GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)
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Dated: 07.06.2022

MINUTES OF THE 32nd EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON MAY 30-31, 2022

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

DAY-1: MAY 30, 2022 [MONDAY]

(i) Opening Remarks by the Chairman, EAC

Since the Chairman was out of country, he nominated Prof. (Dr.) S. N. Upadhyay to act as the Chairman of 32nd EAC Meeting. Prof. Upadhyay welcomed the Committee members and opened the EAC meeting for further deliberations.

(ii) Details of Agenda items by the Member Secretary

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

(iii) Confirmation of Minutes of the 31st Meeting of the EAC (Industry-3 Sector) held during May 11-12, 2022 through VC.

The EAC, having taken note that the final minutes were issued after incorporating the comments offered by the members on the minutes of its **31st Meeting of the EAC (Industry-3 Sector) held during May 11-12, 2022** conducted through VC, and as such no request has been received for modifications/corrections in the minutes of the meeting for the projects/activities, **confirmed the same,** including changes in the dates due to technical issue of Parivesh.

After confirmation of the minutes of the last meeting, discussion on each of the agenda items was taken up ad-seriatim. Details of the proposals considered during the meeting **conducted through VC**, deliberations made and the recommendations of the Committee are detailed in the respective agenda items as under:

Agenda No. 32.1

Expansion for Proposed Manufacture of Resins (Phenol Formaldehyde Resin (3000 MT/Month), Melamine Formaldehyde Resin (3000 MT/Month), Urea Formaldehyde Resin (5000 MT/Month)), Formaldehyde (37%) (10000 MT/Month) and Ceramic Binder (1000 MT/Month) at Survey No. 79 p1, p4, p5, Village Lalpar, Taluka & District Morbi, Gujarat by M/s. Weldecore Industries LLP – Re-consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/217751/2022; File No. IA-J-11011/269/2021-IA-II(I)]

1. The proposal is for the Environmental Clearance for manufacturing Resins (Phenol Formaldehyde Resin (3000 MT/Month), Melamine Formaldehyde Resin (3000 MT/Month),

Urea Formaldehyde Resin (5000 MT/Month)), Formaldehyde (37%) (10000 MT/Month) and Ceramic Binder (1000 MT/Month) at Survey No. 79 p1, p4, p5, Village Lalpar, Taluka & District Morbi, Gujarat by M/s. Weldecore Industries LLP.

2. **Category:** The project/activity is covered under Category 'A' of item 5(f) (Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification 2006 (as amended) as the Industry is located outside the Industrial Area and requires appraisal at Central Level by Expert Appraisal Committee (EAC).

3. **ToR & EC Application**: The Project Proponent (PP) applied for ToR vide proposal number IA/GJ/IND3/217751/2022 dated 1.7.2021 and standard ToR was issued by Ministry vide letter no. IA-J-11011/269/2021-IA-II (I) dated **9.7.2021.** The PP conducted Public Hearing on 20.01.2022 and submitted the final EIA/EMP report on 5.3.2022. The proposal was referred back to the PP on 9.3.2022. The PP replied to the shortcomings on 11.3.2022 and the proposal was placed in 28th EAC Meeting held on March 24-25, 2022 wherein the Committee deferred the proposal for want of requisite information. Reply to the same was submitted by the PP on 18.5.2022 and the proposal was then placed in the 32nd EAC Meeting held on May, 30-31,2022 wherein the project proponent and the accredited consultant T. R Associates, [Accreditation Number NABET/EIA/1922/RA0142 (Rev.01) valid till 09.10.2022] made a detailed presentation on the salient features of the project. The information submitted by the PP so far is as follows:

4. **Production and R&R:** The PP reported that the total existing land area is 22562 m^2 and no additional land will be acquired for proposed Resin and Formaldehyde manufacturing plant. Therefore, no Rehabilitation and Resettlement (R&R) issues are involved in the project. The proposed production is as follows:

S. No.	Name of the Product	Production Capacity (MT/Month)	CAS Number
1	Phenol Formaldehyde Resin	3000	9003-08-1
2	Urea Formaldehyde Resin	5000	9011-05-6
3	Melamine Formaldehyde Resin	3000	9003-35-4
4	Formaldehyde (37%)	10000	50-00-0
5	Ceramic Binder	1000	--
Total Production Capacity		**22000**	**--**

In addition to above, the PP reported that unit will manufacture laminate sheets (5,00,000 Nos./Month) after obtaining CC&A from the GPCB and it does not attract provisions of EIA notification 2006 (as amended). However, the unit has obtained the CTE from the GPCB for laminate sheet production. The PP also reported that the Resin will be used for both captive consumption (1250 MT/Month) and for sale purpose (9750 MT/Month).

Court case: The PP reported that there is no court case pending against the project and no direction issued under E (P) Act/Air Act/Water Act.

Violation: The PP reported that the proposed project does not fall under violation category as per the provision of S.O. 804 (E) dated 14.3.2017. In addition, the PP submitted an undertaking dated 17.5.2022 that they are not manufacturing chemicals (Formaldehyde, Resins, chemical Binder) as of now and same will be produced after obtaining EC.

5. 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. Machhu River is flowing at a distance of 2.76 km in west direction. The PP also reported that there is no forest land involved in the project. There is one Schedule-I species i.e. Peacock (Indian peafowl) and the conservation plan for the same has been submitted to PCCF and CWLW, Gandhinagar on 27.12.2021 with budgetary provision of ₹ 5 Lakh. The PP committed to implement the plan in five years.

6. **Baseline:** The Ambient air quality monitoring was carried out at 8 locations during **October 2019 to December 2019** and additional one-month monitoring was carried out in **October 2021** to validate the baseline data. October 2019 to December 2019 baseline data indicates the ranges of concentrations as: PM_{10} (60.23 µg/m^3 to 85.1 µg/m^3), $PM_{2.5}$ (28.19 µg/m^3 to 51.39 µg/m^3), SO_2 (6.24 µg/m^3 to 21.4 µg/m^3) and NO_2 (16.25 µg/m^3 to 40.39 µg/m^3). October 2021 baseline data indicates the ranges of concentrations as: PM_{10} (60.95 µg/m^3 to 84.55 µg/m^3), $PM_{2.5}$ (28.84 µg/m^3 to 51.02 µg/m^3), SO_2 (6.84 µg/m^3 to 22.25 µg/m3) and NO_2 (17.79 µg/m^3 to 36.54 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.4 µg/m^3, 2 µg/m^3 and 0.004 µg/m^3 with respect to PM_{10}, SO_2 and NO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The minimum noise level measured in the study area was 37.2 dB (A) in day time at Ravapar village and 34.8 dB (A) at Ravapar village in night time. The maximum noise level measured in the study area was 74 dB (A) in daytime at Lakhdhirpur and 68.7 dB (A) in night time at Lakhdhirpar. The noise levels (Leq) of the residential area within the impact zone varied from 46.3 – 70.5 dB (A) in the day time and 38 – 66.7 dB (A) in the night time. The noise levels are within the standard norms prescribed by CPCB. Total hardness found higher than permissible limit at Project site, Paneli and Anand nagar. Chloride is found within the permissible limit at all the locations, but it is found higher than the acceptable limit at Project site, Jodhparnadi, Paneli, Lalpar and Anand nagar. TDS found higher than permissible limit at Project site and Anand nagar. TDS is found higher than the acceptable limit at all the locations. Water Quality is suitable for drinking purpose after the primary treatment (i.e. R.O treatment). Total coliform is observed at Anand nagar village. The Soil pH range of 7.09 to 7.87 indicates that soils of all the locations is neutral. EC values are normal. Organic carbon content of soil samples varied from low to high. The soils of Lalpar and Jodhparnadi have low organic carbon. All the other locations have medium to sufficient % of organic carbon. Soil monitoring data shows that: Rating of soil type based on CEC values indicates that the soils of project site, Jodhapar village and remaining soil sample villages have low, medium and high CEC values. Nutrient availability of soil sample reveals that the soils are low to medium in nitrogen, low in phosphorus and high in potassium content.

   The EAC observed that value of TDS and Chlorine are high at Project site and Anand Nagar. The Consultant was not able to explain the reason for the same. The Committee is of the view that PP shall conduct a detailed study to ascertain the reason for such increment.

7. The PP reported that existing water requirement is 66.37 KLD for which NOC bearing no. CGWA/NOC/IND/ORIG/2022/14567 has already been obtained from CGWA which is valid from 06.02.2022 to 05.02.2025. The PP reported that total water requirement (including the existing) will be 409.2 KLD (Fresh–333.09KLD + reuse –76.11KLD) which will be met from the Bore Well. Effluent of 64.06 KLD quantity will be treated through Effluent Treatment Plant. The plant will be based on **Zero Liquid Discharge System**.

8. The PP reported that the power requirement after expansion will be 300 kVA and will be met from Paschim Gujarat Vij Company Ltd. (PGVCL). Proposed resin plant will obtain additional 250 KVA load from PGVCL after obtaining EC from concerned authority. 200 kVA D. G. Set [Fuel -Diesel (40 Lit./hr.)] will be provided and used only in case of power failure. Stack (12 meter) will be provided as per CPCB norms to the DG set.

9. The unit will have one steam boiler of 0.9 TPH [Fuel: Briquettes (0.93MT/day) / Indonesian coal (0.82 MT/day)]. Indonesian coal will only be used when unavailability of briquettes. Multi-cyclone Dust Collector followed by Alkaline Scrubber with stack height of 30 m will be installed for controlling the particulate emissions. **The Committee advised the PP that alkaline scrubbers are not used after cyclone to collect dust.**

10. Details of process emissions generation and its management:

S. No.	Stack attached to	Height of the stack In meter	APC System	Expected Pollutant	GPCB Limit
1	Final scrubber (for Formaldehyde unit)	11	Activated Carbon Column	Traces of Formaldehyde and CO	As per GPCB Norms

11. Details of solid waste/ hazardous waste generation and their management:

S. No.	Description	Category as per HW Rules 2016	Quantity (MT/Annum)	Mode of Disposal
1	ETP Sludge / Evaporation Residue	35.3	462	Collection, storage and disposal at approved TSDF site
2	Used Oil	5.1	0.05	Collection, storage and used within premises as a lubricant / sold to registered recycler
3	Discarded Plastic Bags /Barrels	33.1	258	Collection, storage & sold to authorized vendor
4	Resin Residue	23.1	660	Collection, storage and disposal at approved CHWIF site
5	Spent Carbon (APCM)	35.1	400	Collection, storage and disposal at approved CHWIF.
6	Formaldehyde Neutralization waste	33.2	6	Collection, storage and disposal at Approved TSDF site.

12. Public Hearing: The PP submitted that the advertisement for Public Hearing was published in newspaper viz. *The Times of India* and in *"Fulchhab"* on 20.12.2021 and the Public Hearing for the project was conducted by the Gujarat Pollution Control Board on **20.01.2022**, which was presided by District Collector and District Magistrate – Morbi. The main issues raised during the public hearing were related employment, safety of workers, impact on crops etc. The PP committed to provide pollution control equipments, conduct pre-medical health checkup, provide basic necessities such as drinking water, toilets, first aid and medicines to the worker. To address the issues raised during the PH, PP proposed an amount of ₹148.49 lakh (Capital cost) and 380.99 lakh (Recurring cost) under EMP, ₹17.28 Lakhs towards Corporate Environment Responsibility (CER) which includes provision for Solar street light facility, Provision of drinking water facilities in schools, and medical facilities.

13. Occupation Health: The PP reported that budget for Occupational Health will be ₹ 2.205 Lakh which include Mock drill (2 Nos, ₹ 0.5 Lakh), PPE kits (safety helmet, safety glasses, gloves, safety shoes, first aid kit, protective jacket,) (200 Nos, ₹ 1.0 Lakh), Anti-dotes (10, ₹ 0.3 Lakh), SOP/Emergency preparedness plan(₹ 0.25 lakh), Safety boards(4 Nos, ₹ 0.08

Lakh), Safety shower/ Eye Wash fountains (5, ₹ 0.075 Lakh). In addition to this, the Recurring cost for Occupational Health will be 0.8 Lakh. The PP also proposed ₹ 16.754 lakh (Capital and Recurring cost is ₹ 0.25 Lakh) for fire safety.

14. Industry will develop greenbelt in an area of 33.13 % i.e., 7475 m^2 out of total area (22562 m^2) of the project. Total 1871 no. of trees will be planted. Further, considering 80 % survival rate, 20 % i.e., 374 no. plants will be planted additionally.

Total Carbon Footprint: PP reported that Carbon footprint for this project was calculated and it is found that Net CO_2 emitted = 2990 MT/year (Approx), Production per year = 2, 64,000 MT/year, Net CO_2 emitted per ton of product = 0.0113 MT or 11.3 kg**.** To sequestrate this CO_2 emissions, the PP propose to plant 2245 nos. of trees in 7475 m^2 (33.13% of the project area) within 1 year. PP has estimated that Approx. 1 MT of CO_2 will be absorbed by 6 mature trees per year. Approx. 374 MT CO_2 will be absorbed by 2245 nos. trees per years and after 5 years approximately 13 % CO_2 will be sequestrated by greenbelt development. In addition to this PP proposes to install Solar street lights (720 nos.) (13 KW) in Trajpar, Lakdhipur, Ravpar & Lalpar village and install Solar Panel (150 KW) at Roof top of Industrial shed within 5 years. PP estimated that 2,08,640 units electricity will be generated by Solar panel and solar street lights after 5 years and approximately 190 MT per year of CO_2 will be sequestrated. Approximately 7 % CO_2 will be sequestrated by use of renewable energy.

15. Onsite and Offsite Emergency Plan: The project proponent submitted the onsite and offsite emergency plan in the EIA.

16. EMC: PP proposed to set up an Environment Management Cell (EMC), wherein it is proposed to engage two Senior Environment Engineer, one chemist and one safety & health officer.

17. Undertaking by PP: The PP also submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.2011 that the data and information given in the Environmental Impact Assessment report are factually correct and will responsible for any discrepancy in the EIA report. They also undertake that content including information & data of the EIA report is owned by the PP and data or information is not taken from any other EIA report.

18. **Undertaking by Consultant:** The Consultant also submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 that "*T.R Associates prepared the EIA report for M/s Weldecore Industries LLP at Survey No. 79 p1, p4, p5, Village Lalpar, Taluka & District Morbi, Gujarat as per ToR prescribed under letter no. IA-J-11011/269/2021-IA-II (I) dated 09th July, 2021. The stated ToRs have been complied with and the data mentioned in the EIA report are factually correct.*

19. The PP reported the total cost of the project is ₹ 8.8146 Crores and total direct employment from the project will be of 25 persons.

20. The proposal was placed in 28th EAC Meeting held on March 24-25, 2022, wherein the Committee deferred the proposal for want of requisite information. Reply to the same is submitted by PP on 18.5.2022 which is as follows:

S. No.	Queries Raised by EAC	Reply by PP	Observation of EAC

1.	PP should revise greenbelt plan (with-2500 trees/ha) along with budgetary allocations and timelines. EAC noted that since this is an existing unit and PP shall come for appraisal of the instant project after development of green belt as per norms specified by CPCB	It is requested to note that currently, unit is in construction phase for laminate sheet unit and unit have obtained consent to establishment (CTE) from GPCB vide litter no GPCB/CCA/MOR-4028/ID-83334 dated on 16/11/2021 for manufacturing of laminate sheet. Unit has started plantation along periphery of project site. Once the construction will be completed unit will planted 2245 nos of trees within a year and greenbelt plan (with -2500 trees/ha) along with budgetary allocations and timelines has been presented	The EAC found the reply submitted by the PP satisfactory.
2.	The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t proposed project. Proposed mitigation measures also needs to be submitted for further appraisal of the EAC.	It is requested to note that the details of carbon foot prints and carbon sequestration study of this project along with proposed mitigation measures is attached has been presented	The EAC found the reply submitted by the PP satisfactory. The EAC observed that PP reported that Carbon footprints for this project was calculated and it is found that Net CO_2 emitted = 2990 MT/year (Approx), Production per year = 2, 64,000 MT/year, Net CO_2 emitted per ton of product = 0.0113 MT or 11.3 kg**.** To sequestrate this CO_2 emissions, the PP propose to plant 2245 nos. of trees in 7475 m^2 (33.13% of the project area) within 1 year. PP has estimated that Approx. 1 MT of CO_2 will be

			absorbed by 6 mature trees per year. Approx. 374 MT CO_2 will be absorbed by 2245 nos. trees per years and after 5 years approximately 13 % CO_2 will be sequestrated by greenbelt development. In addition to this PP proposes to install Solar street lights (720 nos.) (13 KW) in Trajpar, Lakdhipur, Ravpar & Lalpar village and install Solar Panel (150 KW) at Roof top of Industrial shed within 5 years. PP estimated that 2,08,640 unit's electricity will be generated by Solar panel and solar street lights after 5 years and approximately 190 MT per year of CO_2 will be sequestrated. Approximately 7 % CO_2 will be sequestrated by use of renewable energy.
3.	PP Shall submit detailed effluent management plan.	Detailed effluent management plan has been submitted including ETP scheme and SoP for the same.	The EAC found the reply submitted by the PP satisfactory.
4.	PP shall submit the undertaking for the chemical shall not be manufactured by the project proponent.	PP submitted an undertaking dated 17.5.2022 they are not manufacturing chemicals (Formaldehyde, Resins, chemical Binder) as of now and same will be produced after obtaining EC.	The EAC found the reply submitted by the PP satisfactory.
5.	The certified compliance of CTE/CTO shall be submitted.	PP submitted that Certified compliance of CTE obtained from GPCB Morbi.	The EAC found the reply submitted by the PP satisfactory.

21. <u>Deliberations by the EAC</u>:

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

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

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

The Committee deliberated on total carbon footprint and CO_2 sequestrated measures proposed by the PP which include generation of electricity from solar energy and development of Greenbelt. The Committee also noted that as suggested the PP has now submitted the revised Greenbelt plan including the social forestry by planting 2434 saplings outside the project area covering an area of 8850 m^2. The PP accordingly revised the plantation budget from ₹9.35 Lakh to 13.84 Lakh. The Committee is of the view that PP should plant at least 6-ft height plants and develop greenbelt within the period of 1 year inside the project area and as per the schedule proposed by the PP in the area outside the project boundary. Further, within the one year of plant operation the provision for solar energy needs to be provided in place of five years as proposed by the PP.

The Committee suggested to use Briquettes- as the first priority (Primary Fuel) and incase of unavailability, the Unit will use Indonesian coal as an alternative fuel. The PP committed for the same and submitted the air quality modeling considering the use of Briquettes and Indonesian Coal. The Committee is of the view that the PP should ensure that ash and Sulphur content of coal used should be less than coal available in India.

The Committee deliberated on Ground water requirement and found that for the existing unit PP already obtained NOC from CGWA and for the additional water requirement application is already submitted to CGWA. With respect to Electrical power requirement the PP submitted that out of the total requirement of 550 KvA application has already been made for 230 KVA (existing plant) to Paschim Gujarat Vij Corporation Ltd. and for remaining 320 KVA, application will be made after obtaining EC.

The Committee deliberated on effluent management plan submitted by PP which include ETP scheme and SoP for the same. As suggested by the Committee PP updated the ETP flow diagram by mentioning sludge drying bed and leachate collection in the same.

The Committee deliberated the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. In addition to this the Committee also suggested for Public Liability Insurance for workers, appointment of Environment Health and safety officer according to qualification before the

construction activities. PP committed for the same and submit an undertaking regarding the appointment of Environment health and safety officer according to the qualification given in Factories Act 1948 within a month.

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 grant of environmental clearance.

The Committee 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.

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). The PP shall develop Greenbelt over an area at least 7475 m^2 by planting 2245 trees within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. In addition to this, PP shall plant 2434 saplings outside the project area covering an area of 8850 m^2. The budget earmarked for the plantation shall be ₹ 13.84 Lakh and shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(ii). A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. As committed PP shall engage at least two Senior Environment Engineer and one chemist. 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 PP shall use Briquettes- as the first priority fuel and incase of unavailability of the same the unit may use Indonesian coal as an alternative fuel. The PP shall submit to the Regional Office of MoEF&CC before 1st July of every year for the fuel used during previous year clearly mentioning the quantity. In case the Indonesian coal is used, then, analysis report from a NABL Accredited Laboratory w.r.t the proximate analysis and Sulphur content of the coal should also be submitted.

(iv). 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 ₹148.49 lakh (Capital cost) and 380.99 lakh (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual

audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(v). The total water requirement (including the existing) will be 409.2 KLD (Fresh –333.09 KLD + reuse –76.11 KLD) which will be met from the Bore Well. The PP has already obtained NOC bearing no. CGWA/NOC/IND/ORIG/2022/14567 for 66.37 KLD which is valid from 06/02/2022 to 5.2.2025. The PP should ensure that Ground water utilization should not be above the permissible limit and only after obtaining valid NOC from CGWA/ Concerned Authority. The PP should submit the details of GW abstraction and utilization to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year. In addition to this the PP shall submit the target for reduction of GW utilization to Regional Office of MoEF&CC within a period of one year.

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

(vii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(viii). The species specific conservation plan of Schedule-I species shall be implemented within time limit and as per the approval of the Chief Wildlife Warden of the State Government.

(ix). 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.

(x). 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.

(xi). The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(xii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and the entire volume of 64.06 KLD effluent shall be treated through Effluent Treatment Plant including Sludge Drying bed and leachate collection in ETP.

(xiii). 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 server. 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.

(xiv). 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.

(xv). 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.

(xvi). 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.

(xvii). 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.

(xviii). 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.

(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.

(xxi). The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

Agenda No. 32.2

Proposed Pesticide manufacturing plant with production capacity of 5100 TPA located at Plot No. H-34 & H-35 Kosi Kotwan Extension-1, Uttar Pradesh State Industrial Development Corporation (UPSIDC) Industrial Area, Mathura, Uttar Pradesh by M/s Yoshi Crop Care Private Limited - Consideration of Environmental Clearance

[Proposal No. IA/UP/IND3/266321/2021; File No. IA-J-11011/255/2021-IA-II(I)]

1. The proposal is for Environmental Clearance for the Establishment of a Pesticide manufacturing plant with production capacity of 5100 TPA located at Plot No. H-34 & H-35 Kosi Kotwan Extension-1, Uttar Pradesh State Industrial Development Corporation (UPSIDC) Industrial Area, Mathura, Uttar Pradesh by M/s Yoshi Crop Care Private Limited.

2. **Category**- The project/activity is covered under Category 'A' of item 5(b) (Pesticide Industry and pesticide specific intermediates excluding formations) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC). The project is located inside UPSIDC, a notified industrial area/estate.

3. **ToR & EC Application**- The PP applied for ToR vide proposal number IA/UP/IND3/266321/2021 dated 19.6.2021 and **Standard ToR** was issued by the Ministry, vide letter No. IA-J-11011/255/2021-IA-II(I) dated **3.7.2021**. The PP reported that project is located inside UPSIDC which was declared as notified industrial area under the Gazette No. 215 dated 5.9.2001 i.e. prior to 2006 and hence the Public Hearing is exempted in pursuant to Ministry's OM No. J-11011/321/2016-IA. II (I) dated 27.4.2018. The PP vide proposal no. IA/GJ/IND2/102692/2019 dated 9.4.2022 applied for grant of EC in Form-2 and submitted the EIA/EMP Report. Due to some shortcomings, the Project was referred back to PP and reply to the same was submitted by the PP on 5.5.2022. The proposal is now placed before 32nd EAC meeting held on May,30-21, 2022 wherein the project proponent and the accredited

Consultant, M/s. EQMS India Pvt. Ltd. having accreditation number [NABET/EIA/1922/RA0197 valid till 23.11.2022] made a detailed presentation on the salient features of the project and informed the following:

4. Production and R&R – The PP reported that the total land area of the project site is 8000 m^2 which has been already acquired by the Industry and there is no Rehabilitation and Resettlement (R&R) involved. The proposed products and their production capacity are as follows:

Sr. No.	Name of Product	Proposed capacity (MT/Annum)	CAS No.
A. INSECTICIDE GROUP			
1	Thiomethoxam	**1200**	153719-23-4
2	Fipronil		120068-37-3
3	Diafenthiuron		80060-09-9
4	Lambda Cyhalothrin		68085-85-8
5	Imidacloprid		138261-41-3
6	Novaluron		116714-46-6
7	Bifenthrin		82657-04-3
8	Chlorpyriphos		2921-88-2
9	Profenofos		41198-08-7
10	Acetamiprid		135410-20-7
11	Dinotefuran		165252-70-0
12	Pymetrozine		123312-89-0
13	Fenpyroximate		134098-61-6
14	Propargite		2312-35-8
B. FUNGICIDE GROUP			
15	Tricyclozole	**600**	41814-78-2
16	Propiconazole		60207-90-1
17	Tebuconazole		107534-96-3
18	Difenconazole		119446-68-3
19	Metalxyl		57837-19-1
20	Azoxystrobin		131860-33-8
21	Pyclostrobin		175013-18-0
22	Cooper Oxychloride 57%		1332-40-7
C. HERBICIDE GROUP			
23	Atrazine	**2200**	1912-24-9
24	Sulfosulfuron		141776-32-1
25	Glyphosate		1071-83-6
26	ClodinofopPropargyl		105512-06-9
27	Pretilachlor		51218-49-6
28	Pyrazosulfuron Ethyl		93697-74-6
29	Chlorimuron Ethyl		90982-32-4
30	Bispyribac Sodium		125401-92-5
31	Glufosinate Ammonium		77182-82-2
32	Butachlor		23184-66-9
33	2, 4 D Sodium Salt		2702-72-9
34	2,4 D Amine Salt		2008-39-1
35	2, 4 D Ethyl Ester		533-23-3

36	2, 4 D Acid		94-75-7
37	Quizalofop Ethyl		76578-14-8
D.ADVANCED PESTICIDE SPECIFIC INTERMEDIATES			
38	Triazinone	**800**	33509-43-2
39	DHPPA		94050-90-5
40	CDFP		89402-43-7
41	PMIDA		5994-61-6
42	DEPA		3095-95-2
E.RESEARCH AND DEVELOPMENT BASED PRODUCTS			
F.TRIAL PRODUCTION		**300**	
TOTAL (A+B+C+D+E+F)		**5100**	
Formulations		**3000**	

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017.

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. Kotban Reserved Forest is situated at a distance of 2.37 km in North West direction. The PP also reported that there is no forest land involved in the project. There is one Schedule-I species i.e. Peacock (*Indian peafowl*) and the conservation plan with budgetary provision of ₹ 9.6 Lakhs has been prepared and submitted to Chief Wildlife Warden, Lucknow on 8.4.2022. PP proposed to implement the plan in ten years.

7. **Baseline**-The Ambient air quality monitoring was carried out at 8 locations during Oct-2021 to Dec-2021 and the baseline data indicates the ranges of concentrations as: PM_{10} (56- 98 µg/m^3), $PM_{2.5}$ (21-48 µg/m^3), SO_2 (5.8-16.5 µg/m^3) and NO_x (14 -35 µg/m^3). AAQ modelling study indicates that the maximum incremental GLCs after the proposed project would be 0.754 µg/m^3, 0.664 µg/m^3, 1.54 µg/m^3, 3.29 µg/m^3, 0.0022 µg/m^3, 0.324 µg/m^3, 0.022 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, NO_x, SO_x, HBr, HCl and Cl_2, respectively. The noise level are well within the Noise quality standards except Umrala & Hasanpur Nagla location was observed to be marginally exceeding the ambient prescribed CPCB noise limit. The major source of the noise in the Umrala is due to community activity and nearest road which is directly connected with NH_2 and in the Hasanpur Nagla is due to community activity in residential Area, Railway Line & NH-2. 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. 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. Bacteriological studies reveal that no coliform bacterial are present in the samples. The heavy metal contents were observed to be in below detectable limits. Based on Nutrient Index Value for N, P & K as per analysis, the soils of study area fall into "MEDIUM FERTILITY STATUS**"**.

8. The PP reported that the total water requirement is 175 KLD, out of which 120 KLD freshwater requirement will be sourced from the bore well after permission from concerned Authority. The wastewater generation from the project will be 60 KLD (55 KLD Industrial Effluent + 5 KLD Domestic Sewage). The sewage will be treated in a Sewage Treatment Plant of capacity 10 KLD and the treated water will be used for gardening purpose. The 52 KLD High COD/High TDS (46 KLD Process Effluent + 2 KLD DM Plant Effluent + 4 KLD cooling tower Effluent) will be treated in MEE (Capacity- 75 KLD). Out of which, 46KLD MEE Condensate will be reused in cooling tower makeup water. The 5 KLD distillate along with 3 KLD Low COD/Low TDS industrial effluent will be treated in ETP (capacity 10 KLD) followed by RO treatment. Total 51 KLD recycled water will be reused in cooling tower makeup water. The plant will be

based on **Zero Liquid Discharge** system.

9. The PP reported that the power requirement of the plant will be 1250 kVA which will be met through Uttar Pradesh Power Corporation Limited (UPPCL). DG sets of capacity 1x380 kVA and 1x500 kVA (with appropriate stack height as per CPCB norms) are proposed as power backup. 2 nos. of stream boiler (2 TPH) & (3 TPH) will be installed. Cyclone followed by bag filter with a stack of height of 32 m will be installed for controlling the particulate emissions within the statutory limit of 800 mg/Nm^3 for the proposed boiler.

10. Details of process emissions generation and their management:

S. No.	Source	Fuel Used	APCM	Stack (m)	Expected Pollutants	Maximum Emission (mg/Nm^3)
1	Steam Boiler (2 TPH, 3 TPH)	Agro-waste Briquette	Cyclone followed by bag filter	32	PM	PM< 800
2	DG Set (1x380kVA, 1x500 kVA)	HSD	-	25	PM, CO SO_2& NO_x	PM<0.2 g/KW-hr CO<3.5 g/KW-hr NOx+HC<4.0 g/KW-hr
Process Stacks / Vents						
1	Process Reactor Vents	-	Two stage water scrubbers	32	HCl	HCl< 20
2	Process Reactor Vents	-	Two stage water scrubbers	32	HBr	HBr< 5
3	Process Reactor Vents	-	Two stage Alkali Scrubber (1st Stage- Water & 2nd Stage- Alkali)	32	HCl& SO_2	HCl< 20
4	Process Reactor Vents	-	Two stage Alkali Scrubber (1st Stage- Water & 2nd Stage- Alkali)	32	HCl& Cl_2	HCl< 20 Cl_2 < 5

11. Details of solid waste/ hazardous waste generation and their management:

S. No.	Type of waste	Category (As per Schedule I & II, 2016)	Quantity (Per Annum)	Mode of Treatment & Disposal Method
Hazardous Waste				

1	Chemical Sludge from wastewater Treatment (ETP sludge + Waste left after Evaporation)	29.2	320MT	Collection, Storage, Transportation, and disposal at Nearest common TSDF site
2	Concentration & evaporation Residue.	37.3	180MT	Collection, Storage, Transportation, and disposal at Nearest common TSDF site
3	Spent Solvents	29.4	90MT	Solvent recovery within unit
4	Discarded Containers/barrel/liners/contaminated with wastes/chemicals/ Carton/liners contaminated with hazardous chemicals & waste	33.3	13 000 Nos	Authorised vendors
5	Used/spent oil	5.1	0.8MT	Authorised Vendors
Non-Hazardous/Industrial				
6	Ash from Boilers	-	53 MT	Brick Manufacturers
7	Empty barrels (used for non-hazardous material)	-	8000 Nos	Authorised Recyclers
8	Scrap metals	-	25MT	Authorised Recyclers

12. The PP reported that, no court case is pending against the proposal and no direction under Direction issued under EPA Act/Air Act/Water Act.

13. The PP reported that the budget earmarked for Environment Management Plan (EMP) is 174 Lakh (Capital cost) and ₹ 50 Lakh per annum (Recurring cost) which includes Air pollution & Noise Pollution control monitoring [₹ 29 lakh (Capital) ₹ 12 Lakh (Recurring)], Water pollution control [₹ 70 lakh (Capital) ₹ 18 Lakh (Recurring)], Solid Waste Management [₹ 11 lakh (Capital)], Environment monitoring and management [₹ 9 lakh (Capital) ₹ 4 Lakh (Recurring)], Occupational health [₹ 23 lakh (capital) ₹ 11 Lakh (Recurring)], Green belt [₹ 20 lakh (capital) ₹ 3 Lakh (Recurring)], Rain water harvesting [₹ 12 lakh (capital) ₹ 2 Lakh (Recurring)]. Total Employment will be 170 persons during operation phase. Industry proposes to allocate Rs. 22.5 Lakh towards CER for infrastructural facilities for the local people in the field of Environmental, Medical, Transportation etc.

14. Industry will develop a greenbelt in 2692 sq. m. i.e. about 33.65% area of the total plot area. On an average about 673 trees/shrubs along with, garden, herbs and shall be planted within the premises as a greenbelt. The capital cost for Greenbelt development (5 year budget) of the project is estimated to be ₹ 19.19 Lakh [₹ 4.9034 lakh during Ist year, ₹ 3.704 Lakh during IInd year considering 80% survival rate and ₹ 3.5285 lakh as recurring cost for subsequent years].

15. Total Carbon Footprint: The rate of carbon sequestering depends on growth parameters of the plants. Density of woody plants plays a major role. Trees act as sinks for carbon dioxide by fixing carbon during photosynthesis and storing carbon as biomass (Carbon sequestration). The PP submitted that total 36.78 Tons/year of CO_2 will be sequestrated.

16. EMC-The PP proposed to set up an Environment Management Cell (EMC) wherein it is proposed to engage Plant manager, 2 water Environment officers under his supervision and

7 Management in-charge including air, water, waste, Occupational health, noise, horticulture, fire safety. The PP also submitted the disaster Management plan in EIA/EMP report.

17. **Undertaking by the PP**: The PP submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.2011 that "*M/s Yoshi Crop Care Private Limited undertake that the data and information given in EIA report and the enclosures are true to the best of my knowledge and content (information and data) in the EIA report pertains to the project and not being copied from other EIA reports. I am aware that if at any stage, it is observed or brought to notice to the Ministry of Environment, Forest and Climate Change that the contents of the EIA Report pertains to a project have been copied from other EIA reports, such projects shall be summarily rejected and proponent will have to initiate the process and in case of those project where decision has already been taken and environment clearance granted based on copied EIA Report, the environment clearance granted would be withdrawn and the procedure for obtaining environmental clearance will be initiated de-novo. Also, I own the contents of the EIA Report. It is certified that no unethical practices including plagiarism have been carried out and external data/text has not been used without proper acknowledgment, while preparing this EIA report".*

18. **Undertaking by the Consultant**: The consultant confirmed that Environment Coordinator has gone through the report, and the consultant organization shall be fully accountable for any mis-leading information mentioned in the statement.

19. The estimated project cost is Rs 11.25 Crores. Employment will be 170 persons during operation phase.

20. **<u>Deliberations by the EAC:</u>**

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

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

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

The Committee deliberated on the Life Cycle Assessment study submitted by the PP. The Committee also deliberated on the Greenbelt and plantation and observed that as suggested the PP has now committed to plant 3000 number of additional trees outside the plant. As desired by Committee, the PP confirmed vide undertaking that project is not located within 5 km of Critically Polluted Area.

The Committee deliberated the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during implementation of the project and advised the PP

to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

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

The Committee 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.

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

(i). The PP shall develop Greenbelt over an area at least 2692 m^2 by planting 673 trees within a year of grant of EC. The saplings selected for the plantation should be of sufficient height preferably 6-ft. The budget earmarked for the plantation shall be ₹ 19.19 Lakh and shall be kept in 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 person 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. As committed the PP shall engage Plant manager, 2 water Environment officers under his supervision and 7 Management in-charge including air, water waste, Occupational health, noise, horticulture, fire safety. 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 budget earmarked for Environment Management Plan(EMP) is ₹174 Lakh (Capital cost) and ₹ 50 Lakh per annum (Recurring cost) which includes Air pollution & Noise Pollution control monitoring [₹ 29 lakh (capital) ₹ 12 Lakh (Recurring)], Water pollution control[₹ 70 lakh (capital) ₹ 18 Lakh (Recurring)], Solid Waste Management [₹ 11 lakh (capital)], Environment monitoring and management [₹ 9 lakh (capital) ₹ 4 Lakh (Recurring)], Occupational health [₹ 23 lakh (capital) ₹ 11 Lakh (Recurring)], Green belt[₹ 20 lakh (capital) ₹ 3 Lakh (Recurring)], Rain water harvesting [₹ 12 lakh (capital) ₹ 2 Lakh (Recurring)]. 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 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 will be 175 KLD (Fresh –120 KLD + recycled - 55 KLD) which will be met from the Bore Well. The PP should ensure that Ground water utilization should not be above the permissible limit and only after obtaining valid NOC from CGWA/ Concerned Authority. PP should submit the details of GW abstraction and utilization to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year. In addition to this the PP shall submit the target for reduction of GW utilization to Regional Office of MoEF&CC within a period of one year.

(v). The Unit 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.

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

(vii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(viii). The species specific conservation plan of Schedule-I species shall be implemented within time limit and as per the approval of the Chief Wildlife Warden of the State Government.

(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 13th June 2011 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 project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(xiii). 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 server. 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.

(xiv). 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.

(xv). 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.

(xvi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. 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.

(xvii). 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.

(xviii). 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.

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

(xxi). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA/ EMP report in letter and spirit.

Agenda No. 32.3

Setting up of Formaldehyde manufacturing unit with production capacity of 100 MT/day located at Khasra No. 345, Village Seehpur, H. B. No. 176, Tehsil- Derabassi, District- SAS Nagar, Punjab by M/s Feel Organic - Consideration of Environmental Clearance [Proposal No. IA/PB/IND3/251247/2022; File No. IA-J-11011/461/2021-IA-II(I)]

1. The proposal is for environmental clearance to the project for Setting up of Formaldehyde manufacturing unit with production capacity of 100 MT/day in an area 0.334 ha located at Khasra No. 345, Village Seehpur, H. B. No. 176, Tehsil- Derabassi, District- SAS Nagar, Punjab by M/s Feel Organic.

2. **Category**- The project/activity is covered under Category 'A' of item 5(f) **(**Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)of Schedule of Environment Impact Assessment (EIA) Notification2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC) as the proposed unit is located outside the industrial area.

3. **ToR & EC Application**: The PP applied for ToR vide proposal number IA/PB/IND3/251247/2022 dated 12.1.2022 and the ToR has been issued by the Ministry, vide letter No IA-J-11011/461/2021-IA -II(I) dated **14.02.2022**. The proposed unit is located outside the industrial area and the Public Hearing was conducted by Punjab Pollution Control Board on **20.4.2022**. The PP applied for Environment Clearance on 12.5.2022 in Form-2 and submitted EIA/EMP Report and other documents. Due to some shortcomings, the Project was referred back to PP and reply to the same was submitted on 23.5.2022. The proposal is now placed in 32nd EAC Meeting held on 30-31 May, 2022, wherein the Project Proponent and the accredited Consultant Eco Paryavaran Laboratories and Consultants Pvt. Ltd. [Accreditation

number NABET/EIA/2023/RA0211 Valid up to December, 17, 2023] made a detailed presentation on the salient features of the project and informed the following:

4. **Production and R&R:** The PP reported that the proposed Land area is 0.334 ha. And no R& R is involved in the Project. The proposed production capacity of Formaldehyde (CAS No. - 50-00-0) is 100 MT/ day.

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017. Further, as some structure is visible as per KML file within the project boundary, the PP submitted letter dated 10.1.2022 as per which Industry was visited by officer of the Punjab Pollution control board on 16.12.2021 and no machinery of formaldehyde plant or any other plant was observed at the site.

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. River/ water body Dangri Nadi (nearest) is flowing at a distance of 1.4 km in E Direction. The PP also reported that there is no forest land involved in the project. PP reported that no Schedule I species exist within 10 km study area of the project Hence, wildlife conservation plan is not required.

7. **Baseline**-The PP reported that Ambient air quality monitoring was carried out at 8 locations during October,2021 to December, 2021 and the baseline data indicates the ranges of concentrations as: PM_{10} (69-92 µg/m^3), $PM_{2.5}$ (38-59 µg/m^3), SO_2 (8-10 µg/m^3) and NO_2 (15-23 µg/m^3). AAQ modelling study indicates that the maximum incremental GLCs after the proposed project would be 0.53 µg/m^3, 0.17 µg/m^3, 1.15 µg/m^3 with respect to PM_{10}, SO_X and NO_X. The resultant concentration is within the National Ambient Air Quality Standards (NAAQS). Ambient noise levels were measured at 5 locations within the project location and 3 locations outside the project site within the 1 km radius of project. Noise levels varied from 48.6 dB(A)and 65.2 dB(A) during the day time and were 36.2 dB(A) and 53.4 dB(A) during night time in the study area. (P-56). Ambient noise levels were measured at 5 locations within the project location and 3 locations outside the project site within the 1 km radius of project. Noise levels varied from 48.6 dB(A)and 65.2 dB(A) during the day time and were 36.2 dB(A) and 53.4 dB(A) during night time in the study area. The obtained noise levels are well within prescribed limits for industrial area. PP reported that Ground water quality parameters and surface water quality parameters are within the permissible limits. The soil results are within the permissible limits.

8. The PP reported that total water requirement is 86 KLD of which fresh water requirement of 82 KLD will be met from the bore well. The reused water is 4KLD. Application has been submitted to PWRDA regarding seeking permission for abstraction of ground water. Effluent of 13.7 KLD will be generated once in three months will be stored in storage tank of capacity 15 KLD and 7.3 KLD of fresh water RO reject will be generated, both will be treated in Evaporator of capacity 10 KLD. 2 KLD of treated water from septic tank will be utilized for green area demand. 2 KLD of condensate from Evaporator will be reused in cooling water demand. The plant will be based on **Zero Liquid Discharge** system.

9. The PP reported that the power requirement will be 175 KVA and will be met from the Punjab State Power Corporation Limited (PSPCL). DG set of 200 KVA (1 No.), will be used as standby during power failure. Stack (3 m) will be provided as per CPCB norms to the proposed DG set. 0.8 TPH oil fired boiler with a stack of height of 9 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boiler.

10. **Details of process emissions generation and its management:** VOCs from Process Emission and fugitive emission from boiler and D.G. set. Main emission from industry will be CO_2, CO and H_2; CO_2 will be dispersed in atmosphere, H_2 will be dispersed in atmosphere through scrubber and CO will be recycled within the project. The gases will be discharge into atmosphere through stack of adequate height for proper dispersion into the atmosphere.

11. **Details of solid waste generation and its management**: The PP reported that approximately 10 kg/day of domestic waste will be generated which will be disposed of as per the Solid Waste Management Rules, 2016 and amendments thereof. The color coded closed bins for biodegradable and non-biodegradable waste shall be placed in each section. The biodegradable waste bin will be treated in compost pits. The waste from non-biodegradable waste bin shall be given to recyclers.

12. **The hazardous waste generation and its management:** The PP reported that around 0.1 KL/annum of Used Oil & 44 tones/annum of sludge from evaporator will generate during the process. The same will be collected, stored and disposed off as per Hazardous Waste Management Rules, 2016 and amendments thereof. Agreement with Golden petro for disposal of used oil and membership with Nimbua plant has already been done to dispose the sludge of evaporator to TSDF).

S. No.	Name of waste	Category	Quantity	Mode of Disposal
1.	Used oil	5.1	0.1 Kl/annum	To authorized recycler
2.	Sludge From Evaporator	35.3	44 tonnes/annum	To TSDF

13. The PP reported that as informed by PP, no court case is pending against the proposal and no direction under Direction issued under EPA Act/Air Act/Water Act.

14. **Public Hearing:** The PP submitted that advertisement for Public Hearing was published in newspaper viz *"Hindustan Times and Punjabi Tribune*" on 15.3.2022 and the Public Hearing has been conducted Punjab Pollution Control Board on 20.4.2022. Which was presided in presence of Additional Deputy Commissioner. There were no issues raised during the Public Hearing.

15. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 60.66 Lakh (capital) and ₹ 12.0 lakh/annum (recurring) which includes Air pollution control [₹ 5.0 lakh (capital) and ₹ 1.0 lakh/annum (Recurring)], Industrial Water Pollution Control (Evaporator [₹ 25.0 lakh (capital) and ₹ 2.0 lakh/annum (Recurring)], Domestic Water Pollution Control (Septic Tank & Distribution pipeline) [₹ 5.0 lakh (capital) and ₹ 0.50 lakh/annum (Recurring)], Green Belt Development [₹ 8.66 lakh (capital) and ₹ 5.0 lakh/annum (Recurring)], Waste Management (HW Storage and Disposal) [₹ 2.0 lakh (capital) and ₹ 0.75 lakh/annum (Recurring)], Rain Water Recharging (Pond Adoption) [₹ 10.0 lakh (capital) and ₹ 2.0 lakh/annum (Recurring)] and Miscellaneous [₹ 5.0 lakh (capital) and ₹ 0.75 lakh/annum (Recurring)]. Industry proposes to allocate ₹ 10.0 Lakh towards CER for providing drinking water filtration system, providing books to needy student, Cremation ground, Village Seehpur, Dharamshala/ primary school and Aganwadi village Seehpur, Adoption of pond located at village Seehpur, Distribution of 1000 saplings to local villagers.

16. **Occupational Health and Safety:** The Budget earmarked towards occupational health and safety is ₹ 50,000/annum. In addition to this, all the workers will be covered under ESI/Health Insurance, Personal Protection Equipment (PPE) shall be provided to workers such as Earplugs, Gloves, Eye Goggles and Helmets & Gum Boots etc. in higher noisy areas to meet OSHA standard limits of 90dB(A) for eight hours in work zone areas. Acoustics will be

provided in rooms where noise creating machines work. All moving & protruding parts of machinery shall be guarded, so that worker does not come in contact with them. Proper lighting will be provided in the work place. Glares will be avoided. Exhaust fans & canopy hoods will be provided in the areas where dust & other gases are expected from the operations. First aid kit will be kept at prominent place to be used in emergent cases. All firefighting equipment will be frequently checked to see their effectiveness.

17. The industry will develop greenbelt in an area of 33.8 % i.e., 1,129.24 m^2 out of total area of the project Plantation will be done within the current monsoon period and 835 saplings of at least 4-5 feet height will be planted at distance of 2 m. Adequate green belt will be developed in the first year of project after the grant of EC and other Statutory compliances.

18. EMC - The PP proposed to set up an Environment Management Cell (EMC) and in addition to other officials it has proposed to engage EHS Manager, Supervisor and Consultant for the functioning of EMC.

19. Total Carbon Footprint: The PP submitted that in order to reduce the Carbon Footprint from Transportation, Electricity and Fuel Consumption, 1) High vehicle load factors need to be maintained, 2) Use of more advanced logistics planning and vehicle routing tools. It also reduces the risk of accidents, saves transit time and its cost implications, 3) The carrying capacity of the vehicle should be increased from 20 T to 30 T or 40 T, 4) Expand storage capacities at delivery points, 5) Proper maintenance of pumps and motors. It is advised that periodic/annual maintenance of the machinery and equipment's should be done, 6) Increase in plantation in the nearby area for further reduce of the CO_2 emissions and 7) Minimum use of boiler (during restart of plant) and DG set (during power failure only) to reduce the consumption of fuel.

20. Onsite and Offsite Emergency Plan: The PP submitted the disaster and Onsite and Offsite Emergency Plan in the EIA report.

21. Undertaking by the **Project Proponent -** The PP submitted an undertaking that the "*present EIA study report of the above mentioned project is entirely in line with the TOR issued vide File No. IA-J-11011/461/2021-IA-II(I) dated 14th February 2022. Further, I own all the contents (date and information) of the EIA report as required under the MoEF&CC Office Memorandum No. J-11013/41/2006-IA-II(I) dated 05.10.2011. The data submitted is accurate, true & correct to the best of my knowledge and belief."*

22. Undertaking by the **Consultant**- The Consultant submitted an undertaking that – "*M/s Eco Paryavaran Laboratories and Consultants Pvt. Ltd.; QCI/NABET Accredited company and Environment consultant of M/s Feel Organic do hereby solemnly affirm and declare that we have undertaken the EIA study for obtaining Environment Clearance for Setting up of new Formaldehyde manufacturing unit with production capacity of 100 MT/day at Khasra No. 345, Village Seehpur, H. B. No. 176, Tehsil- Derabassi, District- SAS Nagar, Punjab. As a Environment Consultant and EIA Coordinator of the project, I undertake that the present EIA study report of the above mentioned project is entirely in line with the TOR issued vide File No. IA -J-11011/461/2021-IA -II(I) dated 14th February 2022. Further, I own all the contents (date and information) of the EIA report as required under the MoEF&CC Office Memorandum No. J-11013/41/2006-IA-II(I) dated 05.10.2011. The data submitted is accurate, true & correct to the best of my knowledge and belief*."

23. The estimated project cost is Rs.500 Lakh including existing investment of ₹ 32 Lakhs (for land purchase). Total Employment will be 37 persons (out of which 12 will be residing within the premises).

24. Deliberations by the EAC:

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

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

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

The Committee deliberated on greenbelt development and is of the view that budget proposed under Greenbelt plan needs to be revised to increase the plant density and accordingly revise the EMP cost. The PP revised the Plantation cost from ₹ 5.0 lakh to ₹8.66 lakh (capital) and ₹ 1.0 lakh to ₹ 5.0 Lakh (recurring). The corresponding change in EMP cost will be ₹ 57 lakh to ₹60.66 Lakh (capital cost) and ₹ 8 Lakh to 12 Lakh (recurring). The committee agreed with the proposal of PP for adopting *miyawaki method* of plantation. The Committee suggested to plant saplings based on the pollutants and PP submitted that species like *Melia azedarach* (Indian lilac), *Syzigium cumini* (Indian blackberry), *Terminalia arjuna* (Arjun tree) and *Cassia fistula* (Golden shower) will be planted. The Committee is of the view that plantation should be completed within one year.

The Committee noted that the PP submitted an NOC to store Petroleum Class A (Methanol) in under Ground Tanks in the unit vide no F.C.A/1980/5746 dated 15.12.2021

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

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

The Committee 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.

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

(i). The PP shall develop Greenbelt over an area at least 1,129.24 m^2 by planting 835 trees within a year of grant of EC. The 835 saplings selected for the plantation should be of sufficient height preferably 6-ft. The budget earmarked for the plantation shall be ₹ 8.66 Lakh (Capital) and ₹ 5.0 Lakh (Recurring) and shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation, method 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 person 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 at least one EHS Manager, one Supervisor and Consultant for the functioning of EMC. 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 previous year.

(iii). The budget earmarked towards Environment Management Plan (EMP) is ₹ 60.66 Lakhs and the Recurring cost (operation and maintenance) will be about ₹ 12.0 lakhs per annum which includes Air pollution control [₹ 5.0 lakh (capital) ₹ 1.0 Lakh (Recurring)], Industrial Water Pollution Control (Evaporator [₹ 25.0 lakh (capital) ₹ 2.0 Lakh (Recurring)], Domestic Water Pollution Control (Septic Tank & Distribution pipeline) [₹ 5.0 lakh (capital) Recurring ₹ 0.50 Lakh Green Belt Development [₹ 8.66 lakh (capital) ₹ 5.0 Lakh (Recurring)], Waste Management (HW Storage and Disposal) [₹ 2.0 lakh (capital) ₹ 0.75 Lakh (Recurring)], Rain Water Recharging (Pond Adoption) [₹ 10.0 lakh (capital) ₹ 2.0 Lakh (Recurring)] and Miscellaneous [₹ 5.0 lakh (capital) ₹ 0.75 Lakh (Recurring)].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 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 will be 86 KLD (Fresh–82 KLD + recycled-4KLD) which will be met from Bore Well. The PP should ensure that Ground water utilization/ abstraction should not be above the permissible limit and only after obtaining valid NOC from CGWA/ Concerned Authority. The PP should submit the details of GW abstraction and utilization to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year. In addition to this PP shall submit the target for reduction of GW utilization to Regional Office of MoEF&CC within a period of one year.

(v). 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.

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

(vii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more

than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(viii). The species specific conservation plan of Schedule-I species shall be implemented within time limit and as per the approval of the Chief Wildlife Warden of the State Government.

(ix). 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.

(x). 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.

(xi). The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(xii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and Effluent of 13.7 KL will be generated once in three months will be stored in storage tank of capacity 15 KLD and 7.3 KLD of fresh water RO reject will be generated, both will be treated in Evaporator of capacity 10 KLD. 2 KLD of treated water from septic tank will be utilized for green area demand

(xiii). 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 server. 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.

(xiv). 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.

(xv). 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.

(xvi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. 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.

(xvii). 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.

(xviii). 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.

(xix). Total fresh water requirement, sourced from Bore well shall not exceed 82 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

(xx). 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.

(xxi). 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 clearing to reduce wastewater generation.

(xxii). The green belt of at least 5-10 m width shall be developed in at least 33.8% of the total project area (@2500 Trees per ha), mainly along the plant periphery/outside. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2.0 m x 2.0 m ratio and as in first year itself and subsequent years the green belt shall be monitored. The plant species can be selected that will give better carbon sequestration and dust tolerant species. As committed by PP 20% of the total plantation will be done within this monsoon. Saplings of at least 4-5 feet height will be planted to assure maximum survival rate. Complete plantation will be done within 2 years' time.

(xxiii). The activities and the action plan proposed by the project proponent to address the issues raised during public hearing and socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

(xxiv). A separate Environmental Management Cell (having qualified person 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.

Agenda No. 32.4

Increase in API Production capacity from 560 TPA to 760 TPA and also reduction in Mineral Salt production capacity through spray drier route from 2615 TPA to 1615 TPA and Addition of R&D Facility of 1 TPA by M/s Global Calcium Private Limited located at 125 & 126, SIPCOT Industrial Complex, Hosur, District- Krishnagiri, Tamil Nadu - Amendment in TOR

[Proposal No. IA/TN/IND3/270578/2022; File No IA-J-11011/411/2006-IA-II(I)]

1. The proposal is for amendment in ToR issued by Ministry vide letter No. IA-J-11011/411/2006-1AII (I) dated 25.10.2021 for Expansion of API production capacity within existing Bulk Drug Intermediates unit producing Mineral Salts and API capacity from 60 TPA to 560 TPA by M/s Global Calcium Private Limited located at Plot No. 124 125 126 CP 173 SIPCOT and N14 SIDCO, Hosur, District- Krishnagiri, Tamil Nadu.

2. The PP vide proposal No. IA/TN/IND3/270578/2022 dated 12.05.2022 applied in Form-3 for amendment in ToR. Accordingly, PP submitted the revised Form-1 and PFR. The proposal is now placed in 32nd EAC meeting held on May, 30-31, 2022, wherein the project proponent and their accredited Consultant, Chennai Testing Laboratory Private Limited having accreditation number NABET/EIA/2023/SA0152 valid till 15.8.2023] made a detailed presentation and requested for following amendment in previously granted ToR:

- Expansion by increase in API products from 60 TPA to 760 TPA and decrease in Mineral Salts production capacity by spray drier process from 2615 TPA to 1615 TPA and Addition of R & D Facility of 1 TPA
- Project cost from ₹ 500 Lakh to ₹ 4000 lakh
- There is an existing ETP-I with biological Treatment/ RO/ MEE to treat 54.4 KLD for waste water generated from Mineral Salts Manufacturing Plant and existing ETP-II of 12.8 KLD Capacity with biological treatment / RO / MEE for waste water generated from 60 TPA API Unit, which will be upgraded to treat 169.70 KLD of waste water generated from 760 TPA API Plant, thus ensuring "Zero Liquid Discharge" from the Plant.

- 193.3 KLD Water requirement upon this Expanded Quantity of production will be sourced from SIPCOT & also enclosed Letter from SIPCOT for supply of Water.
- Existing Plant in Operation – 1.2 MW & Upon Expansion in capacity is - 3.5 MW which will be Met entirely from captive wind mills

3. Deliberations by the EAC:

A. Based on the discussions held, the Committee is of the view that:
The production details mentioned at Para -3 of ToR letter no. J-11011/411/2006-IA-II(I) dated 25.10.2021 may be read as follows:

Products	Process	Quantity in TPA		
		Existing	Proposed	Total
Pharmaceutical Bulk Drug & Chemicals MINERAL SALTS Gluconates, Citrates, Lactates, Lactobionates, Fumarates, Orotates, Ascorbates, Aspartates, Pidolates, Glycinate, Calcium D Sacharate, Phosphates, Phosphites, Selenates, Stearates, Succinates, Per Oxides, etc	Conventional	1641	-	1641
	Conversion/ Conventional/ Repacking / Outsourced	1400	-	1400
Calcium Glubionate, Calcium Borogluconate, Calcium lacto Gluconate, Gluconates, Acetates Pidolates and other Mineral Salts	Spray drier	2615	-1000	1615
	Conversion/ Spray drier/ Repacking / Outsourced	1215	-	1215
BEPOTASTINE BESILATE, BENFOTIAMINE, CALCIUM DOBESILATE, CLOZAPINE, CITICOLINE, CINITAPRIDE HYDROGEN TARTRATE, CARBIMAZOLE, DEFERASIROX, DIATRIZOIC ACID, DORZOLAMIDE HYDROCHLORIDE, DESVENLAFAXINE SUCCINATE, FENPIVERINIUM BROMIDE, FLUPENTIXOL AND ITS SALTS, CALCIUM FOLINATE, FERRIC ISOMALTOSIDE, FERRIC MALTOL, FOMEPIZOLE, FLUPHENAZINE DECANOATE, FOSPHENYTOIN SODIUM,	API	60	700	760

CALCIUM GLYCEROPHOSPHATE, IRON SUCROSE, IRON SORBITOL COMPLEX, IRON POLY MALTOSE COMPLEX, IVABRADINE HYDROCHLORIDE, IOHEXOL, L-METHYL FOLATE, MEBEVERINE HYDROCHLORIDE, MELITRACEN HYDROCHLORIDE, MINOXIDIL, METHOTREXATE, METOPIMAZINE, NIFUROXAZIDE, NAFTIFINE, NEFOPAM HYDROCHLORIDE, NEBIVOLOL HYDROCHLORIDE, OXETACAINE, OXCARBAZEPINE, PITOFENONE HYDROCHLORIDE, PHENYTOIN/ FOSPHENYTOIN SODIUM, PHENAZOPYRIDINE HCL, PHENYRAMIDOL HYDROCHLORIDE, PYRIDOSTIGMINE BROMIDE, STRONTIUM RANELATE, SUCROFERRIC OXYHYDROXIDE, TERBINAFINE HYDROCHLORIDE, TRIBENOSIDE, TIEMONIUM METHYLSULPHATE, TOLPERISONE HYDROCHLORIDE, TOPIRAMATE, TRIMETAZIDINE HYDROCHLORIDE, UBIQUINOL (ACETATE), VENLAFAXINE, DESVENLAFAXINE,				
R & D Facility	R & D	--	1	1
Total				**6632**

i) Previously, the PP submitted that "*The Existing Plant is located at SIPCOT Industrial Complex, Hosur, Krishnagiri, wherein the existing plant is located at Plot No. 125 & 126, and additionally Plot Nos. 124, CP173 of SIPCOT & N-14 SIDCO have also been acquired for Expansion, and bounded by 12°45'51.11" N - 12°45'59.32" N Latitude & 77°47'39.29" E - 77°47'46.33" E Longitude".* The land details previously submitted was as follows:

Plot #	Existing EC (in ha.)	Proposed (in ha.)	Total (in ha.)
124	--	0.59	0.59
125	1.06	-	1.06
126	1.26	-	1.26
CP-173	--	0.28	0.28
N-14	--	0.182	0.182
Total Area	**2.32**	**1.052**	**3.372**

The Committee observed that there is no change in the land area now proposed by the PP in the revised PFR

ii) The Project cost for this expansion was mentioned as ₹ 25 Crore in the previous Form-I. However, as per the revised Form-I the project cost is mentioned as ₹ 40 Crore.

iii) The Committee observed that following changes are proposed in PFR w.r.t. ETP, water requirement and power requirement:

Previous:

There is an Existing ETP to treat 54.4 KLD of Effluent from Mineral Salts, and another ETP existing to treat 12.8 KLD of effluent presently being generated from the API Unit. The combined treated ETP effluent of Mineral Salts & API are treated in existing RO/MEE/ATFD. The proposed expansion will have an exclusive ETP/RO/MEE/ATFD of 120.6 KLD Capacity to treat the entire effluent generated from API Unit i.e. existing effluent as well as the proposed effluent generated from API Production.

EXISTING (KLD)			***UPON EXPANSION (KLD)***		
MINERAL SALTS	***API***	***TOTAL***	***MINERAL SALTS***	***API***	***TOTAL***
54.4	*12.8*	*67.2*	*54.4*	*120.6*	*175.0*

*The entire treated water is recycled / reused in the process thus ensuring **"ZERO LIQUID DISCHARGE***

RAW WATER SOURCE & USAGE: *The total water requirement upon expansion will be 368.6 KLD (Recycled – 173.60 KLD & Fresh Water – 195 KLD). The entire fresh make-up water is sourced from SIPCOT.*

Revised:

There is an Existing ETP-I to treat 54.4 KLD of Effluent from Mineral Salts, and another ETP-II existing to treat 12.8 KLD of effluent presently being generated from the API Unit. The proposed expansion will have an exclusive ETP/RO/MEE/ATFD of 169.7 KLD Capacity to treat the entire effluent generated from API Unit i.e. existing effluent as well as the proposed effluent generated from API Production.

EXISTING (KLD)			***UPON EXPANSION (KLD)***		
MINERAL SALTS	***API***	***TOTAL***	***MINERAL SALTS***	***API***	***TOTAL***
54.4	*12.8*	*67.2*	*54.4*	*169.7*	*224.1*

*The entire treated water is recycled / reused in the process thus ensuring **"ZERO LIQUID DISCHARGE***

RAW WATER SOURCE & USAGE: *The total water requirement upon expansion will be 408 KLD (Recycled – 214.7 KLD & Fresh Water – 193.3 KLD). The entire fresh make-up water is sourced from SIPCOT.*

Power Requirement:

Previous:
The details of existing and upon expansion power consumption and its source are as follows:

Power Consumption			
Source	***Existing***	***Proposed***	***Upon Expansion***
CAPTIVE [Wind Mill]	*1.2 MW*	*2.3 MW*	*3.5 MW*

Global Calcium has its own windmill, and the entire power required is met through this windmill. The plant runs entirely on this green energy. D.G. Sets of 250 KVA, 320 KVA x 2 Nos., 380 KVA, 500 KVA x 2 Nos. capacity is existing and 1010 KVA x 2 Nos is proposed to be installed in the expansion plan, & will be used only during emergency or grid failure. HSD will be used as fuel for D.G. Sets. The fuel consumption upon expansion will be 3 KLD.

Revised

Power Consumption			
Source	***Existing***	***Proposed***	***Upon Expansion***
CAPTIVE [Wind Mill]	*1.2 MW*	*2.3 MW*	*3.5 MW*

The details of existing and upon expansion power consumption and its source are as follows:

Global Calcium has its own windmill, and the entire power required is met through this windmill. The plant runs entirely on this green energy.
D.G. Sets of 250 KVA, 320 KVA x 2 Nos., 380 KVA, 500 KVA x 2 Nos. capacity is existing and 1010 KVA x 3 Nos is proposed to be installed in the expansion plan, & will be used only during emergency or grid failure.
HSD will be used as fuel for D.G. Sets. The fuel consumption upon expansion will be 3 KLD.

B. Based on the discussion held and documents submitted, the Committee **recommended** the proposal for aforementioned amendment in ToR. The Committee also prescribed the following additional ToR in addition to the existing ToR:

(i) Time bound Action plan for EMP, Occupational health, Greenbelt with budgetary provision needs to be provided.

Agenda No. 32.5

Increase in capacity of Mineral Salt Production through Conventional Process from 1020 TPA to 1770 TPA and by Spray Drier Route from 1034 TPA to 1784 TPA, API Capacity of 100 TPA (no change) and addition of Land Area of 0.40 Ha of Plot No. 19 A (in addition to 1.02 Ha of Plot No. 19 & 19B) by M/s Global Calcium Private Limited UNIT III located at Plot No.19&19 B, SIPCOT Industrial Complex, Hosur, District- Krishnagiri, Tamil Nadu- Consideration of Amendment in ToR

[Proposal No. IA/TN/IND3/271077/2022); File No IA-J-11011/141/2019-IA-II(I)]

1. The proposal is for amendment in the ToR issued by the Ministry vide letter No. IA-J-11011/141/2019-IA-II(I) dated 11.5.2019 for increase in capacity of Mineral Salt Production

through Conventional Process from 1020 TPA to 1770 TPA and by Spray Drier Route from 1034 TPA to 1784 TPA, API Capacity of 100 TPA (no change) and addition of Land Area of 0.40 Ha of Plot No. 19 A (in addition to 1.02 Ha of Plot No. 19 & 19B) by M/s Global Calcium Private Limited UNIT III located at Plot No.19&19 B, SIPCOT Industrial Complex, Hosur, District- Krishnagiri, Tamil Nadu

2. The PP vide proposal number IA/TN/IND3/271077/2022 dated 11.05.2022 applied in Form-3 for amendment in ToR. Accordingly, PP submitted the revised Form-1 and PFR. The proposal is now placed in 32nd EAC meeting held on May, 30-31, 2022, wherein the project proponent and the accredited consultant, Chennai Testingthe Laboratory Private Limited having accreditation number NABET/EIA/2023/SA0152 valid till 15.8.2023] made a detailed presentation and requested for following amendment in previously granted ToR:

- The proposed Increase in products/ production of Mineral Salts from 2054 TPA to 3554 TPA, API Plant with Capacity of 100 TPA (no change) and addition of Land Area of 0.4 ha (Plot No. 19A – Lease Deed is enclosed in Annexure - XIV). in addition to existing 1.02 ha (Plot No. 19 & 19B).

- Project Cost ₹ 3000 Lakh (Existing GFA & Proposed)

- Addition of Plot No. 19A admeasuring 0.4 Ha.

- There is an existing ETP-I with Biological Treatment/ RO/ MEE to treat 38.5 KLD of waste water generated from Mineral Salts Manufacturing Plant, and this ETP I is proposed to be upgraded to 73.5 KLD, while an additional ETP-II proposed to treat 24 KLD of waste water generated from API Unit, thus ensuring “Zero Liquid Discharge” from the Plant.

3. <u>Deliberations by the EAC:</u>

A. Based on the discussions held, the Committee is of the view that:

i) Production capacity may be considered as follows:

Products	**Processing in the Plant**	**Quantity in TPA**		
		As per Existing EC	**Proposed Addition**	**Total**
Pharmaceutical bulk drugs andchemicals such as Mineral salts of Gluconates, Citrates, Lactates, Lactobionates, Fumarates, Orotates, Ascorbates, Aspartates, Pidolates, Bis Glycinate, Calcium D Saccharate, Pyrophosphates, etc	**by Conventional Process**	1020	750	1770
Pharmaceutical bulk drugs andchemicals such as Calcium Glubionate , Calcium	**by spray drier process**	1034	750	1784

Borogluconate, Calcium Lacto Gluconate, Gluconates, Aspartates, Pidolates and other Mineral Salts				
<u>API Products</u> (Active Pharma Ingredients) such as BEPOTASTINE BESILATE, BENFOTIAMINE, CALCIUM DOBESILATE, CLOZAPINE, CITICOLINE, CINITAPRIDE HYDROGEN TARTRATE, CARBIMAZOLE, DEFERASIROX, DIATRIZOIC ACID, DORZOLAMIDE HYDROCHLORIDE, DESVENLAFAXINE SUCCINATE, FENPIVERINIUM BROMIDE, FLUPENTIXOL AND ITS SALTS, CALCIUM FOLINATE, FERRIC ISOMALTOSIDE, FERRIC MALTOL, FOMEPIZOLE, FLUPHENAZINE DECANOATE, FOSPHENYTOIN SODIUM, CALCIUM GLYCEROPHOSPHATE, IRON SUCROSE, IRON SORBITOL COMPLEX, IRON POLY MALTOSE COMPLEX, IVABRADINE HYDROCHLORIDE, IOHEXOL, L-METHYL FOLATE, MEBEVERINE HYDROCHLORIDE, MELITRACEN HYDROCHLORIDE, MINOXIDIL, METHOTREXATE, METOPIMAZINE, NIFUROXAZIDE, NAFTIFINE, NEFOPAM HYDROCHLORIDE, NEBIVOLOL HYDROCHLORIDE, OXETACAINE, OXCARBAZEPINE, PITOFENONE HYDROCHLORIDE, PHENYTOIN/ FOSPHENYTOIN SODIUM, PHENAZOPYRIDINE HCL, PHENYRAMIDOL HYDROCHLORIDE, PYRIDOSTIGMINE BROMIDE, STRONTIUM RANELATE, SUCROFERRIC OXYHYDROXIDE, TERBINAFINE HYDROCHLORIDE, TRIBENOSIDE, TIEMONIUM METHYLSULPHATE, TOLPERISONE HYDROCHLORIDE, TOPIRAMATE, TRIMETAZIDINE HYDROCHLORIDE, UBIQUINOL	--	100	100

(ACETATE), VENLAFAXINE, DESVENLAFAXINE, ETC			
Total			**3654**

ii) The revised project area now submitted by the PP is as follows :

Plot #	**Existing EC (in ha.)**	**Upon Expansion (in ha.)**
19 & 19B	1.02	1.02
19A	-	0.40
Total Area	**1.02**	**1.42**

The Project cost for this expansion was mentioned as ₹ 10 Crore in the previous Form-I. However, as per the revised Form-I, the project cost is mentioned as ₹ 30 Crore (proposed expansion alone is ₹16.27 Crore in addition to existing GFA of ₹13.73 Crore).

iii) The Committee observed that the revised ETP details are as follows:
There is an Existing operating ETP of 38.5 KLD for waste water generated from mineral salt unit, which is proposed to be upgraded to 73.5 KLD and an additional ETP II proposed to treat and recycle/reuse 24 KLD waste water from API unit.

EXISTING (KLD)			**UPON EXPASINO (KLD)**		
MINERAL SALTS/ API	**DOMESTIC SEWAGE**	**TOTAL**	**MINERAL SALTS/ API**	**DOMESTIC SEWAGE**	**TOTAL**
38.5	4.0	42.5	97.5	11.5	109.0

iv) The committee observed that w.r.t RAW WATER SOURCE & USAGE, the PP previously submitted that "*Upon expansion, the total water requirement will be 121.5 KLD. Out of which, 68.7 KLD through recycling, remaining 52.8 KLD (fresh water requirement) met from SIPCOT Supply".* PP now proposed that "*the total water requirement upon expansion will be 172.8 KLD (Recycled – 94.9 KLD & Fresh Water – 77.9 KLD). The entire fresh make-up water is sourced from SIPCOT".*

Power Requirement:

Previous:

The details of existing and upon expansion power consumption and its source are as follows:

Power Consumption			
Source	**Existing**	**Proposed**	**Upon Expansion**
CAPTIVE Wind Mill through TNEB Grid	0.48 MW	0.32 MW	0.8 MW

Global Calcium has its own windmill, and the entire power required is met through this windmill. The plant runs entirely on this green energy.

D.G. Sets of 180 KVA x 1, 380 KVA X 1, & 250 KVA X 1. capacity will be used only during emergency or grid failure.

Revised

The details of existing and upon expansion power consumption and its source are as follows:

Power Consumption			
Source	**Existing**	**Proposed**	**Upon Expansion**
CAPTIVE [Wind Mill]	0.9 MW	1.3 MW	2.2 MW

Global Calcium has its own windmill, and the entire power required is met through this windmill. The plant runs entirely on this green energy.

D.G. Sets of 180 KVA x 1, 380 KVA X 1, & 250 KVA X 1. capacity is existing and 1010 KVA x 1 No. is proposed to be installed in the expansion plan, will be used only during emergency or grid failure.

B. Based on the discussion held and documents submitted, the Committee **recommended** the proposal for aforementioned amendment in the ToR. The Committee also prescribed the following additional ToR in addition to the standard ToR.

(i) Certified compliance status of the existing EC conditions from IRO, MoEF&CC.
(ii) Action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.
(iii) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.
(iv) Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
(v) Compliance of greenbelt development. Trees have to be planted with spacing of 2m x 2m and 2500 number of trees per hectare have to be calculated accordingly.
(vi) Adequate Solvent recovery/solvent management plan
(vii) Adequate Volatile organic compounds (VOCs)/Fugitive emissions control plan.
(viii) Time bound Action plan for EMP, Occupational health, Greenbelt with budgetary provision needs to be provided.
(ix) Details of court cases and their present status, if any;

Agenda No. 32.6

Manufacturing Specialty Chemicals and Agro-Chemicals located at Plot no. C-9, C-10 & C-11, SIPCOT Industrial Complex, Village Kudikkadu, District Cuddalore, Tamil Nadu by M/s Crimsun Organics Private Limited - Consideration of Amendment in Environmental Clearance

[Proposal No. IA/TN/IND3/272258/2022; File No. IA-J-11011/207/2018-IA-II(I)]

The PP vide email dated 30.5.2022 informed that due to unavoidable circumstances, they would be unable to attend the appraisal meeting and requested to consider in the next meeting. The EAC agreed to the request of PP.

Agenda No. 32.7

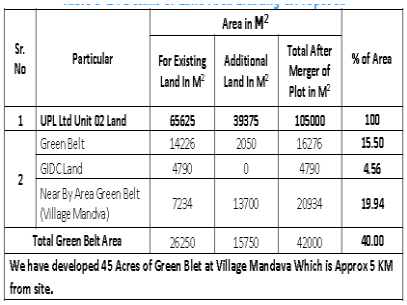
Expansion of Pesticide Technical and Pesticide Specific Intermediates Manufacturing unit located at Plot 3405/3406/3460-A, GIDC Estate, Ankleshwar, District Bharuch, Gujarat by M/s UPL Limited - Consideration of Amendment in Environmental Clearance

[Proposal No. IA/GJ/IND3/272580/2022; File No. J-11011/77/2002-IA-II(I)]

1. The proposal is for amendment in the Environment Clearance granted by the Ministry vide letter no. IA-J-11011/77/2002-IA-II(I) dated 10.1.2020 for **Expansion of Pesticide Technical and Pesticide Specific Intermediates Manufacturing unit by M/s UPL Limited at Plot 3405/3406/3460-A, GIDC Estate, Ankleshwar, District Bharuch, Gujarat.**

2. M/s. UPL Limited vide proposal No. **IA/GJ/IND3/272580/2022** applied for the amendment in EC on 13.5.2022. The proposal is now placed in 32nd EAC meeting held on May 30-31, 2022, wherein the project proponent made a detailed presentation and requested for following amendment in previously granted EC:

S. No.	Para of EC issued by MoEF& CC	Details as per EC	To be Revised / Read as	Justification (Reasons)
1	**Subject**	Expansion of Pesticide Technical and Pesticide Specific Intermediates Manufacturing Unit by M/s UPL Ltd at **Plot No 3405/3406/3460 A,** Notified Industrial Estate, GIDC, Taluka Ankleshwar, District Bharuch (Gujarat) – Environmental Clearance – reg.	Expansion of Pesticide Technical and Pesticide Specific Intermediates Manufacturing Unit by M/s UPL Ltd at **Plot No 3405/3406/3460A/3460B / 3461** Notified Industrial Estate, GIDC, Taluka Ankleshwar, District Bharuch(Gujarat) - Environmental Clearance – reg.	Acquired New Adjacent Plot No 3460B & 3461 Located in Notified industrial Area, GIDC, Ankleshwar, admeasuring area of 39375 M^2 we propose addition of Plot No 3460B & 3461 to Existing Granted EC without Increase in Production Capacity & Pollution Load Proposal is Change in Only Physical Boundary. The Existing Site & New Plot are located in Notified Industrial Area, GIDC, Ankleshwar. **We Request to Add Adjacent Plot No. 3460 B & 3461 in Subject Line Item.**
2	**EC Condition No - 2**	The Ministry of Environment, Forest and Climate Change has examined the proposal for Environmental Clearance to the project for Expansion of Pesticide technical and pesticide specific Intermediates manufacturing unit from 4069 TPM to 9564 TPM by **M/s UPL Ltd in an area of 65,625 Sq M located at Plotno3406/3406/3460A**,Notifiedindustrial Estate,GIDC,TalukaAnkleshwar,DistrictBharuch(Gujarat)	The Ministry of Environment, Forest and Climate Change has examined the proposal for Environmental Clearance to the project for Expansion of Pesticide technical and pesticide specific Intermediates manufacturing unit from 4069 TPM to 9564 TPM by **M/s UPL Ltd in an area of 105000 Sq M located at Plot no 3406/3406/3460A/3460 B/3461** Notified industrial Estate, GIDC, Taluka Ankleshwar, District Bharuch(Gujarat)	Acquired New Adjacent Plot No 3460B & 3461 Located in Notified industrial Area, GIDC, Ankleshwar, admeasuring area of 39375 M^2 We propose addition of Plot No 3460B & 3461 to Existing Granted EC without Increase in Production Capacity & Pollution Load **We Request to Merge Existing Plot Area with New Plot Area & Addition of Adjacent Plot Number.**
3	**EC Conditi**	**Existing Land Area is 65625 Sq M** and No	**Existing Land Area is 105000 Sq M** and No additional land required	Addition of New Plot Area in Sq M & Amendments with respect to Cost and Green Belt. The

<table>
<tr><th>S. No.</th><th>Para of EC issued by MoEF& CC</th><th>Details as per EC</th><th>To be Revised / Read as</th><th>Justification (Reasons)</th></tr>
<tr><td></td><td>on No - 4</td><td>additional land required for the proposed expansion. Industry has already developed green belt /plantation in an area of 14226.58 sqm out of total area of project. The industry has also requested/signed MoU with GIDC for additional land for green belt development. The estimated project cost is Rs. 445.89 Crores Total Capital cost earmarked towards Environmental pollution control measures is Rs. 26.02 Crores and recurring cost (O& M) will be about Rs. 34 Crores per annum. Total Employment will be 103 persons direct & 150 persons indirect after expansion.</td><td>for the proposed expansion. Industry has already developed green belt /plantation in an area of 14226.58 sqm out of total area of project. The industry has also planned more area under green belt at Plot No 3460B/3461. The Industry has signed MoU with GIDC for additional land for green belt development. The estimated project cost is Rs. 477.89 Crores Total Capital cost earmarked towards Environmental pollution control measures is Rs. 26.02 Crores and recurring cost (O& M) will be about Rs. 34 Crores per annum. Total Employment will be 103 persons direct & 150 persons indirect after expansion.</td><td>Area Details are Tabulated Below. The Existing and New Plot are located in GIDC Ankleshwar.
 
<table>
<tr><th rowspan="2">Sr. No</th><th rowspan="2">Particular</th><th colspan="3">Area in M^2</th><th rowspan="2">% of Area</th></tr>
<tr><th>For Existing Land In M^2</th><th>Additional Land In M^2</th><th>Total After Merger of Plot in M^2</th></tr>
<tr><td>1</td><td>UPL Ltd Unit 02 Land</td><td>65625</td><td>39375</td><td>105000</td><td>100</td></tr>
<tr><td rowspan="3">2</td><td>Green Belt</td><td>14226</td><td>2050</td><td>16276</td><td>15.50</td></tr>
<tr><td>GIDC Land</td><td>4790</td><td>0</td><td>4790</td><td>4.56</td></tr>
<tr><td>Near By Area Green Belt (Village Mandva)</td><td>7234</td><td>13700</td><td>20934</td><td>19.94</td></tr>
<tr><td colspan="2">Total Green Belt Area</td><td>26250</td><td>15750</td><td>42000</td><td>40.00</td></tr>
<tr><td colspan="6">We have developed 45 Acres of Green Blet at Village Mandava Which is Approx 5 KM from site.</td></tr>
</table></td></tr>
<tr><td>4</td><td>EC Condition No - 12</td><td>Based on the proposal submitted by the project proponent and recommendations of EAC (Industry 2), The</td><td>Based on the proposal submitted by the project proponent and recommendations of EAC (Industry 3), The MoEF&CC hereby accords Environmental Clearance to the project</td><td>We Request to Add Adjacent Plot No 3460/B & 3461 in Address.</td></tr>
</table>

S. No.	Para of EC issued by MoEF& CC	Details as per EC	To be Revised / Read as	Justification (Reasons)
		MoEF&CC hereby accords Environmental Clearance to the project for Expansion of Pesticidetechnicalandpesticidespecific Intermediates manufacturingunitfrom4069TPMto9564TPMby**M/sUPLLtdatPlotNo3405/3406/3460A,** NotifiedIndustrial Estate,GIDC,Taluka–Ankleshwar,DistrictBharuch(Gujarat),undertheprovisionsoftheEIANotification,2006,subjecttocomplianceofthetermsandconditionsas below:-	for Expansion of Pesticide technical and pesticide specific Intermediates manufacturing unit from 4069 TPM to 9564 TPM by **M/s UPL Ltd at Plot No 3405/3406/3460A/3460B/3461**Notified Industrial Estate, GIDC, Taluka – Ankleshwar, District Bharuch (Gujarat), under the provisions of the EIA Notification,2006, subject to compliance of the terms and conditions as below	

3. <u>Deliberations by the EAC:</u>

The Committee observed that PP acquired additional land in the Plot Nos. 3460B & 3461, which are adjacent to existing unit and located in the same notified industrial area. The PP submitted the Greenbelt plan for the proposed change, but the PP is not able to justify the existing Greenbelt developed so far. The additional land is on the one side of existing unit and require revised air quality modelling. Being a pesticide unit, Life Cycle Assessment needs to be done. The Presentation does not include the carbon footprints of the project and how the PP propose to reduce/compensate the same. Being an existing unit for which EC was granted on 10.1.2020, the PP is required to submit the latest six monthly compliance report submitted to IRO, MOEF&CC.

Accordingly, the Committee **deferred** the proposal for submission of the above information.

<u>Agenda No. 32.8</u>

Proposed Synthetic Organic Chemicals (Different Types of Resins) located at Survey no. 93 P/3, Behind millennium vitrified, Village: Bhadiyad, District: Morbi, Gujarat by M/s. Zizer Polymers LLP

[Proposal No. IA/GJ/IND3/271169/2022; File No. IA-J-11011/258/2019-IA-II(I)]

1. The proposal is for amendment in the Environment Clearance granted by the Ministry vide letter 1st December, 2020 for project, Proposed Synthetic Organic Chemicals (Different Types of Resins) located at Survey no. 93 P/3, Behind millennium vitrified, Village: Bhadiyad, District: Morbi, Gujarat.

2. **M/s. Zizer Polymers LLP** vide proposal No. **IA/GJ/IND3/271169/2022** applied for amendment in EC on 4.5.2022. The proposal is now placed in 32nd EAC meeting held on May, 30-31, 2022, wherein the project proponent and the accredited Consultant M/s.T.R Associates having accreditation number NABET/EIA/1922/SA0153 valid till8.4.2023] made a detailed presentation and requested for following amendment in previously granted EC:

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised	Justification/ reasons
1	Condition No. 6	The land area available for the project 4047 $m^{2.}$ Industry will develop greenbelt in an area of 36.75% i.e. 1487.63 m^2 out of total area of the project. The estimated project cost is Rs. 700 lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs. 28.53 lakhs and the recurring cost (operation and maintenance) will be about 27.03 lakh per annum. Total employment will be 25 persons as direct. Industry proposed to allocate 14 lakhs towards corporate environment responsibility.	The land area available for the project 4047 $m^{2.}$ Industry will develop greenbelt in an area of 36.75% i.e. 1487.63 m^2 out of total area of the project. The estimated project cost is Rs. **729.3** lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs. 40.53 lakhs and the recurring cost (operation and maintenance) will be about 30.03 lakh per annum. Total employment will be 25 persons as direct. Industry proposed to allocate 14.3 lakhs towards corporate environment responsibility.	It is to be noted that unit will install Air Pollution Control Equipment (i.e. bag filter) and increase in flue gas stack height due to change in fuel type from Natural gas to Natural gas or diesel or LDO.
2	Condition No.8	Ambient air quality monitoring was carried out at 8 locations during October to December, 2019 and the baseline data indicates the	Ambient air quality monitoring was carried out at 8 locations during October to December, 2019 and the baseline data indicates the	There would be increase in PM_{10} and SO_x concentration because of combustion of diesel in boiler as well as in TFH as compared to natural gas. Considering the incremental concentration

		ranges of concentrations as PM_{10}, (66.28 $\mu g/m^3$ to 84.93 $\mu g/m^3$) (PM2.5 (34.4 ($\mu g/m^3$ to 51.28 $\mu g/m^3$), $S0_2$ (9.65 $\mu g/m^3$ to 21.39 $\mu g/m^3$) and $N0_2$ (24.91 $\mu g/m^3$ to 39.23 $\mu g/m^3$). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.1 $\mu g/m^3$ and 0.01 $\mu g/m^3$ with respect to PM_{10} and SOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).	ranges of concentrations as PM_{10}, (66.28 $\mu g/m^3$ to 84.93 $\mu g/m^3$) (PM2.5 (34.4 ($\mu g/m^3$ to 51.28 $\mu g/m^3$), $S0_2$ (9.65 $\mu g/m^3$ to 21.39 $\mu g/m^3$) and $N0_2$ (24.91 $\mu g/m^3$ to 39.23 $\mu g/m^3$). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be **0.1 $\mu g/m^3$** and **0.5 $\mu g/m^3$**with respect to PM_{10} and SOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).	of ambient air it was found to be well within National ambient air quality standards (NAAQS).
3	Condition No. 10	Power requirement will be 125 kVA and will be met from Paschim Gujarat Vij Corporation limited (PGVCL). Industry propose one thermic fluid heater of 4 Lakh kcal/hr (Fuel: Natural gas (400 SCM/day)) & Boiler (0.6 TPH) (fuel: Natural gas (200 SCM/day))	Power requirement will be 125 kVA and will be met from Paschim Gujarat Vij Corporation limited (PGVCL). Industry propose one thermic fluid heater of 4 Lakh kcal/hr (Fuel: Natural gas (400 SCM/day or Diesel (520 lit/day) or L.D.O (525 lit/day) & Boiler (0.6 TPH) (fuel: Natural gas (200 SCM/day or Diesel:174.45 lit/day or LDO 174.61 lit/day))	We have applied to Gujarat Gas Limited for gas connection and also done agreement for the same however unavailability of the gas pipeline in the project area gas is not available, so we are proposing to switch over diesel or LDO. whenever gas connection is available we will go for Natural gas as fuel and we will intimate to ministry.

3. Deliberations by the EAC:

The Committee observed that the PP has made an Agreement with Gujarat Gas Limited on 18.8.2021 but till date Natural gas connection is not provided by Gujarat Gas Limited and due to this for time being they want to use LDO. The Committee is of the view that previous EC was granted considering the fuel as natural gas and this modification in fuel type require modification in the layout of the plant, pollution equipment, Environmental Management Plan etc. Further, the Committee observed that after the Agreement, no serious efforts were made by the PP to escalate the matter to higher authorities in the Gujarat Gas Limited to obtain the gas connection. The Committee is also of the view that such type of proposal for fuel change needs to be supported by detailed scientific study.

Based on the discussion held and documents submitted, the EAC **deferred** the proposal and is of the view that the PP should first make serious efforts for obtaining the natural gas connection by escalating the matter to higher authorities in the Gujarat Gas Limited. In case the Gujarat Gas Limited in writing commit that they are not able to provide gas connection at all or for a specific period of time, only in such case, the PP may approach this Committee with above documents.

Agenda No. 32.9

Clarification on requirement of Environment Clearance for the production of Nicotine Di-tartrate Di-hydrate

1. The ITC Indivision Ltd. vide letter dated 17.5.2022 requested the Ministry to clarify on the requirement of Environment Clearance for production of Nicotine Di-tartrate Di-hydrate. The matter was examined in the Ministry and being a technical matter, the proposal is referred for the comments/ recommendations of Expert Appraisal Committee (Industry-III). Accordingly, the proposal is now placed in 32nd EAC meeting held during May 30-31, 2022.

2. During the meeting, the representative of ITC Indivision Ltd. along with their consultant, made a detailed presentation and reported that that Nicotine is a naturally occurring substance and pure nicotine is extracted from tobacco leaves. The Nicotine Di-tartrate Di-hydrate is formed from nicotine liquid and naturally occurring tartaric acid. The process does not involve alteration of nicotine molecule at any stage of manufacturing, and it involves simple unit operations such as transfer, separation and purification by boiling. Solvents such as methanol and methylene dichloride used here are carrier media and does not take part in reaction. As per the EIA notification 2006, it is required for the “Synthetic Organic Chemicals industry” to obtain Environmental Clearance. In our case, product does not fall under the “Synthetic Organic Chemicals industry” category.

3. Deliberations by the EAC:

The committee deliberated on the documents submitted by the company and the presentation made before it. The Committee observed that the project proponent has planned to manufacture Nicotine Di-Tartrate Di-Hydrate (NDTDH) using the concentrated nicotine extracted from waste tobacco leaves and tartaric acid obtained from natural sources like grapes, tamarind, etc. Both of these basic molecules are natural and are being combined together to get the adduct NDTDH to be used for therapeutic purposes. The final product may fall under the category of API involving natural ingredients for which there are no regulations in India. Thus, the product does not fall under the category of synthetic organic chemicals and does not require EC. However, it does involve the use of an industrial solvent like methylene dichloride and methanol for which adequate measures and precautions are required for storage, transportation, use, etc. through the consent of the Karnataka State Pollution Control Board.

The meeting ended with thanks to the Chair.

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ANNEXURE

GENERAL EC CONDITIONS

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

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

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

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

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

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

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

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

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

(x) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at **https://parivesh.nic.in/**. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated

in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.

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

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

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Annexure

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

S. No.	Name of Members	Designation
1.	**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	Chairman (nominated) for 32nd EAC
2.	**Dr. Ashok Kumar Saxena, IFS** Bunglow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
3.	**Shri Santosh Gondhalkar** 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@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, PariveshBhawan, East Arjun Nagar, Delhi – 110032 E-mail: dinabandhu.cpcb@nic.in	Member
7.	**Dr. M. Ramesh** **Scientist-'E', MoEF&CC** Ministry of Environment, Forest and Climate Change, Indira ParyavaranBhawan, JorBagh Road, New Delhi-110003 Email- ramesh.motipalli@nic.in Tel: 011- 20819249	Member Secretary

MOM approved by

(Prof. (Dr.) S. N. Upadhyay)
Chairman (nominated) for 32nd EAC

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