



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

To,

The Director
NACL MULTICHEM PRIVATE LIMITED
Plot No 12A C block Lakshmi Tower, Nagarjuna Hills Panjagutta
Hyderabad, Hyderabad, Telangana-500082

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/AP/IND3/412939/2023 dated 21 Feb 2023. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|--|
| 1. EC Identification No. | EC23A017AP129164 |
| 2. File No. | IA-J-11011/452/2019-IA-II(I) |
| 3. Project Type | New |
| 4. Category | A |
| 5. Project/Activity including Schedule No. | 5(b) Pesticides industry and pesticide specific intermediates (excluding formulations) |
| 6. Name of Project | Proposed Establishment of Agrochemicals, Synthetic Organic chemicals, Fluorine based chemicals manufacturing facility and Co-generation Power Plant (6 MW) |
| 7. Name of Company/Organization | NACL MULTICHEM PRIVATE LIMITED |
| 8. Location of Project | Andhra Pradesh |
| 9. TOR Date | N/A |

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

Date: 14/03/2023

(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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F. No. J-11011/434/2021-IA-II (I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan,
Jorbagh Road,
New Delhi - 110003

Dated: 14th March, 2023

To

M/s. NACL Multichem Private Limited

Plot No: 12A, C Block, lakshmi Tower

Nagarjuna Hil, District-Srikakulam

Andhra Pradesh- 500082

Email: amittaparia@naclind.com

Subject: Proposed Establishment of Agrochemicals, Synthetic Organic chemicals, Fluorine based chemicals manufacturing facility of production capacity 264.615 TPD and Co-Generation Power Plant (6 MW) located at at Survey. No. 12/1, 12/2, 12/3, 13, 14/2, 14/3, 14/4, 14/5, 14/6, 14/7, 14/8, 14/9, 14/10, 14/11, 14/12, 14/13, 14/14, 14/15, 14/16, 14/17, 14/18, 14/19, 14/20, 19, 20, 21 (pt), 22 (pt), 26 (pt) & 27 (pt) (57.14 Acres), Naruva Village, Ranastalam Mandal, Srikakulam District and Andhra Pradesh by M/s. NACL Multichem Private Limited - Environmental Clearance

Sir,

This has reference to your proposal No. **IA/AP/IND3/412939/2023**, on the above subject matter.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for Environmental Clearance to the proposed Establishment of Agrochemicals, Synthetic Organic chemicals, Fluorine based chemicals manufacturing facility of production capacity 264.615 TPD and Co-Generation Power Plant (6 MW) located at at Survey. No. 12/1, 12/2, 12/3, 13, 14/2, 14/3, 14/4, 14/5, 14/6, 14/7, 14/8, 14/9, 14/10, 14/11, 14/12, 14/13, 14/14, 14/15, 14/16, 14/17, 14/18, 14/19, 14/20, 19, 20, 21 (pt), 22 (pt), 26 (pt) & 27 (pt) (57.14 Acres), Naruva Village, Ranastalam Mandal, Srikakulam District and Andhra Pradesh by M/s. NACL Multichem Private Limited.

3. The project/activity is covered under Category 'A' of item 5(b) **Pesticides industry and pesticide specific intermediates (excluding formulations)** and 5(f), Synthetic organic chemicals industry of Schedule of EIA Notification, 2006 (as amended) as the project is located outside the notified industrial area.

4. The ToR has been issued by the Ministry, vide letter no. IA- J-11011/434/2021-IA-II(I) dated 15.12.2021. The PP submitted that the Public Hearing for the proposed project has been conducted by the Andhra Pradesh Pollution Control Board on 14.10.2022 which was presided by the District Collector and District Revenue officer. The main issues raised during the public hearing are related to marine disposal by industries which reduce fish production, compliance to the norms by the industries in the area, employment to locals, alternate road to village etc. Action plan for the issues raised during the PH has been submitted. The PP applied for Environment Clearance on 3.1.2023 in Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a **Fresh EC case**. Due to the shortcomings, the proposal was referred back to the on PP 17.1.2023 and reply for the same has been submitted on 1.2.2023. Accordingly, the proposal is placed in this 47th EAC meeting on 15th -17th February, 2023, wherein the PP along with

accredited Consultant, **M/s. Hubert Enviro Care Systems (P) Ltd, Chennai** [Accreditation number **NABET/EIA/1922/RA 0172** Valid up to 20.3.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows

5. The PP reported that the proposed total land area is 231237.58 m² will be used for proposed project and no R& R is involved in the Project. The details of products are as follows:

S. No	Products	CAS No	Capacity (TPD)	Uses
1. Agrochemicals -5(b)				
1	Profenofos	41198-08-7	10	Insecticide
2	Thiamethoxam	153719-23-4	1.5	Insecticide
3	Fipronil	120068-37-3	1	Insecticide
4	Imidachloprid	138261-41-3	1	Insecticide
5	Acetamiprid	135410-20-7	1	Insecticide
6	Pymetrozine	123312-89-0	1	Insecticide
7	Triazinone / Thiocarbohydrazide/ Dichloro Pinacolone /Pinacolone	33509-43-2	10	Intermediate
8	Pyriproxyfen	95737-68-1	1	Insecticide
9	Emamactin Benzoate	155569-91-8	1	Insecticide
10	Diafenthiuron	80060-09-9	1	Insecticide
11	Propiconazole	60207-90-1	2	Fungicide
12	Tricyclazole	41814-78-2	2	Fungicide
13	Fenbuconazole	114369-43-6	1	Fungicide
14	Myclobutanil	88671-89-0	1.5	Fungicide
15	Thifluzomide	130000-40-7	1	Fungicide
16	Hexaconazole	79983-71-4	3	Fungicide
17	Tebuconazole	107534-96-3	1.5	Fungicide
18	Thiophanate-methyl	23564-05-8	1.5	Fungicide
19	Azoxystrobin	131860-33-8	1.5	Fungicide
20	Pretilachlor	51218-49-6	4	Herbicide
21	Metribuzin	21087-64-9	2	Herbicide
22	Dimethomorph	110488-70-5	1.4	Fungicide
23	Clodinofop-Propargyl	105512-06-9	2	Herbicide
24	Bispyribec Sodium	125401-92-5	2	Herbicide
25	Bensulfuron Methyl	83055-99-6	2	Herbicide
26	Quizalofop-p-ethyl	100646-51-3	1	Herbicide
27	Clethodim	99129-21-2	3	Herbicide
28	Pinoxulam	219714-96-2	1	Herbicide
29	Metolachlor	51218-45-2	1	Herbicide
30	(Z)-hezatec – 11-en-1-yl acetate	34010-21-4	1	Intermediate
31	(Z)-hezatec – 9-enal	56219-04-6	1	Intermediate
32	(8E,10E) – Dodoca-8, 10-dyen-1-ol	53880-51-6	1	Intermediate
33	7Z,11Z hexadeca dienyl acetate	52207-99-5	1	Intermediate
34	7E, 9Z dodoca dienyl acetate	54364-62-4	1	Intermediate

S. No	Products	CAS No	Capacity (TPD)	Uses
35	8Z Dodecynyl acetate	28079-04-1	1	Intermediate
36	(Z)-Octadeca – 13 – enyl acetate	60037-58-3	1	Intermediate
37	2-Hydrazin-4-Methylbenzothiazole/HMBT	66373-46-4	4	Intermediate
38	Bromoketal	60207-89-8	2	Fungicide
39	R&D and Validation Products	-	0.1	All
Sub-Total			76	
2. Synthetic Organic Chemicals- 5(f)				
1	4-Chlorobutyl Chloride	4635-59-0	1.5	Pharma Intermediate, Agro intermediate
2	Trityl chloride	76-83-5	1.5	Pharma Intermediate
3	Bis(2-chloroethyl) amine hydrochloride	821-48-7	1.5	Pharma Intermediate
4	6-ChloroHexanol	2009-83-8	1.5	Solvent
5	1-Chloro-5-hexanone	10226-30-9	1.5	Pharma Intermediate
6	Tyramine Hydrochloride	60-19-5	1.5	Pharma Intermediate
7	2- Acetyl Thiophene	88-15-3	1.5	Pharma Intermediate
8	N-Propyl Bromide	106-94-5	4	Solvent
9	Ortho Chloro Phenol	95-57-8	4	Pestiside Intermediate
10	Para Chloro Phenol	106-48-9	4	Pharma Intermediate
11	1,2-Pentanediol	5343-92-0	4	Agro & Cosmetic intermediate
12	2,4-Dichloroacetophenone	2234-16-4	4	Pharma Intermediate
Sub-Total			30.5	
3. Fluorine Based Chemicals-5(f)				
1	2,4- Difluoro benzylamine	72235-52-0	1.0	Pharma Intermediate
2	2,4- Difluoro benzonitrile	3939-09-1	1.0	Pharma Intermediate
3	2,6- Difluoro benzonitrile	1897-52-5	1.421	Pharma Intermediate
4	2- Trifluoromethyl benzamide	360-64-5	1.694	Pharma Intermediate, Fungicide intermediate
5	4- Fluoroaniline	371-40-4	1.0	Pharma Intermediate
6	Bisphenol AF	1478-61-1	1.0	Intermediate for Polymer
7	Tetrafluoro ethyl dimethyl amine	1550-50-1	1.0	Pharma Intermediate
Sub-Total			8.115	
4. By-products*				
1	NaBr Aqueous waste	--	25	For Recycling
2	HBr	--	10	For Recycling
3	HCL 15-20%	--	80	For Recycling
4	KCL 15-20 %	--	20	For Recycling
5	NASH Solution	--	15	For Recycling
Sub-Total			150	
Total (TPD)			264.615	

S. No	Products	CAS No	Capacity (TPD)	Uses
5. Thermal Power Plant (1d)				
Cogeneration Power Plant- 6 MW				

6. 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.

7. The PP reported that there are no national parks, wildlife sanctuaries, biosphere reserves, tiger/elephant reserves, wildlife corridors etc. within 10 km distance from the project site. Nala is adjacent to Site in Western direction, Kandivalasa R is adjacent to Site in Southern Direction, Pond near Boyapalem is at a distance of ~0.43km in NE direction, Pond near Kontalapalem is at a distance of ~ 0.84 km in the SSE Direction, Canal near Sarugudipeta is ~1.34 km in the NNW Direction, Canal near Govindapuram is ~3.07 km in the SSW Direction, Nala near Kamavaram is ~3.69km in the NW Direction, Bay of Bengal is ~4.39km in the SE Direction, Lake near DevuniPalavalasa is ~5.07 km in the NNW Direction, Nala near DevuniPalavalasa is ~5.90 km in the NNW Direction, Canal near Derasam is ~6.52km in the NE Direction, LankalaCheruvu is ~7.60 km in the ENE Direction and PeddaCheruvu is ~9.85 km in the ENE Direction. There is no forest land involved in the proposed project. One Schedule-I species i.e., Peacock or Indian peafowl (*Pavo cristatus*), was observed in the 10 km radius from the proposed project. Conservation plan for Sch.-I species has already been submitted to Principal Chief Conservator of Forest (PCCF) (Wild Life & CWLW)

8. The PP reported that the **Ambient air** quality monitoring was carried out at 8 locations during 15th December 2021 to 15th March 2022 and the baseline data indicates the ranges of concentrations as: PM₁₀ (40.19 µg/m³ to 64.72 µg/m³), PM_{2.5} (20.93 µg/m³ to 36.95 µg/m³), SO₂ (6.99 µg/m³ to 14.86 µg/m³), NO₂ (14.26 µg/m³ to 35.85 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.17 µg/m³, 6.43 µg/m³, 10.27 µg/m³ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise** - The observations of day equivalent and night equivalent noise levels at all locations are given as follows- In Industrial area day time noise levels was about 47.6 dB(A) and 40.4 dB(A) during night time, which is within prescribed limit by CPCB (75 dB(A) Day time & 70 dB(A) Night time) and no activities are at the proposed sand mine site. In residential areas day time noise levels varied from 48.5 dB(A) to 50.6 dB(A) and night time noise levels varied from 40.2 dB(A) to 42.6 dB(A) across the sampling stations. The field observations during the study period indicate that the ambient noise levels are within the prescribed limit by CPCB (55 dB(A) Day time & 45 dB(A) Night time).

9. **Ground water** monitoring was carried out at 8 locations during 15th of December 2021 to 15th of March 2022 and the baseline data indicates the ranges as: pH (6.64 - 7.71), TDS (421 mg/l – 1156mg/l), Total Hardness (208mg/l – 663mg/l), Chlorides (89.46 mg/l – 375.1 mg/l) and Fluoride (0.29 mg/l -0.52 mg/l). **Surface water** monitoring was carried out at 8 locations during 15th of December 2021 to 15th of March 2022 and the baseline data indicates the ranges as: pH (6.82- 7.48), TDS (878 mg/l - 6426 mg/l), TSS (6 mg/l -21 mg/l), Total Hardness (201.4 mg/l - 592.8 mg/l), Chlorides (98.37mg/l -664.9 mg/l), Fluoride (0.29 mg/l -0.51 mg/l), BOD (8 mg/l - 27 mg/l), COD (24 - 48 mg/l) and DO (5.2 mg/l -5.8 mg/l). Marine sample indicates the ranges as: pH (6.78 - 6.91), TDS (16315 mg/l - 37750 mg/l), TSS (17mg/l - 29mg/l), Total Hardness (6364.7 mg/l - 6843.6 mg/l), Chloride (15284.3 mg/l - 17259.3mg/l), Fluoride (0.52mg/l -0.59 mg/l), BOD (4 mg/l – 6 mg/l), COD (10 mg/l – 17 mg/l) and DO (6.1 mg/l-6.2 mg/l).

10. **Soil** monitoring was carried out at 8 locations during 15th of December 2021 to 15th of March 2022 and the baseline data indicates the ranges as: Nitrogen (52.9 mg/kg to 418 mg/kg), Phosphorus (11.6 mg/kg to 93.4 mg/kg) and Potassium (17.4 mg/kg to 92.1 mg/kg)

11. The PP reported that Total water requirement is 2911 m³/day of which fresh water requirement of 1121 m³/day will be met from Ground water. Ground water application has been submitted to APGWD and awaiting for approval. HTDS Effluent of 1300 m³/day quantity and LTDS Effluent of 2080 m³/day will be treated through HTDS ETP capacity of 1500m³/day and LTDS ETP (Biological Treatment Plant) capacity of 2300m³/day followed by MEE and ATFD. Sewage of 30 m³/day quantity will be treated through STP capacity of 40m³/day. The plant will be based on Zero Liquid Discharge (ZLD) system.

12. Power requirement will be **6000 kVA (6 MW)** will be met from Co-generation/ APSPDCL. EMDG sets of **2x1000 kVA and 2x2000 kVA** is proposed and will be kept as standby during power failure. Stack height of **32m** for 2x1000 kVA and **34m** for 2x2000 kVA will be provided as per CPCB norms.

13. 1 x 40 TPH capacity Coal fired Boiler will be installed for the proposed project. ESP with a stack height of 45m for 1 x 40 TPH capacity Coal fired Boiler will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.

14. **Details of Process Emissions Generation and its Management:**

S. No	Source	Stack Details						Emission (g/s)					APC
		No. of stack	Height (m)	Dia (m)	Temp (°C)	Exit velocity (m/s)	Flow rate (Nm ³ /hr)	PM	SO ₂	NO _x	CO	VO _C	
1	Reactor for agrochemicals	1	30	0.1	54	10	338.65	0.0030	0.0050	0.0042	0.0037	0.0002	Wet Scrubber
2	Reactor For Synthetic Organics & Fluorine based chemicals	1	30	0.1	58	10.9	373.65	0.0031	0.0052	0.0044	0.0038	0.0003	Wet Scrubber

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

S. No	Waste	Total (Kg/day)	Method of disposal
Construction phase-120			
1	Organic	32.4	Scope of the contractor as per SPCB/CPCB norms
2	Inorganic	21.6	Scope of the contractor as per SPCB/CPCB norms

S. No	Waste	Total (Kg/day)	Method of disposal
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Operation phase-700				
1	Organic	189	Disposal To Local Municipal	
2	Inorganic	126	APPCB Authorized Recyclers	

OTHER SOLID WASTE GENERATION

Item name	Proposed (TPD)	Mode of disposal		
Boiler Ash	12	Sold to Brick manufactures and cement plants. MOU will be made with them before operation phase.		

Hazardous waste Management

S No	Source	Unit	Quantity	Mode of Disposal
For Agrochemicals				
1	Organic residue	TPM	920	Will send to TSDF or Cement industries.
2	Distillation Bottom Residue	TPM	400	Authorized cement plants for co-processing
3	Organic-Stripper Distillate	KLM	16.5	AFRF for pre- processing and onward disposal to cement industries for co- processing
4	Spent Solvents	TPM	7500	Shall be recovered insolvent recovery plant within the premises / APPCB Authorized recyclers.
5	a) Detoxified Container / Liners drums	No.s/Annum	20000	Sold to authorized recyclers
	b) HDPE Carboys Fiber drums		9000	Sold to authorized vendors
6	Waste Oil	KL/Annum	8	Authorized recyclers
7	Used batteries	No's/Annum	800	Buy back with supplier
For Synthetic Organic Chemicals				
1	Organic Residue	TPM	50	Will send to TSDF or Cement industries.
2	Distillation Residue	TPM	5	Authorized cement plants for co-processing
3	Sodium Bi carbonate	TPM	1.5	Sold to authorized vendor/ land Filling
4	Sodium Sulphate	TPM	2	Sold to authorized vendor/ land Filling
Combined HW Waste				
1	Inorganic salts	TPM	121	Sent to TSDF

16. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 18.44 crores (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 1.82 crore per annum. Industry proposes to allocate Rs. 225 Lakhs towards Corporate Social Responsibility

17. Industry will greenbelt in an area of 33% i.e., 76323.78 m² out of total area of the project.

18. The PP proposed to set up an Environment Management Cell (EMC) by engaging Head Environment- Manager Environment- Asst. Manager Environment and Environment Department officials for the functioning of EMC.

19. The PP reported that the following w.r.t carbon sequestration:

Source	Quantity (T)	Calorific Value (Kcal/Kg)	Total Energy (GJ)	Emission Factor (Kg CO ₂ /GJ)	Emissions (T)	Carbon Sequestration (%)	Source
HSD	159.6	10200	6814	74.1	504.93		
Coal	79200	4000	1326378	96.07	1,27,425.16	25	Bio Fuel & Energy Conservation
Gas	19.1	10500	837	63.1	52.84		
Transportation	5000	10200	213527	74.1	15,822.34		
Total					1,43,805.27		

20. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

21. The total estimated cost of the proposed project is Rs. 150 Crores. The total employment will be 700 with 200 persons as direct & 500 persons as indirect after expansion.

22. 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 PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP 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 PP.

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 EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised 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 by-product details, fuel wastewater parameter w.r.t pesticide, Greenbelt development plan and budget for EMP, Pollution load Hierarchy of Environment

management cell. Life cycle Assessment, carbon footprint, breakup of water balance and advised the PP to submit the following:

- The by-products detail to be verified and moved to Hazardous waste whichever coming from the pesticide products.
- Affidavit with respect to use of fuel.
- The wastewater parameters w.r.t pesticide to be looped in the water balance.
- Detailed Greenbelt development plan and budget for EMP
- Pollution load statement w.r.t specific pollutants on pesticide.
- Hierarchy of Environment management cell in simpler form of chart.
- Life cycle assessment in details including the hotspots from cradle to grave approach. And its mitigation.
- Carbon footprint w.r.t fuel change and increased in greenbelt.
- Water balance in tabular form segregating internal recycling and treatment.

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

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation also 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 minutes of the meeting are available on PARIVESH.

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, 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 “Proposed Establishment of Agrochemicals, Synthetic Organic chemicals, Fluorine based chemicals manufacturing facility of production capacity 264.615 TPD and Co-Generation Power Plant (6 MW) located at at Survey. No. 12/1, 12/2, 12/3, 13, 14/2, 14/3, 14/4, 14/5, 14/6, 14/7, 14/8, 14/9, 14/10, 14/11, 14/12, 14/13, 14/14, 14/15, 14/16, 14/17, 14/18, 14/19, 14/20, 19, 20, 21 (pt), 22 (pt), 26 (pt) & 27 (pt) (57.14 Acres), Naruva Village, Ranastalam Mandal, Srikakulam District and Andhra Pradesh by M/s. NAACL Multichem Private Limited.”** 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 of at least, 7.63 ha by planting 22900 number of trees within a period of one year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2 m). 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 the 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 the 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. PP shall engage Head Environment- Manager Environment- Asst. Manager 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.
- (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 ₹ 1903 Lakh (Capital cost) and ₹ 191.5 Lakh (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) As committed by the PP, Biomass/ Agro briquette /Rice husk shall be used as primary fuel, during the unavailability of agro briquette coal shall be used in case of emergency.
- (v) The Total water requirement is 2911 m³/day of which fresh water requirement of 1121 m³/day will be met from Ground water. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawn 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.
- (vi) As committed by the PP, Zero Liquid discharge shall be ensured, of 1300 m³/day quantity and LTDS Effluent of 2080 m³/day will be treated through HTDS ETP capacity of 1500m³/day and LTDS ETP (Biological Treatment Plant) capacity of 2300m³/day followed by MEE and ATFD. Sewage of 30 m³/day quantity will be treated through STP capacity of 40m³/day
- (vii) 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.
- (viii) The project proponent shall comply with the environment norms for Organic Chemical Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608(E), dated 21.07.2010 under the provisions of the Environment (Protection) Rules, 1986.

- (ix) The project proponent shall comply with the environment norms for Pesticide Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 446 (E), dated 13.6.2011 under the provisions of the Environment (Protection) Rules, 1986.
- (x) 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.
- (xi) 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.
- (xii) 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.
- (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 flame 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 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.
- (xix) 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.

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, 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.

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 Special Chief Secretary, Environment, Forest, Science & Technology Department, 4th Block, 1st Floor, A.P Secretariat Office, Velagapudi, Andhra Pradesh
2. The Inspector General of Forests (C), Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Vijayawada Green House Complex, Gopalareddy Road, Vijayawada – 520010, Andhra Pradesh

3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032
4. The Member Secretary, Andhra Pradesh Pollution Control Board, D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamalavari, Street, Kasturibaipet, Vijayawada – 520010.
5. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
6. The District Collector, District Srikakulam, Andhra Pradesh.
7. Guard File/Monitoring File/PARIVESH

(Dr. M. Ramesh)

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