



Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The Managing Director
BALAJI AMINES LIMITED

Balaji Amines Ltd., Unit IV at Plot No. F-104, Chincholi MIDC, Tal.: Mohol,
Dist.: Solapur, State: Maharashtra., Solapur, Maharashtra-413255

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity
under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC)
in respect of project submitted to the Ministry vide proposal number
IA/MH/IND3/406789/2022 dated 23 Dec 2022. The particulars of the environmental
clearance granted to the project are as below.

- | | |
|---|---|
| 1. EC Identification No. | EC23A021MH192681 |
| 2. File No. | IA-J-11011/189/2018-IA II(I) |
| 3. Project Type | Expansion |
| 4. Category | A |
| 5. Project/Activity including
Schedule No. | 5(f) Synthetic organic chemicals industry
(dyes & dye intermediates; bulk |
| 6. Name of Project | Expansion of Organic and Specialty
Chemical Manufacturing Unit by Balaji
Amines Limited, Unit IV, Plot No. F-104,
MIDC Chincholi, Tal. Mohol, Dist.
Solapur, Maharashtra State. |
| 7. Name of Company/Organization | BALAJI AMINES LIMITED |
| 8. Location of Project | Maharashtra |
| 9. TOR Date | N/A |

The project details along with terms and conditions are appended herewith from page
no 2 onwards.

Date: 24/02/2023

(e-signed)
Mr. Motipalli Ramesh
Scientist E
IA - (Industrial Projects - 3 sector)

*Note: A valid environmental clearance shall be one that has EC identification
number & E-Sign generated from PARIVESH. Please quote identification
number in all future correspondence.*

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File No. IA-J-11011/189/2018-IA II(I)
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division-II
(Industry-III)

Indira Paryavaran Bhawan,
Jor Bagh Road,
New Delhi – 110003.

Date: 23rd February, 2023

To

M/s Balaji Amines Limited, Unit IV,
Plot No. F-104, Chincholi MIDC,
Tal.: Mohol, Dist.: Solapur,
Maharashtra-413255
E-mail: balajiunit4ec@gmail.com

SUB.: Expansion of Organic and Specialty Chemicals Manufacturing Unit of production capacity from 874.2 MT/D to 1520.4 MT/D and by products 900.67 MT/D to 1552.99 MT/D located at Plot No. F-104, MIDC Chincholi, Tal.: Mohol, Dist.: Solapur, Maharashtra by M/s Balaji Amines Limited, Unit IV - Environmental Clearance

REF.: Your proposal No. IA/MH/IND3/406789/2022, dated: 23rd Dec. 2022, on the above subject matter.

Sir/Madam,

1. The proposal is for environmental clearance for the proposed Expansion of Organic and Specialty Chemicals Manufacturing Unit of production capacity from 874.2 MT/D to 1520.4 MT/D and by products 900.67 MT/D to 1552.99 MT/D located at Plot No. F-104, MIDC Chincholi, Tal.: Mohol, Dist.: Solapur, Maharashtra by M/s Balaji Amines Limited., Unit IV.
2. The project/activity is covered under Category 'B' of item 5(f) (synthetic organic chemical), of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). But, due to presence of Great Indian Bustard (GIB) sanctuary within 5 Km from Project Site in MIDC, General condition is applicable to project and requires appraisal at Centre. GIB Sanctuary is located about 3.3 Km from project site in Chincholi MIDC. ESZ for GIB is finalized and located at 2.9 Km from project site.
3. The ToR has been issued by the Ministry, vide letter IA-J-11011/189/2018-IA II(I) dated 22.9.2022. The PP submitted that the Unit is located in Notified MIDC Chincholi Industrial Area (**Notification No. IDC. 2187/(10514)-IND. 14 dated 12.05.1988**), and is exempted from the public hearing as per the Ministry's O.M. No. J-11011/321/2016-IA II(I) dated 27.04.20218. The PP applied for Environment Clearance on 17.11.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP reported in Form-2 that it is an Expansion EC. Due to some shortcomings, the Project was referred back to the PP on 24.11.2022 and reply to the same was submitted on 23.12.2022. The proposal was placed in 45th EAC Meeting held on 11th – 13th January 2023 and an accredited Consultant, M/s. Equinox Environments (I) Pvt. Ltd. [Accreditation number QCI / NABET / ENV / ACO / 22 / 2412 valid till 10.10.2024], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that Existing land area is 3,59,998.06 m². No additional land will be used for proposed expansion and no R&R is involved in the Project. The details of products are as follows:

S. No.	Name of the Product	CAS No.	Quantity (MT/D)			Uses
			Existing	Expansion	Total	
A	Products					
1	Acetonitrile (ACN)	75-05-8	--	50.40	50.40	Solvent
2	Sodium Acetate Solution(SAS)	127-09-3	--	11.4	11.40	Reagent
3	DMAC (Dimethyl acetamide)	127-19-5	--	60	60	Solvent
4	Morpholine (MOR)	110-91-8	--	48	48	Reagent
5	DMF (Dimethyl Formamide)	68-12-2	--	110.40	110.40	Solvent
6	N-Butyl amine / Isobutyl amine	78-81-9	--	48	48	
7	N-ethylmorpholine (NMM)	109-02-4	--	18	18	Reagent
8	Di Methyl Ether	115-10-6	--	300	300	
9	Mono Iso Propyl Amine (MIPA)	99 75-31-0	50	--	50	
10	MIBK	108-10-1	100	--	100	Solvent
11	Di Phynel Amine (DPA)	122-39-4	35	--	35	Reagent
12	N Butyl Thiophosphoric Triamide NBPT	94317-64-3	10	--	10	Solvent
13	Iso Propyl Alcohol (IPA)	67-63-0	165.6	--	165.6	Solvent
14	Di-isopropyl ether	108-20-3	6.6	--	6.6	Solvent
15	Propane	74-98-6	32.2	--	32.2	Solvent
16	Di Methyl Carbonate (DMC)	616-38-6	55.2	--	55.2	Reagent
17	Propylene Carbonate (PC)	108-32-7	14.4	--	14.4	Reagent
18	Propylene Glycol (PG)	57-55-6	55.2	--	55.2	Solvent
19	Methyl Amines (MA)	74-89-5	120	--	120	Reagent
20	Choline Chloride 75 %	67-48-1	70	--	70	Feed additive
21	Choline Chloride 60 %	67-48-1	50	--	50	Feed additive
22	Choline Chloride 98 %	67-48-1	10	--	10	Feed additive
23	Ethyl Amines (EA)	75-04-7	100	--	100	Reagent
	Total (A) Products		874.2	646.2	1520.4	
24	CPP - 5 MWH X 2	--	10 MWH	--	--	Power Generation
B	By-Products					

S. No.	Name of the Product	CAS No.	Quantity (MT/D)			Uses
			Existing	Expansion	Total	
1	Hydrogen	--	15	--	15	Reagent
2	Hydrochloric acid	--	6.37	--	6.37	Acidification
3	Spent caustic solution (20%)(SCS)	--	2.4	1.68	4.08	Basification
4	2,6 Dimetyl-4 Heptanone	--	1.2	--	1.2	Reagent
5	Higher Boiler	--	1.5	--	1.5	Reagent
6	Ammonia Solution	--	---	1.8	1.8	Neutralization
7	Higher Amines	--	---	2.4	2.4	Reagents
8	Sulphur	--	--	0.24	0.24	Reagent
	Total (B) By-products		26.47	6.12	32.59	
	Grand Total (A+B)		900.67	652.32	1552.99	

- The PP reported that there is no violation case 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.
- The PP reported that the Ministry has issued EC earlier vide letter no. J-11011/189/2018-IA-II (I) dated 18.11.2019 for Setting up Organic and Specialty Chemicals Manufacturing Unit of capacity 874.2 TPD at Plot No. F-104, Chincholi MIDC, District Solapur (Maharashtra) by M/s Balaji Amines Ltd. (Unit IV). Certified compliance report was issued by IRO, MoEF&CC, Nagpur vide letter dated 20.12.2022 (based on the site visit dated 26.11.2022), wherein it was reported that the PP has complied with the EC conditions.
- The PP reported that the GIB Sanctuary is located about 3.3 Km from project site in MIDC. ESZ for GIB is finalized vide notification No. 596 dated 11/02/2020. ESZ is located at 2.9 Km from Plot. River Sina is at a distance of 5 Km on South West from the project site. PP reported that 4 Schedule I species exist within 10 km study area of the project, for which conservation plan has been submitted for Rs.70 Lakhs to Chief Wildlife Warden.
- The PP reported that the **Ambient air quality** monitoring was carried out at 8 locations during Oct.- Nov.- Dec.- 2020 and baseline data indicates that ranges of concentrations of PM₁₀ (42.4–67.4 µg/M³), PM_{2.5} (10.4 – 27.8 µg/M³), SO₂ (10.9 – 25.1 µg/M³) and NO_x (15.5 – 31.9 µg/M³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.54 µg/M³ for PM₁₀ (towards West side), 0.383 µg/m³ for PM_{2.5} (towards West side), 6.21 µg/m³ for SO₂ (towards West side) and 1.84 µg/m³ NO_x (towards West side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).
- Noise-** The PP reported that The baseline noise levels observed in industrial premises (N1) during day time is 63.5 dB whereas during night time, it is 56.0 dB. At Darfal village (N2), noise levels observed during daytime and night time are 51.1 dB and 41.1` dB respectively. The noise level observed in Sawaleshwar village (N3) in daytime is 52.5 dB and in night time is 41.7 dB. In Chincholikati (N4), 53.4 dB noise level observed during daytime whereas 41.5 dB 131 noise level observed during night time. Village Akolekati (N5) is 4.86 km in North-East direction from industrial site. The daytime noise level observed in this village is 51.7 dB and night time noise level observed is 40.5 dB. The daytime noise levels observed in Pakni (N6), Lamboti (N7), Karamba (N8) are 53.1 dB, 52.6 dB and 51.6 dB respectively. In night time noise levels observed in these three villages are 41.0 dB, 41.5 dB and 40.8 dB respectively. **Surface Water** monitoring was carried out at 7 locations and baseline data

indicates that ranges of concentrations of pH (7.53-7.99), TDS (161.12-374.6 mg/lit), Turbidity (0.27– 0.49 NTU), COD (13.89-28.54 mg/lit), BOD (6.04- 11.97 mg/lit), Nitrate (12.80-24.79 mg/lit), Phosphorous (BDL- 1.01 mg/lit), Hardness (104.16 -192.16 mg/lit) and Chlorides (31.64-69.33 mg/lit).

10. **Ground Water** monitoring was carried out at 8 locations and baseline data indicates that ranges of concentrations of pH (7.25-7.95), TDS (288.92-418.88 mg/lit), Turbidity (0.14-0.39 NTU), COD (22.02-35.66 mg/lit), BOD (8.15-14.01 mg/lit), Nitrate (8.63-20.59 mg/lit), Phosphorous (0.05-0.88 mg/lit), Hardness (111.49-195.48 mg/lit) and Chlorides (24.92-75.02 mg/lit). **Soil** monitoring was carried out at 8 locations and baseline data indicates that ranges of concentrations of pH (7.48-8.11), CEC (29.36-68.56 mEq/100gm), Nitrogen (68.62- 203.53 Kg/Ha), Phosphorous (21.78-93.6 Kg/Ha) and Potassium (90.52-256.3 Kg/Ha).
11. The PP reported that the total water requirement is 3886.18 M³/Day of which fresh water requirement of 2592.38 M³/Day will be met from MIDC Water supply scheme from Ujani Dam on Bhima river. Effluent of 1343.21 M³/Day quantity will be treated through ETP. The plant will be based on Zero Liquid Discharge System.
12. The PP reported that Power requirement after expansion will be 13.7 MW including existing 10 MW and will be met from MSEDCL and own CPP. Existing unit has 5 DG sets of 200 KVA capacity each. Under expansion, 4 DG sets of 2000 KVA each and one D.G set of 1000 capacity will be installed. Stack of height 5.5 M ARL will be provided as per CPCB norms to the proposed DG Sets.
13. Existing unit has one boiler of 32 TPH installed on site which is operated on Coal @ 192 TPD with ESP as a APC equipment preceding the stack height of 50 m. Remaining Capacities of two nos. of 60 TPH, one no. of 28 TPH boilers and two nos. of thermic fluid heaters of capacity 30 Lakh Kcal/Hr each as per permission approved in earlier EC will be installed under expansion. ESP with stack of 50 M & 95 M will be installed to 28 TPH and 60 TPH boilers respectively. Also, MDC with a stack of height 35 M will be installed for TFH for controlling the particulate emissions within the statutory limit of 115 mg/Nm³.
14. **Details of Process Emissions Generation and its Management-** There would be process emissions, same would be controlled through installation of Scrubbers. Presently, three scrubbers for ethyl amine plant are installed on site. (For Amines, Ammonia vapours). Under expansion, additional six number of scrubbers for Acetic acid, Ammonia, Dimethyl amine and DEG vapours will be provided.

Details of Scrubber

No.	Plant	Process Emissions	Control Equipment	Packing material	Scrubber Media	Dia. of Absorber (mm)	Height of Absorber (M)	Disposal
Existing								
1	Methylamines Plant	Ammonia & Amines	Absorber/ Scrubber	POL Ring	Dil. HCl	600	10	Reuse
2	Ethylamine Plant (3 Nos.)	Ammonia & Amines	Absorber/ Scrubber	POL Ring	Dil. HCl	600	10	
3	MIPA	Ammonia	Absorber/ Scrubber	POL Ring	Dil. HCl	600	10	
4	NBPT	Ammonia	Absorber/ Scrubber	POL Ring	Dil. HCl	600	10	
5	Loading point	--	Absorber/	POL	Dil.	600	10	

			Scrubber	Ring	HCl			
6	Unloading point	--	Absorber/Scrubber	POL Ring	Caustic Lye	600	10	
Proposed Expansion								
1	Acetonitrile Plant	Acetic acid/Ammonia	Absorber Scrubber	POL Ring	Water	600	10	Reuse
2	DMAC Plant-2 Nos.	Acetic Acid/DMA	Absorber Scrubber	POL Ring	Water	600	10	Reuse
3	Morpholine Plant	DEG & Ammonia	Absorber Scrubber	POL Ring	Water	600	10	Reuse
4	N- Butyl Amine/Isobutyl amine – 2 Nos.	Ammonia	Absorber Scrubber	POL Ring	Water	600	10.	Reuse

15. Details of Solid Waste/ Hazardous Waste Generation and its Management.

Details of Solid Waste Generation & its Management

Sl. No.	Type of waste	Quantity			Disposal
		Existing	Expansion	Total After Expansion	
1	Wood Pallets	6 MT/Y	2 MT/Y	8 MT/Y	By Sale to Authorized recycler.
2	Scrap Material	0.13 MT/D	16.0 MT/D	16.13 MT/D	
3	Carboys Plastic	2000 Nos./Y.	650 Nos./Y.	2650 Nos/Y	
4	Office Paper waste	2 MT/Y.	0.65 MT/Y	2.65 MT/Y	
5	Woven Sack Bag (HDPE)	2MT/Y	0.07 MT/Y	2.07 MT/Y	
6	Drums	3000 Nos./Y.	1100 Nos./Y	4100 Nos./Y	
7	Coal Ash	95 MT/D	0.12 MT/D	95.12 MT/D	Sold to brick manufacturers for secondary use
8	Corn Cob Waste	28 MT/D	--	28 MT/D	Sale to briquettes Manufactures
9	Plastic Waste	500 Nos./Y	191 Nos./Y	691 Nos./Y	Sale to Authorized recycler.
10	E-waste	--	0.2 MT/Yr	0.2 MT/Yr	
11	Battery -waste	--	0.2 MT/Yr	0.2 MT/Yr	

Details of Hazardous Waste Generation & its Management

Sl. No.	Description	Cat.	Quantity			Disposal
			Existing	Expansion	Tot. Aft. Exp.	
1	ETP Sludge	35.3	4 MT/M	6 MT/M	10 MT/M	CHWTSDF

Sl. No.	Description	Cat.	Quantity			Disposal
			Existing	Expansion	Tot. Aft. Exp.	
2	Chemical sludge from waste water treatment	35.3	6 MT/M	4.5 MT/M	10.5 MT/M	
3	Drums cleaning, Chemical containing residue from decontamination & disposal	33.1	1 MT/M	0.5 MT/M	1.5 MT/M	
4	Distillation Residue	20.3	0.5 MT/D	1.56 MT/D	2.06 MT/D	CHWTSDF/ Incineration in Factory/ Authorized co-processor
5	Filters & filter material which have organic liquids in them	36.2	0.9 MT/Y	0.29 MT/Y	1.19 MT/Y	CHWTSDF
6	Spent Catalyst/resins	26.5	108 MT/Y	66.48 MT/Y	174.48 MT/Y	Sale to authorized party or CHWTSDF
7	Spent Carbon	28.3	1.5 MT/Y	0.50 MT/Y	2.0 MT/Y	CHWTSDF
8	Sodium Formate	28.1	--	0.072 MT/D	0.072 MT/D	CHWTSDF

16. The Budget earmarked towards Environmental Management Plan (EMP) is ₹48.80 Crore (capital) and the Recurring cost will be about ₹6.85 Crore per annum. The project proponent is committed towards the CER i.e. (₹3.7 Crore)
17. The PP reported that Industry has already developed greenbelt in an area of 82,800 m² (23% out of total plot area). Moreover, additional Green Belt area of 36,000 m² (10% out of total plot area) will be developed under expansion. After expansion of project, the total Green Belt area would be 1,18,800 m² which accounts for 33% of total plot area.
18. The PP proposed to set up an Environment Management Cell (EMC) by engaging 10 Members, Qualifications: M.E. (Env.), M.Sc. (Env. Sc.), B.Sc. (Chem.), PGDISHE for the functioning of EMC.
19. The PP submitted the disaster and Onsite and Offsite Emergency Plans in the EIA report.
20. The PP reported that Emissions reduction due to carbon sequestration & avoided emissions (solar plant & rainwater harvesting) is 8,109.0856 t CO₂ eq. / year. Net Emissions = Gross Emissions – (Carbon Sequestration + Avoided Emissions) Net Emissions = 27,29,447.505-8,109.0856 = 27,21,338.4194 t CO₂ eq. / year The Net emissions of Balaji Amines Ltd. are 27,21,338.4194 t CO₂ eq. / year.
21. The estimated project cost is Rs.750 Crores including existing investment of Rs.400 Crores. Total employment will be 800 persons as direct & indirect after expansion.
22. **Deliberations by the EAC:**

The EAC, constituted under the provisions of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with the EIA/EMP reports prepared and submitted

by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The EAC noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC inter-alia, deliberated on the, Greenbelt development plan, fuel, carbon footprint, water balance, emission results, clarification on HCl and advised the PP to submit the following:

- Revised Greenbelt Augmentation and Development.
- Change of existing and proposed Fuel pattern from coal to other fuels.
- Plan for reduction of present carbon footprints of the industry
- Water balance flow chart.
- Monitoring result for emissions from stacks and scrubber.
- Clarification on HCl shown as by –product.

The PP submitted the above information/documents and the EAC found it to be satisfactory.

The EAC deliberated the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during 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, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

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 Expert Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The EAC is of the view that recommendation of EAC and grant of environmental clearance by 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 project proponent 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, prior to construction & operation of the project.

23. Based on the proposal submitted by the PP and recommendations of the EAC (Industry-3 Sector), the Ministry of Environment, Forest and Climate Change hereby accords **Environmental Clearance for “Expansion of Organic and Specialty Chemicals Manufacturing Unit of production capacity from 874.2 MT/D to 1520.4 MT/D and by**

products 900.67 MT/D to 1552.99 MT/D located at Plot No. F-104, MIDC Chincholi, Tal.: Mohol, Dist.: Solapur, Maharashtra by M/s Balaji Amines Limited, Unit IV” under the provisions of the EIA Notification 2006 and its subsequent amendments subject to the compliance of terms and conditions as under:-

A. Specific Conditions:

- i. The PP shall develop Greenbelt over an area at least 1,18,800 m² by planting 18,180 trees (after considering 80% survival rate) in within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be kept in separate account and should be audited annually. PP should 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.
- ii. 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 and shall also engage 10 Members, Qualifications: M.E. (Env.), M.Sc. (Env. Sc.), B.Sc. (Chem.), PGDISHE. 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.
- iii. 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 propose under EMP is ₹48.80 Crore (Capital cost) and ₹6.85 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.
- iv. Total Water Requirement is 3886.18 M³/Day of which fresh water requirement of 2592.38 M³/Day will be met from MIDC Water supply scheme from Ujani Dam on Bhima river. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.
- v. As committed, the PP shall not use coal in the remaining 60 TPH boiler.
- vi. 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.
- vii. 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.

- viii. 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.
- ix. 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.
- x. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- xi. As committed, Zero Liquid Discharge shall be ensured. Effluent of 1343.21 M³/Day quantity shall be treated through ETP.
- xii. 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.
- xiii. 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.
- xiv. 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.
- xv. 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.
- xvi. The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- xvii. The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be fire proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- xviii. The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

- xix. 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 vapour recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

B. 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, Zilla Parishad/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.
24. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.
 25. 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 the Environment (Protection) Act, 1986.
 26. 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.
 27. The above conditions shall be enforced, *inter-alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

This issues with approval of the competent authority.

(Dr. M. Ramesh)
Scientist 'E'

Copy to: -

1. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur- 440001.
2. The Secretary, Environment and Climate Change Department, Govt. of Maharashtra, New Administrative Bhavan, 15th Floor, Madame Cama Road, Mantralaya, MUMBAI - 400032, Maharashtra, India.

3. The Office of the Principal Chief Conservator of Forests (Head of Forests Force) M.S. Nagpur, 3rd Floor Van Bhavan Ramgiri Road Civil Lines Nagpur 440 001.
4. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032.
5. The Member, Central Ground Water Authority, 18/11, Jamnagar House, Mansingh Road, New Delhi – 110011.
6. The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. PVR Cinema, Sion Circle, Mumbai-400 022.
7. The District Collector, First Floor, Main Building, Collector's Office Siddheshwar Peth, Solapur – 413003.
8. Guard File/Monitoring File/PARIVESH.

(Dr. M. Ramesh)

Scientist 'E'

Tel.: 011-20819338

Email: ramesh.motipalli@nic.in



Signature Not Verified

Digitally signed by Mr. Motipalli

Ramesh

Scientist E

Date: 2/24/2023 8:42:00 AM