project site or sending to the TSDF, wherever it is feasible. Further, it was suggested that expansion project may not be linked with this issue as this governed by Hon'ble Supreme court and any direction in the matter has to be abided by the PP. The Committee also deliberated upon site visit report of Sub Committee of EAC (Ind-3).
2. PP informed that Industrial Unit will take necessary action as per the directions issued by the Hon'ble Supreme court / CPCB for disposal of dumped hazardous waste in an environmentally sound manner.
3. PP submitted the safety audit report and action taken report on recommendations suggested in the said report.
4. PP informed that Wildlife Conservation Plan (for 10 years) for all the Schedule - I species has been prepared and submitted to DFO, Renukoot for authentication.
5. PP informed that at present, there is only one matter (CASE NO. C.A. No. 008401 - 008404 / 2019 - Environment Compensation and Mercury Sludge Shifting) regarding Mercury Brine Sludge stored by Erstwhile company Kanoria Chemicals & Industries Limited, (Renukoot Chemical Works Division) is presently subjudiced before Hon'ble Supreme Court. This matter is presently pending at the Hon'ble Supreme court. It was informed that there is no stay of Hon'ble Court on the expansion project.
6. PP submitted action Plan to comply with the following mitigation measures as Per Ministry's Office Memorandum 31st October, 2019 regarding Projects located in Severely Polluted Area:
The committee was satisfied with the response provided by PP on above information.

The EAC deliberated the Onsite and Offsite Emergency plans and also the various mitigation measures proposed during the implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, The Public Liability Insurance Act, 1991 and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, as amended from time to time.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for the grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board,

29. **The EAC, after detailed deliberations, recommended the project for the grant of environmental clearance, subject to the compliance of the general terms and conditions as under, and specific terms and conditions in Annexure 1.**

General Conditions:

i. No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

ii. The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.

iii. The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.

iv. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

v. The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

vi. The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.

vii. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZillaParishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

viii. The project proponent shall also upload/submit six monthly reports on PARIVESH Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the company.

ix. The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.

x. The project proponent shall inform the public that the project has been accorded environmental clearance by the

Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.

xi. The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.

xii. This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

30. Minutes of the meeting may kindly be seen at https://parivesh.nic.in//utildoc/132619831_1753272333548.pdf

31. Based on the recommendations made by EAC in its 105th meeting held on 15-16th July 2025, the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance for " Expansion of Caustic Soda Plant (1,29,000 to 2,19,000 TPA - 17,000 TPA by Debottlenecking & 73,000 TPA by installation of new machinery), Liquid Chlorine (1,03,560 to 1,83,435 TPA - 15,088 TPA by Debottlenecking & 64,788 TPA by installation of new machinery), Hydrogen (3,300 to 5,602 TPA - 435 TPA by Debottlenecking & 1,867 TPA by installation of new machinery), Hydrochloric Acid (25,284 to 54,750 TPA - 7,566 TPA by Debottlenecking & 21,900 TPA by installation of new machinery ), Sodium Hypochlorite (1,836 to 7,921 TPA), Stable Bleaching Powder (64,800 to 87,600 TPA), Chlorinated Paraffin Wax (21,600 to 43,500 TPA), Aluminium Chloride (18,000 to 36,500 TPA), Poly-Aluminium Chloride (72,000 to 1,64,250 TPA) & CPP (50 to 85 MW) along with addition of new products - Sodium Sulphate (3,000 TPA), Sulphuric Acid (3,650 TPA), Poly-Aluminium Chloride (PAC)-Powder (12,775 TPA) & Hydrochloric Acid (HCl) from VAPs (27,375 TPA) at Murdhawa Compartment - 6, P.O.: Renukoot, Tehsil: Dudhi, District - Sonebhadra (Uttar Pradesh)" by M/s. Grasim Industries Limited (Chemical Division, Renukoot)" under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the Specific and General terms and conditions as mentioned at Annexure-1.

32. The Ministry reserves the right to stipulate additional conditions, if found necessary. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project. The Project Proponent is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.

33. General Instructions:

(a) The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.

(b) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

(c) The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.

(d) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

(e) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

(f) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

(g) Any appeal against this EC 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.

This issues with the approval of the Competent Authority.

**Copy To**

1. Deputy Director General of Forests (C),Ministry of Environment, Forest and Climate Change, Integrated Regional Office, KendriyaBhawan, 5th Floor, Sector “H”, Aliganj, Lucknow – 226020.

2. Office of the Principal Chief Conservator ofForests (PCCF), 17, Rana Pratap Marg, Lucknow,(U.P.), 226001.

3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 32.

4. The Member Secretary, Uttar Pradesh Pollution Control Board, Building. No. TC-12V, Vibhuti Khand, Gomti Nagar, Lucknow-226 010.

5. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001.

6. District Magistrate Office, Lodhi, Sonbhadra, U.P., Uttar Pradesh.

7. Guard File/Monitoring File/Website/Record File/Parivesh Portal.

**Annexure 1**

**Specific EC Conditions for (Synthetic Organic Chemicals Industry)**

**1. Specific Conditions**

| S. No | EC Conditions |
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| **1.1** | (i) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. |
| **1.2** | (ii) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India and Hon'ble NGT as may be applicable to this project. |
| **1.3** | (iii) As proposed, PP shall take necessary action as per the directions issued by the Hon'ble Supreme court and CPCB for disposal of dumped hazardous waste in an environmentally sound manner. PP shall submit the progress report in this regard every six month at Regional Office, MoEF&CC. PP shall carry out six monthly ground water analysis for all parameters in and around the waste dump site as well as trend analysis of the contaminants of concern and submit the report to the regional office, MoEF&CC. |
| **1.4** | (iv) The existing defunct lindane manufacturing plant should be dismantled and decontaminated as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (HOWM Rules, 2016) while disposing the existing manufacturing equipment. Action taken report shall be submitted to the Regional Office of MoEF&CC/ CPCB/SPCB. |
| **1.5** | (v) Bag filter along with stack height of 60 m shall be provided to the existing coal fired Boiler (28 TPH) to control particulate emissions as per CPCB /SPCB norms. ESP along with stack of adequate heigh shall be provided to coal fired boilers (1, 2 and 3) of power generation division to control particulate emissions as per CPCB /SPCB norms. Stack height of 36m shall be provided to the existing DG set (7 x 500 KVA; 2 x 320 KVA; 1 x 125 KVA and 1 x 1875 KVA) as per CPCB/SPCB norms. |
| **1.6** | (vi) Water scrubbers / Caustic Scrubbers along with adequate stack height shall be provided to control process emissions viz., HCl and Cl emitted from Chloro Alkali Plant. Dust Suppression & Bag Filters followed by Caustic Scrubbers along with adequate stack height shall be provided to control process emissions viz.,SPM and Cl emitted from SBP plant. Alkali Scrubbers & Water Scrubbers along with adequate stack height shall be provided to control process emissions viz., Cl and HCl emitted from CPW. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards. |
| **1.7** | (vii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB. Odour management plan shall be implemented. |
| **1.8** | (viii) The total fresh water requirement from Rihand Reservoir water supply shall not exceed 10771 KLD. |
| **1.9** | (ix) NOC from the Concerned authority shall be obtained before start of the construction of plant and drawing of the Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL) water supply for the project activities. State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission. |

| S. No | EC Conditions |
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| **1.10** | (x) Total industrial wastewater generation from project shall not exceed 607 KLD. Industrial effluent shall be treated in the ETP cum ZLD plant of 1000 KLD capacity comprising primary, secondary and tertiary treatment facility (i.e. ETP, RO, ATFD & MEE). . The permeate of RO stages and MEE condensate shall be recycled for cooling tower make up water. Domestic Sewage shall be treated in the STP and treated sewage shall be used for greenbelt and horticulture purpose. Plant shall maintain 'ZLD' and effluent or treated water shall be discharged outside the plant premises. |
| **1.11** | (xi) The PP shall develop greenbelt of at least 5-10 m width over an area of 82.28 ha (203 acers) (i.e. ~62.56% of total plot area) within the project premises and along the plant periphery, preferably within a year of the grant of EC. A total of 2,05,000 nos. of trees shall be planted. Tree saplings selected for the plantation should be of sufficient height, preferably 6-ft shall be planted in greenbelt area. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year. |
| **1.12** | (xii) Plantation of saplings shall be carried out as a part of tree plantation campaign "EK PED MAA ke NAAM" and details of the same to be uploaded in the Meri LiFE portal (https://merilife.nic.in) in respect to this Ministry's OM No. IA3-22/3/2024-IA.III(E-241594) dated 24th July 2024. |
| **1.13** | (xiii) All the hazardous waste shall be managed and disposed as per the Hazardous and Other Wastes (Management and Transboundary Movement) 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 on site and used as manure for greenbelt development. Fly ash from coal shall be collected in dedicated silo and handed over to cement manufacturing unit/bricks. |
| **1.14** | (xiv) Coal shall be stored in covered sheds or wind breaking walls/curtains shall be provided around coal storage area to prevent its suspension during high wind speed. garland drains with catch pits around the coal storage yard shall be provided to trap runoff material. |
| **1.15** | (xv) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises. |
| **1.16** | (xvi) Roof top rain water shall be collected in 2 x 14400 KL underground RCC storage tank. The rain water collected shall be reused within the plant after filtration as per requirement. Storm water from the open area shall be collected separately and stored in an underground RCC storage tank, which shall be recycled/reused within the plant premises. |

| S. No | EC Conditions |
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| **1.17** | (xvii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Environment officials. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year. |
| **1.18** | (xviii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is Rs. 25 Crore (Capital cost) and Rs. 2.3 Crore per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year. |
| **1.19** | (xix) A dedicated hood alongwith suction device followed by 2 stage scrubber system of water and caustic based system shall be provided to capture emergency release of Chlorine at work place. Level Indicator Transmitters, Pressure Gauges, and Flow switches for accuracy, Auto control (PLC based) system with Audio-visual Alarm system, etc. shall be provided at proposed site for proper management of Chlorine. Chlorine sensors shall be installed in the Chlorine storage area at lower level & also near the Chlorine handling areas shall be provided. As proposed, additional air hood needs to be provided for handling emergency situation. PP shall ascertain the number of air hoods required for the same. |
| **1.20** | (xx) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard. |
| **1.21** | (xxi) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard. |
| **1.22** | (xxii) The project proponent shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21.7.2010 under the provisions of the Environment (Protection) Rules, 1986. |
| **1.23** | (xxiii) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including |

| S. No | EC Conditions |
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| | notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedule, particularly Schedule-5 of the said rules may be referred. PP shall carry out safety audit as per Peso guidelines. PP shall create awareness among the nearby habitations by putting messages on the display board regarding details of mitigation measures to be taken during any leakage of chlorine. |
| **1.24** | (xxiv) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out. |
| **1.25** | (xxv) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report. |
| **1.26** | (xxvi) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection. Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies. |
| **1.27** | (xxvii) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation. |
| **1.28** | (xxviii) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority. |
| **1.29** | (xxix) The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit. |
| **1.30** | (xxx) As proposed, PP shall comply with the following mitigation measures as Per Ministry's Office Memorandum 31st October, 2019 regarding Projects located in Severely Polluted Area:<br>Environment \| Mitigation Measures \| Compliance Status: Existing \| Compliance Status: After Expansion<br>Stipulation of Condition such as:<br>Air \| (i) Stack Emission levels should be stringent than \| Stack Emission levels are within the prescribed limits. \| Stack Emission levels will be maintained within the prescribed |

| S. No | EC Conditions | | |
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| | the existing standards in terms of the identified critical pollutants. | Details of limits are given in table-1. | limits.<br>Details are limits given in table-1 |
| | (ii) CEMS may be installed in all large/medium red category industries (air polluting) and connected to SPCB and CPCB server | Five no. of CEMS are installed in the existing plant at Stacks attached to Caustic Soda Membrane - I, II, and III and at PGD Boiler–I and II; all are connected to the server of SPCB and CPCB. | Six no. of additional CEMS will be installed after expansion at Stacks attached to SBP, PAC Dryer Plant, CPW & SBP Plant, HCl Furnace Stack, PAC Plant, and ACLP and will be connected to the server of SPCB and CPCB. |
| | (iii) Effective fugitive emission control measures should be imposed in the process, transportation, packing etc. | Process<br>ü In the existing plant premises 60 Chlorine Sensors are present.<br>ü Suction hoods are placed near manholes and charging funnels of reactors and filters to capture emissions. Storage tanks for low boiling solvents are equipped with conservation vents, and HCl storage tanks have water-filled traps to prevent acid fume release.<br>ü Mechanical seals are used to prevent fugitive emissions, and storage tanks are fitted with level gauges, dyke walls, and automated loading/unloading systems.<br>Transportation<br>ü Internal roads are concreted or paved, and all vehicles possess valid PUC certificates with regular servicing and maintenance. Routine vacuum sweeping is conducted to control dust, and greenbelt development around the plant boundary helps in attenuating air pollutants.<br>ü Air quality parameters are regularly monitored to manage emissions during the operational phase.<br>Packing<br>ü Mechanized filling system.<br>ü Use of gas detectors and interlocks. | Process<br>ü After expansion 14 more Chlorine Sensors will be installed<br>ü Other measures will be same as existing. |
| | (iv) Transportation of materials by rail/conveyor belt, wherever feasible | GIL have rail and conveyor belt infrastructure in place for coal, salt and caustic transport. | After expansion, GIL will use existing mode of transportation and handling system for raw |

| S. No | EC Conditions | | |
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| | | Salt is being transported through rail, coal is being transported through both rail and road. We have conveyer belt system in place for handling of material in plant. | material. |
| | (v) Encourage use of cleaner fuels (pet coke/furnace oil/LSHS may be avoided). | Company uses coal with low sulphur % for our CPP and hydrogen as fuel in our process boilers.<br>We are also using biomass (rice husk) in power generation to reduce to consumption of coal. | Company uses coal with low sulphur % for our CPP and hydrogen as fuel in our process boilers. PP will continue to use biomass (rice husk) in power generation to reduce to consumption of coal. |
| | (vi) Best Available Technology may be used. For example, EAF/SAF/IF in place of Cupola furnace. Usage of supercritical technology in place of sub critical technology | GIL uses 5th/6th generation electrolyser which are latest and efficient in membrane cell process. | GIL shall use 5th/6th generation electrolyser which are latest and efficient in membrane cell process |
| | (vii) Increase of green-belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible | The unit is already equipped with 63% of green belt of the total land area. | The unit is already equipped with 63% of green belt of the total land area. |
| | (viii) Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. | Flyash reclamation area is 5000 m2 on which Miyawaki plantation (about 15000 trees) has been done. | Flyash reclamation area is 5000 m 2 on which Miyawaki plantation (about 15000 trees) has been done. |
| | (ix) Assessment of carrying capacity of transportation load on roads | Traffic survey has been conducted for 24 hours at NH-39, which have been called as survey points for this study, in the month of Dec., 2023 to predict the future traffic growth and the load on the plant road and surroundings due to the expansion project. | Due to the proposed expansion project, there will be addition of 55 trucks only in the existing traffic. The LOS after the Proposed expansion will be “Excellent”, thus, it can be concluded that the present road network is good enough to bear the increased traffic load. |
| | Water (i) Reuse/Recycle of treated wastewater, wherever feasible | ü Existing Effluent generated from the plant is 450 KLD.<br>ü M/s. Grasim Industries Ltd. is having an existing ETP cum ZLD plant (ETP, RO & MEE) of 1000 KLD capacity to treat effluent to achieve Zero Liquid Discharge as per the direction of the Board. | ü Existing Effluent generated from the plant is 450 KLD.<br>ü The company will not exceed the water load/effluent generation load in future beyond the permissible capacity without getting evaluation of expansion and approval from MoEFCC/SPCB. |

| S. No | EC Conditions | | |
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| | | ü ZLD cum ETP system at Renukoot is able to treat the effluent perfectly; and discharge water quality specification are/will be within permissible limit as specified by SPCB/CPCB/MOEF. | |
| | (ii) Continuous monitoring of effluent quality/ quantity in large and medium Red Category Industries (water polluting) | The water quality is monitored and recycled for internal use GIL has Zero Liquid Discharge System with Camera and Flowmeter in place. Electromagnetic flowmeter has been installed to quantify the generation of effluent from different sources of process. | The water quality is monitored and recycled for internal use GIL has Zero Liquid Discharge System with Camera and Flowmeter in place. . |
| | (iii) A detailed water harvesting plan may be submitted by the project proponent | We have two number of rain water harvesting ponds of combined capacity of 1600 m3 and considering 9 time of fill in a year, 14400 m3 rain water is harvested. | Roof top rain water harvesting has been proposed. |
| | (iv) Zero liquid discharge wherever techno economically feasible | M/s. Grasim Industries Ltd. is having an existing ETP cum ZLD plant (ETP, RO & MEE) of 1000 KLD capacity to treat effluent to achieve Zero Liquid Discharge and implemented at site since 2017. | After expansion the ZLD will be maintained with the capacity of 1000 KLD capacity to treat effluent. |
| | (v) In case, domestic waste water generation is more than 10 KLD, the industry may install STP | The domestic waste water generated for the existing plant & colony is 750 KLD; which is being treated in well-developed STP of capacity 400 KLD (in plant premises) and 1000 KLD (in colony) with RO & UF system. | After expansion, the total domestic waste water generation will be 884 KLD. The existing STPs are sufficient to treat the additional domestic waste after the proposed expansion. |
| | (i) Increase of green belt cover of the total land area beyond the permissible requirement of 33%, wherever, feasible for new projects. | The unit is already equipped with ~63% of green belt of the total land area. | The unit is already equipped with ~63% of green belt of the total land area. |
| Land | (ii) Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. | Greenbelt development/ Plantation work outside the project premise is being done periodically. | PP has proposed to plant 34500 tree under community tree plantation in 7 years. |
| | iii) Dumping of waste (fly | Interim Flyash Storage: Fly ash | Interim Flyash Storage: Fly ash is |

| S. No | EC Conditions | | |
|---|---|---|---|
| | | ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/PCCs | is being / will be stored in silos. Grasim Industries Limited complies with 100% fly ash utilization. The sectors of utilization of the fly ash includes manufacturing of bricks, paver blocks, transferring ash in bulkers to cement manufacturing units, etc. We have agreement with nearby Cement Plant (Dalla Cement Works, Unit of UltraTech Cement Limited) for utilisation of fly ash and bed ash. In case of emergency or un-availability of bulkers or during problems in cement plant, we temporarily stored ash in our Interim Ash Storage Area which has capacity of 3500 $m^3$. |
| | | (iv) More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in co-processing | Hazardous waste compliance is strictly followed and disposal is done according to Hazardous Waste authorization. |
| | Other Condition (Additional) | (i) Monitoring of compliance of EC conditions may be submitted with third party audit every year | Monitoring as per compliance of EC is being carried by third party as per schedule. We submit the report to concern SPCB. |
| | | (ii) The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA & CPA in case of Environment Clearance | Rs. 230 lacs has been allocated as CER Budget for 3 years |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Table1: Stack emission norms | | | | | | | | | |
| Existing | | | | | After Expansion | | | | |
| Plant | Stack | Stack attached to. | Parameter monitored | Permissible Limit mg/Nm3 | Plant | Stack details | Stack attached to. | Parameter monitored | Permissible Limit mg/Nm3 |
| Caustic Soda Membrane | HCl Furnace | Water Scrubber | HCl | 35 | Caustic Soda Membrane | HCl Furnace | Water Scrubber | Cl2 & HCl | <5 and <10 |

| S. No | EC Conditions |
|---|---|

| - I | | | | | - III | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Caustic Soda Membrane – I & II | Sod. Hypo Plant | Alkali Scrubber | Cl2 | 15 | Stable Bleaching Powder | SBP Packing & Lime handling area | Dust Scrubber | Cl2 | <5 |
| Caustic Soda Membrane - II | HCl Furnace | Water Scrubber | HCl | 35 | Chlorinated Paraffin Wax Plant | Sod. Hypo Plant* | Alkali Scrubber (CPW + SBP) | Cl2 & HCl | <5 |
| Caustic Soda Membrane - III | HCl Furnace | Water Scrubber | HCl | 35 | Poly Aluminium Plant | Dryer Plant | Water Scrubber | - | - |
| | Sod. Hypo Plant | Alkali Scrubber | Cl2 | 15 | | HCl Vapors | Water Scrubber | HCl | <10 |
| Process Boiler (Chemical Division) | Boiler - 1 for Chemical Process (Thermax) | Bag Filter | PM<br>SO2<br>NOx<br>Hg | 100<br>600<br>600<br>0.03 | Aluminium Chloride Plant | Sod. Hypo Plant | Alkali Scrubber | HCl | <10 |
| | Boiler - 2 for Chemical Process (Cethar Vessel) | Bag Filter | PM<br>SO2<br>NOx<br>Hg | 100<br>600<br>600<br>0.03 | Power Generation Division (PGD) | Boiler - 3 | ESP | PM<br>SO2<br>NOx<br>Hg | 30<br>100<br>100<br>0.03 |
| Power Generation Division (PGD) | Boiler - 1 | ESP | PM<br>SO2<br>NOx<br>Hg | 100<br>600<br>600<br>0.03 | | | | | |
| | Boiler - 2 | ESP | PM<br>SO2<br>NOx<br>Hg | 50<br>600<br>300<br>0.03 | | | | | |

Table 2: Hazardous Waste Generation disposal quantity and disposal method

Details of hazardous waste generation along with quantity and mode of disposal is given below:

| S. No. | Type of Waste | Waste Category | MT per Year | | | | Treatment/ Disposal |
|---|---|---|---|---|---|---|---|
| | | | As per HW Authorization | Existing | Additional | Total | |
| 1. | Spent Resin | Sch - I Cat : 35.2 | 50 | 50 | 25 | 75 | TSDF |
| 2. | Spent Carbon | Sch - I Cat : 36.2 | 20 | 5 | 5 | 10 | TSDF |
| 3. | Used or spent oil | Sch - I Cat : 5.1 | 50 | 10 | 10 | 20 | Authorized Recycler |
| 4. | Wastes or residues containing oil | Sch - I Cat : 5.2 | 5 | 2 | 3 | 5 | TSDF |

| S. No | EC Conditions | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 5. | Brine Sludge | Sch - I Cat : 16.3 | 10000 | 4000 | 3200 | 7200 | TSDF |
| | 6. | Molten Salt | Sch - I Cat : 16.2 | 6 | | 4 | 4 | TSDF |
| | 7. | Asbestos Waste | Sch - II Cat : B 21 | 100 | 30 | 40 | 70 | TSDF |
| | 8. | Discarded Filter medium ETP, RO, PAC | Sch - I Cat : 36.2 | 5 | 5 | 5 | 10 | TSDF |
| | 9. | Contaminated Barrels/liners/FRP/Used membrane | Sch - I Cat : 33.1 | 100 | 50 | 50 | 100 | TSDF |
| | 10. | Discarded rubber waste | Sch - III Cat : B3040 | 5 | 5 | 5 | 10 | TSDF |
| | 11. | Discarded Welding rods | Sch - II Cat : B28 | 1 | 1 | 1 | 2 | TSDF |
| | 12. | ETP Sludge | Sch - I Cat : 35.3 | 150 | 150 | 200 | 350 | TSDF |
| | 13. | MEE/ATFD salt | Sch - I Cat : 35.3 | 2800 | 2000 | 1200 | 3200 | TSDF |
| | 14. | Aluminium Dross | Sch - I Cat : 11.5 | 100 | 20 | 20 | 40 | TSDF |
| | 15. | Discarded APCD Filters | Sch - I Cat : 35.1 | 10 | 5 | 5 | 10 | TSDF |
| | 16. | PAC Sludge | Sch - II Cat : B30 | 120 | 120 | 200 | 320 | TSDF |
| | 17. | SBP Sludge | Sch - II Cat : B30 | 800 | 300 | 300 | 600 | TSDF |

**Additional EC Conditions**

General Conditions:

i. No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

ii. The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.

iii. The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.

iv. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

v. The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-

developmental measures including community welfare measures in the project area for the overall improvement of the environment.

vi. The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.

vii. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZillaParishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

viii. The project proponent shall also upload/submit six monthly reports on PARIVESH Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the company.

ix. The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.

x. The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.

xi. The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.

xii. This Environmental clearance is granted subject to final outcome of Hon’ble Supreme Court of India, Hon’ble High Court, Hon’ble NGT and any other Court of Law, if any, as may be applicable to this project.

Signature Not Verified

Digitally Signed by : Mr A N Singh
Member Secretary, MoEFCC (EC)

Date: 15/10/2025