सत्यमेव जयते

File No: J-11011/253/2015-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
****

Date **15/11/2023**

To,

SHRI. KAMLESHWAR PRASAD UNIYAL
M/s BHARAT RASAYAN LIMITED
2 KM STONE, MADINA MOKHRA ROAD, VILLAGE-MOKHRA, TEHSIL-MAHAM, DISTT. ROHTAK, HARYANA-124022
kpuniyal@bharatgroup.co.in

Subject: **Proposed change in the product mix of the Existing Pesticides unit (production capacity-4260 TPA) and By-Products (23541.05 TPA to 23427.02 TPA) located at Plot Nos. 77, 331, 280/1, 258, 216, 250, 310 & 70 at 2 KM Stone, Madina-Mokhara Road, Village Mokhra, Tehsil Meham, Dist. Rohtak, Haryana by M/s Bharat Rasayan Ltd. - Consideration of EC-Reg.**

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/HR/IND3/440553/2023 dated for grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC23A2002HR5281857N
(ii) File No.	J-11011/253/2015-IA-II(I)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	5(b) Pesticides industry and pesticide specific intermediates (excluding formulations)
(vi) Sector	Industrial Projects - 3
(vii) Name of Project	Expansion of Pesticides Technical Manufacturing Unit
(viii) Name of Company/Organization	BHARAT RASAYAN LIMITED BRL
(ix) Location of Project (District, State)	ROHTAK, HARYANA
(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

1. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A, B and C)/ EIA & EMP Reports were submitted to the MoEF&CC for an appraisal by the Expert Appraisal Committee (EAC) Industry-III under the provision of EIA notification 2006 and its subsequent amendments.
2. The above-mentioned proposal has been considered by Expert Appraisal Committee (EAC) Industry-III in 64th EAC meeting held on 13th September, 2023. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed from the PARIVESH portal by scanning the QR Code above or through the following web link https://parivesh.nic.in//utildoc/11562883_1695301455967.pdf.
3. The brief about configuration of products and byproducts as submitted by the Project Proponent in Form-1 (Part A, B and C)/ EIA & EMP Reports / presented during Expert Appraisal Committee (EAC) Industry-III are annexed to this EC as Annexure (1).
4. TheExpert Appraisal Committee (EAC) Industry-III in 64th EAC meeting held on 13th September, 2023 , based on information submitted viz: Form 1 (Part A, B and C), EIA/EMP report etc & clarifications provided by the project proponent and after detailed deliberations on all technical aspects and compliance thereto furnished by the Project Proponent, recommended the proposal for grant of Environment Clearance under the provision of EIA Notification, 2006 and as amended thereof subject to compliance of Specific and Standard EC conditions as given in this letter.
5. The MoEF&CC has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the Expert Appraisal Committee hereby accords Environment Clearance to the instant proposal of **M/s Bharat Rasayan Ltd.** under the provisions of EIA Notification, 2006 and as amended thereof subject to compliance of the Specific and Standard EC conditions as given in Annexure (1)
6. The Ministry reserves the right to stipulate additional conditions, if found necessary.
7. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
8. The Project Proponent is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.
9. Validity of EC is upto Ten years from the date of issuance of this EC. Validity of EC becomes perpetual subject to the start of production operations by the project or activity on or before the validity period. In case the project proponent fails to start the production operations within the EC validity date, application for EC validity extension shall be submitted to the regulatory authority as per the provision contained in the Para 9.0 of EIA notification, 2006 and its amendment.
10. General Instructions:

    (a) The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.
    (b) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
    (c) The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.
    (d) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during perational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.
    (e) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
    (f) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data /

information/monitoring reports.

(g) Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

11. This issues with the approval of the Competent Authority

Copy To

1. The Member Secretary, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula, Haryana.
2. Deputy Director General of Forests (C), Ministry of Env., Forest and Climate Change, Integrated Regional, Office, Bays No. 24-25, Sector 31 A, Dakshin Marg, Chandigarh — 160030
3. Additional Chief Secretary, Directorate Environment & Climate Change Haryana, Govt. of Haryana, 2nd Floor, Bays No. 55-58, Prayatan Bhawan, Sector-2, Panchkula, Haryana-134117
4. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 32
5. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
6. The District Collector, District **Rohtak**, Haryana
7. Guard File/Monitoring File/Website/Record File

Annexure 1

Specific EC Conditions for (Pesticides Industry And Pesticide Specific Intermediates (Excluding Formulations))

1. Specific Conditions

S. No	EC Conditions
1.1	1. The PP shall maintain greenbelt over an area of at least 16068.65 m^2 (36.10%). 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. 2. A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage VP operations- Environment cell- Health and safety cell- Mnager EHS- dy. Manager EHS- Supervisior- Helper- Medical officer- safety officer- supervisior. 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. 3. The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is 12.77 Crores (Capital cost) and 9.78 Cr 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 &

S. No	EC Conditions
	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. 4. The total water requirement shall not exceed 318 KLD, out of which, 235 KLD shall be freshwater requirement from ground water source and 83 KLD shall be treated water requirement (50 KLD from ETP & 33 KLD from STP). The PP shall ensure that water supply should not be exceed the permissible limit as mentioned in the letter and fresh water from ground water shall be withdrawn only after obtaining requisite permission from CGWA. The PP shall 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. 5. Biomass / LPG shall be used as a fuel in the Boiler and TFH. 6. The total trade effluent from the production activities shall increase from 49.61 KLD to 53 KLD which shall be treated in ETP. 53 KLD trade effluent shall be treated in effluent treatment plant of capacity 100 KLD comprising of neutralization, evaporation, biological treatment, filtration, RO plant to achieve 100% treated water reuse in process. Sewage of about 35 KLD shall be sent to the STP and treated water from STP of about 33KLD shall be used for gardening. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises. 7. 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. 8. 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. 9. 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. 10. 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. 11. 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. 12. 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. 13. 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. 14. 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. 15. 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. 16. 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

S. No	EC Conditions
	connected with vent condensers with chilled brine circulation. 17. 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.

Standard EC Conditions for (Pesticides industry and pesticide specific intermediates (excluding formulations))

1.

S. No	EC Conditions
1.1	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.
1.2	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
1.3	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
1.4	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).
1.5	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.
1.6	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.
1.7	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom

S. No	EC Conditions
	suggestions/ representations, if any, were received while processing the proposal.
1.8	The project proponent shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
1.9	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.
1.10	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
1.11	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.
1.12	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.

Additional EC Conditions

(i) Two stage Scrubbers shall be provided to control process emissions viz. HCl, HBr, Cl2 and SO2,. The scrubbing media shall be reclaimed or sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

(ii) PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

Annexure 2

Details of the Project

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td>a.</td><td>Details of the Project</td><td>Expansion of Pesticides Technical Manufacturing Unit</td></tr>
<tr><td>b.</td><td>Latitude and Longitude of the project site</td><td>28.90959496385243,76.43079645568805
28.91172068990458,76.43354157980241</td></tr>
<tr><td>c.</td><td>Land Requirement (in Ha) of the project or activity</td><td><table><tr><th>Nature of Land involved</th><th>Area in Ha</th></tr><tr><td>Non-Forest Land (A)</td><td>44.517</td></tr><tr><td>Forest Land (B)</td><td>0</td></tr><tr><td>Total Land (A+B)</td><td>44.517</td></tr></table></td></tr>
<tr><td>d.</td><td>Date of Public Consultation</td><td>Public consultation for the project was held on</td></tr>
<tr><td>e.</td><td>Rehabilitation and Resettlement (R&R) involvement</td><td>NO</td></tr>
<tr><td>f.</td><td>Project Cost (in lacs)</td><td>5200</td></tr>
<tr><td>g.</td><td>EMP Cost (in lacs)</td><td>1247</td></tr>
<tr><td>h.</td><td>Employment Details</td><td></td></tr>
</table>

Details of Products & By-products

Name of the product /By-product	Product / By-product	Existing	Proposed	Total	Unit	Mode of Transport / Transmission
Alphacypermethrin Technical	Product	100	-80	20	Tons per Annum (TPA)	Road
Bifenthrin Technical	Product	120	430	550	Tons per Annum (TPA)	Road
Cypermethrin Technical	Product	350	-330	20	Tons per Annum (TPA)	Road
Fenvalarate Technical	Product	300	200	500	Tons per Annum (TPA)	Road
Fipronil Tech.	Product	100	-50	50	Tons per Annum (TPA)	Road
Lambda Cyhalothrin Tech.	Product	300	250	550	Tons per Annum	Road

Name of the product /By-product	Product / By-product	Existing	Proposed	Total	Unit	Mode of Transport / Transmission
					(TPA)	
Permethrin Tech.	Product	100	-80	20	Tons per Annum (TPA)	Road
Thaimexotham Tech	Product	300	-300	0	Tons per Annum (TPA)	Road
Diafenthiroun Tech.	Product	150	-150	0	Tons per Annum (TPA)	Road
Fluxametamide	Product	0	100	100	Tons per Annum (TPA)	Road
Quinoxyfen Tech	Product	0	100	100	Tons per Annum (TPA)	Road
Clodinafop Tech.	Product	100	-100	0	Tons per Annum (TPA)	Road
Propanil Tech.	Product	50	-50	0	Tons per Annum (TPA)	Road
Pyrazosulfuron Tech	Product	20	-20	0	Tons per Annum (TPA)	Road
Imaizethapyre Tech.	Product	25	-25	0	Tons per Annum (TPA)	Road
Safener	Product	30	-30	0	Tons per Annum (TPA)	Road
Tebuconazole Tech.	Product	50	-50	0	Tons per Annum (TPA)	Road
Difenconazole Tech.	Product	50	-50	0	Tons per Annum (TPA)	Road
Myclobutanil	Product	15	-15	0	Tons per Annum (TPA)	Road
Methaphenoxybenzaldehyde	Product	1800	-500	1300	Tons per Annum (TPA)	Road
Parachlorophenyl Isopropyl Acetic acid	Product	200	0	200	Tons per Annum (TPA)	Road
Parachlorbenzylcyanide	Product	100	0	100	Tons per Annum (TPA)	Road

Name of the product /By-product	Product / By-product	Existing	Proposed	Total	Unit	Mode of Transport / Transmission
Parachlorophenyl Acetic acid	Product	0	20	20	Tons per Annum (TPA)	Road
Meta phenoxy Banzal Acetal	Product	0	130	130	Tons per Annum (TPA)	Road
Pilot plant	Product	0	10	10	Tons per Annum (TPA)	Road
Alum	By-Product	9536.4	-498.16	9038.24	Tons per Annum (TPA)	Road
Pot. chloride	By-Product	5036.5	-471.43	4565.07	Tons per Annum (TPA)	Road
Spent Acid	By-Product	824.95	361.37	1186.3200000000002	Tons per Annum (TPA)	Road
Hydrochloric Acid 28 %	By-Product	2255	-75.6	2179.4	Tons per Annum (TPA)	Road
Sodium Sulphite	By-Product	1402.9	898.15	2301.05	Tons per Annum (TPA)	Road
Potassium Bromide Soln.	By-Product	3726.7	-382.06	3344.64	Tons per Annum (TPA)	Road
Sodium Bromide Soln.	By-Product	758.6	53.7	812.3000000000001	Tons per Annum (TPA)	Road
4-Acetly-2-Methy Benzamide	Product	0	100	100	Tons per Annum (TPA)	Road
3,5-Dichloro-2,2,2-Trifluoro Acetophenone	Product	0	150	150	Tons per Annum (TPA)	Road
Meta bromo Benzaldehyde	Product	0	20	20	Tons per Annum (TPA)	Road

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

Dated: 21.09.2023

MINUTES OF THE 64th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON 13th SEPTEMBER, 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 EAC meeting for further deliberations.

(ii) Details of Agenda items by the Member Secretary

The Member Secretary apprised the Committee about the details of Agenda items to be discussed during this Expert Appraisal Committee (EAC) meeting.

(iii) Confirmation of Minutes of the 63rd EAC Meeting.

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. The EAC confirmed the MoM.

Agenda No. 64.1

Proposed Pesticides Intermediates & Specialty Chemicals manufacturing unit with Production Capacity of 100 MT/Month located at Plot No. C-157, Saykha Industrial Estate, Taluka -Vagra, District -Bharuch, Gujarat by M/s. Niyam Organic - Reconsideration 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 manufacturing unit with production capacity of 100 MT/Month located at Plot No. C-157, Saykha Industrial Estate, Taluka -Vagra, District -Bharuch, Gujarat by M/s. Niyam Organic.

specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be fire proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xix) 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.

(xx) 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. 64.2

Proposed change in the product mix of the Existing Pesticides unit (production capacity-4260 TPA) and By-Products (23541.05 TPA to 23427.02 TPA) located at Plot Nos. 77, 331, 280/1, 258, 216, 250, 310 & 70 at 2 KM Stone, Madina-Mokhara Road, Village Mokhra, Tehsil Meham, Dist. Rohtak, Haryana by M/s Bharat Rasayan Ltd.- Consideration of Environmental Clearance

[Proposal No. IA/HR/IND3/440553/2023; File No. J-11011/253/2015-IA-II(I)]

1. The proposal is for the grant of Environmental Clearance to the Proposed change in the product mix of the Existing Pesticides unit (production capacity-4260 TPA) and By-Products (23541.05 TPA to 23427.02 TPA) located at Plot Nos. 77, 331, 280/1, 258, 216, 250, 310 & 70 at 2 KM Stone, Madina-Mokhara Road, Village Mokhra, Tehsil Meham, Dist. Rohtak, Haryana by M/s Bharat Rasayan Ltd.

2. The project/activity is covered under Category 'A' of Item 5(b) **Pesticides industry and pesticide specific intermediates,** of Schedule of EIA Notification, 2006 (as amended) as the project is located outside the industrial area.

3. The PP applied for Environment Clearance in Common Application Form under clause 7 (ii) as per OM dated 11th April 2022 and submitted EIA/EMP Report and other documents. The PP reported that it is an **Expansion case**. The proposal is placed in 64th EAC Meeting held on 13th September, 2023 wherein the Project Proponent and an accredited Consultant, M/s. Perfact Enviro Solutions Pvt. Ltd (NABET Accreditation Number - NABET/EIA/2225/RA0284, valid till 21.11.2025], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the existing land area is 44517.65 m^2. No additional land will be required for proposed expansion and no R& R is involved in the Project. The details of products and by–products are as follows:

S. No.	Products	CAS No.	Existing Capacity (TPA)	Proposed Capacity (TPA)	Total after Expansion (TPA)	Transportation on by Road/ Sea
Insecticide						
1	Alphacypermethrin Technical	67375-30-8	100	-80	20	Road
2	Bifenthrin Technical	82657-4-3.	120	430	550	Road
3	Cypermethrin Technical	52315-07-8	350	-330	20	Road
4	Fenvalerate Technical	51630-58-1	300	200	500	Road
5	Fipronil Tech.	120068-37-3	100	-50	50	Road
6	Lambda Cyhalothrin Tech.	91465-08-6	300	250	550	Road
7	Permethrin Tech.	52645-53-1	100	-80	20	Road
8	Thaimexotham Tech	153719-23-4	300	-300	0	Road
9	Thaimexotham Tech	80060-09-9	150	-150	0	Road
10	Fluxametamide	928783-29-3	0	100	100	Road
11	Quinoxyfen Tech	124495-18-7	0	100	100	Road
Herbicide						
12	Clodinafop Tech.	105512-06-9	100	-100	0	Road
13	Propanil Tech.	709-98-8	50	-50	0	Road
14	Pyrazosulfuron Tech	93697-74-6	20	-20	0	Road
15	Imazethapyr Tech.	81335-77-5	25	-25	0	Road

16	Safener	98730-04-2	30	-30	0	Road
Fungicide						
17	Tebuconazole Tech	107534-96-3	50	-50	0	Road
18	Difenoconazole Tech	119446-68-3	50	-50	0	Road
19	Myclobutanil	88671-89-0	15	-15	0	Road
Intermediates						
20	Methaphenoxybenzaldehyde	39515-51-0	1800	-500	1300	Road
21	Parachlorophenol Isopropyl Acetic acid	876-27-7	200	0	200	Road
22	Parachlor Benzyl Cyanide	140-53-4	100	0	100	Road
23	AMBAD	1095275-06-1	0	100	100	Road
24	DECAP	130336-16-2	0	150	150	Road
25	Parachlorophenyl Acetic acid	1878-66-6	0	340	340	Road
26	Metabromo Benzaldehyde	3132-99-8	0	20	20	Road
27	Meta phenoxy Benzyl Acetal	13826-35-2	0	130	130	Road
28	Pilot plant	-	0	10	10	Road
	Total		**4260**	**0**	**4260**	
By -products						
29	Alum	7784-24-9	9536.4	-498.16	9038.24	Road
30	Pot. chloride	7447-40-7	5036.5	-471.43	4565.07	Road
31	Spent Acid	7664-93-9	824.95	361.37	1186.32	Road
32	Hydrochloric Acid 28 %	7647-01-0	2255	-75.60	2179.40	Road
33	Sodium Sulphite	7757-83-7	1402.9	898.15	2301.05	Road
34	Potassium Bromide Soln.	7758-02-3	3726.7	-382.06	3344.64	Road

35	Sodium Bromide Soln.	7647-15-6	758.6	53.70	812.30	Road
	Total		**23541.05**	**-114.03**	**23427.02**	

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, Wildlife Corridors, etc. within 10 km distance from the project site. Panoli Lake is at a distance of 1.85 km in S direction from the project site. The PP reported that one Schedule-I species i.e Pavo cristatus (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 on 4.9.2023.

7. The PP reported that earlier EC was granted by the Ministry videF.No. IA-J-11011/253/2015-IA-II(I) dated 31st May 2018 with total existing capacity for product -4260.00 TPA & for by product -23541.05 TPA. Later an amendment in EC was granted vide F.No. IA-J-11011/253/2015-IA-II(I) dated 22nd March 2019 for manufacturing of bio pesticides at least @10% of the total production. The project has already been granted Consent to Operate (CTO) Vide letter no. 313100923ROHCTO32981173 by HSPCB dated 10/02/2023 valid upto 30/09/2025.

8. The PP has obtained CCR to the existing EC from IRO Chandigarh vide letter dated 13.6.2023. Action taken report for the partially complied conditions has been submitted vide letter dated 23.6.2023.

9. The PP reported that **Ambient air quality** results for primary pollutants and specific pollutants as under show that the quality of air in the study area conforms to the NAAQS, 2009 except in case of PM_{10} and $PM_{2.5}$ due to anthropogenic activities like farming, lack of surviving trees in the buffer zone and nearby roads. Core Zone:- PM_{10} ranges from 69.76 µg/m^3 to 123.71 µg/m^3, $PM_{2.5}$ ranges from 38.95 µg/m^3 to 63.99 µg/m^3, SO_2 ranges from 6.66 µg/ m^3 to 11.07 µg/ m^3, NOx ranges from 19.45 µg/ m^3 to 31.5 µg/ m^3, CO ranges from 0.45 mg/ m^3 to 0.69 mg/m^3, VOC ranges from 0.45 mg/m^3 to 1.95 mg/m^3, THC ranges from 2.89 mg/ m^3 to 4.42 mg/ m^3. Buffer Zone: - PM_{10} ranges from 71.86 µg/ m^3 to 143.55 µg/m^3, $PM_{2.5}$ ranges from 65.91 µg/ m^3 to 78.71 µg/ m^3, SO_2 ranges from 7.26 µg/ m^3 to 13.58 µg/ m^3, NOx ranges from 20.03 µg/m^3 to 36.55 µg/m^3, CO ranges from 0.44 mg/m^3 to 0.80 mg/m^3, VOC ranges from 1.31 mg/m^3 to 2.08 mg/m^3, THC ranges from 3.15 mg/m^3 to 5.44 mg/m^3. **Noise** - Noise Monitoring was carried out at 8 locations and the results showed that core zone Leq values ranged from 62.6 dB(A) to 63.4 dB(B) for the day time and 56.7 dB(A) to 57.6 dB(A) for the Night time. Whereas, Buffer Zone: 53.7 dB(A) to 69.7 dB(A) for the day time and 44.2 dB(A) to 60.2 dB(A). for the Night time. It may be concluded that ambient noise level during day time at the proposed project site varies from 62.6 dB (A) to 63.4 dB (A) which are within the day time standard limit of Industrial area ~ 75 dB (A). During night the noise level at the project site ranges from 56.7 dB (A) to 57.6 dB (A) which are within

the night time standard limit of Industrial area 70.0 dB (A) and in Buffer zone is slightly higher than the limit due to residential activity and vehicular activity.

10. **Ground water -** Ground water Quality Monitoring was carried out at 8 locations; **Core Zone data shows that** all the parameters (Color, odor,Turbidity, pH Value, Temperature, Conductivity, TDS, Chloride, Fluoride, Total Hardness, Ca, Mg, SO_4, Na, K, TSS, Alkalinity, Nitrate Nitrogen are within the drinking water standards and quality in buffer zone shows range of primary characteristics as pH: 6.7-7.8, Total Hardness: 232- 440 mg/l, Chlorides: 83.97-656 mg/l, TDS: 496-2272 mg/l. Surface water Quality Monitoring was carried out at 5 locations and **Buffer Zone: pH:** 7.3-7.7 **; DO:** 4.2-5.6 **mg/l and BOD:** 6.4-25.9 **mg/l, COD:** 24-112 **mg/l. Surface water**- The Surface water quality of the surface water sampling locations Mokhra Pond, Lakhan Majra, Meham drain, Podn Near Bahu Akbarpur, Pond near Madina are meeting the criteria defined by class "C" as per CPCB water quality criteria for designated best use. Whereas, the Surface water quality of the surface water sampling locations Mokhra Pond 1.91 km S and Meham Drain 3.57 km ESE are meeting the criteria defined by class "C" i.e. Drinking water sources after conventional treatment and disinfection as per CPCB water quality criteria for designated best use. **Soil Quality Monitoring** was carried out at 7 locations and the analysis showed that Core Zone samples had Texture- [Sand% (4.0), Silt % (21.2), Clay % (74.7)], Organic Matter-1.2 %, Available Nitrogen (mg/kg)- 105.0, Available Potassium (mg/kg)- 47.9, Available Phosphorus (mg/kg)- 18.2. Whereas, the Buffer Zone: Texture- [Sand% (2.8-6.0), Silt % (43.5-50.6), Clay % (46.1-54.0)], Organic Matter-0.3-0.9 %, Available Nitrogen (mg/kg)- 81.2-267.4, Available Potassium (mg/kg)- 29.8-234.6, Available Phosphorus (mg/kg)- 10.6-24.2.

11. The PP reported that there is no change in the total/ freshwater requirement due to the proposed product mix change. The total water requirement is 318 KLD, out of which, 235 KLD is freshwater requirement and 83 KLD is treated water requirement (50 KLD from ETP & 33 KLD from STP). Out of 235 KLD fresh water, 100 KLD will be used for WTP wherein the rejects of 40 KLD will be used for Process water requirement and permeate of 60 KLD shall be used for boiler makeup water requirement. 35 KLD of freshwater shall be used for domestic requirements, 33 KLD for cooling tower, 30 KLD for Process/ Washing and 37 KLD for gardening purposes. Treated water from STP of about 33KLD shall also be used in gardening purpose i.e. total 70 KLD for gardening and green area maintenance. Process water of about 39 KLD shall be consumed in the production of byproducts like Potassium Chloride, Sodium sulphite, Alum and Spent acid. The total trade effluent from the production activities shall increase from 49.61 KLD to 53 KLD which shall be treated in ETP. Sewage water from domestic activities of about 35 KLD shall be sent to the STP. 53 KLD trade effluent shall be treated in effluent treatment plant of capacity 100 KLD comprising of neutralization, evaporation, biological treatment, filtration, RO plant to achieve 100% treated water reuse in process.

12. The Power requirement shall increase from 1760 kVA to 2200 kVA which will be sourced from Uttar Haryana Bijli Vitran Nigam Limited (UHBVNL). DG sets complying to CPCB IV+ shall be installed 3no.s x 750 kVA with acoustic enclosures in place of 1x 1250 kVA

and 1x275 kVA in compliance with rules in NCR region, these shall be operated only as standby during power failure with stack height of 30 m.

13. **Details of Process Emissions Generation and their Management:**

Emission from Utilities							
Stack No.	**Existing**	**Proposed**	**After Proposed product mix change**	**APCS (With media applicable)**	**Stack geometry and fuel Gas characteristics**		
					Height of Stack (m)	**Stack Dia (m)**	**Pollutant and its emissions standard**
1	Boiler 8 TPH & 5 TPH	0	Boiler 8 TPH & 5 TPH	Multi-Cyclone Separator with ESP	30 30	1.0 0.75	PM- 150 mg/Nm^3 SO_2- 100 mg/Nm^3 NO_X- 50 mg/Nm^3
2	TFH (2 x 2 Lac KCal/Hr and 1 x 6 Lac Kcal/hr)	0	TFH (2 x 2 Lac KCal/Hr and 1 x 6 Lac Kcal/hr)	Bag Filter	30	0.75	PM- 150 mg/Nm^3 SO_2- 100 mg/Nm^3 NO_X- 50 mg/Nm^3
3	DG Set- 1x 1250,kVA 1x 275 kVA	3 x 750 kVA (CPCB IV+)	3 x 750 kVA (old shall be discarded)	-	30	1.0	PM- 150 mg/Nm^3 SO_2- 100 mg/Nm^3 NO_X- 50 mg/Nm^3

Note- Biomass / LPG shall be used as a fuel in the Boiler and TFH.

Stack Name	**Stack Attached to**	**Diameter (cm)**	**Height of stack from ground (m)**	**Velocity (m/s)**	**Type of Emission**	**APCS (with media if applicable)**	**Specifications**
Process Vent – I	MPB product	6.3	17	1.73	HCl	HCl Scrubber	Scrubber I- Two stage water packed bed absorption tower followed by caustic venturi scrubber.
Process Vent – II	MPB product	6.3	17	2.6	HBr	HBr Scrubber	

Process Vent - III	Fenvalarate	6.3	17	1.69	Cl_2	Cl_2 Scrubber	Scrubber II - Two stage water packed bed absorption tower followed by caustic venturi scrubber
Process Vent - IV	Lamda Cyalo.	6.3	17	3.03	SO_2	SO_2 Scrubber	Scrubber III - Two stage bed absorption tower (HCl and Water) followed by caustic venturi scrubber

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

Category	Type of Waste	Unit	Existing	Proposed	Total after expansion	Disposal / Management
Biodegradable	Organic Waste	TPA	15.00	832.00	847.00	Will be sent to authorized vendor/ onsite composting
Non-Biodegradable	Recyclable Waste (paper, wood, glass, Office paper waste ,etc)	TPA	10.00	555.00	565.00	Will be sent to approved recyclers
	Total	**TPA**	**25.00**	**1387**	**1412.00**	

Hazardous Waste

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	(Existing)	(Proposed)	(Total After PMC in TPA)	Disposal
				Quantity of generation	Quantity of generation	Quantity of generation	

1	Sludge containing calcium sulfate sodium chloride, Lime sodium sulphite, and Potassium chloride etc	35.3	TPA	1,630.00	+63.9	1,693.9	CHWTSDF
2	ATFD sludge from ETP + Sodium Sulphite Bi product	35.3	TPA	448.86	+308.71	757.57	CHWTSDF
3	ATFD sludge from ETP + Potassium Chloride Bi product	35.3	TPA	1437.6	-444.1	993.50	CHWTSDF
4	Process Waste or residue (Mainly polymerized organic chemical	29.1	TPA	523.00	-2	521.00	CHWTSDF
5	Date-expired and off-specification pesticides	29.3	TPA	0	10	10	CHWTSDF/Coprocess site
6	Spent solvents	29.4	TPA	0	100	100	CHWTSDF
7	Spent catalysts	29.5	TPA	0	20	20	Sell to Authorised recycler
8	Spent acids	29.6	TPA	0	330	330	Sale as By-Product/

							CHWTSDF
9	Cotton contaminated with organic chemical	33.2	TPA	2.00	0	2.00	CHWTSDF
10	Activated Carbon	36.2	TPA	3.00	0.00	3.00	CHWTSDF
11	Used Oil	5.1	TPA	2.50	0.00	2.50	Recycler
12	HPDE and Ms drums	33.1	TPA	220.00	0.5	220.5	Recycler
13	Inert Insulation Material	29.1	TPA	4.00	0.2	4.20	CHWTSDF

Non Hazardous Waste (Process)

Type of waste	Unit	Existing	Proposed	Total after expansion	Treatment / Disposal
Boiler Ash	MT/year	500	700	1200	CHWTSDF

15. The Budget earmarked towards the Environmental Management Plan (EMP) is Rs**. 12.77** Crores (Capital) and recurring cost Rs**. 9.78 Crore per annum** towards Environment Management plan. Industry will propose **Rs. 50 Lakhs** towards CER cost after expansion for school renovation, park development within the next 5 years

16. Green belt/greenery has been developed over an area of 16068.65 m^2 (36.10%) which will remain unchanged under this proposal. A total No. of 6233 trees comprising of *Eucalyptus Hybrida, Holoptelea integrifolia, Azadirachta indica, Ficus religiosa, Ficus benghalensis etc*. has been already developed. This green area also complies with the requirement of minimum 2500 tree/ ha of green area.

17. The PP proposed to set up an Environment Management Cell (EMC) to engage Director- VP operations- Environment cell- Health and safety cell- Mnager EHS- dy. Manager EHS- Supervisior- Helper- Medical officer- safety officer- supervisior- Helper for the functioning of EMC.

18. The PP reported that the Public Hearing is exempted as per OM F. No-IA3-22/10/2022-IA-III [E 177258] dated 11th April 2022, as the proposed expansion is under 7(ii)a clause.

19. The PP reported that the Carbon footprint (Climate Change Potential) is the single biggest contributor to the Total Impact associated with the project, and hence it needs to be reduced to reach the optimised scenario. During the peak operations, the total CO_2 emissions will be 5094 MT eq. CO_2 /annum which is equivalent to 1.20 MT CO_2 eq / MT Production.Through

development of a green belt having 5000 trees, there will be natural sequestration of CO_2 emissions which leads to savings of 10,138 2 MT eq. CO_2 /annum.

20. The PP submitted the Onsite and Offsite disaster management plan in their EIA report.

21. The estimated project cost is **Rs.50 Crores** and the estimated project cost after expansion is **INR 52** Crores and the proposed expansion shall not require additional investment because this is only a change in product mix cum expansion without change in any plant and machinery etc. After expansion 145 additional manpower shall be employed across the different skill sets, hence after the change in product mix the total no of manpower is expected to be **650** Nos**.**

22. **Deliberations by the EAC**

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

The EAC noted that the Project Proponent has given an undertaking with 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 project proponent.

It was informed to the EAC that the para 7(ii) of the EIA Notification, 2006, inter-alia, mentions that *all applications seeking prior environmental clearance for expansion with increase in the production capacity beyond the capacity for which prior environmental clearance has been granted under this notification or with increase in either lease area or production capacity in the case of mining projects or for the modernisation of an existing unit with increase in the total production capacity beyond the threshold limit prescribed in the Schedule to this notification through change in process and or technology or involving a change in the product –mix shall be made in Form I and they shall be considered by the concerned Expert Appraisal Committee or State Level Expert Appraisal Committee within sixty days, who will decide on the due diligence necessary including preparation of Environment Impact Assessment and public consultations and the application shall be appraised accordingly for grant of environmental clearance.*

The EAC deliberated on the proposal of PP and accepted the request to consider the proposal under para 7 (ii) of the EIA Notification, 2006 under change of product mix as the capacity remains unchanged for proposed product and reduces for by-product and there is no requirement for obtaining fresh TOR etc. The project proponent has prepared the Environmental Impact Assessment Report for the proposed change of product mix. The

Committee deliberated on the report and the pollution mitigation measures considered for the proposed project.

The EAC inter-alia, deliberated on the Greenbelt development plan, Certified compliance report and its action taken report and EAC found these to be satisfactory.

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

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

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

23. 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 maintain greenbelt over an area of at least 16068.65 m^2 (36.10%). 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.

ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage VP operations- Environment cell- Health and safety cell- Mnager EHS- dy. Manager EHS- Supervisior- Helper- Medical officer- safety officer-supervisior. 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 proposed under EMP is ₹ 12.77 Crores (Capital cost) and ₹ 9.78 Cr 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) The total water requirement shall not exceed 318 KLD, out of which, 235 KLD shall be freshwater requirement and 83 KLD shall be treated water requirement (50 KLD from ETP & 33 KLD from STP). The PP shall 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 requisite permission from Concerned Authority. The PP shall 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) Biomass / LPG shall be used as a fuel in the Boiler and TFH.

vi) The total trade effluent from the production activities shall increase from 49.61 KLD to 53 KLD which shall be treated in ETP. 53 KLD trade effluent shall be treated in effluent treatment plant of capacity 100 KLD comprising of neutralization, evaporation, biological treatment, filtration, RO plant to achieve 100% treated water reuse in process. Sewage of about 35 KLD shall be sent to the STP and treated water from STP of about 33KLD shall be used for gardening.

vii) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.

viii) The project proponent shall 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.

ix) The project proponent shall comply with the environment norms for 'synthetic organic chemicals' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21st July, 2010 under the provisions of the Environment (Protection) Rules, 1986.

x) 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.

xi) 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.

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 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 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.64.3

Manufacturing of technical grade pesticides in existing premises (Non EC- chemicals unit) with the production capacity of 10500 MTPA located at Khasra No.

Annexure-III

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.	**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
3.	**Dr. Ashok Kumar Saxena, IFS** Bunglow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
4.	**Dr. Suresh Panwar** House No.4, Gayateri Green Society, NH 58 Bypass,Kankerkhera, Meerut, Uttar Pradesh Email-spcppri@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.	**Shri Sanjay Bisht** Scientist 'E', Room No. 517, Office of the Director General of Meteorology, Indian Meteorological Department, Musam Bhawan, Lodhi Road, New Delhi -110003 E-mail: sanjay.bist@imd.gov.in	Member

8.	**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

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MOM approved by

(Prof. Aniruddha B. Pandit)
Chairman

***

Signature Not Verified

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

Date: 15/11/2023