

**GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)**

Dated: 24.08.2023

**MINUTES OF THE 60th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR)
MEETING HELD ON 10th AUGUST, 2023**

Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003 through **Video Conferencing (VC)**

Time: 10:30 AM onwards

(i) Opening Remarks by the Chairman

Prof. (Dr.) A.B. Pandit, Chairman welcomed the Committee members and opened the Expert Appraisal Committee (EAC) meeting for further deliberations.

(ii) Details of Agenda items by the Member Secretary

The Member Secretary apprised the EAC about the details of Agenda items to be discussed during this meeting.

(iii) Confirmation of Minutes of the 59th EAC (Industry-3 Sector)

The EAC noted that the final minutes of the above meeting were issued after incorporating the comments offered by the members and approved by the Chairman. Accordingly, the MoM were confirmed.

Agenda No. 60.1

Setting up of Pesticides, Pesticide Intermediates and Fine Chemicals Manufacturing Unit located at Plot No. SPM-29/2, Sterling SEZ & Infrastructure Ltd., Post Sarod, Taluka Jambusar, District Bharuch, Gujarat by M/s PI Industries Ltd. (Unit-II) - Reconsideration of Amendment in EC

[Proposal No. IA/GJ/IND3/285811/2022; File No. IA-J-11011/6/2017-IA-II(I)]

1. The proposal is for amendment in the Environmental Clearance (EC) granted by the Ministry vide letter no. IA-J-11011/6/2017-IA-II(I), dated 26.07.2018 (amended on 17.06.2019) for the project of Pesticides, Pesticide Intermediates and Fine Chemicals manufacturing plant at Plot No. SPM-29/2, Sterling SEZ & Infrastructure Ltd., Post Sarod, Taluka Jambusar, Dist. Bharuch, Gujarat by **M/s. PI Industries Ltd. (Unit-II)**.
2. The project proponent has requested for amendment in the EC with the details as under:

Sr. No.	Para of EC issued by MoEF&CC	Details as per EC	To be revised/read as	Justification/ reasons
1.	Condition No-6 Para-3	The unit will have Boilers of 6 TPH (1 no.) & 12 TPH (2 Nos) and Thermic Fluid Heater (60 Lakhs Kcal/Hr) with Furnace Oil/Natural Gas (204 MT/Day/195440 Nm³/Day) will be used as fuel. Boiler & Thermic Fluid heater is connected with stacks of adequate height of 30 m & 20 m respectively.	The unit will have Boilers of 17 TPH (2 Nos) and Thermic Fluid Heater (60 Lakhs Kcal/Hr) with Light Diesel Oil/Natural Gas (204 MT/Day/195440 Nm³/Day) will be used as fuel. Boiler & Thermic Fluid heater is connected with stacks of adequate height of 30 m & 20 m respectively.	Change of 12 TPH boilers (2 Nos.) and 6 TPH (1 no) to 17 TPH (2 Nos.) Boilers. Proposed amendment is to have better fuel efficiency without increase in fuel consumption sanctioned in Existing EC because no increase in steam demand . Proposed to replace Furnace Oil by Light Diesel Oil as Fuel . This is due to the fact that GPCB has discontinued FO fuel from approved fuel list.

3. The Proposal was earlier considered in the 36th EAC meeting held on 17th August, 2022, wherein the EAC deliberated as follows:

*“EAC deliberated on the issue and observed that EC was granted by the Ministry on 26.07.2018, the existing greenbelt/plantation is not adequately planted, in view of this, the PP needs to submit the action plan for greenbelt and to increase the number of trees, accordingly. The PP is also required to submit the details of carbon foot prints and carbon sequestration study w.r.t. proposed project and details of onsite and offsite emergency plans. The EAC advised the PP and the consultant that in future, they should ensure the compliance of existing EC including green belt before applying for amendment in EC. The Committee therefore, **deferred** the proposal.”*

The PP submitted the above sought information on 27.7.2023 and accordingly, the proposal is placed in this meeting held on 19th August, 2023.

4. **Deliberations by the EAC:**

The EAC constituted under the provisions of the EIA Notification, 2006 and comprising of expert members /domain experts in various fields, examined the proposal submitted by the PP in desired form.

The EAC inter-alia, deliberated on the Greenbelt development plan, carbon sequestration, fire safety plan, and advised the PP to submit the following:

- Revised layout with greenbelt all around the periphery specifically with increase in the Northern side of the plant. The details of total area, additional nos. of trees after considering 70% survival rate, timeline and budget.
- Year wise and % wise Carbon sequestration.
- Fire safety Plan approval certificate from the Chief Factory Inspector.

The PP submitted the revised/updated information/documents of the same and the EAC found these to be satisfactory.

5. After detailed deliberations, the EAC **recommended** the amendment in EC, subject to the following additional conditions:

- (i) The PP shall develop Greenbelt over an area of minimum 33% by planting 4000 saplings (in north side) preferably, within the one year of grant of amendment of EC. In addition to this, as proposed by the PP, 4000 tree saplings shall be planted in sterling SEZ area which is located nearby the plant premises. The saplings selected 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) 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.
- (iii) 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.

Agenda No. 60.2

Proposed Establishment of Synthetic Organic Chemicals (APIs) Manufacturing Unit of Production Capacity 7271.4 TPA located at SIPCOT Industrial Growth Centre, Gangaikondan Village, Tirunelveli Taluk and District, Tamil Nadu by M/s. Megha Agro International - Reconsideration of EC

[Proposal No. IA/TN/IND3/411095/2022, File No IA-J-11011/128/2022-IA-II(I)]

1. The proposal is for the environmental clearance for the Proposed Establishment of Synthetic Organic Chemicals (APIs) manufacturing unit of production capacity 7271.4 TPA located at SIPCOT Industrial Growth Centre, Gangaikondan Village, Tirunelveli Taluk and District, Tamil Nadu by M/s. Megha Agro International.
2. The project/activity is covered under Category 'B' of Item 5(f), Synthetic organic chemicals industry of Schedule of EIA Notification, 2006 (as amended). However, since the proposed project site is at a distance of 1.6 km (SE) from Gangaikondan Spotted Deer Sanctuary, the project attracts the general condition and considered as Category 'A' at Centre.
3. The standard ToR was issued by Ministry vide letter no. IA-J-11011/128/2022-IA-II(I) dated 20.04.2022. The PP submitted that Public Hearing is exempted as the project site is located in a notified Industrial area i.e. SIPCOT Industrial Growth Centre, Gangaikondan Village notified vide G.O.M No.91 dated 27.2.1991. The PP applied for Environment Clearance on 17.12. 2022 in CAF and submitted EIA/EMP Report and other documents. The PP reported in Form that it is a Fresh EC. Due to some shortcomings, the Project was referred back to PP on 05.01.2023 and the reply for the same has been submitted on 03.03.2023. The proposal was placed in 48th EAC Meeting held on 9th -10th & 13th March, 2023, in which proposal was deferred and now the proposal is placed in 60th EAC meeting held on 10th August, 2023 wherein the PP and an accredited Consultant M/s KKB Envirocare Consultants Pvt. Ltd., Hyderabad [Accreditation number NABET/EIA/2326/RA 0281, Valid up to 8.2.2026] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:
4. The PP reported that the total land area of 1.6576 ha 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	Quantity (TPM)	Quantity (TPA)	CAS No.	Therapeutic Category
1.	Brucine	0.24	2.88	5787-00-8	Denaturants
2.	Strychnine	0.64	7.68	57-24-9	Central Stimulant
3.	Metformin Hydrochloride	600	7200	1115-70-4	Anti-Diabetic
4.	Tolbutamide	5.07	60.84	64-77-7	Anti-Diabetic
Total Production capacity of the manufactured products		605.95	7271.4		

5. 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.

6. The PP reported that Gangaikondan Spotted Deer Sanctuary is located at 1.6 km (SE) to the project site and an area to an extent varying from zero kilometres to 0.82 km around the boundary of Gangaikondan Spotted Deer Sanctuary is declared as the Eco-Sensitive Zone. Bird Sanctuary at Gangaikondan Tank is at 3.13 km (E) from the project site. Water bodies viz., small ponds near site 0.88 km SSE direction, 1.28 km (E), Gangaikondan Tank at 3 km in East direction, Pond near Rajavallipuram at 4.18 km in ESE, Ponds near Karisalkulam at 3.13 km in NNE direction and 4.5 km in NNE direction, Chittar river at 4 km in NE direction, Tambrparni river at 7.1 km in SSE direction, Tirunelveli canal at 4.5 km in S direction, Canal near Venkatachalapuram at 4.6 km in N direction, Parakiramapandiyan Kulam at 5.5 km in SE direction, Palamadai kulam at 7 km in W direction, Kalkurichikulam at 5.77 km in SE direction. There is no forest land involved in the proposed project. No Schedule-I species were observed in the 10 km radius from the proposed project site.

7. The PP reported that **Ambient Air Quality:** The PP reported that the Ambient air quality monitoring was carried out at 8 locations during Dec 2021 to Feb 2022 and the baseline data indicate that ranges of concentrations as: PM₁₀ (34 - 63 µg/m³), PM_{2.5} (14 - 32.7 µg/m³), SO₂ (5.2 – 12.5 µg/m³) and NO₂ (8.8 – 24.6 µg/m³). AAQ modeling study for point source emissions indicate that the maximum incremental GLCs after the proposed project would be 0.178 µg/m³, 4.71 µg/m³ and 5.45 µg/m³ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS) **Noise monitoring-** The PP reported that the ambient noise levels were monitored at eight locations within study area. The observed noise levels in the study area ranged from 50.6 to 55.2 dB (A) during day time. The maximum noise level of 55.2 dB (A) was observed at Pallikottai village and the minimum noise level of 50.6 dB (A) was observed at Dadandarpuram village during the study period. The night time (L_{night}) noise levels at all the locations were observed in the range of 40.8 to 45.3 dB (A). The maximum noise level of 45.3 dB (A) was observed at Pappankulam village and the minimum noise level of 40.8 was observed at Project Site during the study period. The noise levels at all the locations in study area during day & night are meeting the noise standards in respective of category of Area / zone prescribed by CPCB during day as well as night time. **Ground Water & Surface water:** The PP reported that six samples of surface water and eight samples of groundwater were collected in the study area. All the surveyed villages are having piped water supply for drinking purpose provided by Panchayat. Ground water through bore wells is used for their domestic needs. The source for industry water requirement will be provided by SIPCOT water supply. All the Ground water sample villages use bore/river water supplied through public stand posts and house connections for drinking purpose. Ground water through bore wells is used for their domestic needs. All the surveyed villages are supplied drinking water by Panchayat. The bore wells etc. are used for other purposes. It is learnt that the industries in SIPCOT Industrial growth Centre, do not permit for bore well in industry premises. **Soil:** The PP reported that eight soil samples were collected and analysed. The predominant texture of soil in study area is loam. Potassium availability is good in neutral and alkaline soil.

8. The PP reported that the total water requirement is 55.35 KLD. The fresh water requirement of 38.65 KLD will be met from SIPCOT water supply. About 10 KLD of treated water from ETP-ZLD will be reused in cooling towers in future. Treated water of 2 KLD from STP will be used in Greenbelt, 4.7 KLD is used in process. Total of 16.7 KLD of water is

reused/Recycled. Trade Effluent of 11.9 KLD quantity will be sent to ETP-ZLD and Domestic effluent of 2.8 KLD will be sent to packaged STP.

9. Power requirement will be 2000 HP which will be met from Tamil Nadu State Power Distribution Corporation Limited. Industry proposed 2 nos. DG sets of 380 KVA capacity. *DG sets* are used as standby, during power failure. Stack (height 9 m for both) will be provided as per CPCB norms to the proposed DG sets.
10. Proposed 3.5 TPH LPG fired Boiler with a stack height of 30 m will be installed. The NOx emissions from the boiler will be controlled by controlling combustion measures, which will be approached by way of low NOx burners or by air staging in boiler.

11. Details of Process Emissions Generation and its Management:

Sl. No.	Process Emission	Maximum Quantity on various combinations (kg/day)	Treatment
1.	CO ₂	30.85	• Scrubbed by using Caustic Iye Solution
2.	HCl	200	• Scrubbed by using Chilled water/ Caustic solution
3.	NH ₃	11.9	• Scrubbed by using Chilled water/dil. H ₂ SO ₄ solution

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

S. No.	Source	Proposed Quantity (TPD*)	Stream	Handling Method	Disposal
1.	Organic residue from Process	5.5	28.1 of Schedule -I	HDPE Drums	Sent to SPCB Authorized Cement industries or to TSDF for Incineration
2.	Spent carbon	0.1	28.3 of Schedule -I		
3.	Inorganic & Evaporation salt (Process)	0.089	28.1 of Schedule -I	HDPE Drums	Sent to SPCB Authorized Cement industries or to TSDF for landfill
4.	Evaporation salt (Non-Process)	0.2	35.3 of Schedule -I		
5.	ETP Sludge	0.3	35.3 of Schedule -I		
6.	Waste pulp after extraction from process	2.6	-	HDPE Drums	Sold to other industries to Use as biofuel in Boilers.
Other Hazardous / Solid Wastes Generation from the Plant:					
1.	a) Detoxified Container / Liners	15 Nos./ month	33.1 of Schedule-I	Designated covered	Disposed to SPCB Authorized agencies after

S. No.	Source	Proposed Quantity (TPD*)	Stream	Handling Method	Disposal
	drums, HDPE Carboys, Fiber Drums			area	complete detoxification
	b) PP Bags	3 Kg/month	--		
2.	Spent solvents	36 KLD	28.6 of Schedule -I	Tanks / Drums	Recovered within the premises
3.	Recovered Solvents from Spent solvents	32 KLD	28.6 of Schedule -I	Tanks / Drums	Reuse or sold to Recyclers
4.	Spent Mixed solvents (unrecovered solvents)	4 KLD	28.6 of Schedule -I	Tanks/ Drums	Sent to SPCB Authorized agencies
5.	Waste oils & Grease	1 KL/annum	5.1 of Schedule -I	MS Drums	Sent to SPCB Authorized agencies for reprocessing
6.	Used Lead acid Batteries	30 Nos. / annum	A1160 of Schedule-III	Stored in Covered shed	Sent to suppliers on buy-back basis.
7.	Misc. Waste (spill control waste)	L.S.(3.6 TPA)	--	Stored in Drums	TSDF
8.	Rejects	L.S.(3.6 TPA)	--		
9.	E- waste	L.S.(1.08 TPA)	--	Designated covered area	Authorized re-processor or TSDF
10.	Waste papers & other types of packing scrap	L.S.(3.6 TPA)	--		Sold to scrap venders
11.	Canteen waste	L.S.(7.2 TPA)	--	HDPE bags	Composted on site and reused for green belt
12.	Bio Medical Waste	LS. (0.72 TPA)	--	Color coded containers	Sent to SPCB authorized Biomedical waste incinerator

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 2.6 Crore (capital) and the Recurring Cost (operation and maintenance) will be about 2.8 Crores per annum. Industry proposes to allocate Rs. 18.5 Lakhs towards Corporate Social Responsibility.

14. Industry will develop greenbelt over an area of 0.5742 Ha (34.7%) out of 1.6576 Ha total area of the project.

15. The PP proposed to set up an Environment Management Cell (EMC) by engaging managing Partner- Production manger- Quality control- PA & Accounts- maintenance in charge- safety officer- Production for the functioning of EMC.

16. The PP reported that Carbon Footprint is estimated during construction and operation phase about 866.42 tonnes of CO₂ is expected during construction phase from the building materials and transportation. Proposes to utilize eco-friendly building materials, use low carbon content cement, reuse of building materials, components etc. During operation phase carbon footprint is estimated from process emissions, CO₂ emissions are expected from vehicular movement, usage of electricity, fuel. Total Carbon emissions from the proposed project during operation phase will be approximately 5866 Tonnes per annum. Around 332 Tonnes of CO₂ is estimated to sequester over the years i.e. it will be around 5.7% reduction from carbon emissions generated during operation phase. Apart from greenbelt development, industry proposes to adopt the best management practices to reduce the amount of carbon like solar panels.
17. The PP reported that the project, being in notified industrial area SIPCOT Industrial Growth Centre in Gangaikondan village was formed vide G.O.Ms.No.91 dated 27-2-1991 is exempted from the public hearing as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 and O.M. No. J-111011/321/2016-IA. II(I) dated 27.04.2018.
18. The PP submitted the Disaster and On-site and Off-site Emergency Plans in the EIA report.
19. The estimated project cost is Rs. 9.27 Crores. Total Employment will be 70 nos. 50 persons as direct and 50 persons as indirect.
20. The proposal was earlier considered in the 48th EAC meeting held on 9th-10th & 13th March, 2023, wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP, which is as follows:

S. No.	Queries Raised by EAC	Reply by PP
i.	Wildlife conservation plan for Schedule-I species and a copy of the acknowledgment of submission to CWLW for approval.	Wildlife conservation plan for Schedule-I species reviewed by Forest Range Officer, approved by the Wildlife Warden and Principal, Tirunelveli has been submitted
ii.	The detailed greenbelt development plan along with budgetary allocation. Details of the high carbon sequestration species trees proposed in the greenbelt shall also be submitted	Greenbelt development plan with budgetary allocation is prepared considering the @2500 nos. of plants per hectare and 80% survival rate along budgetary allocation. High Carbon sequestration species are considered under the Greenbelt development. Greenbelt will be developed in an area of 0.57 Ha (34.7%) out of total area of 1.657 Ha. Proposed financial budget for the green development plan has been submitted. Carbon sequestration details for the species proposed are given below. 1435 no. of trees

		proposed will sequester carbon approximately up to 111.97 tons per year.
iii.	A map clearly depicting the distance of the project site from the Gangaikondan Spotted Deer Sanctuary and Gangaikondan Bird Sanctuary and their respective notified ESZs.	A map clearly depicting the distance of the project site from the Gangaikondan Spotted Deer Sanctuary and Gangaikondan Bird Sanctuary has been submitted authenticated by Forest range officer.
iv.	On-site and Off-site emergency plans and mitigation measures to be proposed during implementation of the project.	Onsite and Off-site emergency plan and mitigation measures suggested during the implementation of the project has been submitted.

21. **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 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 to the effect 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 with 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, and advised the PP to submit an undertaking regarding the greenbelt development with its budgetary provision. The PP submitted the same and the EAC found it to be satisfactory.

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, 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, prior to construction & operation of the project.

22. The EAC, after detailed deliberations, **recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I:**

- (i) The PP shall develop Greenbelt over an area of at least, 0.5742 m² (by planting 1722 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. The PP shall engage managing Partner- Production manager- Quality control- PA & Accounts- maintenance in charge- safety officer- Production. In addition, one safety & health officer as per the qualification given in Factories Act, 1948 shall be engaged within a month of grant of EC. The 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 the 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 proposed under EMP [₹ 2.6 Crore (Capital cost) and ₹ 2.8 Crore per annum (Recurring cost)] shall be kept in a 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 the previous year.

- (iv) The total water requirement shall not exceed 55.35 KLD. The fresh water requirement of 38.65 KLD shall be met from SIPCOT water supply. 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 prior permission 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) No banned chemicals shall be manufactured by the PP. No banned raw materials shall be used in the unit. The PP shall adhere to the notifications/guidelines of the Government in this regard.
- (vi) The PP 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.
- (vii) 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.
- (viii) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP 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. The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- (x) Trade Effluent of 11.9 KLD quantity shall be sent to ETP-ZLD and Domestic effluent of 2.8 KLD shall be sent to packaged STP.
- (xi) 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.

- (xii) 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.
- (xiii) 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.
- (xiv) 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.
- (xv) The unit shall make the arrangement for the protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xvi) 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.
- (xvii) 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.
- (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.

Agenda No. 60.3

Proposed Expansion of Synthetic Organic Chemicals (API and Intermediates) Manufacturing Unit upto the Production Capacity of 34 MT/Month located at Plot No. B-40, MIDC Paithan, Taluka Paithan, District Aurangabad, Maharashtra by M/s Satellite Pharmaceuticals Pvt. Ltd. - Consideration of Environmental Clearance

[Proposal No. IA/MH/IND3/419096/2023; File No. IA-J-11011/505/2021-IA-II(I)]

1. The proposal is for the environmental clearance for Proposed Expansion of Synthetic Organic Chemical (API and Intermediates) Manufacturing Unit upto the Production Capacity of 34 MT/Month located at Plot No.: B-40, MIDC Paithan, Taluka-Paithan, District Aurangabad, Maharashtra by M/s Satellite Pharmaceuticals Pvt. Ltd.
2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry of Schedule of EIA Notification, 2006 (as amended). However, since the proposed project site is at a distance of 2.9. km from ESZ of Jaikwadi Bird Sanctuary, the project attracts the general condition and considered as Category 'A' at Centre.
3. The ToR was issued by Ministry vide letter no. No. IA-J-11011/505/2021-IA-II (I) dated 02.02.2021. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is an **Expansion case**. The proposal is placed in this 60th EAC meeting on 10th August, 2023, wherein the PP along with accredited Consultant, Building Environment (India) Pvt. Ltd [Accreditation number NABET/EIA/2225/RA 0267_Rev 01 Valid Till 27.05.2025] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:
4. The PP reported that the existing land area is 6,840 m² land, no additional land is required for the proposed expansion, no R& R is involved in the Project. The details of products to be manufactured are as follows:

S. NO	Product name	Quantity/Month	Application
Existing			
1	Sodium Chloride	11 MT	Formulation preparation
2	Ammonium Chloride	11 MT	Pharmaceutical preparations
3	Potassium Chloride	11 MT	Medical application, Synthesis of Nucleic acid
Total		33 MT	
The existing products will be discontinued			
Proposed			
1	Benzhydrol	8 MT	Intermediate for Modafinil and Citrazine Hydrochloride.
2	2-Phenyl-1H-Benzimidazole-5-Sulphonic Acid	2 MT	Intermediate for Sunscreen
3	Cinnamyl alcohol	2 MT	Intermediate for Cinnacalsate
4	Diethyl Amine-2-Hydroxy Benzoate	2 MT	API- Analgic Muscular/joint pain
5	4-Methoxy Phenyl	10 MT	Food Additive

	Acetone		
6	4-Hydroxy Benzyl Alcohol	3 MT;	Precursor for synthesis of copolyoxalate nanoparticles as potential drug delivery system
7	Chlorsulon Intermediate	3.50 MT	Intermediate for API Chlorsulon [Veterinary API]
8	Nitroxinil Intermediate	3.50 MT	Intermediate for API Nitroxinyl [Vertenariy API]
Total		34 T	

5. 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.
6. The PP reported that Satellite Pharmaceuticals Pvt. Ltd. (SPPL) started operation in 1993 as an inorganic chemical industry located at Plot No. B-40, MIDC Paithan, District-Aurangabad, Maharashtra. Since production of inorganic compounds are not in purview of EIA Notification 2006, Environment Clearance was not required for production for existing inorganic products.
7. The PP reported that there is Jayakwadi Bird Sanctuary at distance of 2.9 km from project site. Godavari River (Jaikwadi Dam Backwater) – 1.5 km in West direction. There is no forest land involved in the proposed project. Brahminy Kite-Haliastur indus, Western Marsh Harrier-Circus aeruginosus, Steppe Eagle-Aquila nipalensis and Osprey-Pandion haliaetus Schedule-I species are found in the study area for which conservation plan has been prepared and submitted.
8. The PP reported that **Ambient air quality monitoring** was carried out at 8 locations during 01st March to 31st May-2022 to and the baseline data indicate the ranges of concentrations as: PM₁₀ (56.30 -73.37µg/m³), PM_{2.5} (27.26- 36.62µg/m³), SO₂ (20.96-29.96µg/m³) and NO₂ (25.14-39.68 µg/m³). AAQ modeling study for point source emissions indicate that the maximum incremental GLCs after the proposed project would be 70.02 µg/m³, **20.82 µg/m³** and 4.2 µg/m³ with respect to PM₁₀, SO₂ and NO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise-** The day and night time noise level found to be lower than the 75 db(A) and 70 db(A) allowable CPCB limits-2000 for day and night respectively, for the monitoring area comes under industrial zone (N-1 to N-6) before the expansion of the project despite industrial traffic and other nearby activities which was observed during the monitoring period but day and Night noise limit cross in silence zone of N7 & N8 Monitoring locations of 50 & 40 dBA respectively The day and night time noise levels are found to be Higher than the 50 db(A) and 40 db(A) allowable CPCB limits-2000 respectively, for the monitoring area comes under Silence Area/ zone (N-7 to N-8) before the expansion of the project. Local traffic and other nearby residential area activities

observed during the monitoring period. Ground water- As per IS: 10500:2018; 8 nos. of ground water samples are chemically potable but bacteriologically unpotable for drinking purpose, for the parameters tested before use need disinfection properly. Soil- Available Nitrogen and Phosphorus present in the soil samples is very low and need the proper supplement to increase the same. Total Organic Matter present in the soil samples is in the range of 0.52 to 0.64 % as compare to the standard value of **0.5 – 0.75 %** by Ministry of Agriculture 2011, Hence, Total Organic Matter contain is sufficient for taking the regular crops. In all the soil samples pH maintain as per the standard value prescribed

9. The PP reported that the total water requirement is 48.453 m³/day of which fresh water requirement of 48.453 m³/day will be met from MIDC/Recycled Water. Total effluent generated will be 10.30 KLD which will be treated in ETP of capacity 20 CMD. 17 CMD excess treated water will be sent to Waluj CETP for further treatment and disposal

10. The PP reported that the power requirement is as-

Connected Load	187 KVA
Total Demand Load	95 KVA
Solar Panel	50 KW Solar Panels will be installed on site for additional power back up
Source	MSEDCL

11. Details of Process Emissions Generation and its Management:

Sr. No	Name of the Product	Name of the Gas	Emission kg/Day	Emission Rate kg/Hr	Disposal Method
1	Methoxy Phenyl Acetone	CO ₂	8.295	1.036	Scrubbed with chilled water and caustic solution
2	Chlosulon Intermediate	HCl	106.15	8.845	Scrubbed with chilled water and caustic solution
3	Nitrixinil Intermediate	NO	24.15	2.415	Scrubbed with chilled water and caustic solution.
Stack No	Attached to	APCM	Stack Height	Parameters	Permissible Limit
1	Scrubber Process	Catch pot with packed column with water supply	10m	Acid Mist, NH ₃ , CO ₂	<35 ppm
2	Laboratory Fume cupboard	Catch pot packed column	10m	SO ₂ , HCL,	<35 ppm

		with water/Alkali supply			
3	Reactor Process	Catch pot with packed column	15m	HCl, SO ₂ , CO ₂	<35 PPM
4	Process Reactor	Catch pot with packed column	15 m	NH ₃ , CO ₂	< 35PPM.

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

S.No	Description	Schedule No	UOM	Frequency	Quantity	Disposal
1.	Wastes or Residues containing oil	5.2	Kg	Month	50	CHWTSDf
2.	Organic Residues from process	4.4	Kg	Day	38.60	CHWTSDf
3.	Distillation residues	20.3	Kg	Day	94.653	CHWTSDf
4.	Spent Solvent	23.2	Kg	Day	97.6	Sale to authorized Recycler/ CHWTSDf
5.	Off specification products	28.4	Kg	Month	50	CHWTSDf
6.	Spent acids	29.6	Kg	Day	521.53	Sale to authorized Recycler/ CHWTSDf
7.	Empty Barrels / containers/ liners contaminated with hazardous chemicals / wastes	33.1	No	Month	100	Sale to authorized Recycler/ CHWTSDf
8.	Chemical sludge from waste water treatment	35.3	kg	Day	250	CHWTSDf

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 175 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 175 Lakhs/annum. Industry proposes to allocate Rs. 5.3 Lakhs towards Corporate Social Responsibility.
14. Industry has already developed / will develop greenbelt over an area of 33 % i.e., 2257.21 sq.m. out of total area of the project.

15. The PP reported that the Public Hearing is exempted as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 as the project site is located within MIDC Paithan which is declared as notified industrial area in the year 1976.
16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Managing Director- Director operation- Plant manager- EHS Manager- General Manager- Supervisor- Chemist- Worker (safety)- worker (Environement) for the functioning of EMC.
17. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.
18. The estimated proposed project cost is Rs 5.3 Crores. Total Employment will be 25 persons as after expansion.

19. **Deliberations by the EAC**

The EAC inter-alia, deliberated on the certified compliance report of the existing CTO (self certified compliance report of the existing CTO was submitted instead of CCR from the SPCB although last CTO was issued more than one year before as per the OM dated 8.6.2022), Greenbelt development plan (non compliance of the greenbelt being located in the CPA) and its layout, Carbon footprint and its mitigative measures, water balance (Treatment Scheme), conservation plan for Schedule-I species and sought the following information/documents:

- (i) Certified Compliance report of the existing CTO from the MPCB.
- (ii) Action plan for green belt development of the existing unit (33%), @2500 trees per hectare, in consultation with forest department and accordingly, submit the details of green belt developed, number of trees and aerial photographs and video.
- (iii) Revised layout plan with the requisite green belt.
- (iv) Details of carbon foot print and carbon sequestration study w.r.t. proposed project. Proposed mitigation measures also needs to be submitted.
- (v) Revised effluent treatment scheme including the STP.
- (vi) Acknowledgement slip for the submission of the conservation plan for schedule- I species.

In view of above, the EAC **deferred** the proposal.

Agenda No.60.4

Proposed Pesticide Manufacturing Unit with Production Capacity of 1050 MT /month and formulation 5000 Mt/ month located at Plot No. A-4, UPSIDC Industrial Area, Kosi Kotwan Extension-2, District Mathura, Uttar Pradesh by M/s Amber Crop Science Pvt. Ltd. - Consideration of Environmental Clearance

[Proposal No. IA/UP/IND3/405545/2022; File No. IA-J-11011/316/2021-IA-II(I)]

1. The proposal is for the environmental clearance for the Proposed Pesticide Manufacturing Unit with production capacity of 1050 MT /month and formulation 5000 Mt/ month located at Plot No. A-4, UPSIDC Industrial Area, Kosi Kotwan Extension -2, District - Mathura, Uttar Pradesh by M/s Amber Crop Science Pvt. Ltd.
2. The project/activity is covered under Category 'A' of Item 5(b) Pesticides Industry and Pesticide Specific Intermediates, (excluding formulations of Schedule of EIA Notification, 2006 (as amended)).
3. The Standard ToR was granted by the Ministry, vide letter no. IA-J-11011/316/2021-IA-II(I) dated 20.8.2021. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a **Fresh case**. The proposal is placed in this 60th EAC meeting on 10th August, 2023, wherein the PP along with accredited Consultant, M/s. EQMS Global Pvt. Ltd. (NABET Accreditation No.: NABET/EIA/1922/RA0197 Valid Upto 27.10.2023)] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:
4. The PP reported that the total land area of the project site is 18915.505 m² and no R& R is involved in the Project. The details of products to be manufactured are as follows

Type	Quantity (MT/Month)
Insecticides	375
Fungicides	125
Herbicide	300
Intermediate Products	150
R&D product	1
Total	951
Formulation	5000

S. No.	Name of Products	Cas No.	Quantity (MT/month)
HERBICIDE GROUPS			
Group 1- ALS-IMIDAZOLINONE/ UREAS / ALS-SULFONYLUREA- CONT / ALS-OTHERS			

1	Imazethapyr	81335-77-5	100
2	Bensulfuron	83055-99-6	
3	Metsulfuron	74223-64-6	
4	Chlorimuron	90982-32-4	
5	Pyrazosulfuron	93697-74-6	
6	Sulfosulfuron	141776-32-1	
7	Trifloxysulfuron	199119-58-9	
8	Bispyribac-Sodium	125401-92-5	
9	Penoxsulam	219714-96-2	
Group 2 -AMINO ACIDS / UREAS/CYCLOHEXANDIONES/ DINITRO ANILINEES / ACETAMIDES			
10	Glufosinate	77182-82-2	75
11	Glyphosate	1071-83-6	
12	Clethodim	99129-21-2	
13	Pendimethalin	40487-42-1	
14	Pretilachlor	51218-49-6	
Group 3 -ARYLOXYPHENOXYPROPIONATES / PPO- DIPHENYL ETHERS			
15	Clodinafop	105512-06-9	50
16	Quizalofop	100646-51-3	
17	Fenoxaprop	71283-80-2	
18	Oxyfluorfen	42874-03-3	
Group 4 -HPPD INHIBITORS/ OTHERS/ TRIAZINES / PGR			
19	Pinoxaden	243973-20-8	75
20	Propanil	709-98-8	
21	Clomazone	81777-89-1	
22	Bentazone	25057-89-0	
23	Atrazine	1912-24-9	
24	Metribuzin	21087-64-9	
25	Ethopen	16672-87-0	
FUNGICIDE GROUPS			
Group 5 -SDHIs / OTHERS-CONT			
26	Boscalid	188425-85-6	25
27	Fluxapyroxad	907204-31-3	
28	Thifluzamide	130000-40-7	
29	Carpropamid	104030-54-8	
30	Isoprothiolane	50512-35-1	
31	Cyazofamid	120116-88-3	
Group 6 -STROBILURINS / SBI-TRIAZOLE / SBI-Other DMIs / MULTICITE			
32	Azoxistrobin	131860-33-8	100
33	Picoxystrobin	117428-22-5	
34	Pyraclostrobin	175013-18-0	

35	Trifloxystrobin	141517-21-7	
36	Hexaconazole	79983-71-4	
37	Propiconazole	60207-90-1	
38	Epoxiconazole	135319-73-2	
39	Tebuconazole	107534-96-3	
40	Tetraconazole	67915-31-5	
41	Difenoconazole	119446-68-3	
42	Tricyclazole	41814-78-2	
43	Mancozeb	2234562	
44	Propineb	12071-83-9	
INSECTICIDE GROUPS			
Group 7 ACARICIDES COMPOUNDS / BENZOYLUREA / Other IGRs			
45	Pyridaben	96489-71-3	50
46	Diafenthiuron	80060-09-9	
47	Spiromesifen	283594-90-1	
48	Lufenuron	103055-07-8	
49	Novaluron	116714-46-6	
50	Buprofezin	69327-76-0	
51	Methoxyfenozide	16150-58-4	
52	Pyriproxyfen	95737-68-1	
Group 8- NATURAL PRODUCTS			
53	Thiocyclam	31895-21-3	25
Group 9- NEONICOTINOIDS			
54	Acetamiprid	135410-20-7	100
55	Clothianidin	210880-92-5	
56	Dinotefuran	165252-70-0	
57	Imidacloprid	138261-41-3	
58	Nitenpyram	150824-47-8	
59	Thiacloprid	111988-49-9	
60	Thiamethoxam	153719-23-4	
61	Pymetrozine	123312-89-0	
Group 10- SYNTHETIC PYRETHROIDS			
62	Lamda-Cyhalothrin	68085-85-8	150
63	Bifenthrin	82657-04-3	
64	Cypermethrin	52315-07-8	
65	Deltamethrin	52918-63-5	
Group 11 ORGANOPHOSPHORUS & OTHERS			
66	Chlorantraniliprole	500008-45-7	50
67	Tetraniliprole	1229654-66-3	
68	Indoxacarb	144171-61-9	
69	Flonicamid	158062-67-0	

70	Flubendiamide	272451-65-7	
Group 12 Advanced Specific Pesticide Intermediates			
71	2- Chloro 5- Chloromethyl Pyridine (CCMP)	70258-18-3	150
72	N- Nitro Imino Imidazolidine (NII)	5465-96-3	
73	2- Chloro 5- Chloromethyl Thiazole (CCMT)	105827-91-6	
74	2- Methyl 5- Nitro 1,3,5 Oxidiazine(MNIO)	153719-38-1	
75	4 -Hydroxy Phenyl Propionic Acid (4HPPA)	67648-61-7	
76	1,1-Di ChloroPinacolin	22591-21-5	
77	Thiocarbo Hydrazine	2231-57-4	
78	2- Hydroxy 4- Methyl Benzotioate (HMBT)	20174-68-9	
79	2,3 Difluoro 5- Chloro Pyridine	589402-43-7	
80	Triazinone- 4- Amino 3-Mecapto- 6-t-Butyl -1,2,4- triazine-5-one (AMBT)	33509-43-2	
81	Research & Development Based Products		1
Total			951
Note- No banned pesticides will be manufactured ** As per season, the demand of products pattern changes and accordingly products will be manufactured. All the products will not be manufactured at a time. The likely production capacities of the products will depend upon demand but limited to the sanctioned capacity			

- 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 there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance from the project site. Kotban Reserved Forest is situated at a distance of 0.36 km in Northwest direction. Schedule-I species i.e., Indian Peafowl, were observed in the 10 km radius from the proposed project for which Conservation plan has been prepared and submitted to chief wildlife warden dated 8.4.2022.
- The PP reported that **Ambient air quality monitoring** was carried out at 8 locations during **Oct-2021 to Dec-2021** and the baseline data indicate the ranges of concentrations as: PM₁₀ (56- 98 µg/m³), PM_{2.5} (21-48 µg/m³), SO₂ (5.8-16.5 µg/m³) and NO_x (14 -35 µg/m³). AAQ modelling study for point source emissions indicate that the maximum incremental GLCs after the proposed project would be 2.82 µg/m³, 2.06 µg/m³, 2.95µg/m³, 2.21 µg/m³, 0.321

$\mu\text{g}/\text{m}^3$, $0.017 \mu\text{g}/\text{m}^3$, $0.017 \mu\text{g}/\text{m}^3$ with respect to PM_{10} , $\text{PM}_{2.5}$, NO_x , SO_x , HCl , HBr and Cl_2 , respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS) **Noise quality** - The noise level at Umralla & Hasanpur Nagla location was observed to be marginally exceeding the ambient CPCB noise limit. The major source of the noise in the Umralla is due to community activity and nearest road which is directly connected with NH2 and in the Hasanpur Nagla is due to community activity in residential Area, Railway Line & NH-2 and for all other location of the study area it is found within the prescribed National Ambient Noise Quality Standards. **Ground water**- The Water Quality Index based on weighted average of 11 parameters (Total Hardness as CaCO_3 , Calcium, Alkalinity, Chloride, Magnesium, TDS, Sulphate, Fluoride, pH, Iron, Nitrates) has been found range between Good Water to Water not suitable for drinking. **Surface water**- The Water Quality Index based on above methodology has been found to between Class A to Class C indicating Surface water quality as Excellent to Bad.

8. The PP reported that Total water requirement is **210 KLD** of which freshwater requirement of **25 KLD** will be met from borewell. Effluent of **175 KLD** (Industrial Effluent- 169 KLD; Domestic Sewage- 6 KLD). Industrial effluent will be treated in **MEE (capacity- 220 KLD)** and **ETP (capacity 60 KLD)** followed by SBT treatment. Domestic sewage will be treated in Septic Tank / Soak pit. The plant will be based on **Zero Liquid discharge system**.
9. The power requirement of the plant will be **1500 kVA** which will be met through Uttar Pradesh Power Corporation Limited (UPPCL). DG sets of capacity **2 x 500 kVA** (with appropriate stack height as per CPCB norms) are proposed as power backup.
10. **1 nos. of stream boiler (5 TPH)** will be installed. ESP with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of $800 \text{ mg}/\text{Nm}^3$ for the proposed boiler.

11. Details of Process Emissions Generation and its Management:

S. No.	Stack Attached to	Fuel Used	APCM	Stack (m)	Expected Pollutants	Maximum Emission (mg/Nm^3)
1	Steam Boiler –5.0 MT/hr	Imported Coal / Bio Briquette	ESP System	30	PM , SO_2 & NO_x	$\text{PM} < 800$
2	Thermo Pack – 1000 U	Imported Coal / Bio Briquette	ESP System	11	PM , SO_2 & NO_x	-
3	DG Set – 2 x 500KVA	HSD	-	11	PM , SO_2 & NO_x	$\text{PM} < 0.2 \text{ g}/\text{KW-hr}$ $\text{CO} < 3.5 \text{ g}/\text{KW-hr}$

						NO _x +HC<4.0 g/KW-hr
Process Stacks / Vents						
1	Process Reactor – Vents	-	Two stage waters scrubber	11	HCl	HCl < 20
2	Process Reactor – Vents	-	Two stage water scrubbers	11	HBr	HBr < 5
3	Process Reactor – Vents	-	Two stage Alkali Scrubber (1 st Stage- Water & 2 nd Stage- Alkali)-	11	HCl & SO ₂	HCl < 20
4	Process Reactor – Vents	-	Two stage Alkali Scrubber (1 st Stage- Water & 2 nd Stage- Alkali)	11	HCl & Cl ₂	HCl < 20 Cl ₂ < 5

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

Sr. No	Name of Waste	Source of Generation	Category No. (As per Sch-I II 2016)	Quantity (MT/Annun)	Mode of Treatment & Disposal Method
1	Discarded Containers/Bags /Liners	Storage & Handling of Raw Materials	Sch-I/33.1	120	Collection, Storage, Transportation, Decontamination & Disposal by selling to registered recycler.
2	Used/Spent Oil	Used/Spent Oil	Sch-I/5.1	100	Collection, Storage, Transportation,

					Decontamination & Disposal by selling to registered recycler.
3	ETP Sludge/ MEE Salt	In-house ETP	Sch-I/35.3	3750	Collection, Storage, Transportation and disposal at common nearest TSDF site
4	Distillation Residue	Distillation	Sch-I/36.1	780.0	Collection, Storage, Transportation and sent for co-processing in cement industries or nearest incineration site.
5	Ash Generation	Boiler	-	800	It shall be given to Brick/ cement manufacturer. If it is not available; ash will be sent to TSDF site.
Process Waste					
6.	Spent Solvent	Process	Sch-I/28.6	600	Collection, Storage, management & recovery within the premises and will reuse in plant premises.
7.	Spent Catalyst	Process	Sch –I (28.2)	3	Collection, Storage, Transportation Disposal at C
8.	Spent Sulphuric Acid	Process	Sch-I/ 28.1	500	Collection, Storage & reuse in plant for
9.	KCl (Inorganic Salt)	Process	Sch-I/	3550	

			28 .1		manufacturing of MPBAD & excess quantity will be sold to end users having Rule 9 Permission.
10.	HCl % Solution	Process	Sch-II- Class B(15)	10000	
11.	Sodium Sulphite Solution (20%)(Na ₂ SO ₃)	Process	Sch-I/28.1	2068.0	Collection, Storage, Transportation & Disposal by selling to authorized end user, registered under Rule-9.
12.	Sodium Sulphate Solution(Na ₂ SO ₄)	Process	Sch-I/28.1	2958	
13.	Aluminum Chloride 28 -30 %	Process	Sch-I/28.1	2050	
14.	NaCl Salt	Process	Sch-I/28.1	11153	
15.	Phosphoric Acid(H ₃ PO ₄)	Process	Sch-I/28.1	1050	
16.	34% Calcium Chloride Solution	Process	Sch-I/28.1	1800	
17.	Potassium Nitrate	Process	Sch-I/28.1	1270	
18.	Ammoniu m Acetate	Process	Sch-I/28.1	58	
19.	Sodium Bromide	Process	Sch-I/28.1	1270	
20.	Hydro Bromic Acid	Process	Sch-I/28.1	1258	
22	Sodium Sulfate Solution	Process	Sch-I/28.1	2959	
23	Acetic Acid	Process	Sch-I/28.1	144	
24	KCl Slat % Solution	Process	Sch-I/28.1	3550	
25	KHCO ₃ Salt	Process	Sch-I/28.1	3550	
26	Ammonium Chloride	Process	Sch-I/28.1	365	
27	Sodium Bi Sulphate	Process	Sch-I/28.1	2099	
2 8	Potassium Bromide	Process	Sch-I/28.1	530	
2 9	20 % Sodium Methyl Sulphate	Process	Sch-I/28.1	960	

13. The Budget earmarked towards the Environment Management Plan (EMP) is ₹ 480 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 145 Lakhs per annum. Industry proposes to allocate Rs. 80 Lakhs towards Corporate Social Responsibility.
14. Industry will develop greenbelt over an area of 33.14 % i.e., **6268.15 m²** out of total area of the project.
15. The PP reported that the Public hearing is exempted as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 Project site is located at UPSIDC Industrial Estate area is declared as notified industrial area vide Notification No. 410 dated 5.9.2001.
16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Plant Manager- Environment officer- Air, water, waste, Noise, Occupational Health in- charge, Fire and safety department, Team for horticulture for the functioning of EMC.
17. The PP reported that the total carbon sequestration is 47599.32kg/year.
18. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.
19. The estimated project cost is Rs. 40 Crores. Total Employment will be **250** persons during the operation phase.
20. **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 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 with 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 layout with greenbelt development plan, water balance, fuel, Life cycle Assessment and advised the PP to submit the following:

- Revised layout plan with greenbelt and details of greenbelt proposed in the project (with a tree density of 2500 numbers/ha)
- Revised water balance
- Action plan for replacing soak pit / septic tank with STP.
- Action plan for use of cleaner fuel.
- Revised Life Cycle Assessment report.

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

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during the 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 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.

21. The EAC, after detailed deliberations, **recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I:**

- (i) The PP shall develop Greenbelt over an area of at least, 6268.15 m² by planting 1567 number of trees within a period of two months 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. PP shall engage Plant Manager- Environment officer- Air, water, waste, Noise, Occupational Health in- charge, Fire and safety department, Team for horticulture. 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 ₹ 492 Lakhs (Capital cost) and 195 Lakhs 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) As proposed by the PP, agro briquettes shall be used as a primary fuel in the boiler, coal shall be used as a secondary fuel during the unavailability of agro briquettes. The secondary fuel may also be phased **out over a period of 5 years**.
- (v) Industry shall reduce the R& D production upto 1MT/ month.
- (vi) The total water requirement of the project shall not exceed 210 KLD. Out of which, 25 KLD freshwater requirement shall be sourced from UPSIDC water supply / borewell). 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.
- (vii) Total Wastewater Generation from the project shall be 175 KLD (169 KLD Industrial Effluent + 6 KLD Domestic Sewage). 6 KLD domestic sewage shall be treated in modular STP (Capacity-10 KLD).150 KLD High COD/High TDS Process Effluent along process steam (35 KLD) shall be treated in MEE (Capacity- 220 KLD) and 19 KLD Low COD/ Low TDS effluent shall be treated in ETP (Capacity- 60 KLD) which shall be further treated with MEE condensate in SBT unit of capacity (200 KLD). Treated water (185 KLD) shall be reused in Process, cooling tower makeup water, Washing & Gardening. The project shall be a “Zero-liquid Discharge” Project.

- (viii) 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.
- (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 flameproof. The

solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be provided 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.

Agenda No.60.5

Proposed Pesticides Intermediates & Specialty Chemicals with Production Capacity of (100 MT/Month) located at Plot No. C-157, Saykha Industrial Estate, Taluka. -Vagra, Dist.-Bharuch, Gujarat by M/s. Niyam Organic - Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/435715/2023; File No. IA-J-11011/45/2022-IA-II(I)]

1. The proposal is for environmental clearance for the Proposed Pesticides Intermediates & Specialty Chemicals with production capacity of (100 MT/Month) located at Plot No. C-157, Saykha Industrial Estate, Taluka. -Vagra, Dist.-Bharuch, Gujarat by M/s. Niyam Organic.
2. The project/activity is covered under Category 'A' of Item 5(b) **Pesticides industry and pesticide specific intermediates (excluding formulations** of Schedule of EIA Notification, 2006 (as amended).
3. The ToR was issued by the Ministry vide letter No IA-J-11011/45/2022-IA-II(I) dated 9th March, 2022. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a **Fresh EC case**. The proposal is placed in this 60th EAC meeting on 10th August, 2023 wherein the PP along with accredited Consultant, s. Aqua-Air Environmental Engineers Pvt. Ltd. (NABET Accreditation No.: NABET/EIA/2023/SA 0196 Valid Up to April 8, 2024) made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:
4. The PP reported that the total 5000.0 m² land area is available for proposed Greenfield project and no R& R is involved in the Project. The details of products and capacity are as follows:

Sr. No.	Name of Product	CAS No.	Qty (MT/Month)
1.	2-Amino-4,6-Dimethoxypyrimidine	36315-01-2	50.0 MT/Month [Sr. No. 1 to 15]
2.	4,6-Dimethoxy-2-Methylsulfonyl Pyrimidine	113583-35-0	
3.	2 chloro 5 chloro methyl thiazole	105827-91-6	

4.	2 chloro 5 chloromethyl pyridine	70258-18-3	
5.	2,6-Difluoroaniline	5509-65-9	
6.	2,6-Difluorobenzamide	18063-03-1	
7.	2-Amino-5-Fluoro-3-Nitopyridine	212268-12-7	
8.	2-Chloro-5-Aminomethyl Pyridine	97004-04-1	
9.	2,4-Dichloro Valerophenone	61023-66-3	
10.	2-Hydroxy-3,5,6-Trichloropyridine	6515-38-4	
11.	2-Amino-5-Chloro-3-Iodopyridine	211308-81-5	
12.	Methyl 3-Aminothiophene-2-Carboxylate	22288-78-4	
13.	4-Chloro-3-Ethyl-1-Methyl-1h-Pyrazole-5 carboxylic Acid	127892-62-0	
14.	2,3-Dichloro-5 (Trifluoromethyl)(DCTFP)	69045-84-7	
15.	2-Amino-3-Chloro-5 (Trifluoromethyl)Pyridine	79456-26-1	
16.	Diethylamino Hydroxybenzoyl Hexylbenzoate (DHHB)	302776-68-7	<p>50.0 MT/Month [Sr. No. 16 to 37]</p>
17.	Octocrylene	6197-30-4	
18.	2,2-Bis-(4-Hydroxy Cyclohexyl) Propane	80-04-6	
19.	5-Amino Isophthalic Acid	99-31-0	
20.	3-Ethyl-3-Hydroxymethyl Oxetane	3047-32-3	
21.	1,4-BIS(3-Ethyl-3-Oxetanylmethoxy) Methyl] Benzene	142627-97-2	
22.	BIS[(1-Ethyl(3-Oxetany)) Methyl] Ether	18934-00-4	
23.	3- (Dibutyl amino) Phenol	43141-69-1	
24.	2-Anilino-3-Methyl-6-(Dibutylamino) Fluoran	89331-94-2	
25.	2,5-Bis Benzoxazoyl-Thiophene (BBTO)	7128-64-5	
26.	Hexahydrophthalic Anhydride	85-42-7	
27.	N-Dodeceny Succinic Anhydride	19780-11-1	
28.	N-Octenyl Succinic Anhydride	26680-54-6	
29.	Nonenyl Succinic Anhydride	28928-97-4	
30.	Tetrapropenyl Succinic Anhydride	26544-38-7	
31.	1-Methoxy-2,2,6,6-Tetramethylpiperidine-4-Ol	122586-72-5	
32.	3-(3,5-DI-Tert-Butyl-4-Hydroxyphenyl) Propionate	2082-79-3	

33.	TCTA	139092-78-7	
34.	NPD	123847-85-8	
35.	2,7-BIS(4,4,5-5-tetramethyl-1,3,2-Dixaborolan-2yl) Triphenylene	929103-40-2	
36.	4,6-Dibromobenzofuran	201138-91-2	
37.	2,8-Dibromobenzofuran	10016-52-1	
Total		---	100 MT/Month

5. 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.
6. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild life Corridors etc. within 10 km distance from the project site. River Narmada is flowing at distance of 11 Km in North direction There is no forest land involved in the proposed project. Peafowl, Nolio, Shikra, Indian Cobra, Indian ratsnake Schedule-I species were observed in the 10 km radius from the proposed project for which conservation plan has been prepared and suibmitted to District Forest Officer dated 28.6.2023
7. The PP reported that the **Ambient air quality monitoring** was carried out at 10 locations during 1st March 2022 to 31st May 2022 and the baseline data indicate the ranges of concentrations as: PM₁₀ (71.28 – 79.14 µg/m³), PM_{2.5} (41.56 – 46.48 µg/m³), SO₂ (10.91 – 17.16 µg/m³), NO_x (12.07 – 19.82 µg/m³) and O₃ (9.56 – 12.92 µg/m³). AAQ modeling study for point source emissions indicate that the maximum incremental GLCs after the proposed project would be 79.14 µg/m³, 46.48 µg/m³, 17.16 µg/m³, 19.82 µg/m³ and 12.92 µg/m³ with respect to PM₁₀, PM_{2.5}, SO₂, NO₂ and O₃. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Ground Water quality monitoring** was carried out at 10 locations during 1st March 2022 to 31st May 2022 and the baseline data indicate the ranges as: pH (7.24 – 8.02), Total Suspended Solids (10 - 14 mg/l), Total Dissolved Solids (242 - 1980 mg/l), Total Hardness (126.8 – 540.2 mg/l), Chlorides (23.92 – 772.2 mg/l), Fluoride (<0.05 – <0.05 mg/l) and Zinc (<0.05 – <0.05 mg/l). Surface Water quality monitoring was carried out at 9 locations during 1st March 2022 to 31st May 2022 and the baseline data indicate the ranges as: pH (7.51 – 8.11), Dissolved Oxygen (5.86 – 6.92 mg/l), Chemical Oxygen Demand (8.15 – 17.64 mg/l), Bio-Chemical Oxygen Demand (2.34 – 16.23 mg/l). **Soil quality monitoring** was carried out at 10 locations during 1st March 2022 to 31st May 2022 and the baseline data indicate the ranges as pH (7.63 – 8.59), Nitrogen (829.8 – 1174.6mg/kg), Phosphorus (1.15 – 4.45 mg/kg), Potassium (0.89 – 7.13 mg/kg) and Electric Conductivity (0.66 – 1.27 mS/cm). Noise level monitoring was carried out at 09 Residential locations, 06 Industrial locations during 1st March 2022 to 31st May 2022. The baseline data indicate the ranges of sound levels for Industrial Location Leq (Day) (62.2 – 68.6 dB A)) and Leq (Night) (60.4 – 67.4 dB(A)). Residential Location Leq (Day) (49.4 – 54.3 dB A)) and Leq (Night) (38.8 – 43.8 dB(A)).
8. The PP reported that the Total water requirement is 69.45 m³/day of which freshwater requirement of 56.10 m³/day will be met from GIDC Water Supply, rest 13.35 m³/day water will be recycled water. Effluent of 40.35 m³/day quantity will be treated as per below

treatment description.ETP-I: Low COD effluent generated from process [12.37 KLD], utility and washing section [14.29 KLD] will be mixed with domestic wastewater [3.5 KLD]. After that, total 30.16 KLD effluent will be collected and treated in ETP-I [P+S+T treatment]. After treated in ETP-I, 29.60 KLD effluent will be sent to CETP-Saykha for further treatment and disposal. ETP Sludge will send to TSDF for further disposal. ETP-II:10.19 KL/Day high COD wastewater from process will be treated in ETP-II [Primary] facility. After adequate treatment, 10.0 KLD effluent send to CMEE. Domestic Stream: Domestic wastewater will be treated in ETP-I.

9. Power requirement will be 500 KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). The unit will have 1 Nos. DG set of 250 KVA capacity. Stack (height 15 m) will be provided as per CPCB norms to the proposed DG set.
10. Unit will have a Thermic Fluid Heater with a capacity of 6 Lakh Kcal/hr, and a Boiler with a capacity of 3 TPH will be installed. Multi Cyclone Separator and bag filter with water Scrubber with a stack of height of 33 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed TFH.

11. Details of Process Emissions Generation and its Management: Process Gas Emission

Sr. No	Process Stack No	APCM	Stack Height (From G.L)	Type of Pollutant
1	Reaction Vessels-1	Two Stage Scrubbers	18	HCl
2	Reaction Vessels-2	Two-Stage Alkali Scrubber	18	NO _x , SO ₂

12. Details of Solid waste / Hazardous Waste Generation and its Management: 12 Categories of Hazardous/Solid Wastes & 01 Categories of Non-Hazardous/Solid Wastes will be generated from this Unit.

Sr. No	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Total Quantity MT/Annum	Management of HW
1	Empty barrels/containers/liners contaminated with hazardous chemicals/wastes	Raw Material and Packaging	33.1	100	Collection, Storage, Transportation, reuse or send back to supplier or sold to Authorized Vendors.
2	Used Oil	From Machinery	5.1	1.0	Collection, Storage, Transportation and sold to authorized

Sr. No	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Total Quantity MT/Annum	Management of HW
					Recyclers.
3	Spent Carbon	Process From Product. No. 4,5,9,10,11	28.3	4.0	Collection, Storage, Transportation and send to Co-Processing or CHWIF.
4	Spent Catalyst	Process From Product. No. 3,7,8,18,30,32,36	28.2	8.0	Collection, Storage, Transportation and send to Co-Processing or CHWIF.
5	Distillation Residue	Process	20.3	23	Collection, Storage, Transportation, Cement industries or sent to CHWIF-BEIL.
6	ETP Sludge	ETP	35.3	270	Collection, Storage, Transportation and sent to TSDF site-BEIL.
7	Hydrochloric Acid Sol. [HCl] [28-33%]	Scrubber From Product. 2,3,8,9,10,14, 25,26,32	--	1956	Collection, Storage, Transportation and sell to authorized end users registered under rule 9.
8	Sodium Bromide Sol. [NaBr] [15-20%]	Scrubber From Product. 23,35	---	1173	Collection, Storage, Transportation and sell to authorized end users registered under rule 9
9	Sodium bisulfite	Scrubber	---	1848	Collection,

Sr. No	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Total Quantity MT/Annum	Management of HW
	Sol. [NaHSO ₃] [25-30%]	From Product No. 3,25			Storage, Transportation and sell to authorized end users registered under rule 9.
10	Sodium nitrate [NaNO ₃ Soln.]	Scrubber	--	400.0	Collection, Storage, Transportation and sell to authorized end users registered under rule 9.
11	HBr solution	From Product no. 19	---	115	Collection, Storage, Transportation and sell to authorized end users registered under rule 9.
12	Spent Solvent	Process	20.2	891	Collection, Storage, Recovery and Recycle for manufacturing of product.

Non-Hazardous Waste:

Sr. No	Type of Waste	Source of Generation	Category No.	Qty. (MT/Annum)	Method of Disposal
1.	Fly Ash	Utility	--	410	Collection, storage and send to brick manufacturing unit.

13. The Budget earmarked towards the Environment Management Plan (EMP) is ₹ 3.72Crores (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 6.3581 crores per annum. Industry proposes to allocate Rs. 0.14 Crores towards Corporate Social Responsibility.

14. Industry will develop Greenbelt over an area of 40.0% i.e., 2000.0 m² out of total 5000.0 m² area of the project.
15. The PP reported that the Public hearing is exempted as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 as the project site is located within Saykha Industrial Estate of PCPIR, which was granted EC by the Ministry vide letter dated 14.9.2017.
16. The PP proposed to set up an Environment Management Cell (EMC) by engaging site head- EHS Head- manager safety manager EHS- FMO- safety Executive- Executive EHS- OHC staff- fire man- ETP operator for the functioning of EMC.
17. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.
18. The estimated project cost is Rs. 7.0 Crores Total Employment will be 25 persons as direct.
19. **Deliberations by the EAC**

The EAC inter-alia, deliberated on the, greenbelt development plan in a phased manner and its layout, Life Cycle Assessment, source of the conversion factor used in the carbon footprint study and sought the following information/documents:

- (i) Action plan for the green belt development in 33% of project area @2500 trees per hectare, in consultation with forest department along with the revised Layout.
- (ii) Life Cycle Assessment study **using the cradle to grave approach.**
- (iii) Detailed carbon foot print and carbon sequestration study w.r.t. proposed project. Proposed mitigation measures also needs to be submitted.

In view of above, the EAC **deferred** the proposal.

Agenda No. 60.6

Expansion of Pesticide Intermediates, Fungicides, Herbicides, and Insecticides Manufacturing Unit at Plot No. 2817/1, Chemical Zone, Near Sandhya Chemical, Notified Industrial Area, GIDC Sarigam, Ta.: Umbergaon, Dist.: Valsad, Gujarat by M/s. Heranba Industries Limited - Amendment in EC

[Proposal No. IA/GJ/IND3/437125/2023; File No. IA-J-11011/270/2020-IA-II(I)]

1. The proposal is for amendment in Environmental Clearance granted by the Ministry vide letter no. IA-J-11011/270/2020-IA-II(I) dated 29th June 2021 for the project of pesticides industry and pesticide specific intermediates (excluding formulations) located at Plot No. 2817/1, Chemical Zone, Near Sandhya Chemical, Notified Industrial Area, GIDC Sarigam, Ta: Umbergaon, Dist.: Valsad, 396155, Gujarat in favour of M/s. Heranba Industries Limited.

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

S r. N o.	Para of EC issued by MoEF & CC	Details as per the EC	To be revised/read as	Justification/ Reasons																								
1.	EC Granted dated 29.06.202 1- Page no.1, Point no. 2 – Name of the Project and Location	The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for Expansion of Pesticide Intermediates, Fungicides, Herbicides, Insecticides Manufacturing by M/s. Heranba Industries Limited at Plot No. 2817/1, Chemical Zone, Near Sandhya Chemical, Notified Industrial Area, GIDC Sarigam, Taluka Umbergaon, District Valsad, Gujarat.	After EC Amendment, The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project of Pesticide Intermediates, Fungicides, Herbicides, Insecticides Manufacturing by M/s. Heranba Organics Private Limited at Plot No. 2817/1/2, Chemical Zone, Near Sandhya Chemical, Notified Industrial Area, GIDC Sarigam, Taluka Umbergaon, District Valsad, Gujarat.	After demerging/splitting of the plot no.: 2817/1 to Plot no.:2817/1/1 & Plot no.:2817/1/2, M/s. Heranba Industries Limited has decided to give the Plot no.: 2817/1/2 to M/s. Heranba Organics Private Limited on the rental basis. The proposed manufacturing unit of Pesticide Intermediates, Fungicides, Herbicides, Insecticides will be continued on the plot no.: 2817/1/2 in the name of M/s. Heranba Organics Private Limited.																								
2.	EC Granted dated 29.06.202 1- Page no.1, Point no. 3 – Details of products and Capacity	<table><tr><th colspan="2">Existing Products:</th></tr><tr><th>Sr. no.</th><th>Name of Product</th></tr><tr><td>1.</td><td>Formulation Packing of various liquid pesticide (EC, SL, GEL, RTU, ULV & SC)</td></tr><tr><td>2.</td><td>Formulation packing of various Powder pesticide (WP, WDP, SP, SG, WDG, GR, CG)</td></tr></table>	Existing Products:		Sr. no.	Name of Product	1.	Formulation Packing of various liquid pesticide (EC, SL, GEL, RTU, ULV & SC)	2.	Formulation packing of various Powder pesticide (WP, WDP, SP, SG, WDG, GR, CG)	<table><tr><th colspan="4">After EC Amendment, Proposed Products:</th></tr><tr><th>Sr. no.</th><th>Product</th><th>Capacity (TPA)</th><th>CAS Number</th></tr><tr><td>1.</td><td>Dalanthi Kloran</td><td>250</td><td>80060-09-9</td></tr><tr><td>2.</td><td>Profenofos</td><td>0</td><td>41198-08-</td></tr></table>	After EC Amendment, Proposed Products:				Sr. no.	Product	Capacity (TPA)	CAS Number	1.	Dalanthi Kloran	250	80060-09-9	2.	Profenofos	0	41198-08-	After the demerging / splitting of the Plot 2817/1 in Plot no.:2817/1/1 & Plot no.:2817/1/2, M/s. Heranba Industries Limited has decided to continue the manufacturing of existing Non-EC products i.e. i) Formulation & Packing of various
Existing Products:																												
Sr. no.	Name of Product																											
1.	Formulation Packing of various liquid pesticide (EC, SL, GEL, RTU, ULV & SC)																											
2.	Formulation packing of various Powder pesticide (WP, WDP, SP, SG, WDG, GR, CG)																											
After EC Amendment, Proposed Products:																												
Sr. no.	Product	Capacity (TPA)	CAS Number																									
1.	Dalanthi Kloran	250	80060-09-9																									
2.	Profenofos	0	41198-08-																									

	Tablet & WG)				7	liquid pesticide (EC, SL, GEL, RTU, ULV & SC), ii) Formulation & packing of various Powder pesticide (WP, WDP, SP, SG, WDG, GR, CG, Tablet & WG) & iii) Formulation & packing of various Granules pesticide on the Plot no.: 2817/1/1 and the Plot No.: 2817/1/2 will be given on rental basis to M/s. Heranba Organics Private Limited for the manufacturing of proposed Pesticides, Fungicides, Herbicides & Insecticides.	
3.	Formulation & packing of various Granules pesticide	12000-08-6	Lambda-Cyhalothrin		91465-08-6		
Proposed Products:							
Sr. No.	Product	Capacity (TPA)	CAS Number				
Insecticides							
1.	Diafenthiuron	2500	80060-09-9	4.	Bifenthrin		82657-04-3
2.	Profenofos		41198-08-7	5.	Cyphenothrin		39515-40-7
3.	Lambda-Cyhalothrin		91465-08-6	6.	Fenprothrin		64257-84-7
4.	Bifenthrin		82657-04-3	7.	Zeta-Cypermethrin		1315501-18-8
5.	Cyphenothrin		39515-40-7	8.	Transfluthrin		118712-89-3
6.	Fenprothrin		64257-84-7	9.	Pymetrozine	123312-89-0	
7.	Zeta-Cypermethrin		1315501-18-8	10.	Nitenpyram	150824-47-8	
8.	Transfluthrin		118712-89-3	11.	Acetamiprid	135410-20-7	
9.	Pymetrozine		123312-89-0	12.	Chlorantraniliprole	500008-45-7	
10.	Nitenpyram		150824-47-8	13.	Cyantraniliprole	736994-63-1	
Fungicides							
11.	Acetamiprid	135410-20-7	14.	Flubendiamide	272451-65-7		
12.	Dinotefuran	165252-70-0	15.				
13.	Difenoconazole	1200	119446-68-3				

[illegible]

		26.	Picoxystr obin	120 0	1174 28- 22-5	32.	Bispyriba c-Sodium	120 0	1254 01- 92-5				
		27.	Trifloxys trobin		1415 17- 21-7	33.	Imazetha pyr		8133 5-77- 5				
		28.	Kresoxim -methyl		1433 90- 89-0	34.	Quizalof op-ethyl		7657 8-14- 8				
		29.	Thiabend azole		148- 79-8	35.	Fenoxapr op-ethyl		6644 1-23- 4				
		30.	Fenhexa mid		1268 33- 17-8	36.	Carfentra zone		1286 39- 02-1				
		31.	Captan		133- 06-2	37.	Sulfentra zone		1228 36- 35-5				
		Herbicides											
		32.	Bispyriba c-Sodium	120 0	1254 01- 92-5	38.	Aclonife n		7407 0-46- 5				
		33.	Imazetha pyr		8133 5-77- 5	39.	Mesotrio ne		1042 06- 82-8				
		34.	Quizalof op-ethyl		7657 8-14- 8	40.	Clomazo ne		8177 7-89- 1				
		35.	Fenoxapr op-ethyl		6644 1-23- 4	41.	Pinoxade n	2439 73-20					
		36.	Carfentra zone		1286 39- 02-1	42.	Tembotri one	3351 04- 84-2					
		37.	Sulfentra zone		1228 36- 35-5	43.	Sulcotrio ne	9910 5-77- 8					
		38.	Aclonife n		7407 0-46- 5	44.	Prosulfoc arb	5288 8-80- 9					
		39.	Mesotrio ne		1042 06- 82-8	45.	Propanil	709- 98-8					
		40.	Clomazo ne		8177 7-89- 1	Pesticides Intermediates							
			46.	Cypermethric acid chloride	300 0	5231 4-67- 7							

		<table><tr><td>41.</td><td>Pinoxaden</td><td></td><td>243973-20</td></tr><tr><td>42.</td><td>Tembotri one</td><td></td><td>335104-84-2</td></tr><tr><td>43.</td><td>Sulcotrio ne</td><td></td><td>99105-77-8</td></tr><tr><td>44.</td><td>Prosulfoc arb</td><td></td><td>52888-80-9</td></tr><tr><td>45.</td><td>Propanil</td><td></td><td>709-98-8</td></tr><tr><td colspan="4">Pesticides Intermediates</td></tr><tr><td>46.</td><td>Cypermet hric acid chloride (CMAC)</td><td>3000</td><td>52314-67-7</td></tr><tr><td>47.</td><td>Diethyl thiophosp horyl chloride (DETC)</td><td>15000</td><td>1470-61-7</td></tr><tr><td>48.</td><td>Bifenthri n alcohol</td><td>1000</td><td>76350-90-8</td></tr><tr><td>49.</td><td>Lambda- acid</td><td>1000</td><td>72748-35-7</td></tr><tr><td></td><td>Total</td><td>24900</td><td></td></tr></table>	41.	Pinoxaden		243973-20	42.	Tembotri one		335104-84-2	43.	Sulcotrio ne		99105-77-8	44.	Prosulfoc arb		52888-80-9	45.	Propanil		709-98-8	Pesticides Intermediates				46.	Cypermet hric acid chloride (CMAC)	3000	52314-67-7	47.	Diethyl thiophosp horyl chloride (DETC)	15000	1470-61-7	48.	Bifenthri n alcohol	1000	76350-90-8	49.	Lambda- acid	1000	72748-35-7		Total	24900		<table><tr><td></td><td>(CMAC)</td><td></td><td></td></tr><tr><td>47.</td><td>Diethyl thiophosp horyl chloride (DETC)</td><td>15000</td><td>1470-61-7</td></tr><tr><td>48.</td><td>Bifenthri n alcohol</td><td>1000</td><td>76350-90-8</td></tr><tr><td>49.</td><td>Lambda- acid</td><td>1000</td><td>72748-35-7</td></tr><tr><td></td><td>Total</td><td>24900</td><td></td></tr></table>		(CMAC)			47.	Diethyl thiophosp horyl chloride (DETC)	15000	1470-61-7	48.	Bifenthri n alcohol	1000	76350-90-8	49.	Lambda- acid	1000	72748-35-7		Total	24900		
41.	Pinoxaden		243973-20																																																																	
42.	Tembotri one		335104-84-2																																																																	
43.	Sulcotrio ne		99105-77-8																																																																	
44.	Prosulfoc arb		52888-80-9																																																																	
45.	Propanil		709-98-8																																																																	
Pesticides Intermediates																																																																				
46.	Cypermet hric acid chloride (CMAC)	3000	52314-67-7																																																																	
47.	Diethyl thiophosp horyl chloride (DETC)	15000	1470-61-7																																																																	
48.	Bifenthri n alcohol	1000	76350-90-8																																																																	
49.	Lambda- acid	1000	72748-35-7																																																																	
	Total	24900																																																																		
	(CMAC)																																																																			
47.	Diethyl thiophosp horyl chloride (DETC)	15000	1470-61-7																																																																	
48.	Bifenthri n alcohol	1000	76350-90-8																																																																	
49.	Lambda- acid	1000	72748-35-7																																																																	
	Total	24900																																																																		
3.	EC Granted dated 29.06.2021- Page no.3, Point no. 4 – Details of- I. Total plot area	It is reported that the existing land area is 55000 sqm and no additional land will be required for the proposed expansion. Industry has developed greenbelt in area of 5500 sqm and will develop greenbelt in an area of 12650 sqm covering 33 % of the project area. The estimated project cost is Rs. 110 Crores including	After EC Amendment, It is reported that the Total land area is 34601.41 sqm. Industry will be developed greenbelt in area of 11420.0 sqm covering 33 % of the project area. The estimated project cost is Rs.90 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 596 Lakhs and the	The total area of Plot no.: 2817/1 is 54994.35 Sq mt. After demerging/splitting of Plot no.: 2817/1 into Plot No.: 2817/1/1 & Plot No.: 2817/1/2, the total area of both the plot will be 20392.94 sq. m. & 34601.41 sq. m. respectively. The greenbelt area for																																																																

	<p>II. Green belt Development</p> <p>III. Total Project Cost</p> <p>V. Total cost of CER</p> <p>V. Manpower</p>	<p>existing investment of Rs.20 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 596 Lakhs and the recurring cost (operation and maintenance) will be about Rs. 2117.64 Lakhs per annum. The project will lead to employment for 170 persons directly & 100 persons indirectly after expansion. Industry proposes to allocate Rs. 90 Lakhs towards Corporate Environment Responsibility.</p>	<p>recurring cost (operation and maintenance) will be about Rs. 2117.64 Lakhs per annum. The project will lead to employment for 130 persons directly & 50 persons indirectly. Industry proposes to allocate Rs. 90 Lakhs towards Corporate Environment Responsibility.</p>	<p>the plot no.: 2817/1/2, having total area of 34601.41 will be 11885.0 sq. m. i.e. 33% of total plot area.</p>
4.	<p>EC Granted dated 29.06.2021- Page no.3, Point no. 6 – Details of Water requirement & Wastewater generation and Its Disposal</p>	<p>It is noted that the total water requirement is 605 KLD, of which fresh water requirement of 538 KLD will be met from GIDC water supply. Industrial effluent of 396.8 KLD will be treated in solvent stripper followed by MEE and ATFD, RO Plant and Effluent Treatment Plant. Total Industrial Waste water generation will be 394 KLD generated from process, scrubber, cooling tower blow down, boiler blow down, D M rejection and container washing etc. Out of 394 KLD of industrial effluent, 319 KLD of process effluent will be segregated and will be detoxified with hypochlorite solution and treated in solvent stripper followed by MEE and ATFD. 373.8 KLD of Condensate from MEE</p>	<p>After EC Amendment, It is noted that the total water requirement is 574.5 KLD. The 67 KLD will be recycled within plant premises. Hence, total fresh water requirement of 507.5 KLD will be met from GIDC water supply. Industrial effluent of 394 KLD will be treated in solvent stripper followed by MEE and ATFD, RO Plant and Effluent Treatment Plant. Total Industrial Waste water generation will be 394.0 KLD generated from process, scrubber, cooling tower blow down, boiler blow down, D M rejection and container washing etc. Out of 394 KLD of industrial effluent, 319.0 KLD of process effluent will be segregated and will be detoxified with hypochlorite solution and</p>	<p>Due to the demerging of Plot, the proposed manufacturing unit of Pesticides, Fungicides, Herbicides & Insecticides will be established on the plot no.: 2817/1/2 and on the Plot no.: 2817/1/1 the manufacturing of existing products will be continued. Hence, the total water requirement, power requirement of proposed pesticide will be decreased.</p>

	<p>will be taken to ETP for treatment. 25 KLD from cooling tower, 10 KLD from D M rejection, 10 KLD from boiler blow down, 15 KLD from floor/container washing and 15 KLD from secondary scrubber attached to reactor and wet scrubber attached to boiler. Thus total 75 KLD of said normal effluent will be detoxified with hypochlorite solution and treated in RO plant. 52 KLD of RO permeate will be recycled in process. Balance 23 KLD of RO rejection will be treated in ETP along with MEE condensate. Thus total 396.8 KLD of normal industrial effluent will be treated in proposed primary, secondary and tertiary ETP and finally discharge into CETP of M/S Sarigam Clean Initiative, GIDC Sarigam through closed underground pipe line for further treatment and disposal into Arabian Sea. Domestic waste water (15 KLD) will be treated in STP and treated waste water will be recycled for plantation.</p>	<p>treated in solvent stripper followed by MEE and ATFD. 373.8 KLD of Condensate from MEE will be taken to ETP for treatment. 25.0 KLD from cooling tower, 10 KLD from D M rejection, 10.0 KLD from boiler blow down, 15 KLD from floor/container washing and 15 KLD from secondary scrubber attached to reactor and wet scrubber attached to boiler. Thus total 75.0 KLD of said normal effluent will be detoxified with hypochlorite solution and treated in RO plant. 52.0 KLD of RO permeate will be recycled in process. Balance 23.0 KLD of RO rejection will be treated in ETP along with MEE condensate. Thus total 396.8 KLD of normal industrial effluent will be treated in proposed primary, secondary and tertiary ETP and finally discharge into CETP of M/S Sarigam Clean Initiative, GIDC Sarigam through closed underground pipe line for further treatment and disposal into Arabian Sea. Domestic waste water (11 KLD) will be treated in STP and treated waste water will be recycled for plantation.</p>	
--	--	---	--

		Power requirement after expansion will be 3000 kVA and will be met from Dakshin Gujarat Vij Co. Ltd (DGVCL). Unit has proposed one DG set of 1000 kVA capacity. DG set are used as standby during power failure. Stack (height 11.0 m) will be provided as per CPCB norms to the proposed DG set.	After EC Amendment, Power requirement after expansion will be 2875 kVA and will be met from Dakshin Gujarat Vij Co. Ltd (DGVCL). Unit has proposed one DG set of 1000 kVA capacity. DG set are used as standby during power failure. Stack (height 11.0 m) will be provided as per CPCB norms to the proposed DG set.	
		Existing unit has no Boiler. Unit proposed 15 TPH of Imported coal fired Steam Boiler. ESP followed Wet scrubber with stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm ³ for the proposed boilers. Details of process emission & management and solid waste/hazardous waste disposal are as per the plan provided in the EIA/EMP report and as deliberated in the EAC.	After EC Amendment, Unit has proposed 15 TPH of Imported coal fired Steam Boiler. ESP followed Wet scrubber with stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm ³ for the proposed boilers. Details of process emission & management and solid waste/hazardous waste disposal are as per the plan provided in the EIA/EMP report and as deliberated in the EAC.	
5.	EC Granted dated 29.06.2021- Page no. 5, Point no. 11 and sub Condition no.: 11(xiv)	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for Expansion of Pesticide Intermediates, Fungicides, Herbicides, Insecticides	After EC Amendment, Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project of Pesticide Intermediates, Fungicides, Herbicides, Insecticides	After demerging of the plot no.: 2817/1 to Plot no.:2817/1/1 & Plot no.:2817/1/2, M/s. Heranba Industries Limited has decided to give the Plot no.: 2817/1/2 to M/s. Heranba Organics Private Limited on the rental basis. The proposed

	<p>Manufacturing by M/s Heranba Industries Limited at Plot No. 2817/1, Chemical Zone, Near Sandhya Chemical, Notified Industrial Area, GIDC Sarigam, Taluka Umbergaon, District Valsad, Gujarat, under the provisions of the EIA Notification, 2006, subject to the compliance of terms and conditions as under,</p> <p>(xiv) Total fresh water requirement shall not exceed 538 cum/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority. The PP shall achieve improvement in recycle and reuse of water every year and over a period of 5 years, PP shall increase recycled quantum to 30% of total water consumption. After 5 years, only 30 % of the present fresh water requirement shall be used.</p>	<p>Manufacturing by M/s Heranba Organics Private Limited at Plot No. 2817/1/2, Chemical Zone, Near Sandhya Chemical, Notified Industrial Area, GIDC Sarigam, Taluka Umbergaon, District Valsad, Gujarat, under the provisions of the EIA Notification, 2006, subject to the compliance of terms and conditions as under,</p> <p>(xiv) Total fresh water requirement shall not exceed 507.5 cum/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority. The PP shall achieve improvement in recycle and reuse of water every year and over a period of 5 years, PP shall increase recycled quantum to 30% of total water consumption. After 5 years, only 30 % of the present fresh water requirement shall be used.</p>	<p>manufacturing unit of Pesticide Intermediates, Fungicides, Herbicides, Insecticides will be established on the plot no.: 2817/1/2 in the name of M/s. Heranba Organics Private Limited.</p>
--	--	--	--

3. **Deliberations by the EAC:**

The EAC deliberated on the issues and observed that EC was granted by Ministry on 29th June 2021. The existing greenbelt/plantation is not adequately planted, which is a non-compliance of EC condition w.r.t green belt development. The PP needs to submit a time bound action plan for greenbelt development and to increase the number of trees, accordingly. The EAC advised the PP and the consultant that in future, they should ensure the compliance of existing EC including green belt before applying for amendment in EC.

The EAC also sought separate water balance and treatment systems after the proposed split. Commitment for cleaner fuel in place of imported coal. Further, the PP may explore phasing out the usage of coal and submit an action plan for the same.

The Committee therefore, **deferred** the proposal.

Agenda No. 60.7

Proposed Synthetic Organic Chemicals Manufacturing Unit with Production capacity of 4000 MT/Month located at Plot No. 130, 131, GIDC–Nandesari, Dist. Vadodara, Gujarat by M/s. Farmson Pharmaceuticals Gujarat Private Limited - Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/437263/2023; File No. IA-J-11011/276/2023-IA-II(I)]

1. The proposal is for environmental clearance to the Proposed Synthetic Organic Chemicals Manufacturing Unit with Production capacity of 4000 MT/Month located at Plot No. 130, 131, GIDC–Nandesari, Dist: Vadodara, Gujarat by M/s. Farmson Pharmaceuticals Gujarat Private Limited.
2. The project/activity is covered under Category ‘B’ of Item 5(f), Synthetic organic chemicals industry. However, **since the project site is located within a critically polluted area**, the project attracts the general condition and considered as Category ‘A’ at Centre.
3. The ToR was issued by the SEIAA vide letter No I SIA/GJ/171311/2022; dated 14.11.2022. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a **Fresh EC case**. The proposal is now placed in the 60th EAC Meeting held on 10th August, 2023, wherein the PP and an accredited Consultant, M/s. Excel Enviro Tech, Ahmedabad (NABET Accreditation Certificate No. NABET/EIA/2124/RA 0234_Rev01 and validity till 27.06.2024] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:
4. The PP reported that the total proposed land area is 13896 m², and no R& R is involved in the Project. The details of various products are as follows:

S. No	ProductDetails (complete name)	CASNo.	Total Quantity (MT/Month)	Uses
1	Acetic Anhydride	108-24-7	3600	Fine Chemicals
2	Paracetamol	95-85-2	400	Bulk Drug
	Total		4000	

5. 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 the E(P) Act/Air Act/Water Act.
6. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project

site. Mahi river is flowing at a distance of 2.75 km in NNW direction. No Schedule-I species are found in the study area for which conservation plan has been prepared.

7. The PP reported that **Ambient air quality monitoring** was carried out at 9 locations during October 2022 - December 2022 to and the baseline data indicate the ranges of concentrations as: PM₁₀ (70.55 – 87.56 µg/m³), PM_{2.5} (34.87 – 42.59 µg/m³), SO₂ (12.12 – 24.10 µg/m³) and NO₂ (22.64 – 32.93 µg/m³). AAQ modelling study for point source emissions indicate that the maximum incremental GLCs after the proposed project would be 2.51327 µg/m³, 2.51327 µg/m³ and 1.34812 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise-** The noise level recorded in study area is in the range of 51 dB(A) to 74.7 dB(A) during day time and 41.7 dB (A) to 69.1dB (A) during night time and are found below the residential limits. The recorded noise levels were well below the national ambient noise level standards for day time and night time. **Ground water-** The TDS concentration in the ground water samples has been found to vary between 350.4 mg/L and 1142.0 mg/L and total hardness in the range of 100 mg/L and 330mg/L. The concentration of TDS is well above the drinking water standards. pH is found Neutral at all locations. The Phenolic compound and Ammonical Nitrogen are below detectable limits. The Fluoride concentration in ground water ranges from 0.17 to 0.89 mg/L. Concentration of metals in raw water are also within acceptable range. **Surface water-** Water samples were collected from neighbouring villages within 10 km aerial distance from the site. The pH of surface water sample was found in the range of 7.27 (Koyli) to 7.91(Bhetasi), TDS concentration of water were ranging between 198mg/L (Mahi River) to 1378mg/L (Sankarda) other parameters are within the range of acceptance criteria for drinking water as per IS: 10500: 2012 **Soil-** Samples collected from identified locations indicate that the soil is neutral; pH value ranging from 7.09 to 9.45. Soil texture is mostly mixed type. Organic matter is in the range of 0.42% to 0.97%.
8. The PP reported that the total water requirement is 1043 m³/day of which fresh water requirement of 735 m³/day will be met from Nandesari GIDC. Effluent of 503 m³/day quantity will be treated through in house ETP and 503 m³/day will be sent to CETP – Nandesari.
9. The Power requirement for Proposed Project will be 2000 KVA which will be met from Madhya Gujarat Vij Company Ltd. (MGVCL). Additionally, Two D.G set of 1010 KVA x 2 Nos. will be used as standby during power failure. Stack height of 11 meter will be provided as per CPCB norms to the proposed DG sets.
10. The unit will install Two Boiler (10 TPH * 2 Nos.) Coal fired boiler and One Furnace (Cracker). ESP and Scrubber with an Adequate stack height of 31 m and 15 m (For Furnace) for controlling the particulate emissions within the statutory limit of 150 mg/Nm³ for the proposed boilers.

11. Details of Process Emissions Generation and its Management:

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Air Pollutant	Air Pollution Control Measures (APCM)
Flue Gas Emission						
1.	Boiler – 1 (10 TPH)	31	*Agro Briquettes/ Coal	122 MT/Day Briquettes or 75MT/day	PM: 120 mg/Nm ³ SO _x : 80 ppm NO _x : 40 ppm	ESP + Scrubber
2.	Boiler – 2 (10 TPH)	31	*Agro Briquettes/ Coal	122 MT/Day Briquettes or 75MT/day		ESP + Scrubber
3.	Furnace (Cracker)	15	Natural Gas	600 nm ³ /Hr.		Adequate stack height
4.	D.G. Set - 1 (1010 KVA)	11	HSD	200 Lit/Hr.		Adequate stack height
5.	D.G. Set - 2 (1010 KVA)	11	HSD	200 Lit/Hr.		
Process Gas Emission						
	There is no process gas emission from proposed activity.					

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

Sr. no.	Type of Hazardous waste	Specific Source of generation (Name of Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/ Annum)	Management of HW
1	ETP Sludge	ETP	35.3	500	Collection, Storage, transportation, Dispose at TSDF site
2	Distillation Residue	Process	28.1	5	Collection, Storage, Transportation and Disposal to Approved CHWIF Facility/Co-processing.

Sr. no.	Type of Hazardous waste	Specific Source of generation (Name of Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/ Annum)	Management of HW
3	Used Oil	Utility	5.1	5	Collection, Storage, Transportation and Disposal To Approved Recyclers/Pre-processor
4	Empty Bags/Container/Drums	Raw Material	33.1	4000 Nos.	Collection, Storage, Transportation and Disposal To Approved Recyclers/Pre-processors
5	Dilute Acetic Acid	Process	26.3	7920	Collection, Storage and Sale to Actual Users/Reused or sent to actual users. By product (dilute acetic acid) generated out of paracetamol reused for Acetic Anhydride manufacturing process thus generated is used in-house to manufacture acetic anhydride.
	Solid waste				
1.	STP Sludge	STP	--	27.4	Collection, Storage and disposal by used as Manure within premises.
2.	Ash	Combustion of coal	--	20,000	Collection, storage, transportation and disposal by selling it to brick manufacturer.

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 744.3 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 307.8 Lakhs per Annum. Industry proposes to allocate ₹ 307.8 Lakhs towards CER.
14. The PP reported that the industry will develop greenbelt over an area of 40 % i.e., 5558 m² out of total area of the project as the unit is located within CPA area.
15. The PP reported that the Public hearing is exempted as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 Project site is located at Dahej-III which is declared as notified

industrial area vide notification no. GIDC No.**GHU/75/36/GID 1974/4084 (I) CH dated 06.05.1975)**

16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Partner/Director- EHS Manager- Shift-In-Charge / Supervisor- Visiting Doctors for the functioning of EMC.
17. The PP reported that the unit will sequestrate around **3035.73 tons per year** of total carbon dioxide generated during year.
18. The PP submitted the Onsite and Offsite disaster management plans in the EIA report.
19. The estimated project cost is Rs 160.0 crores Total Employment will be 150 persons as direct and indirect.
20. **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 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 to the effect 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 with 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 green belt development, fuel, Water Recovery/Recycling, recycle of Acetic acid to GAA, rain water Harvesting, CER activities compliance to CPA OM dated 31.10.2019 and advised the PP to submit the following:

- Action plan for usage of agro briquettes as a primary fuel in the boiler and coal as a secondary fuel during the unavailability of agro briquettes. The secondary fuel may also be phased out over a period of about 5 years.
- Revised Greenbelt development plan with greenbelt all around the periphery and its budget.
- Details of water Recovery/Recycling

- Revised compliance and action plan for the additional safeguard measures prescribed in the Ministry/s OM dated 31.10.2019 for critically and severely polluted area.
- Revised CER activities.

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

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, 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, prior to construction & operation of the project.

21. The EAC, after detailed deliberations, **recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I:**
 - (i) Unit shall install adequate APCM for the process and flue gas stack. Stack emission is being monitored by the approved external agency & records are being maintained. Stack emission levels are well within the prescribed standards. GPCB norms of PM < 150 mg/nm³, SO₂ <100 ppm and NO_x < 50 ppm shall be followed and shall install APCM like Scrubber and ESP due to that they intimate the limit to PM < 120 mg/nm³, SO₂ <80 ppm and NO_x < 40 ppm.
 - (ii) CEMS shall be installed and connected to SPCB/CPCB Servers.
 - (iii) Effective fugitive emission control measures shall be adopted in the process, transportation, packing etc.
 - (iv) Transportation of materials by rail/conveyor belt, wherever feasible, shall be explored.

- (v) PNG shall be used as a fuel in the boiler.
- (vi) The best available technology shall be used.
- (vii) The PP shall develop an additional greenbelt over an area of at least 5558 m² by planting 1670 saplings on the periphery wall and plant premises within an year of the 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 a separate account and should be audited annually. The 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.
- (viii) The PP shall develop avenue plantation at suitable locations as per permissions from local authority
- (ix) The transportation load on roads shall be within their carrying capacity and adequate width of roads shall be maintained inside the industrial premises.
- (x) Total industrial waste water shall be treated in ETP and sent to CETP – NIA for further treatment and disposal. Domestic waste water shall be sent to STP and treated water shall be reused in the greenbelt development.
- (xi) The rain water from the building roofs (Admin building production blocks) shall be connected to rain water harvesting collection (150 KL) tank. Ground water recharge not proposed as per applicable norms.
- (xii) Unit shall install full-fledged wastewater treatment facility at the site including Primary, Secondary & Tertiary treatment, after treatment it shall be sent to Common effluent treatment plant – Nandesari.
- (xiii) Unit shall install the STP with a capacity of 8 KLD for sewage generation.
- (xiv) Unit shall dispose the waste at TSDF common hazardous waste disposal facilities approved by state pollution control board.
- (xv) Unit shall dispose Distillation Residue at CHWIF Facility/Co-processing site by approved by state pollution control board.
- (xvi) Monitoring of the compliance of EC conditions shall be submitted with third party audit every year.
- (xvii) An amount of ₹ 480 lakhs shall be allocated towards CER for Providing RO plant in Primary School/ Primary health Centers and common area of villages, Greenbelt

Development at Common places, Up gradation of School infrastructure & Educational facilities, Up gradation of pond and common area.

- (xviii) 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 by engaging Partner/Director- EHS Manager- Shift-In-Charge / Supervisor- Visiting Doctors. 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. The 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 the previous year.
- (xix) 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 [₹1124.3 Lakhs (Capital cost) and ₹ 307.8 Lakhs per Annum (Recurring cost)] shall be kept in a 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 the previous year.
- (xx) The total water requirement shall not exceed 1043 m³/day of which fresh water requirement of 735 m³/day will be met from Nandesari GIDC. The PP should ensure that water supply should not be above the permissible limit and fresh water shall be withdrawn only after obtaining prior permission 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.
- (xxi) As proposed by the PP, agro briquettes shall be used as a primary fuel in the boiler, coal shall be used as a secondary fuel during the unavailability of agro briquettes. The secondary fuel may also be phased out over a period of 4 years.
- (xxii) No banned chemicals shall be manufactured by the PP. No banned raw materials shall be used in the unit. The PP shall adhere to the notifications/guidelines of the Government in this regard.
- (xxiii) The PP 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.
- (xxiv) 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.

- (xxv) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP 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.
- (xxvi) 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.
- (xxvii) The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- (xxviii) 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.
- (xxix) 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.
- (xxx) 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.
- (xxxi) 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.
- (xxxii) The unit shall make the arrangement for the protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xxxiii) 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.

- (xxxiv) 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.
- (xxxv) 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.

Agenda No. 60.8

Proposed Project for Manufacturing of Speciality Chemicals, Pesticide Technical and Pesticide Intermediates with Production capacity of 3200 TPM located at Plot No. T-108, T-109, Notified Industrial Area, GIDC Saykha, Tal: Vagra, District – Bharuch, Gujarat by M/s. Heranba Industries limited (Unit:VI) - Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/419469/2023; File No- IA-J-11011/193/2022-IA-II(I)]

1. The proposal is for the environmental clearance Proposed Project for Manufacturing of Speciality Chemicals, Pesticide Technical and Pesticide Intermediates with Production capacity of 3200 TPM located at Plot No. T-108, T-109, Notified Industrial Area, GIDC Saykha, Tal: Vagra, District – Bharuch, Gujarat by M/s. Heranba Industries limited (Unit:VI)
2. The project/activity is covered under Category ‘A’ of Item 5(b)& 5(f) **Pesticides industry and pesticide specific intermediates, synthetic organic chemical (excluding formulations** of Schedule of EIA Notification, 2006 (as amended).
3. The ToR was issued by the Ministry, vide letter no. IA-J-11011/270//2020-IA-II(I), dated 7.11.2020. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a **Fresh EC case**. The proposal is placed in this 60th EAC meeting on 10th August, 2023, wherein the PP along with accredited Consultant, M/s. Eco Chem Sales & Services (ECSS) – Surat, made a detailed presentation on the salient features of the project and informed that: (NABET Accreditation Number is NABET/EIA/2023/SA 0156 and it is valid up to 11th September 2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:
4. The PP reported that the total 57248.29 m² land area will be used for proposed project and no R& R is involved in the Project. The details of products to be manufactured are as follows:

S. No.	Name of the Product	CAS Number	Capacity, TPM	End use of product
---------------	----------------------------	-------------------	----------------------	---------------------------

Insecticides Compounds				
Group-1 Synthetic Pyrethroids Insecticides -1				
1	Cypermethrin (T) & Beta, Zeta, Theta etc Isomers(T)	52315-07-8	100	Used to control a broad spectrum of chewing, sucking and flying insects
2	Alphacypermethrin Technical	67375-30-8		Used to control a wide range of chewing and sucking insects
3	Deltamethrin Technical	52918-63-5		Use on areas such as golf courses, ornamental gardens, lawns, outdoor perimeter treatments, indoors as spot and crack and crevice treatments, and pet collars
4	Lambda Cyhalothric Technical	91465-08-6		Used to control a wide range of pests
5	Permethrin Technical	52645-53-1		Can Use to kill a broad range of pests, such as fleas, ticks, cockroaches, flies, and mosquitoes.
Group-2 Synthetic Pyrethroids Insecticides-2				
6	Cypermethrin (T) & Beta, Zeta, Theta etc Isomers(T)	118712-89-3	500	Used to control a broad spectrum, ofchewing, sucking and flying insects
7	Allethrin Technical	584-79-2		Use for control of flies and mosquitoes, and in combination with other pesticides to control flying or crawling insects
8	D-Allethrin Technical	231937-89-6		Household insecticide that kills flies, mosquitoes, garden insects, etc
9	Bifenthrin Technical	82657-4-3		Used against malaria and filarial vector

				mosquitoes
10	Prallethrin Technical	23031-36-9		Used for the control of mosquitoes in the household.
11	Cyphenothrin (T) & its [1R-Trans-isomer]	39515-40-7		Is a synthetic pyrethroids insecticide and is effective against cockroaches
12	Etofenprox Technical	80844-07-1		Use as mosquitocide
13	Fenpropathrin Technical	39515-41-8		Widely used Pyrethroids insecticide in agriculture and household
14	Cyfluthrin & Beta Isomers (T)	68359-37-5		used in agriculture to control insects that feed on cotton, turf, ornamentals, hops, cereal, corn, fruit, and potatoes
15	Dimefluthrin (T)	271241-14-6		Used as mosquito control agent
16	Cycloprothrin (T)	63935-38-6		Used for controlling insect pests on rice plants and vegetables
17	Flumethrin (T)	69770-45-2		Flumethrin has been widely used as an acaricide for the control of Varroa mites
18	Acrinathrin (T)	101007-06-1		Use for the Plant protection
19	Flucythrinate (T)	70124-77-5		Use for the Plant protection
20	Tefluthrin	79538-32-2		Used primarily in the control of soil insect pests on corn plants
21	Metofluthrin	240494-70-6		Used as an insect repellent.
Group-3 Neo Nicotiods Insecticides (G-1)				
22	Thiamethoxam Technical	153719-23-4	150	Protects plant against listed chewing and sucking insects

			through contact and ingestion
23	Imidacloprid Technical	138261-41-3	used for pest control in agriculture
24	Acetamiprid Technical	135410-20-7	Used to control insects such as aphids, which have been known to attack and damage leafy plants
25	Fipronil Technical	120068-37-3	Fipronil is used to control ants, beetles, cockroaches and Other Insects
26	Buprofezin Technical	69327-76-0	Used for control of insect pests such as mealybugs, leafhoppers and whitefly on vegetable crops
27	Thiacloprid Technical	111988-49-9	Used as insecticide to protect cotton, pome fruit, vegetables, and potatoes.
28	Ethiprole Technical	181587-01-9	Used to kill or remove insects from crops and grains during its storage
29	Dinotefuran Technical	165252-70-0	A Broad-Spectrum Insecticides for leafy vegetables (except Brassica) (Group-4) and for Professional Turf management, professional Ornamental Production & Residential Indoor, Pet Lawn & Garden Market. It controls of insect pests Such as Aphids, whiteflies, thrips, leafhoppers, Leafminers, sawflies.

			etc.
30	Nitenpyram Technical	150824-47-8	Used to treat flea infestations in cats and dogs
31	Chlorantraniliprole	500008-45-7	Insecticide, Ryanodine Receptor Activator is used to control a wide variety of crops including Corn, Cotton, Grapes, Rice & Potatoes.
32	Cyantraniliprole	736994-63-1	Insecticides for controlling insects with mandibulate as well as piercing-sucking mouthparts. Specially use in Vegetables, Bush Berries, Turf & Oilseeds Crops.
33	Tetraniliprole	1229654-66-3	Can be Use for Pest Control
34	Indoxacarb	144171-61-9	Used to control sucking insects like bollworm, pink bollworms, spotted bollworms, cutworms
35	Flonicamide	158062-67-0	Used as an insecticide on aphids, whiteflies, and thrips
36	Flubendiamide	272451-65-7	Insecticides for controlling insects in Corn, Tobacco, Pome & Stone Fruit. Tree Nut Crops, Grapes & Vegetable Crops (Including Cucurbit Vegetables, Fruiting.)
37	Tolfenpyrad	129558-76-5	Used for the control of several orders of

				insects
Group-4 Neo Nicotiods Insecticides (G-2)				
38	Cyclaniliprole	1031756-98-5	50	Used as insecticide for fruit, greenhouse.
39	Sulfoxaflor	946578-00-3		Use to control piercing/sucking insects such as aphids, stink bugs, plant bugs, and thrips on a variety of row crops
40	Clothianidin Technical	210880-92-5		Used mainly to control sucking pests, such as aphids and stink bugs, and insect
41	Pymetrozine Technical	123312-89-0		Control of aphids and whiteflies in vegetables, ornamentals, cotton, fieldcrops, deciduous and citrus fruit; control of Plant hoppers in rice, Insecticide
Group-5 Organo Phosphorus Insecticides/ Azaspiro/Aromatic Ethers, Carbamate, Benzoyl Urea, Oxadiazine, Pyrazole & Other Miscellaneous Insecticides/ Acaricides Cpd / Benzoylurea/ Other IGRs/ Natural Products Inhibitor/Quinazolin/Halogenated Pyrroles				
42	Profenofos Technical	41198-08-7	200	used on a variety of crops including cottonand vegetables such as maize, potato, soybean, and sugar beet, Insecticide
43	Chlorpyrifose Ethyl Technical	5598-13-0		Used to kill number of Pests
44	Chlorpyriphos Methyl Technical	5598-13-0		Used to control insect pests on a range of crops, also used to treat stored cereal grain and empty warehouses

45	Temephos Technical	3383-96-8	Used as a larvicide to control mosquitoes
46	Malathion Technical	121-75-5	Used on fruits and vegetables, and to control mosquitoes, flies, and animal parasites
47	Ethion Technical	563-12-2	Used to control insects on citrus trees, but also on cotton, fruit and nut trees, and some vegetables
48	Acephate Technical	30560-19-1	Currently registered for use on a variety of field, fruit, and vegetable crops
49	Dimethoate Technical	60-51-5	Used against a variety of sucking insect pests on citrus, grapes, cotton, corn, sorghum.
50	Phenthoate Technical	07-03-2597	Used as insecticide and acaricide for rice, vegetables, fruits, and tea.
51	Spirotetramat Technical	203313-25-1	Use for control of sucking insects in their juvenile, immature stages, including aphids, scale insects, and whitefly
52	Triflumezopyrim	1263133-33-0	Used to control both leafhopper and planthopper
53	Fenazaquin	120928-09-8	Use to control mites and insects (especially whiteflies)
54	Chlorfenapyr	122453-73-0	Used as insecticide and acaricide as a foliar spray to ornamental crops in greenhouses.

55	Diafenthiuron Technical	80060-09-9		Control of insects and mites resistant to major chemical classes such as ops or Pyrotheroids, Insecticide
56	Fenobucarb Technical	3766-81-2		Used as an agricultural insecticide, especially for control of Hemipteran pests, on rice and cotton
57	Propargite	2312-35-8		Used to control mites on ornamentals and various field, fruit, and vegetable crops
58	Diflubenzuron	35367-38-5		used to control many leaf eating larvae of insects feeding on agricultural, forest and ornamental plants
59	Thiocyclam Oxalate	31895-22-4		used to control the sucking and chewing pets on a variety of crops
60	Fenpyroximate	134098-61-6		used for the control of leafhoppers, mealybugs, mites, psylla, psyllids, and whiteflies
61	Etoxazole	153233-91-1		Used to control mites and aphids on fruits, vegetables, and ornamentals
62	Hexythiazox	78587-05-0		used to control eggs and larvae of many phytophagous mites
63	Pyriproxyfen	95737-68-1		Use as insect growth regulator that affects mostly young insects and eggs
64	Thiodicarb	59669-26-0		Insecticide against major Lepidopterous, and

			suppresses Coleopterous and some Hemipterous insect pests.
65	Spirodiclofen	148477-71-8	used in agriculture to control mites and San Jose scale
66	Pyrithiobac	123343-16-8	Use for control of broad-leaved weeds in cotton and other crops
67	Novaluron	116714-46-6	Use to disrupting the normal growth and development of immature insects
68	Fenoxycarb (T)	72490-01-8	used as an effective control agent against fire ants (as bait), fleas, mosquitos, cockroaches, scale insects, and sucking insects
69	Pyridaben	96489-71-3	Used as insecticide and acaricide to protect field crops, fruit trees, and vegetables
70	Spiromesifen	283594-90-1	For use on cotton, field corn, ornamentals, pome fruit, strawberries, and vegetables
71	Tebufofenpyrad	119168-77-3	Use to control of spider and rust mites' species on a large number of crops
72	Lufenuron	103055-07-8	used to control flea infestations by preventing hatching of eggs
73	Methoxyfenozide	16150-58-4	Exhibits high insecticidal efficacy against a wide range of important

				caterpillar pests
74	Spinetoram	187166-40-1		used to control pest insects in stored grain and on domestic cats.
75	Thiocyclam	31895-21-3		used to control sucking and chewing pests on a variety of crops
Fungicides Compounds				
Group-6				
SBI-Triazole Fungicides /Conazole Fungicides/Triazolopyrimidines Fungicide				
76	Hexaconazole Technical	79983-71-4	200	Can be used on fruit trees, Fungicide
77	Tebuconazole Technical	105734-96-3		Used agriculturally to Treat plant pathogenic fungicide.
78	Difenoconazole Technical	119446-68-3		Controls a broad spectrum of foliar, seed and soil-borne diseases caused by Ascomycetes, Basidiomycetes and Deuteromycetes in cereals, soya, rice, grapes, pome fruit, stone fruit, potatoes, sugar beet and several vegetables and Ornamental crops.
79	Propiconazole Technical	60207-90-1		Used agriculturally as a systemic fungicide on turf grasses
80	Metconazole Technical	125116-23-6		Use as Plant Growth Regulators
81	Cyproconazole Technical	94361-06-5		Use on greenhouse- and field-grown roses and as a wood preservative.
82	Epoxiconazole Technical	135319-73-2		Control of Black Sigatoka (Mycosphaerella

			fijiensis) and Yellow Sigatoka (Mycosphaerella musicola) in bananas and Coffee Rus
83	Fenbuconazole Technical	114369-43-6	A fungicide used to control a range of diseases including powdery mildew, black rot and scab
84	Ipconazole Technical	125225-28-7	Used for seed treatment, highly effective against seed-borne and soil-borne diseases.
85	Tetraconazole Technical	112281-77-3	Inhibits the metabolic pathway of fungal ergosterol production
86	Prothioconazole Technical	178928-70-6	Use for the control of diseases caused by ascomycetes, basidiomycetes, and deuteromycetes
87	Fluquinconazole Technical	136426-54-5	Used to control various endophytic diseases mainly on cereals
88	Triticonazole Technical	131983-72-7	Use as a seed treatment in wheat
89	Azaconazole Technical	60207-31-0	Used mainly in ornamental crops to control canker and other diseases
90	Bromuconazole Technical	116255-48-2	Used on a range of crops including cereals, fruit and vegetables
91	Etaconazole Technical	60207-93-4	Used to control powdery mildew on fruit and other crops
92	Penconazole Technical	66246-88-6	Mainly applied on apples, grapes, and vegetables to control powdery mildew

93	Tricyclazole Technical	41814-78-2		Use as fungicide for the preservation of fruits, that can cause several health issues
94	Bupirimate	41483-43-6		Used as a fungicide to kill powdery mildew
95	Imazalil Technical	35554-44-0		Fungicide used to control a wide range of fungal diseases on fruit, vegetables, and ornamentals
96	Triadimenol Technical	55219-65-3		Fungicide used as seed treatment for barley, corn, cotton, oats, rye, sorghum, and wheat
97	Triadimefol Technical	43121-43-3		Used in agriculture to control various fungal diseases in fruits. As a seed treatment
98	Metrafenone	220899-03-6		Used for the control of powdery mildew in cereals and grape vines
99	Flusilazole	85509-19-9		Used to control fungal infections on a variety of fruit and vegetable crops
100	Prochloraz	67747-09-5		Used on wheat, barley, mushrooms, cherries, turf on golf courses, and in flower production
101	Myclobutanil Technical	88671-89-0		Used as broad spectrum Triazole fungicide
102	Ametoctradin	865318-97-4	Used to control major plant pathogens from the Oomycete class of fungi, specifically downy mildews and Phytophthora species	

Group-7				
Strobilurins/ Amide/Hydroxy Aniline		Methoxyacrylate/Carbanilate	Fungicides/Mono	Carboxylic Acid
103	Pyraclostrobin Technical	175013-18-0	150	Use on the Residential and recreation alturfgrass sites and golf course turf.
104	Azoxystrobin Technical	131860-33		Used for the protection of plants and crops from harmful fungal diseases
105	Pyroxystrobin Technical	131860-33-8		Used to control a variety of diseases on rice, vegetables and teas.
106	Picoxystrobin Technical	117428-22-5		Use for control of various fungal diseases including leaf rust, stripe rust, powdery mildew, net blotch, scald and speckled leaf Blotch.
107	Flufenoxystrobin Technical	918162-02-4		Active against various fungal infections including downy mildew, blight, powdery mildew and rice blast
108	Metominostrobin Technical	133408-50-1		Use to control the fungal diseases in rice, wheat, soya bean, cotton, kidney beans, and corn.
109	Orysastrobin Technical	248593-16-0		Used in the treatment of blast and sheath blight in transplanted rice inhibiting the mitochondrial respiration chain
110	Kresoxim Methyl Technical	143390-89-0		To control powdery mildew on the greenhouse-grown

				ornamental crops
111	Triclopyricarb Technical	902760-40-1		can be used in crops disease control
112	Fenoxanil Technical	115852-48-7		Used to control rice blast caused by the fungus <i>Pyricularia oryzae</i>
113	Cymoxanil Technical	57966-95-7		Used as agricultural fungicide (Potato)
114	Flutolanil Technical	66332-96-5		Used for controlling <i>Rhizoctonia solani</i> (black scurf) and some other Basidiomycete fungi in rice, turf, potato, vegetables and peanuts
115	Tiadinil	223580-51-6		Used particularly for the control of fungal diseases in rice
116	Dodine	03-10-2439		Used primarily on fruits and nuts
117	Captan	133-06-2		Used primarily to control Scab, Brown Rot, Downey Mildew, Early & Late Blight, and other fungal diseases in fruits and vegetables
Group-8 Strobilurins/Acid Amide				
118	Dimoxystrobin Technical	149961-52-4	50	Used for disease control in cereals and some other crops
119	Trifloxystrobin Technical	141517-21-7		Used as agricultural fungicide
120	Fluoxastrobin Technical	361377-29-9		Used as broad-spectrum fungicide for cereals, fruits, vegetables, and ornamentals
121	Fenhexamide	126833-17-8		Used primarily to control grey mold (<i>Botrytis Cinerea</i>),

				Monilinia Fructigena, Monilinia Laxa and other fungal diseases in fruits and vegetables
Group-9 Multicite / SBI-Other Dmis / Phenyl Amides / Sulfonyl Ureas/ Ethyl Mercaptan/Pyrazole Fungicides/ SDHIs / Others-Cont Fungicides				
122	Thiophanate Methyl	23564-05-8	200	Is a systemic fungicide used on a variety of tree, vine, and root crops, as well as on Canola and wheat.
123	Chlorothalonil	1897-45-6		Used as a fungicide and preservative in paints, adhesives, and wood.
124	Isoprothiolane	50512-35-1		Used to control a range of diseases including Pyricularia oryzae, Helminthosporium sigmoideum and Fusarium nivale
125	Validamycin	37248-47-8		Used to control plant sheath blight caused by Rhizoctonia solani
126	Quinoxifen	124495-18-7		Used as agricultural fungicide
127	Fluazinam	79622-59-6		Used as agricultural fungicide
128	Famoxadone	131807-57-3		Used as agricultural fungicide
129	Benalaxyl	71626-11-4		Used as an active substance in plant protection
130	Carboxin	5234-68-4		Used as a systemic fungicide
131	Iprobenfos (Kitazin)	26087-47-8		Used to control the rice blast fungus.
132	Bixafen	581809-46-3		Used in cereals for key stem and leaf

				disease control including Strobilurins-resistant septoria
133	Isopyrazam	881685-58-1		Use on cereals
134	Fluopicolide	239110-15-7		Used for the control of a range of diseases including downy mildew and blight
135	Fluopyram	658066-35-4		Used to control banana leaf spot, anthracnose, and scab in tropical agricultural areas
136	Boscalid	188425-85-6		Used on food crops.
137	Fluxapyroxad	907204-31-3		Helps prevent many wilts and other fungal infections from taking hold
138	Carpropamid	104030-54-8		Use for control of rice blast caused by Magnaporthe grisea
139	Cyazofamid	120116-88-3		Used as agricultural fungicide
140	Mandipropamid	374726-62-2		Effective against spore germination, mycelial growth and sporulation
141	Penflufen	494793-67-8		Used as an in-furrow treatment on potato seed pieces and as seed treatment fungicide on alfalfa, cereal grains, vegetables, legume, and oil seeds
Herbicides Compounds				
Group-10 Als-Imidazolinone/Ureas/Als-Sulfonylurea-Cont/Als-Others/Amino Acids / Ureas/ Cyclohexandiones/Dinitro Anilinees /Acetamides /Amide/ Nitro Phenyl Ether Herbicides/Monothiocarbamic Ester/ Triazinone Herbicides / Cyclohexane Oxime				
142	Imazamox	114311-32-9	200	Used as broad-spectrum post-emergence herbicide for soybeans

143	Imazamethabenz	100728-84-5	Used to control grasses and other weeds in winter cereal crops
144	Imazapyr	81334-34-1	Used as non-selective, pre- and post-emergent herbicide
145	Penoxsulam	219714-96-2	Used as A Foliar Spray on Dry-Seeded Rice Crops
146	Metsulfuron Methyl	74223-64-6	Used as kills broadleaf weeds and some annual grasses
147	Mesosulfuron Methyl	208465-21-8	Used to control annual grasses, brush, woody plants and broadleaf weeds
148	Chlorimuron Ethyl	90982-32-4	Used as herbicide for the control of broad-leaved weeds in peanuts, soya beans, and other crops
149	Bispyribac Sodium	125401-92-5	For the control of wide range of weeds, Herbicide
150	Pyrazosulfuron Ethyl	93697-74-6	Used to control weed growth in commercial cereal, soybean, and vegetable fields
151	Florasulam	145701-23-1	Used as control or suppression of a wide spectrum of annual and perennial broadleaf weeds
152	Thiencarbazone Methyl	317815-83-1	Used as rights-of-ways and pipeline facilities
153	Bensulfuron Methyl	83055-99-6	Used as a herbicide for the control of a variety of both annual and perennial weeds in crops, particularly wheat

			and rice
154	Nicosulfuron	111991-09-4	Used for control of weeds such as Johnson grass, quack grass, foxtails
155	Sulfosulfuron	141776-32-1	Used to treat annual and perennial grassy weeds and broadleaf weeds
156	Trifloxysulfuron	199119-58-9	used as an early post-emergent spray for the treatment of broadleaved weeds and nutgrass in cotton
157	Diclosulam	145701-21-9	Used to grassy and broad leaf weeds
158	Pyroxsulam	422556-08-9	Used to for the control of wild oats and certain broadleaved weeds
159	Glyphosate	1071-83-6	Is widely used herbicide that controls broadleaf weeds and grasses
160	Glufosinate Ammonium	77182-82-2	Used as broad-spectrum post-emergence herbicide for grapes, orchards, plantations, ornamentals, and non-cropland
161	Pendimethalin	40487-42-1	Used to Control Annual Grasses and Certain Broadleaf Weeds
162	Pretilachlor	51218-49-6	Used to control the most common weeds found in paddy rice crops
163	Dicamba	1918-00-9	Used as a herbicide applied to leaves or soil to control broadleaf weeds
164	Napropamide	15299-99-7	Used to control a

			number of annual grasses and broad- leaved weeds
165	Dimethenamid	87674-68-8	Used to destroy unwanted vegetation, especially various types of weeds, grasses, and woody plants
166	Topramezone	210631-68-8	Used to weed control on grain com, popcorn, seed corn, and sweet corn
167	Propaxycarbazone	145026-81-9	Used to destroy unwanted vegetation, especially various types of weeds, grasses (POACEAE), and woody plants
168	Fomesafen (T)	72178-02-0	Used to control or partial control of broadleaf weeds, grasses and sedges in soybeans
169	Halosafen (T)	77227-69-1	Use as antiparasitic agent
170	Clethodim (T)	99129-21-2	Used to control of grassy weeds on a variety of broadleaved crops
171	Benoxacor	93730-04-2	Used for crops such as corn, soybean, and sorghum.
172	Phenmedipham	13684-63-4	Used for weed control in beet crops
173	Desmedipham	13684-56-5	Used to control various annual weeds
174	Bromobutide	74712-19-9	Used to control weeds
175	Butachlor	23184-66-9	Used to control weeds
176	Metachlor	51218-45-2	Used to control weeds in crops of

				corn, soybeans, peanuts, sorghum, potatoes, peas, cotton, safflower, stone fruits, nut trees, and ornamentals
177	Prosulfocarb	52888-80-9		Used to kill broad leaved weeds in wheat.
Group-11 Cyclohexandiones/Nitro Phenyl Ether Herbicides/Monothiocarbamic Ester/ Triazinone Herbicides / Cyclohexane Oxime				
178	Quinclorac	84087-01-4	50	Used as various types of turf grasses to kill a variety of hard-to-control weeds
179	Benfuresate	68505-69-1		Used for post-emergence control of grass and broad-leaved weeds
180	Metamitron	41394-05-2		Widely used in Italy for weed control in sugar beets.
181	Metribuzin	21087-64-9		Used to Selectively Control Certain Broadleaf Weeds and Grassy Weed Species
182	Atrazine	1912-24-9		Used as an herbicide to control weeds in corn, asparagus, tomato, potato, and ornamental plantings
183	Imazethapyr	81335-77-5		For control of wide variety of broad leafweed species
Group-12 Aryloxyphenoxypropionates/ Aryloxyphenoxypropionic/ Aniline /Pyridine/Ppo- Diphenyl Ethers / Phenyl Ether /Phenoxy Carboxylic Acid / Pyridine / Nitro Phenyl Ether-15 /Aromatic Ketone				
184	Clodinofof Propargyl	105512-06-9	200	Widely used as an herbicide for the control of annual

			grass weeds in cereal crops
185	Quizalofop (T) & Quizalofop Ethyl (T)	76578-12-6 & 76578-14-8	Used to control annual and perennial grass weeds in potatoes, soybeans, sugar beets, peanuts vegetables, cotton and flax, Herbicides
186	Cyhalofop & Cyhalofop Butyl (T)	122008-78-0 & 122008-85-9	Used for post emergence grass weed control in rice
187	Chlorazifop (T) & Chlorazifop Propargyl (T)	60074-25-1 & 72880-52-5	Used as the propargyl variant
188	Fenoxaprop (T) & Fenoxaprop P Ethyl (T)	95617-09-7 & 71283-80-2	An herbicide which is selective against Perennial and annual grass weeds in many crops.
189	Fluazifop (T) & Fluazifop P Butyl	69335-91-7 & 79241-46-6	Used as A Post-Emergence Herbicide for The Control Grass Weeds in Various Broad-Leaved Crops
190	Haloxifop (T) & Haloxifop Methyl	69806-34-4 & 72619-32-0	Use for the control of a wide range of grasses and broadleaf weeds as per Directions for Use
191	Quizalofop-P-Tefuryl	119738-06-6	Use for the control of annual grass and broad-leaved weeds in a variety of crops
192	Haloxifop Ethoxy Ethyl (Etotyl)	87237-48-7	Use to control annual and perennial grasses in sugar beet, oilseed, potatoes, leaf vegetables, onions, sunflowers, strawberries, and other crops.
193	Oxadiargyl	39807-15-3	Very effective for

			control of grasses, sedges, and some broad leaf weeds in Rice.
194	Propanil	709-98-8	Used as an Herbicide to control numerous grasses and Broad-Leaved weeds in Rice, Potatoes and Wheat.
195	Isoproturon	34123-59-6	Herbicide for Control of Annual Grasses and Broad-Leaved Weeds
196	Metamifop (T)	256412-89-2	Used for preventing and treating almost broadleaf weeds, grassy weeds and nutgrass flats edge
197	Picolinafen (T)	137641-05-5	Used as an herbicide for the control of broad-leaved weeds in cereal crops
198	Sulfentrazone	122836-35-5	Herbicide to control broadleaf and grass weed species in soybeans, sugarcane, tobacco, and several species of turfgrass.
199	Flufenacet	142459-58-3	Use for control of many annual grasses and certain broadleaf weeds in field corn, white corn, corn grown for silage, field corn grown for seed, sweet corn, and soybeans.
200	Cloransulam-Methyl	220899-03-6	Herbicide to control broadleaf weeds in soy beans
201	Diflufenican	83164-33-4	Used for The Control of Broadleaf Weeds And A Few Annual Grasses in Winter

			Cereals
202	Aclonifen	74070-46-5	Herbicide to control broadleaf and grass weed species in Carrot.
203	2,4-D Amine Salt	217-915-8 & 2008-39-1	Used to Regulate the Growth of Citrus Plants
204	Acifluorfen (T)	50594-66-6	Used for control of broadleaf weeds in soybeans, peanuts, rice, ornamentals
205	Chlomethoxyfen (T)	32861-85-1	Use in Agrochemicals
206	Fluoroglycofen (T)	77501-90-7	Herbicide used in vineyards to eradicate weeds
207	Lactofen (T)	77501-63-4	Used as A Post emergence Herbicide for The Control of Broadleaf Weeds in Soybean (Glycine Max) Fields
208	Oxyfluorfen (T)	42874-03-3	Used for broad spectrum pre- and post-emergent control of annual broadleaf and grassy weeds in a variety of tree fruit, nut, vine, and field crops
209	Fluoroxypyr-Meptyl	81406-37-3	Used to destroy unwanted vegetation, especially various types of weeds, grasses (POACEAE), and woody plants
210	Picloram	1918-02—1	Used in the control of broad-leaf weeds
211	Triclopyr – Butotyl	64700-56-7	Used to control a wide variety of woody plants as a foliar spray
Group-13			

Aryloxyphenoxypropionates/ Aryloxyphenoxypropionic/ Aniline /Pyridine/Ppo- Diphenyl Ethers / Phenyl Ether /Phenoxy Carboxylic Acid / Pyridine / Nitro Phenyl Ether 15/Aromatic Ketone				
212	Sulcotrione	99105-77-8	100	Herbicide Commonly used in com production as well as on Maize cultivar wax.
213	Tefuryltrione	473278-76-1		Used in paddy of killing weeds
214	Mecoprop	93-65-2		Used to Control Broad-Leaved Weeds
215	2,4-D Acid	94-75-7		Used to Kill Any Dicot Plant Tissue
216	2,4-D Ethyl Ester	533-23-3		Widely used in northern India against broad-leaf weeds in cereal crops, lawns and parks
217	2,4-D Sodium Salt	2702-72-9		Used to selective systemic herbicide for the control of broad-leaved weeds
218	Cloquintocet Mexyl (T)	99607-70-2		Used to prevent damage to target crops due to phytotoxic effects
219	Propaquizafop	111479-05-1		Used as Systemic Herbicide for Annual and Perennial Grasses
220	Carfentrazone	128639-02-1		Used in agricultural settings to control broadleaf and sedge weeds in various grains and crops.
Group- 14 Plant Growth Regulators & Rodenticides/HPPD Inhibitors/ OTHERS/ Triazines / PGR/Pyrazoles				
221	Chlormequate Chloride	999-81-5	200	Used as Plant Growth Retardant to Produce Plants with Sturdier, Thicker

			Stalks, Facilitating the Harvesting of Ornamental Flowers and Cereal Crops.
222	Ethephone	16672-87-0	Used to Promote Fruit Ripening, Abscission, Flower Induction, And Other Responses
223	Forchlorfenuron	68157-60-8	Plant Growth Regulator
224	Mepiquate Chloride	24307-26-4	Used in Agriculture to Reduce Vegetative Growth Including Sprout Suppression in Garlic, Leeks and Onions
225	Bromadiolon	28772-56-7	Used widely for control of commensal and field rodents in many countries
226	Paclobutrazol	76738-62-0	Plant Growth Regulator
227	Tembotrione	335104-84-2	Used as a Post-Emergence Herbicide to Control wide range of Broad Leaved and Grassy Weeds in Corn and other Crops.
228	Mesotrione	104206-82-8	Used as a Selective Herbicide specially in Maize, also used to control broadleaf weeds.
229	Pinoxaden	243973-20-8	Herbicide to control Grass weeds in Cereal crops.
230	Clomazone	81777-89-1	Herbicide to control broadleaf and annual grass in cotton, peas,

				pumpkins, soybeans, sweet potatoes, tobacco, winter Squash and fallow wheat fields.
231	Bentazone	25057-89-0		Used for Selective Control of Broadleaf Weeds
232	Ametryn	834-12-8		Used to destroy unwanted vegetation, especially various types of weeds, grasses (POACEAE), and woody plants
233	Halosulfuron	100784-20-1		Used continuously in sugarcane fields
234	Iodosulfuron Methyl	185119-76-0		Used to control weeds in cereals and other crops
Group- 15				
Advance Specific Pesticide Intermediates (G-1)				
235	Meta Phenoxy Benzaldehyde (MPBAD)	39515-51-0	500	Intermediate for Fenpropathrin, Cycloprothrin, Acrinathrin, Flucythrinate
236	Meta Phenoxy Benzyl Alcohol (MPBAL)	13826-35-2		Used as Intermediate
237	Cypermethric Acid Chloride & it's all Isomers	7726-95-6		Used in the manufacture of Parathyroid class of Pesticides like Cypermethrin, Alphamethrin, Permethrin and Deltamethrin.
238	CCMP (2- Chloro 5- Chloromethyl Pyridine)	70258-18-3		Used as Intermediate
239	CCMT (2- Chloro 5- Chloromethyl Thiazol)	105827-91-6		Used as Intermediate
240	NII (2- Nitro Imino Imidazolidine)	5465-96-3		Used as Intermediate
241	MNIO (2- Methyl 5- Nitro 1,3,5 Oxidiazine)	696-23-1		Used as Intermediate

242	Transfluthrin Acid Chloride	52314-67-7	Used as Intermediate
243	Para Choro Phenyl Iso Valeric Acid Chloride	51631-50-6	Used as Intermediate
244	Propargyl Chloride	624-65-7	Used as an intermediate in organic synthesis
245	1,2,4-Triazol	288-88-0	Intermediate for Fluquinconazole, Triticonazole, Myclobutanil
246	3- Methyl 1,2,4 Triazole	06-01-7170	Used as Intermediate
247	4- Bromo 2- Chlorophenol	3964-56-5	Used as Intermediate
248	5- Chloro 2,3- Difluoro Pyridine (CDFP)	89402-43-7	Used as Intermediate
249	4-4' Bi Pyridine	553-26-4	Formed as a pyrolysis product in tobacco smoke and also from the degradation of the herbicide Paraquat
250	2, 6 Diethyl - N-(Propoxy) Aniline	87-62-7	Used as Intermediate
251	PMIDA/ (Phosphono Methyl Imino) Diacetic Acid	5994-61-6	Used as Intermediate
252	2-Chloro-4-(4-Chlorophenoxy) Phenacyl Bromide	112110-16-4	Used as Intermediate
253	2,4 Dichloro Velerophenone	61023-66-3	Used as Intermediate
254	1-(4-Chloro Benzyl) Methyl-3,3-Methyl-2-Oxo Cyclopentane Carboxylate	80969-68-2	Used as Intermediate
255	Tebu- Ketal / 2-[2-(4-Chlorophenyl) Ethyl]-2-(1,1-DiMethyl Ethyl) Oxirane	80443-63-6	Used as Intermediate
256	Methyl-2- [2-(6-Chloro Pyrimidine-4-yl) Oxyphenyl-3-Methoxyprop-2-Enoate	131860-97-4	Used as Intermediate
257	1,1-Di Chloro Pinacolin	22591-21-5	Used as Intermediate
258	Thiocarbo Hydrazine	2231-57-4	Used to make pesticides and other agricultural chemicals
259	2- Hydroxy 4- Methyl Benzotioate (HMBT)	20174-68-9	Used as Intermediate
260	4-Nitro -O-xylene/3-Nitro O-Xylene	99-51-4	Used as Intermediate

Group- 16				
Advance Specific Pesticide Intermediates (G-2)				
261	Lambda Cyhalothric Acid Chloride	72748-35-7	50	Used to control a wide range of pests
262	4-HPPA- 4- (Hydroxy phenoxy) Propionic Acid	67648-61-7		Pesticide Intermediate
263	PEG Ester	1603-79-8		Used as Intermediate
264	Triazinone - 4- Amino 3-Mecapto- 6-t-Butyl -1,2,4-triazine-5-one (AMBT)	33509-43-2		Used as Intermediate
265	DETCL	01-04-2524		Used in the preparation of various organo phosphorus insecticide
Specialty Chemicals				
Group- 17				
Amino Diphenyl Ether / Phenoxy Compounds/ Specialty Phenols/ Specialty Chloro Phenol/ Amino Benzoic Esters / Aliphatic Esters/ Amino Compounds / Hydrogenation Compounds				
266	2-Amino Di Phenyl Ether (Ortho Amino Di Phenyl Ether	2688-84-8	300	--
267	4-Amino 4'- Methyl Di Phenyl Ether	41295-20-9		--
268	2- Amino 2', 4, 4'- Tri Chloro Di Phenyl Ether (Benzinamide, 5-Chloro-2-2 (2,4-Dichloro Phenoxy)	56966-52-0		--
269	2- Amino -4'- Chloro -4 - Trifluoromethyl Di Phenyl Ether	349-20-2		--
270	2-Chloro-4-(4-Chlorophenoxy) Acetophenone/4-Acetyl-3,4'- Dichloro Diphenyl Ether	119851-28-4		--
271	2-Acetyl-2',4,4'-Trichloro Diphenyl Ether	211125-94-9		--
272	5 Chloro-6-(2,3 Dichloro Phenoxy)-2-Methyl Thio -1H Benzimidazole/Triclabendazole	68786-66-3		Pharma Intermediate, veterinary drug intermediate
273	2, 4-Dichloro Phenol	576-24-9		Pharma Intermediate
274	2, 5-Dichloro Phenol	583-78-8		Chemical Intermediate
275	3-Mehtyl Phenol (m-Cresol)	108-39-4		Pharma Intermediate
276	3-Nitro Phenol	554-84-7		Chemical Intermediate; Chemical Indicator

				for Slightly Basic Soln; Chem Intermediate for Other Org Cmpd
277	4-Bromo 2, 5 Dichloro Phenol	1940-42-7		--
278	4-Fluoro Phenol	371-41-5		Pharma Intermediate
279	O-Cyano Phenol	611-20-1		Intermediate for Pesticide and synthetic Organic Chemicals
280	Ortho Nitro Phenol	88-75-5		Drug & Dyes intermediate
281	Para Fluoro Anisole	459-60-9		Drug intermediate
282	2- Chloro 4-Fluoro Phenol	1996-41-4		--
283	3-Amino 4-Methyl Benzoic Acid Isopropyl Ester (AMBI)	21447-47-2		--
284	3-Amino 4-Methyl Benzoic Acid (2' - Chloro Ethyl Ester) (AMBC)	2458-12-0		--
285	3-Amino Benzotrifluoride	98-16-8		Pharma Intermediate, veterinary drug intermediate
286	2, 5-Dichloro Aniline	95-82-9		Dyes Intermediate
287	Ortho Phenylene Diamine/ Meta Phenylene Diamine/ Para Phenylene Diamine	95-54-5/108-45-2/106-50-3		Intermediate, Used as a chemical intermediate, analytical reagent, and photographic developer
288	Benzaldehyde	100-52-7		Used as a flavouring agent in food and perfume additive
Group-18 Research & Development Based Products				
289	Research & Development Based Products		100	
	TOTAL		3200	

- 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 there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River Narmada is flowing at a distance of 12.96 km in SSE direction from the project site. There is no forest land involved in the proposed project. Schedule-I species i.e., *Herpestes*

edwardsii - Grey Mongoose, *Ptyas mucosus*- Rat snake, *Felis chaus*- Jungle Cat, *Pavo cristatus*-Indian Peafowl, were observed in the 10 km radius from the proposed project for which conservation plan has been prepared and submitted to Deputy Conservator of Forests dated 5.1.2023

7. The PP reported that **Ambient air quality monitoring** was carried out at 08 locations during 01st March 2022 to 31st May 2022 and the baseline data indicate the ranges of concentrations as: PM₁₀ (55.4 – 73.4 µg/m³), PM_{2.5} (27.1 – 38.8 µg/m³), SO₂ (6.0 – 12.1 µg/m³) and NO_x (10.0 – 21.3 µg/m³). During the monitoring CO, NH₃, H₂S, HCl, Cl₂, Br₂ & HBr were found in the below the detection limit and the same is well within the limit as per NAAQS. AAQ modeling study for point source emissions indicate that the maximum incremental GLCs after the proposed project would be 3.137 µg/m³, 0.614 µg/m³, 0.123 µg/m³ with respect to PM₁₀, SO_x, NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise** Noise level monitoring was carried out at 08 locations during 01st March 2022 to 31st May 2022. Out of total 8 nos. of locations for noise monitoring, 1 no. of location was in the industry premises, 3 no. of locations were within the silence zone and remaining 4 nos. of locations were in residential & commercial areas of surrounding villages within 10 km radius from the project site. Noise levels in all the locations were found within the standard norms prescribed by MoEFCC.
8. **Ground water quality sampling** was carried out at 08 locations during 01st March 2022 to 31st May 2022 and based on comparison study of test results and summary report with drinking water norms, it is interpreted that the ground water sample collected from the all the can be used in drinking purpose in absence of alternate source except Ankot village, Juned Village and Amleshwar village. The parameters of all the locations except these three villages ground water sample meet with the permissible limit of drinking water as per IS: 10500:2012. Ground water samples collected from all locations can be used in other domestic purpose and irrigation activity. The wastewater generated from the proposed project will be sent to the CETP, Saykha for further treatment and disposal. Hence there will be no chance of surrounding ground water contamination due to the proposed project. It is suggested that no treated or untreated effluent shall be discharge on land in any condition and treated sewage after conforming the irrigation standard shall be used for gardening purpose. Surface water quality sampling was carried out at 08 locations during 01st March 2022 to 31st May 2022 and based on test result data comparison study with CPCB standard, it is interpreted that surface water quality meet with the criteria D and E, it means these water sources can be used for propagation of wild life, fisheries and Irrigation, industrial, cooling, controlled waste disposal. Results of COD and BOD indicate towards the organic contamination in surface water body and the same can be identified from the sampling images. DO level for all the locations are >4.0 mg/L. DO level >4.0 mg/L is considered suitable for the survival of aquatic life and <4.0 mg/L is not considered suitable for aquatic life survival. The wastewater generation from the proposed project will be sent to the CETP, Saykha for the further treatment and there will be no treated or untreated water will be discharge on surface water body. Hence there will be no changes in surface water quality due to proposed project. Soil quality sampling was carried out at 08 locations during 01st March 2022 to 31st May 2022 and based on soil analysis data it is concluded that surface soils are neutral in reaction, saline, but non-sodic. The soils are medium to high in nitrogen, low to medium in phosphorus, while

very high in potassium status. The levels of total Fe, Cu, Cr, B and Zn are within the safe limits. However, for successful greenbelt development liberal quantity of organic manure (50 tons/ha) and double the quantity of recommended doses of N and P fertilizers should be applied. The soil should be periodically monitored for EC, pH and ESP.

9. The PP reported that the total water requirement is 1476.00 KLD of which fresh water requirement of 1033 KLD will be met from GIDC water supply department, Saykha. From the proposed plant, total 650 KLD of industrial wastewater will be generated. Out of which 35 KLD Cooling Tower blowdown & 20 KLD Boiler blowdown will be treated RO Plant. RO permeate (45 KLD) will be used in Cooling tower. Remaining, 585 KLD wastewater from process & product washing (515 KLD), scrubber (35 KLD), floor/vessel washing (25 KLD) and RO reject (10 KLD) will be treated in primary & Fenton treatment, 575 KLD of effluent will be taken to MEE & ATFD. About 125 KLD of steam will be used for MEE & ATFD. Thus, total 627 KLD of condensate will be generated, which will be treated in secondary & tertiary ETP and discharge into CETP Saykha for further treatment and disposal. Domestic sewage (18.0 KLD) will be treated in STP and STP treated will be utilized for plantation.
10. The power requirement will be 4000 kVA and will be met from Dakshin Gujarat Vij Co. Ltd. (DGVCL). Unit has proposed 02 D. G. set which will have capacity of 1000 kVA and it will be kept as standby and used during power failure or during emergency. Stack (height 11.00 m) is proposed as per CPCB norms for the D. G. Set. For the proposed plant, 1 no. of 20 TPH capacity of coal/briquettes fired steam boiler, 1 no. of 15 lakhs kcal/hr. capacity of coal/briquettes fired thermic fluid heater will be installed. Adequate capacity of ESP followed by wet scrubber with 55 meters height of chimney will be provided to coal/briquettes fired steam boiler and adequate capacity of Multi Cyclone Separator followed by bag filter and wet scrubber with 33 meters height of chimney will be provided to coal/briquettes fired thermic fluid heater for controlling the particulate emissions within the statutory limit of 115 mg/Nm³

11. **Details of Process Emissions Generation and its Management:** From the proposed manufacturing process HCl, Cl₂, SO₂, H₂S, Br₂, HBr and Ammonia gas will be generated. For the scrubbing of HCl, Cl₂, HBr & Br₂ two stage water followed by alkali scrubber will be provided. To scrub Ammonia gas, two stage water followed by acid scrubber will be installed. To scrub H₂S and SO₂ gas two stage alkali scrubber will be installed. Acid mist from acid storage tanks will be scrubbed in two stage alkali scrubber. 11 meters height will be provided to each process stack.

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

S. No.	Type of hazardous waste	Schedule & Category	Quantity, TPA	Source of generation Proposed	Disposal
1.	Discarded Containers / Bags / Liners	Sch-I/33.1	200	Storage & handling of Raw Materials	Collection, Storage, Transportation,

					Decontamination & Disposal by selling to registered recycler.
2.	Used / Spent Oil	Sch-I/ 5.1	0.5	Equipment & Machineries	Collection, Storage, Transportation, Decontamination & Disposal by selling to registered recycler.
3.	ETP Sludge	Sch-I/35.3	3,240.0	In-house ETP	Collection, Storage, Transportation and disposal at common nearest TSDF site
4.	MEE Salt	Sch-I/ 28.1	25,200.0	Process	Collection, Storage, Transportation and disposal at common nearest TSDF site
5.	Recovered Solvent	Sch-I/ 28.6	1059967.8	Process	Collection, Storage, Management & Recovery within the premises and reuse in plant premises.
6.	30% Hydrochloric Acid Solution	Sch-I/ 28.1	62,435.4	Process (Metofluthrin, Nitenpyram, Imazalil Pymetrozine, Prothioconazole, Tiadinil, Dimoxystrobin, Benalaxyl, Imazapyr, Desmedipham, Picloram, Mecoprop, Iodosulfuron-Methyl, Cypermethric Acid Chloride, Triazinone, Benzaldehyde, Cycloprothrin,	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.

				Flumethrin, Acrinathrin, Tefluthrin, Ethiprole, Dinotefuran, Nitenpyram, Azaconazole, Bromuconazole, Etazonazole, Penconazole,)	
7.	Sodium Bromide Salt	Sch-I/ 28.1	4,344	Process (Etofenprox, Etoxazole)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
8.	20% Sodium Sulphite Soln	Sch-II- Class B(15)	1,56,708	Process (Fenpropathrin, Flonicamid, Tebufenpyrad, Metrafenone, Tiadinil, Bixafen, Imazamox, Diflufenican, Carfentrazone, Cypermethric Acid Chloride, Lambda Acid Chloride, O-Cyano Phenol)	Collection, Storage & reuse in manufacturing Plant excess quantity will be sold to end users having Rule 9 Permission.
9.	Sodium Chloride Salt	Sch-I/ 28.1	9,705	Process (Flucythrinate, Nitenpyram, Pymetrozine, Pyrethriobac Sodium, Etoxazole, Kresoxim Methyl, Trifloxystrobin, Isoprothiolane, Imazapyr, Fenoxaprop P Ethyl, Methyl-2- [2-(6-Chloro Pyrimidine-4-yl) Oxyphenyl-3-Methoxyprop-2-Enoate, DETCI, 4-Amino-4'-Methyl Diphenyl Ether)	Collection, Storage, Transportation and disposal at common nearest TSDF site.
10.	Liq. Ammonia	Sch-II- Class B(15)	23,142.0	Process (Etofenprox ,1,2,4 Triazole)	Collection, Storage & reuse in manufacturing Plant excess

					quantity will be sold to end users having Rule 9 Permission.
11.	Distillation Residue/tarry waste/organic Residue	Sch-I/ 36.1	18,055.2	Process (Etofenprox, Cyantraniliprole, Pyrethiobac Sodium, Tebuconazole, Tiadinil, Fenhexamide, Ametryn, Mandipropamid, Metribuzine, Tefuryltrione, 4-Nitro O-Xylene/3-Nitro O-Xylene, Triazinone, 3-Methyl Phenol (Meta-Cresol))	Collection, Storage, Transportation and sent for co-processing in cement industries or common incineration facility.
12.	Mix Salt/Inorganic Salt	Sch-I/28.1	15,710.4	Process (Thioclopid, Glufosinate Ammonium, Picloram, Cloquintocet Mexyl, Pinoxaden, Chloro Difluoro Pyridine)	Collection, Storage, Transportation and disposal at common nearest TSDF site
13.	Sodium Bromide Solution	Sch-II- Class B(15)	35,618.4	Process (Cyantraniliprole, Ethion, Chlormethoxyfen, Paclobutrazol, P- Chloro Isoverallic Chloride, 4- Fluoro Anisole)	Collection, Storage & reuse in manufacturing Plant excess quantity will be sold to end users having Rule 9 Permission.
14.	Recovered Catalyst	Sch-I/ 28.6	1,150.8	Process (Deltamethrin, Indoxacarb, Pymetrozine, Cyproconazole, Metominostrobin, Fenhexamid, Glyphosate, Sulfentrazone, Carfentrazone, m-Phenoxy Benzyl Alcohol, 4-Fluoro Anisole)	Collection, Storage, Transportation and sent for co-processing in cement industries or common incineration facility.
15.	Ammonium Chloride Soln	Sch-I/28.1	5,507.4	Process (Flonicamid, Pymetrozine, Kresoxim Methyl, Dimoxystrobin, Fomesafen, Metamitron,	Collection, Storage & reuse in manufacturing Plant excess

				3- Methyl 1,2,4 Triazole)	quantity will be sold to end users having Rule 9 Permission.
16.	Ammonium Chloride Solid	Sch-I/28.1	276.0	Process (PEG / PMG Ester)	Collection, Storage & reuse in manufacturing Plant excess quantity will be sold to end users having Rule 9 Permission.
17.	Sodium Sulfate Soln	Sch-I/28.1	33,145.8	Process (Flonicamid, Triclopyricarb, Trifloxystrobin, Napropamide, Metribuzine, 2-Nitro Imino Imidazolidine (NII), Triclabendazole)	Collection, Storage & reuse in manufacturing Plant & excess quantity will be sold to end users having Rule 9 Permission.
18.	N, N-Bis (Dichloromethyl) Methyl Amine	Sch-I/28.1	309.0	Process (Clothianidin)	Collection, Storage & reuse in manufacturing Plant & excess quantity will be sold to end users having Rule 9 Permission.
19.	Methyl Acetate	Sch-I/28.1	207.0	Process (Pymetrozine)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
20.	Sodium Hydrosulfide Solution (20%)	Sch-I/28.1	1,867.2	Process (Malathion, Triazinone)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
21.	Ammonium	Sch-I/28.1	211.2	Process (Acephate)	Collection,

	Acetate				Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
22.	30% Hydrobromic Acid Solution	Sch-II- Class B(15)	21.031.2	Process (Phenthoate, Triadimefol, Napropamide, Haloxyfop, 4- Bromo 2-Chloro Phenol, 4-Bromo-2,5-Dichloro Phenol)	Collection, Storage & reuse in manufacturing Plant & excess quantity will be sold to end users having Rule 9 Permission.
23.	Sodium Ethoxide	Sch-I/28.1	532.8	Process (Pyriithiobac Sodium)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
24.	Ethyl Alcohol	Sch-I/28.3	324.0	Process (Spiromesifen)	Collection, Storage & reuse in manufacturing Plant & excess quantity will be sold to end users having Rule 9 Permission.
25.	Sodium Methyl Sulfate	Sch-I/28.1	1,334.4	Process (Tebufenpyrad)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
26.	Spent Sulphuric Acid	Sch-I/28.1	65,398.2	Process (Lufenuron, Captan, Quinclorac, Carfentrazone, Cypermethric Acid Chloride, 3-Methyl	Collection, Storage & reuse in manufacturing Plant & excess quantity will be sold to end users

				Phenol (Meta- Cresol))	having Rule 9 Permission.
27.	20 % Aluminium Chloride Soln	Sch-I/28.1	90,480	Process (Hexaconazole, Clethodim, m-Phenoxy Benzaldehyde, 2-Chloro-4-(4-Chlorophenoxy) Acetophenone)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
28.	Potassium Bromide Soln. (27%)	Sch-II- Class B(15)	3,774.0	Process (Hexaconazole, Triclopyricarb, 2, - Chloro-4-(4-Chlorophenoxy) Phenacyl Bromide)	Collection, Storage & reuse in manufacturing Plant & excess quantity will be sold to end users having Rule 9 Permission.
29.	Pottasium Methyl Mercaptide	Sch-I/28.1	720.0	Process (Cyproconazole)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
30.	Potassium Chloride salt	Sch-I/ 28.1	4,140.0	Process (Epoconazole, Picoxystrobin, Fluoxastrobin, Cyazofamid, Toprammezone, Methyl-2- [2-(6-Chloro Pyrimidine-4-yl) Oxyphenyl-3-Methoxyprop-2-Enoate)	Collection, Storage & reuse in manufacturing Plant & excess quantity will be sold to end users having Rule 9 Permission.
31.	Potassium Bisulphate	Sch-I/ 28.1	571.2	Process (Epoconazole)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
32.	Methane Soln.	Sch-I/ 28.2	624.0	Process (Tetraconazole)	Collection, Storage,

					Transportation & Disposal by selling to authorized end user registered under Rule-9.
33.	Magnesium Bromide	Sch-I/ 28.3	715.2	Process (Bromuconazole)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
34.	Potassium BI Carbonate	Sch-I/ 28.4	1,368.0	Process (Bromuconazole, Cyazofamid)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
35.	Methane Sulfonic Acid Sodium Salt	Sch-I/ 28.5	2,517.6	Process (Penconazole, Mandipropamid)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
36.	Sodium Carbonate	Sch-I/ 28.6	3,150.0	Process (Picoxystrobin, Methyl-2- [2-(6-Chloro Pyrimidine-4-yl) Oxyphenyl-3-Methoxyprop-2-Enoate)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
37.	Sodium Bi Sulphate	Sch-I/ 28.7	2,425.2	Process (Kresoxim Methyl, Dimoxystrobin, Halosafen, Fenoxaprop P Ethyl)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered

					under Rule-9.
38.	Succinamide	Sch-I/ 28.8	504.0	Process (Triclopyricarb)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
39.	Methyl Bisulfate	Sch-I/ 28.9	180.0	Process (Trifloxystrobin)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
40.	Acetic Acid	Sch-I/ 28.1	458.4	Process (Fluopyram)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
41.	Potassium Phenolate	Sch-I/ 28.1	648.0	Process (Sulfosulfuron)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
42.	Ammonium Sulphate	Sch-I/ 28.1	4,776.0	Process (Prosulfocarb, 2-Hydroxy-4-Methyl Benzotioate (HMBT))	Collection, Storage & reuse in manufacturing Plant & excess quantity will be sold to end users having Rule 9 Permission.
43.	Sodium Fluoride	Sch-I/28.1	314.4	Process (Cyhalofop- Butyl)	Collection, Storage, Transportation & Disposal by

					selling to authorized end user registered under Rule-9.
44.	Sodium Hydroxide Solution	Sch-I/28.1	12,721.2	Process (Sulfentrazone, Carfentrazone, 3-Methyl 1,2,4 Triazole)	Collection, Storage & reuse in manufacturing Plant & excess quantity will be sold to end users having Rule 9 Permission.
45.	Methylene Chloride	Sch-I/28.1	4,646.4	Process (Sulcotrione)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
46.	Sodium salt of Formic Acid	Sch-I/28.1	1,089.6	Process (Mepiquate Chloride)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
47.	Phosphoric Acid (35%)	Sch-I/28.1	15,660.0	Process (CCMP)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
48.	8 – 10 % Sodium Hypochlorite Solution	Sch-II-Class B(15)	1,044.0	Process (1,1-Dichloro Pinacolin, 2-Chloro-4-Fluorophenol)	Collection, Storage & reuse in manufacturing Plant & excess quantity will be sold to end users having Rule 9 Permission.
49.	Spent Nitric Acid	Sch-I/28.1	9,720.0	Process (4-Nitro O-	Collection,

				Xylene/3-Nitro O-Xylene)	Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
50.	30% Sodium Bi Sulfide Solution	Sch-I/28.1	2,340.0	Process (Triclabendazole)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
51.	Iron Hydroxide	Sch-I/28.1	6,264.0	Process (2,5-Dichloro Aniline)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
52.	Sodium Benzoate (10% Soln)	Sch-I/28.1	1,800.0	Process (Benzaldehyde)	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
53.	Off specification products	Sch-I/ 36.1	250.0	Storage & handling of Products	Collection, Storage, Transportation and sent for co-processing in cement industries or nearest incineration site.
54.	Date expired products	Sch-I/ 36.1	250.0	Storage & handling of Raw Materials and Products	Collection, Storage, Transportation and sent for co-processing in cement industries

					or nearest incineration site.
NON HAZARDOUS WASTE					
55.	STP sludge	-	10	STP	Collection, storage and use as manure within the premises.
56.	Fly ash	-	2,205	Boiler house	Collection, storage, transportation and sell to brick manufacturer.

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 2199.00 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 5277.00 Lakhs per annum. Industry proposes to allocate Rs. 375.00 Lakhs towards CER.
14. Industry will develop greenbelt over an area of 34.94 % i.e., 20,000.00 m² area out of total area of the project.
15. The PP reported that the Public Hearing is exempted as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 as the project site is located within Saykha Industrial Estate of PCPIR, which was granted EC by the Ministry vide letter dated 14.9.2017.
16. The PP proposed to set up an Environment Management Cell (EMC) by engaging EHS manager- Deputy Manager- Technical manager- Engineer-Supervisor- Assistant for the functioning of EMC.
17. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.
18. The estimated project cost is Rs. 250.00 Crores Total Employment will be 150 persons as direct & 50 persons indirect persons

19. **Deliberations by the EAC:**

The PP apprised that the Carbon footprint & sequestration study and LCA (cradle to grave) are under preparation. The EAC noted that these are mandatory studies required for the consideration of the proposal. Hence, the same needs to be submitted.

Further, the PP may explore the use of agro briquettes as a primary fuel and coal as a secondary fuel during the unavailability of agro briquettes. The phasing out of coal may also be explored.

In view of above, the EAC **deferred** the proposal.

GENERAL EC CONDITIONS

- 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.
- The PP 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.
- The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- 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).
- 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.
- 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.
- A copy of the clearance letter shall be sent by the PP 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.
- The PP 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.
- 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.

- The PP 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.
- 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.
- 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.

List of the Expert Appraisal Committee (Industry-3) members participated during Video Conferencing (VC) meeting

S. No.	Name of Member	Designation
1.	Prof. (Dr.) A.B. Pandit Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India Email: ab.pandit@ictmumbai.edu.in	Chairman
2.	Dr. Ashok Kumar Saxena, IFS Bungalow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
3.	Prof. (Dr.) S. N. Upadhyay Research Professor (Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail: snupadhyay.che@iitbhu.ac.in	Member
4.	Dr. Suresh Panwar House No.4, Gayateri Green Society, NH 58 Bypass, Kankerhera, Meerut, Uttar Pradesh Email- spcpri@gmail.com	Member
5.	Shri Tukaram M Karne "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member
6.	Shri Dinabandhu Gouda Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032 E-mail: dinabandhu.cpcb@nic.in	Member

7.	Dr. M. Ramesh Scientist 'E' Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. V-203, Vayu Wing, Jor Bagh Road, New Delhi-110003 Tel. 011-20819338 E-mail: ramesh.motipalli@nic.in	Member Secretary
----	--	---------------------

MOM approved by



(Prof. Aniruddha B. Pandit)
Chairman
