GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)
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Dated: 25.07.2022

MINUTES OF THE 34th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON July 12-13, 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

(i) Opening Remarks by the Chairman, EAC

Prof. (Dr.) A.B. Pandit, Chairman EAC 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 33rd Meeting of the EAC (Industry-3 Sector) held during June 20-22, 2022 through VC

The EAC noted that the final minutes were issued after incorporating the comments offered by the members and approved by the Chairman on 30.06.2022. The EAC confirmed the minutes of meeting with the following modifications:

Agenda No. 33.1

Setting up of API Manufacturing Unit of production capacity 469.77 TPA located at Plot No. N-28, MIDC Tarapur, Tehsil & District – Palghar, Maharashtra by M/s JPN Industries LLP – Reconsideration of Environmental Clearance

[Proposal No. IA/MH/IND3/248122/2021; File No. IA-J-11011/553/2021-IA-II(I)]

1. The Member Secretary informed the Committee that the Environmental Clearance to the project is yet to be issued by the regulatory authority and being in a critically polluted area, the specific condition no. (i) i.e. *"Since the project site is in a critically polluted area, the additional mitigation measures already committed by the PP to safeguard the environment as per the MoEF&CC O.M. dated 31/10/2019 and those stipulated by the SPCB from time to time shall be duly complied"* may be more specific for better compliance and monitoring. Therefore, the Committee recommended for inclusion of following additional specific conditions w.r.t to this proposal:

(i) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on

long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for Industry operations, of air pollution viz. PM_{10}, $PM_{2.5}$, NO_2, CO and SO_2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of process emission, transportation, use of DG Set and use of any machinery in the impact zone. The ambient air quality shall also be monitored at prominent places as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the Industry.

(ii) The PP shall ensure that effective fugitive emission control measures should be imposed in the process, transportation, packing etc. and wherever possible, the transportation of materials is through rail/conveyor belt.

(iii) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM_{10} and $PM_{2.5}$ are evident. such as road, loading, unloading and transfer points. The fugitive dust emissions from all sources shall be regularly controlled by installation of required equipment's/ machineries and preventive maintenance. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/Central Pollution Control Board.

(iv) The PP shall explore the possibility of use of best available technology for the plant if any and submit a report every year to IRO, MoEF&CC. In case of availability of such technology the PP shall take necessary steps for the implementation of the same including amending the EC.

(v) The PP shall plant at least 500 saplings/year outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. The PP shall submit the budget for the same within three months to IRO, MoEF&CC. The budget proposed to be earmarked for the outside plantation shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(vi) The PP shall carry out assessment of carrying capacity of transportation load on roads inside the industrial premises every year and based on the assessment report take necessary measured including widening of the roads.

(vii) The PP shall prepare a detailed rain water harvesting plan within a period of 6 months so that unit may become water positive. The study report shall be submitted to IRO, MoEF&CC and submit the quantity of rain water harvested to before IRO, MoEF&CC before 1st July of every year for the rain water harvested during previous year.

(viii) The PP shall ensure that dumping of waste, if any, is strictly as per designated locations approved by SPCBs/PCCs.

(ix) The PP shall ensure the compliance of the EC conditions needs to be audited by a Third Party annually. Audited report needs to be submitted to IRO, MoEF&CC.

(x) PP shall ensure to use cleaner fuel PNG with a stack height of 30 m for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed 1.5 TPH boiler and submit a report within a year to IRO, MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xi) The budget earmarked for Corporate Environment Responsibility (CER) is Rs. 60.16 Lakh which will be spent on need-based approach in consultation with District Collector of Palghar district. The budget earmarked for CER 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 activities carried out, amount spent etc. to the IRO, MoEF&CC before 1st July of every year for the activities carried out during previous year.

2. The EAC observed that the Public Consultation is not applicable in the instant case, accordingly, the specific condition no. (xxii) mentioned in minutes of 33rd EAC meeting shall be omitted. Further, the word EIA mentioned in Specific Condition no (iv) may also be omitted.

Agenda No. 33.2

Proposed Expansion of Synthetic Organic Chemicals in Existing Production Capacity and Addition of New Products Within Existing Premises, located at Plot Nos. 12 & 14, GIDC Phase-I, Vatva, Dist. Ahmadabad, Gujarat by M/s Anar Chemicals LLP - Reconsideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/268019/2006; File No. J-11011/508/2006-IA-II (I)]

1. The Member Secretary informed the Committee that Environmental Clearance to the project is yet to be issued by the regulatory authority and being in a critically polluted area, the specific condition no. (i) i.e. *"Since the project site is in a critically polluted area, the additional mitigation measures already committed by PP to safeguard the environment as per the MoEF&CC O.M. dated 31/10/2019 and those stipulated by the SPCB from time to time shall be duly complied"* may be more specific for better compliance and monitoring. Therefore, the Committee recommended for inclusion of following additional specific conditions w.r.t to this proposal:

(i) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for Industry operations, of air pollution viz. PM_{10}, $PM_{2.5}$, NO_2, CO and SO_2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of process emission, transportation, use of DG Set and use of any machinery in the impact zone. The ambient air quality shall also be monitored at prominent places as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the Industry.

(ii) The PP shall ensure that effective fugitive emission control measures should be imposed in the process, transportation, packing etc. and wherever possible, the transportation of materials is through rail/conveyor belt.

(iii) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM_{10} and $PM_{2.5}$ are evident. such as road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/machineries and preventive maintenance. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

(iv) The PP shall explore the possibility of use of best available technology for the plant if any and submit a report every year to IRO, MoEF&CC. In case of availability of such technology the PP shall take necessary steps for the implementation of the same including amending the EC.

(v) The PP shall plant at least 500 saplings/year outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. The PP shall submit the budget for the same within three months to IRO, MoEF&CC. The budget proposed to be earmarked for the outside plantation shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(vi) The PP shall carry out assessment of carrying capacity of transportation load on roads inside the industrial premises every year and based on the assessment report take necessary measured including widening of the roads.

(vii) The PP shall prepare a detailed rain water harvesting plan within a period of 6 months so that unit may become water positive. The study report shall be submitted to IRO, MoEF&CC and submit the quantity of rain water harvested to before IRO, MoEF&CC before 1st July of every year for the rain water harvested during previous year

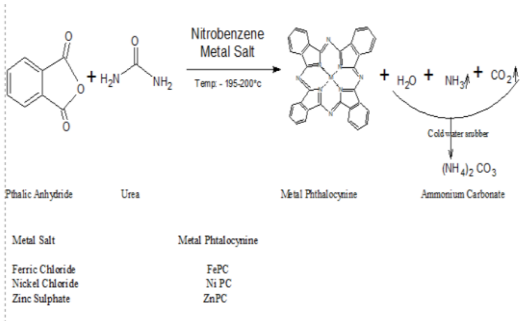
(viii) The PP shall ensure that dumping of waste if any is strictly as per designated locations approved by SPCBs/ PCCs.

(ix) The PP shall ensure the compliance of the EC conditions needs to be audited by a Third Party annually. Audited report needs to be submitted to IRO.

(x) The PP shall use white coal (Briquettes) as a fuel. In addition to this, PP shall explore the possibility for use of cleaner fuel and submit a report within a year to IRO, MoEF&CC before 1st July of every year for the activities carried out during previous year.

2. The EAC observed that the Public Consultation is not applicable in the instant case accordingly, the specific condition number (xxii) mentioned in minutes of 33rd EAC meeting shall be omitted.

3. The PP vide letter dated 11.7.2022 requested the following corrections in the MoM:

Details mentioned in the MoM	Correction Requested	Justification
Ammonium solution shall be disposed of as per Rule 9 and/or should be used as a neutralizer in own ETP	Ammonium Carbonate is generated as by-product.	While submitting the EC application, by mistake it was mentioned that ammonia solution will be generated during the reaction. However, as per the chemical reaction, from the process, ammonium carbonate is generated as a by–product. The Metal Phthalocyanines Chemical Reaction is as follows: 
Zinc chloride solution shall be disposed of as per Rule 9	Allow us to send the Zinc chloride solution for the regeneration to our zinc chloride manufacturer for catalyst regeneration.	Earlier we were selling the zinc chloride solution to the actual users. Now, our Zinc chloride catalyst supplier has agreed to regenerate our zinc chloride solution and send it back to us after regeneration for our use.

Deliberations by the EAC:

The EAC deliberated the issues and noted that spent ammonium carbonate generated from the process (dye and dye intermediate industry) has been declared as hazardous waste under category 26.1 of Hazardous Waste Management Rules, 2016 and for which SOP has been prepared by CPCB in the year 2019. It should not be considered as a by-product. Accordingly, the EAC recommended for appropriate corrections in the minutes.

Agenda No.33.4

Proposed Pesticide Manufacturing Project of production capacity of 5110 MT/Annum. [Insecticides: 1200 MT/Annum, Fungicides: 600 MT/Annum, Herbicide: 2200 MT/Annum, Plant Growth Regulator- 10 MT/Annum, Advanced Pesticide Specific Intermediates: 800 MT/Annum and R&D based Products: 300 MT/Annum] located at Plot No. H-42 & H-43 Kosi Kotwan Extension-1, Uttar Pradesh State Industrial Development Corporation

(UPSIDC) Industrial Area, Mathura, Uttar Pradesh by M/s Umwelt Life Science Pvt. Ltd. - Consideration of Environmental Clearance
[Proposal No. IA/UP/IND3/215844/2021; File No. IA-J-11011/256/2021-IA-II(I)]

1. The proposal was considered in 33rd EAC Meeting held on 20-22 June, 2022, wherein the Committee recommended the proposal. The MoM were published on 01.07.2022. Subsequently, the PP has requested for the following correction in the minutes:

Page No. of Minutes	Specific Points	Information as per Minutes of Meeting	Details to be corrected	Justification/ Remarks
Page - 41	Point No. 3	The PP applied for ToR vide proposal number IA/UP/IND3/215844/2021 dated 28.6.2021 and the standard ToR has been issued by the Ministry, vide letter No. IA-J-11011/256/2021-IA-11(1) dated 3.7.2021. PP reported that PH is exempted as it is located inside the notified industrial area vide gazette dated 5.9.2021. The PP applied for Environment Clearance on 12.5.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP reported in Form-2 that it is a Fresh EC. Due to some shortcomings, the Project was referred back to PP on 23.5.2022 and reply to the same was submitted on 26.5.2022. The proposal is now placed in 33rd EAC Meeting held on 20-22 June, 2022, wherein the Project Proponent and an accredited Consultant, EQMS India Pvt. Ltd. [Accreditation number NABET/EIA/1922/RA019 7 Valid up to 23.11.2022 made a detailed presentation on	The PP applied for ToR vide proposal number IA/UP/IND3/215844/2021 dated 28.6.2021 and the standard ToR has been issued by the Ministry, vide letter No. IA-J-11011/256/2021-IA-11(1) dated 3.7.2021. PP reported that PH is exempted as it is located inside the notified industrial area vide gazette dated **5.9.2001**. The PP applied for Environment Clearance on 12.5.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP reported in Form-2 that it is a Fresh EC. Due to some shortcomings, the Project was referred back to PP on 23.5.2022 and reply to the same was submitted on 26.5.2022. The proposal is now placed in 33rd EAC Meeting held on 20-22 June, 2022, wherein the Project Proponent and an accredited Consultant, EQMS India Pvt. Ltd. [Accreditation number NABET/EIA/1922/RA019 7 Valid up to 23.11.2022 made a detailed presentation on	Date of Gazette Notification for exemption of PH needs to be corrected.

		the salient features of the project and informed the following:	the salient features of the project and informed the following	
Page No. 43	Point No-7	The PP reported that Ambient air quality monitoring was carried out at 8 locations during Oct-Nov-Dec 2021 and baseline data indicates that ranges of concentrations of PM_{10} (56 µg/m^3 to 98 µg/m^3, $PM_{2.5}$ (21 µg/m^3 to 48 µg/m^3), SO_2 (5.8 µg/m^3 to 16.5 µg/m^3), NOx (14 µg/m^3 - 35 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs would be 0.34 µg/m^3 for PM_{10}, 0.28 µg/m^3 for $PM_{2.5}$, 1.46 µg/m^3 for SO_2 and 0.66 µg/m^3 for NOx (towards West side) …… The heavy metal contents were observed to be in below detectable limits.	The PP reported that Ambient air quality monitoring was carried out at 8 locations during Oct-Nov-Dec 2021 and baseline data indicates that ranges of concentrations of PM_{10} (56 µg/m^3 to 98 µg/m^3, $PM_{2.5}$ (21 µg/m^3 to 48 µg/m^3), SO_2 (5.8 µg/m^3 to 16.5 µg/m^3), NOx (14 µg/m^3 - 35 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs would be 0.679 µg/m^3 for PM_{10}, 0.599 µg/m^3 for $PM_{2.5}$, 2.841 µg/m^3 for SO_2 and 1.389 µg/m^3 for NOx (towards South-East side). The heavy metal contents were observed to be in below detectable limits.	Values of maximum incremental GLCs need to be corrected.

2. Deliberations by the EAC:

The EAC deliberated the issues and noted that that these are typographical errors and factual in nature and recommended for appropriate corrections in the minutes, as requested by the PP.

Agenda No.33.15

Proposal for Expansion in "Pesticide Technical and Pharma/API/Intermediates Chemicals Manufacturing Unit" with increase in production capacity from 62,500 TPA to 90,000 TPA at Plot No. 3133-3139, 3231-3245, 3330-3351, 3571-3524, GIDC-Panoli, Bharuch, Gujarat by M/s PI Industries Limited - Consideration of ToR

[Proposal No. IA/GJ/IND3/272546/2022; File no. IA-J-11011/168/2022IA-II(I)]

1. The proposal was considered in the 33rd EAC Meeting held on 20-22 June, 2022, wherein the Committee recommended the proposal. The MoM were published on 01.07.2022. Subsequently, the PP has requested for the following correction in the minutes:

Page No. of Minutes	Specific Points	Information as per Minutes of Meeting	Details to be Corrected	Justification/ Remarks
Page No. 118	Project Name	Proposal for Expansion in "Pesticide Technical and Pharma/API/ Intermediates Chemicals Manufacturing Unit" with increase in production capacity from 62,500 TPA to 90,000 TPA at Plot No. 3133-3139, 3231-3245, 3330-3351, 3571-3524, GIDC Panoli, Bharuch, Gujarat by M/s PI Industries Limited.	Expansion in manufacturing unit "Pesticides and pesticide specific intermediates along with Synthetic Organic chemicals (Pharma/API/ Intermediates): 48075 MTPA (excluding formulation) and By-Product- 20339 MT/Annum" at Plot No. 3133-3139, 3231-3245, 3330-3351, 3571-3524, GIDC Panoli, Bharuch, Gujarat by M/s PI Industries Limited.	The name as displayed in the agenda is to be corrected
Page No. 119	Point no. 1	The proposal is for Expansion in "Pesticide Technical and Pharma/API/Intermediates chemicals Manufacturing Unit" in an area of 1,58,742,92 m^2 with increase in production capacity from 62500 TPA to 90000 TPA at Plot No. 3133-3139, 3231-3245, 3330-3351, 3571-3524, GIDC-Panoli, Bharuch, Gujarat by M/s PI Industries Ltd.	The proposal is for Expansion in manufacturing unit "Pesticides and pesticide specific intermediates along with Synthetic Organic chemicals (Pharma/API/Intermediates): 48075 MTPA (excluding formulation) and By-Product-20339 MT/Annum" at Plot No. 3133-3139, 3231-3245, 3330-3351, 3571-3524, GIDC-Panoli, Bharuch, Gujarat by M/s PI Industries Ltd.	

2. Deliberations by the EAC:

The EAC deliberated the issues and noted that that these are typographical errors and factual in nature and recommended for appropriate corrections in the minutes, as requested by the PP.

(iv) Modification in Minutes of the 29th Meeting of the EAC (Industry-3 Sector) held during April 11-12, 2022

Agenda No. 29.11

Amalgamation and expansion of pesticide intermediates & technical production capacity from 1195 TPM to 2193 TPM along with Synthetic Organic chemical exiting production capacity of 1000 TPM, within the existing premises located at Plot No. 2901 to 2906 and 2806, GIDC Panoli, Taluka - Ankleshwar, District: Bharuch Gujarat by M/s. Tagros Chemicals India Pvt. Ltd.-Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/254568/2017, F.No. IA-J-11011/82/2017-IA-II(I)]

1. The Member Secretary informed the Committee that Environmental Clearance to the project is yet to be issued by the regulatory authority and being in a critically polluted area, the specific condition no. (i) i.e. *"Since the project site is in a critically polluted area, the additional mitigation measures already committed by PP to safeguard the environment as per the MoEF&CC O.M. dated 31/10/2019 and those stipulated by the SPCB from time to time shall be duly complied"* may be more specific for better compliance and monitoring. Therefore, the Committee recommended for inclusion of following additional specific conditions w.r.t this proposal:

(i) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for Industry operations, of air pollution viz. PM_{10}, $PM_{2.5}$, NO_2, CO and SO_2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of process emission, transportation, use of DG Set and use of any machinery in the impact zone. The ambient air quality shall also be monitored at prominent places as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the Industry.

(ii) The PP shall ensure that effective fugitive emission control measures should be imposed in the process, transportation, packing etc. and wherever possible, the transportation of materials is through rail/conveyor belt.

(iii) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM_{10} and $PM_{2.5}$ are evident. such as road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/machineries and preventive maintenance. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

(iv) The PP shall explore the possibility of best available technology for the plant and submit a report within a year to IRO, MoEF&CC.

(v) Specific Condition number (xviii) as mentioned in MoM of 29th EAC should be read as this "*The green belt of at least 5-10 m width shall be developed in at least 40% of the total project area (@2500 Trees per ha), mainly along the plant periphery/ additional land. 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. The budget earmarked for the plantation shall be ₹ 30 Lakh (capital cost) 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".*

(vi) The PP shall plant at least 500 saplings/year outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. The PP shall submit the budget for the same within three months to IRO, MoEF&CC. The budget proposed to be earmarked for the outside plantation shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(vii) The PP shall install ETP to treat industrial and domestic wastewater as mentioned in EIA/EMP so as to ensure recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(viii) The PP shall carry out assessment of carrying capacity of transportation load on roads inside the industrial premises every year and based on the assessment report take necessary measured including widening of the roads.

(ix) The PP shall prepare a detailed rain water harvesting plan within a period of 6 months so that unit may become water positive. The study report shall be submitted to IRO, MoEF&CC and submit the quantity of rain water harvested to before IRO, MoEF&CC before 1st July of every year for the rain water harvested during previous year

(x) The PP shall ensure that dumping of waste, if any, is strictly as per designated locations approved by SPCBs/ PCCs.

(xi) The PP shall ensure the compliance of the EC conditions needs to be audited by a Third Party annually. Audited report needs to be submitted to IRO.

(xii) The PP shall use Briquettes as fuel. In addition to this, PP shall explore the possibility for use of cleaner fuel and submit a report within a year to IRO, MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xiii) The EAC observed that the Public Consultation is not applicable in the instant case, accordingly, the specific condition no. (xix) mentioned in minutes of 33rd EAC meeting shall be omitted.

2. In addition to above, the EAC observed that total project cost reported by PP was Rs. 200 Crore. Further, in pursuant to Ministry's OMs No. 22-23/2018-I.A.III(E-115231) dated 5.7.2022, 31.10.2019 and No. 22-65/2017-IA.III dated 1.5.2018, the CER cost comes out to be Rs. 3.0 crore as against Rs.1.50 crore. Therefore, a specific condition needs to be stipulated in EC i.e The PP shall earmark Rs. 3.0 Crore under Corporate Environment Responsibility (CER) and submit the details of the activities to be carried out under CER to IRO, MoEF&CC within six months from the grant of EC. The budget earmarked for CER 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 activities carried out, amount spent etc. to the IRO, MoEF&CC before 1st July of every year for the activities carried out during previous year.

After confirmation of minutes of the 33rd EAC meeting and modification of minutes of the 29th EAC meeting, discussion on each of the agenda items was taken up ad-seriatim. Details of the proposals considered during the 34th EAC meeting **conducted through Video Conferencing (VC)**, deliberations made and the recommendations of the Committee are detailed in the respective agenda items as under:

Agenda No. 34.1

Proposed Expansion of Formaldehyde Manufacturing unit from 70 TPD to 150 TPD in existing Facility located at Plot No. F-476, RIICO Industrial Area, Chopanki, Bhiwadi, Tehsil: Tijara, District: Alwar, Rajasthan by M/s Shri Ramkripa Organics PVT. LTD. - Consideration of ToR [Under violation category]

[Proposal No. IA/RJ/IND3/276960/2022; File No. IA-J-11011/130/2021-IA-II(I)]

1. The proposal is for Expansion of Formaldehyde Manufacturing unit from 70 TPD to 150 TPD in existing Facility located at Plot No. F-476, RIICO Industrial Area, Chopanki, Bhiwadi, Tehsil: Tijara, District: Alwar, Rajasthan by M/s Shri Ramkripa Organics PVT. LTD.

2. 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). The PP reported that General Condition is applicable for the project, due to the presence of interstate boundary of Haryana-Rajasthan at a distance of approx. 3.53 km from the project site in North East direction.

3. The PP applied for ToR vide proposal No. IA/RJ/IND3/276960/2022 dated 7.05.2022. The proposal is now placed in 34th EAC Meeting held during 12th - 13th July, 2022 wherein the

Project Proponent and an accredited Consultant, M/s. Vardan EnviroNet [Accreditation number NABET/EIA/2023/SA0158 Valid up to May, 5, 2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP proposed to manufacture the following products:

Product	CAS NO.	Capacity prior to EIA Notification 2006	Capacity Enhanced post EIA notification 2006 – violation	Existing Capacity Reverted to (September 2021-till date)	Proposed Enhancement Capacity	Total Capacity after expansion
Formaldehyde	50-00-0	30 TPD	40 TPD	30 TPD	80 PD	150 D

5. The PP reported that the total land area is 0.2050 Ha and no R&R is involved in the Project.

6. The PP reported the chronology of the implementation of project as follows:

S. No.	Description	Date/Year
1	The unit was initially established after obtaining CTE by RSPCB for production of 30 TPD Formaldehyde vide letter no. RPCB/R.O./BWD/2005-2006/OR-537/2060	27.10.2005
2	The plant came in operation after obtaining Consent to Operate from RSPCB vide letter no. RPCB/RO/BWD/OR-537/76-179 for the production of 30 TPD Formaldehyde	05.05.2006 Valid from 03.05.2006 to 02.05.2007
3	Validity extension of CTO by RSPCB vide letter no. RPCB/RO/BWD/OR-537/135	21.04.2009 Valid till 30.04.2010
4	Validity extension of CTO BY RSPCB vide letter no. RPCB/RO/BWD/OR-312/2582	23.03.2010 Valid from 01.05.2010 to 30.04.2014
5	CTE is obtained by PP for expansion of unit for production of 40 TPD Formaldehyde from RSPCB vide letter no. F(Tech)/Alwar(Tijara)/1176(1)/2012-2013/559-561	06.07.2012 Valid from 05.03.2012
6	Consolidated CTO of 70 TPD has been obtained from RSPCB vide Letter no. F(Tech)/Alwar(Tijara)/1176(1)/2012- 2013/829-831	04.08.2014 Valid from 01.08.2014 to 31.07.2017.
7	Again, CTO was renewed from RSPCB vide F(Tech)/Alwar/(Tijara)/1176(1)/2012-2013/2873 2875/263 only for 30 TPD formaldehyde production.	27.09.2021 Valid from 24.09.2021 to 31.08.2026

S. No.	Description	Date/Year
1	Rajasthan State Pollution Control Board had issued an office order regarding applicability of EIA Notification and EC clearance to apply at SEIAA/MoEF&CC and submit evidence in SPCB within 60 vide letter no. F.14(23)Policy/Plg/VolIV/471-510	19.08.2019
2	Deficiency letter for CTO has been issued by RSPCB vide letter no. RPCB/RO/BWD/2740/1644 regarding prior EC is required for the production of Formaldehyde.	18.09.2018

7. Details of Violation:

Period	Production	Remarks
From 2012	Formaldehyde Manufacturing (30 TPD-70 TPD)	The PP has enhanced its production capacity from 30 TPD to 70 TPD in the year 2012 i.e., after enforcement of EIA Notification 2006, without obtaining prior Environmental Clearance. Hence, the project has violated the conditions of said Notification

8. The PP reported that compliance of SOP dated 7.7.2021 is as follows:

S. No.	SOP Points	Compliance of SOP	Remarks
1	Closure or Revision: If prior EC was not required for earlier production but now required	Restrict the activity to the extent to which prior EC was not required	It is requested that the unit be permitted to operate at the capacity of 30 TPD, CTE for which was issued in 2005.
2	Action under EP Act1986	Action under Section 15 (read with Section 19) to initiate credible action against our unit	Agreed
3	Appraisal under EIA notification 2006	It is requested that the EAC and MoEF&CC may consider the project as permissible	Damage assessment, remedial plan and community augmentation plan will be submitted along with EIA report for the violation carried out.
4	Closure under Section 5 of EP Act 1986	Restrict the activity to the extent to which prior EC was not required	At present, the unit is permitted to operate at the capacity of 30 TPD, for which CTE was issued in 2005
5	Penalty Provisions	1% of total project cost and 0.25% of total turnover shall be submitted as penalty	It is requested to consider the penalty provisions since 2012 for the expansion carried out post EIA notification 2006. Turnover be considered for 40 TPD only.

9. The PP reported that the proposal does not involve Approval/Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. The PP reported that there is no forest area, National Park and Biosphere Reserve, Tiger/Elephant Reserve, Wildlife Corridor etc. within 10 km distance from the project site. Indori Nala is flowing at a distance of 8.90 km in NE Direction.

10. The PP reported that the Total Fresh Water requirement of the project **is 120 KLD** which will be sourced from **Ground water.** NOC has been obtained for 60 KLD from HWRA vide NOC No. CGWA/NOC/IND/ORIG/2022/14505 dated 25.01.2022 valid till 24.01.2024. For proposed expansion water requirement will be met from CETP. There will be no effluent generation from the process. Domestic sewage will be send to septic tank followed by soak pit. The plant will be based on **Zero liquid discharge system**.

11. The PP reported that Power requirement for the project is **250 KVA (Existing – 160 kVA, Proposed- 90 kVA)** which will be sourced from Jaipur Vidyut Vitran Nigam Limited

(JVVNL). DG set of capacity 125 KVA already exists as the backup power supply. For the expansion of unit, 1 more DG set of 225 KVA capacity will be installed.

12. The proposed project site is located in a Notified Industrial Area i.e., RIICO Industrial Area, Rajasthan.

13. The PP reported that Industry has already developed 48% of green belt (246 trees are present in the premises) i.e. 1984.03 Sq.m. out of total area of the project. Indigenous trees will be planted in 0.0984 Hectares i.e. 48% of the total plant area. Considering 2500 tress per hectare, total 246 nos. of trees will be planted at site.

14. The estimated project cost is **Rs. 4.3 Crores** including existing investment of **Rs. 2.4 crores.** Total capital cost earmarked towards environmental pollution control measures will be approx. 5% of project cost. Total employment will be **14 nos.** (Existing: 10, Proposed Operation Phase: 4, will be appointed).

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

The Member Secretary informed that Ministry has issued a Standard Operating Procedure dated 7th July 2021 bearing the file no. 22-21/2020-IA.II, for identification and handling of violation cases under EIA Notification, 2006 in compliance to order of the Hon'ble National Green Tribunal in Appeal No. 34/2020 (WZ) titled Tanaji B. Gambhire Vs Chief Secretary, Government of Maharashtra. This SOP was challenged in the Madurai Bench of the Hon'ble High Court of Madras in the matter W.P.(MD) No. 11757 of 2021 titled Fatima Vs Union of India and was interim stayed vide order dated 15th July 2021. Recently, in the Order dated 09th December 2021 in the matter of Civil Appeal Nos. 7576-7577 of 2021 in Electrosteel Steels Limited Vs. Union of India and Ors., the Hon'ble Supreme Court of India has inter-alia observed the following:

"*The interim order passed by the Madras High Court appears to be misconceived. However, this Court is not hearing an appeal from that interim order. The interim stay passed by the Madras High Court can have no application to operation of the Standard Operating Procedure to projects in territories beyond the territorial jurisdiction of Madras High Court. Moreover, final decision may have been taken in accordance with the Orders/ Rules prevailing prior to 7th July, 2021*."

The EAC observed that Ministry issued OM No. 22-21/2020- IA.III dated 28.1.2022 in this regard. Further, the instant proposal is of State of Rajasthan and should be dealt as per the provision of SOP dated 7.7.2021 for handling violation cases. PP submitted the compliance of SOP dated 7.7.2021 and that the unit was operating prior to EIA Notification 2006 and enhanced the production capacity in the year 2012. Further, PP requested that unit may be permitted to operate at the capacity of 30 TPD for which CTE was issued in the year 2005. The Committee is of the view that as per para 11, Step-1, the project which do not require EC for earlier production level but now required, in such cases, the activity needs to be restricted for which prior EC was not required.

The Committee is of the view that as per para 11, Step-3 (B) of the said SOP, the project falls under permissible category. Therefore, the PP needs to carry out Damage Assessment, and prepare Natural Resource Augmentation/Remedial and Community Augmentation Plans (to restore environmental damage caused including its social aspects).

The Committee is of the view in pursuant to the said SOP, Ministry may take action under E(P)A 1986 for the violation committed by the PP.

The EAC noted that the PP reported that Industry is located in the notified industrial area i.e. RIICO. Further, as per Para 7 (i) stage III (i)(b) of EIA notification 2006 (as amended) and in pursuant to OM dated 27.4.2018, the Public consultation is exempted for this category i.e. 5(f). The committee deliberated on the carbon footprints and soil microbiology of the project area, that impacts flora and fauna

The Committee deliberated on the Greenbelt/plantation and EAC suggested to increase the number of plantations within 3 months as a part of green belt development plan. PP submitted that Industry will plant 300 number of trees within 3 months as a part of greenbelt development plan. EAC deliberated on the fuel change wherein PP submitted that biomass will be used as a boiler fuel and committed to switch to cleaner fuels like PNG as soon as the infrastructure for the same is available in the industrial area.

The Committee, after detailed deliberations, **recommended** for issuing **Standard ToR [Annexure-II]** without Public Consultation as the project site is located in the notified industrial area RIICO and following **additional ToR**, as per the provisions of the EIA Notification, 2006 (as amended) and SOP dated 07.07.2021:

(i) The PP shall follow the Standard Operating Procedure (SoP) issued by the Ministry on 07.07.2021 for handling of violation cases under EIA Notification, 2006.
(ii) To complete the impact assessment studies & submit Environmental Impact Assessment (EIA) report & Environmental Management Plan (EMP) (Damage Assessment, Remedial Plan and Community Augmentation Plan) in a time bound manner.
(iii) Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).
(iv) Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
(v) The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter (13) in the EIA report by the accredited consultants.
(vi) Budget of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be completed within three years and to be prepared accordingly.
(vii) The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.
(viii) Calculation of the penalty amount as per provision of SOP dated 07.07.2021 (i.e. 1% of the total project cost incurred up to the date of filing of application along with EIA/EMP report PLUS 0.25% of the total turnover during the period of violation) with

supporting documents. In addition to this, actual production vis-a-vis CTO capacity financial year wise in a tabular format with supporting documents.

(ix) The State Government/SPCB to take action against the project proponent under the provisions of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC

(x) The action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

(xi) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.

(xii) Provision for Reuse/recycle of treated wastewater, wherever feasible. Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan needs to be submitted. Provision for Zero liquid discharge whenever techno-economically feasible. Provision for Continuous monitoring of effluent quality/quantity.

(xiii) The PP should develop Greenbelt 2500 saplings/ha, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Number of Trees have to be planted with spacing of 2m x 2m and has to be calculated accordingly.

(xiv) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.

(xv) Activity-wise, a time bound action plan along with budgetary provision for occupational health & surveillance, environment management plan, and green belt development plan.

(xvi) The PP shall clarify whether project involved ground water utilization. In case of ground water abstraction, a copy of application made to concerned authorities for the same need to be submitted

(xvii) The PP shall prepare a detailed rain water harvesting plan so as to ensure that unit will become water positive i.e. able to recharge the quantity equivalent to fresh water requirement of the plant or use only re-charged/restored water as a fresh water requirement.

Agenda No. 34.2

Proposed API and Intermediates manufacturing unit of production capacity 60 TPM, located at Plot No. 119, Kadechur Industrial Area, Yadgir, Karnataka by Ubica Lifesciences PVT. LTD. - Consideration of Environmental Clearance.

[Proposal No. IA/KA/IND3/235444/2021; File No. IA-J-11011/399/2021-IA-II(I)]

1. The proposal is for the Environmental Clearance for Proposed API and Intermediates manufacturing unit of production capacity 60 TPM, located at Plot No. 119, Kadechur Industrial Area, Yadgir, Karnataka by Ubica Lifesciences PVT. LTD.

2. 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) as the General condition is applicable to project the Karnataka - Telangana interstate boundary is at 3.27 km in south direction so requires appraisal at Centre Level, MoEF&CC, New Delhi.

3. The Project Proponent (PP) applied for ToR vide proposal number **IA/KA/IND3/235444/2021** dated 26.10.2021 and the **standard ToR** was granted vide letter No.IA-J-11011/399/2021-IA-II(I) dated 2.11.2021.The PP vide proposal number IA/KA/IND3/235444/2021dated 27.5.2022 applied for grant of EC in Form-2 and submitted the final EIA/EMP report. The PP reported in Form-2 that it is a **Fresh EC case.** Due to some shortcomings, the Project was referred back to PP on 8.6.2022 and reply to the same was submitted on 13.6. 2022. The proposal is now placed in 34th EAC Meeting held on 12-13 July, 2022 wherein the project proponent and the accredited consultant AM Enviro Engineers [Accreditation Number NABET/EIA/1922/IA0056valid till 30.12.2022] made a detailed presentation on the salient features of the project. The information submitted by the PP so far is as follows:

4. The PP reported that the proposed Land area is 1.21 Ha and no R& R is involved in the Project. The details of products are as follows:

S. No.	Name of Products	Qty. in kg/ month	CAS No.	Therapeutic use
1.	5-Chloro-1-(piperidin-4-yl)-1,3 dihydro-2H-Benzimidazol-2-one	3000	53786-28-0	Domperidone intermediate
2.	**Atorvastatin Calcium**	10000	134523-03-8	To manage cholesterol
	a. 2-benzylidene-4-methyl-3-oxo-pentanoic acid phenyl amide	6550	125971-57-5	Atorvastatin Calcium intermediate
3.	**Celecoxib**	6000	169590-42-5	Anti-inflammatory drug
4.	**Citalopram HBr**	6000	59729-32-7	To treat depression
5.	**Clopidogrel Bisulphate**	6000	120202-66-6	To treat the symptoms of acute coronary syndrome
	a. Amino-(2-chlorophenyl)-acetic acid methyl ester	7560	1233361-76-6	Clopidogrel Bisulphate intermediate
6.	**Dapoxetine HCl**	7000	129938-20-1	To treat premature ejaculation
	a. (S)-N-N-dimethyl-(α)-[2(1-napthalenyloxy) ethyl]-benzene methanamine	8260	1071929-03-7	Dapoxetine HCl Intermediate
7.	**Erlotinib HCl**	2000	183319-69-9	Chemotherapy medication
	[6,7-Bis-(2-methoxy-ethoxy)-quinazolin -4-yl]-(3-ethynyl-phenyl)-amine	2160	183319-69-9	Erlotinib HCl intermediate
8.	**Etoricoxib**	5000	202409-33-4	Treatment of acute pain
9.	**Favipiravir**	2000	259793-96-9	Antiviral
10.	**Fexofenadine HCl**	10000	153439-40-8	Anti-allergy
	a. Benzene acetic Acid,4-[4-[4-(hydroxydiphenylmethyl)-1-piperidinyl]-a,a-dimethyl-,methyl ester	9800	169280-33-5	Fexofenadine HCl intermediate

	b. Methyl-2-[4(4-Chlorobutanoyl)]-2-Methyl Propanoate	7493	343255-26-5	Fexofenadine HCl intermediate
11.	**Fluconazole**	6000	86386-73-4	To treat serious fungal infections
	a. 2,4-Difluoro-2-(1H-1,2,4-Triazole-1yl) acetophenone (DFTA)	4680	86404-63-9	Fluconazole intermediate
12.	**Folic Acid**	5000	59-30-3	To treat folic acid deficiency
13.	**Glimepiride**	6000	93479-97-1	To treat type 2 diabetes.
14.	**Itraconazole**	5000	84625-61-6	To treat infections caused by fungus
15.	**Ketoconazole**	5000	65277-42-1	To treat skin infections
	a. Cis Bromo Benzoate pure	5450	61397-56-6	Ketoconazole intermediate
16.	**Ketorolac Tromethamine**	3000	74103-06-3	Anti-inflammatory drug
	a. 5-Benzoyl-2,3-Dihydro-1H-Pyrolizime-1-Carboxylic Acid	2460	74103-06-3	Ketorolac Tromethamine intermediate
17.	**Lamotrigine**	5000	84057-84-1	Anticonvulsant
18.	**Levetiracetam**	5000	102767-28-2	To treat epilepsy
	a. 4-chlorobutyryl chloride	5250	4635-59-0	Levetiracetam intermediate
	b. s-(+) 2-Aminobutyramide Hydrochloride	5250	7682-20-4	Levetiracetam intermediate
19.	**Linagliptin**	5000	668270-12-0	To control high blood pressure
20.	**Lisinopril Dihydrate**	7000	83915-83-7	To treat high blood pressure
21.	**Lopinavir**	7000	192725-17-0	To treat HIV infection
22.	**Loratadine**	6000	79794-75-5	Anti-histamine
	a. 8-chloro-6,11-dihydro-11-(1-methyl-4-Piperidinylidene)-5H-benzo[5,6]cyclohepta[1,2-b]Pyridine (Methyl loratadine)	5100	31251-41-9	Loratadine intermediate
23.	**Losartan Potassium**	6000	124750-99-8	Antihypertensive
	a. 4-Bromomethyl-[2-(2-Trityl-2H-Tetrazol-5-yl)] Biphenyl (TTBB)	7300	133051-88-4	Losartan Potassium intermediate
24.	**Luliconazole**	6000	187164-19-8	To treat tinea pedis
25.	**Lumefantrine**	5000	82186-77-4	Anti-malarial drug
26.	**Montelukast Sodium**	6000	151767-02-1	Anti-allergic & Asthma
27.	**Pantoprazole Sodium**	7000	138786-67-1	To treat gastritis
28.	**Pitavastatin Calcium**	5000	147098-20-2	Help lower "bad" cholesterol and fats
29.	**Posaconazole**	5000	171228-49-2	To prevent certain fungal infections
30.	**Pregabalin**	3000	148553-50-8	To treat pain caused by nerve damage
	a. 3-Aminomethyl 5 -methyl hexanoic acid	7200	128013-69-4	Pregabalin intermediate
31.	**Rabeprazole Sodium**	6000	117976-90-6	To treat gastritis
32.	**Ramipril**	6000	87333-19-5	To treat high blood pressure

33.	**Remdesivir**	6000	1809249-37-3	To treat people with coronavirus disease 2019 (COVID-19)
34.	**Ritonavir**	4000	155213-67-5	Anti-HIV
35.	**Rosuvastatin Calcium**	20000	147098-20-2	To treat cholesterol
	a. 4-(4-Fluorophenyl)-6-isopropyl-2-(N-methyl-N-methyl sulphonyl amino)Pyrimidine-5-carboxylate	22400	147118-36-3	Rosuvastatin Calcium intermediate
	b. N-[4-(4-Fluoro-phenyl)-5-formyl-6- isopropyl-pyrimidin-2-yl]-N-methyl - methane sulfonamide	31000	1216862-95-1	Rosuvastatin Calcium intermediate
36.	**Sildenafil Citrate**	3000	171599-83-0	To treat male sexual function problems
37.	**Sitagliptine Phosphate**	6000	654671-77-9	To control high blood sugar
38.	**Sulbactum Sodium**	7000	69388-84-7	To treat infections due to susceptible strains of microorganisms.
39.	**Tadalafil**	10000	171596-29-5	To treat erection problems
40.	**Tamsulosin HCl**	1000	106463-17-6	Symptoms of an enlarged prostate
41.	**Telmisartan**	7000	144701-48-4	Anti-hypertensive
	a. Bis-Benzoimidazole 2-propyl-4-methyl-6(1-methylbeniidazole-2yl)Benimidazole	4620	152628-02-9	Telmisartan intermediate
42.	**Valacyclovir HCl**	5000	124832-27-5	Treat infections caused by certain types of viruses.
43.	**Vildagliptin**	10000	274901-16-5	Antidiabetic
	R&D products	200		
	Total (5 products)	**60 TPM**		

Note: From the above list of products, any 5 products will be manufactured at a given point of time.

LIST OF PROPOSED BY-PRODUCTS

S. No	Name of the Product	Name of the By Product	Quantity in Kgs/Day
1.	Citalopram HBr	Magnesium chloride	94.5
2.	Losartan Potassium	Succinimide	43.2
		Trityl alcohol	113.4
3.	Montelukast Sodium	Alpha pinene	195.4
4.	Pantoprazole Sodium	Potassium Sulphate	53.2
5.	Ramipril	Triethyl amine Hydrochloride	258.0

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that there are no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from site. The PP reported that there is no forest land involved in the proposed project. There is a seasonal stream running through the KIADB area which is about 0.21 km away from the project site. Kadechur lake is about 1.36 km towards East direction, Bhima River is about 8.9 km

towards South-West direction and Krishna River is about 12.8 km from the project towards South-West direction. PP reported that no Schedule-I species exist within 10 km study area of the project.

7. The PP reported that Ambient air quality monitoring was carried out at 8 locations during December 2021 to February 2022. and baseline data indicates that ranges of concentrations of PM_{10} (66.4 – 70.7 µg/m^3), $PM_{2.5}$ (27.5 – 35.8 µg/m^3), SO_2 (13.1 – 17.1 µg/m^3), NO_x (23.5 – 31.4 µg/m^3). The ambient air quality monitoring results indicates that the overall air quality in the study area is within permissible standards prescribed by NAAQ Standards. The day time noise level at the Project site were observed to be in the range of 51 dB(A) to 54.7 dB(A), which is well below the permissible limits of 75 dB(A). The daytime noise levels in all the residential locations were observed to be in the range of 49 dB (A) to 54.2 dB(A). The noise levels at all the locations were below the permissible limits of 55 dB(A). The night-time noise level in the Project site were observed to be in the range of 40 dB (A) to 43.2 dB(A), which is well below the permissible limits of 70 dB(A). The night-time noise levels in all the residential locations were observed to be in the range of 38.1 dB (A) to 44.7 dB(A). The noise levels were below the permissible limits of 45 dB(A) in night-time at all the location. The water quality of the study area is found to be in the standards of acceptable limits of IS-10500. The pH of the soil samples ranged from 7.15 to 7.57, which indicates free lime exists in the soil which will have excellent filtration and percolation of water capacity at most of the villages. Electrical conductivity of the sample varied from 168 to 319 µS/cm, which indicates, no salinity ingress in the study area. Percentage of total Organic Carbon is observed in between 0.34 to 0.67 indicating that on an average sufficient in nature. The concentration of available Nitrogen is in the range of 224 – 724 kg/Ha, Phosphorous is in the range of 76.8 – 106.4 kg/Ha and Potassium is in the range of 138.4 – 253.7 kg/Ha in the soil samples. These implies that the soil of the area have sufficient nutrient content and is fertile.

8. The PP reported that the total water consumption is estimated around 164.3 KLD including domestic consumption of 2.7 KLD sourced from KIDAB. Fresh water is consumed for manufacturing process, scrubbing, washing, boiler feed, domestic consumption, and gardening. The water requirement for manufacturing process is 57.9 KLD. This 57.9 KLD will be passed through Reverse osmosis (RO) which gives RO permeate of 46.3 KLD and RO reject of 11.6 KLD. The RO permeate will be used directly for reaction processes. Treated water from CETP is utilized for Cooling tower makeup, which comes around 51.8 KLD. Thus, freshwater consumption is reduced to 112.5 KLD. The total effluent of quantity is 79.6 m^3/day, out of which industrial effluent of 77.3 m^3/day will be send to Common Effluent Treatment Plant (CETP), Kadechur and domestic effluent of 2.3 m^3/day will be send to septic tank followed by multigrade filter and the supernatant liquid will be used for gardening.

9. The PP reported that Power requirement for the project is 500 KVA sourced from GESCOM Two DG sets of 1 X 250 KVA & 1 X 125 KVA capacity are proposed as power backup in case of emergency. The unit is proposing for 1X2 TPH and 1X3 TPH Coal/Briquette fired Boilers. Multi cyclone separator with bag filter with common stack of height of 30 m AGL will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.

10. Details of Process Emissions Generation and their Management:

S. No.	Name of the Gas	Quantity (Kg/Day)	Treatment Method	Disposal Method
1.	Hydrogenchloride	985.2	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2.	Ammonia	175.3		Generated NH_4OH will be reused within the industry
3.	Sulphur dioxide	178.9	Scrubbed by using C.S. Lyesolution	Scrubbed water will be sent to CETP along with high TDS effluent.
4.	Hydrogen Bromide	56.9		
5.	Nitrogen	10.2	Dispersed into atmosphere	-
6.	Oxygen	55.5		
7.	Carbon dioxide	854.4		
8.	Hydrogen	16.2	Dispersed into Atmosphere through flame arrester with nitrogen gas	-

11. Details of Solid Waste and Hazardous Waste Generation and its Management:

S. No	Category	Name of the HazardousWaste	Quantity	Disposal Method
Hazardous waste generation from plant				
1.	5.1	Waste oils & Grease/ Used Mineral oil	0.2 KL/Annum	Agencies authorized by KSPCB
2.	5.2	Oil-Soaked Cotton	2 Kgs/month	KSPCB authorized Vendor
3.	20.3	DistillationResidue	1437 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4.	28.1	Process Residues & Waste	6317.8 kg/day	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
5.	28.2	Spent Catalyst	121 kg/day	Store in secured manner and hand over to re-processor and reused
6.	28.3	Spent Carbon	546.7 Kgs/Day	Store in secured manner and hand over to authorized cement industry for Co-processing
7.	28.4	Off Specification Products	1 TPM	Store in secured manner and hand over to authorized cement industry for Co-processing /TSDF (based on calorific value)
8.	28.5	Date expiredproducts	500 Kgs/Month	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
9.	28.6	Spent Solvent	510 kg/day	Store in secured manner and hand over to authorized recyclers/cement industries

10.	33.1	Detoxified- Container & Container Liners of Hazardous Chemicals and Wastes	300 No's/Month	After complete detoxification, shall be disposed to the outside agencies/buyers.
11.	33.2	Contaminated cotton rags or other cleaning materials	25 Kgs/month	Store in secured manner and hand over to KSPCB Authorized Incinerators/TSDF.
12.	A1160	Used Lead Acid batteries	2 No's/Annum	Returned back to dealer/ Supplier
Other & Miscellaneous Solid Wastes				
13.	--	Coal ash	1400 kgs/day	Sent to Brick Manufacturers
14.	--	Briquette ash	3640 kgs/day	Sent to fertilizer industries
15.	--	Used PPE	6 Kgs/ Month	Sent to TSDF
16.	--	E- Waste	150 Kgs/ Annum	Authorized recyclers
17.	--	Plastic Waste	200 Kgs/ Annum	Authorized recyclers
18.	--	Metal Scrap	3 TPA	Sale to outside agencies/ recyclers
19.	--	Used Filters (HEPA filters, Oil Filters etc.)	25 Nos /year	Sent to TSDF
20.	--	Used / Discarded RO Membranes	0.2 TPA	Sent to TSDF

12. The Committee was informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 which inter-alia request EAC to clearly recommend the permissible pollution load i.e., quantity and quality, including composition of emissions, discharge and solid waste generation. In compliance this OM, PP has submitted the following pollution load information and the EAC deliberated on the issue. PP also requested that EC may include the name of products also otherwise PP will face difficulty in obtaining the CTE/CTO from concerned SPCB.

Kg per day													
EFFLUENT WATER								**SOLID WASTE**					
Water in put	Water in Effluent	Organics in effluents	TDS	COD	HTDS	LTDS	Total Effluent	Organic	Inorganic	Spent carbon	Spent Catalyst	Process Emission	Distillation residue
46322.8	47173.7	819.6	6014.6	1434.4	42847.8	7516.7	50364.4	4006.4	874.2	546.7	120.34	675.5	1437.2

13. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 81.2 Lakhs (capital) and the Recurring cost (operation and maintenance) will be about ₹ 25 lakhs per annum which includes Pollution Control equipment such as Scrubber, Multi Cyclone separators, Bag filter, etc [₹ 35 lakh (capital) and ₹ 9 lakh/annum (Recurring)], Rainwater Harvesting system [₹ 6 lakh (capital) and ₹ 2 lakh/annum(Recurring)], Green Belt Development [₹ 7.2 lakh (capital) and ₹ 6 lakh/annum (Recurring)], Occupational health and safety [₹ 6 lakh (capital) and ₹ 1 lakh/annum(Recurring)], Storm water drains and fire management [₹ 15 lakh (capital) and ₹ 1.5 lakh/annum(Recurring)], Environmental laboratory [₹ 5 lakh (capital) and ₹ 0.5 lakh/annum(Recurring)] and Corporate Environmental Responsibility [₹ 7 lakh (capital), Environment Management cell [₹ 5.0 lakh/annum(Recurring)].

14. The PP reported that the total plot area is 12,100 m^2(3 acres). Out of total area of the project site area, 4125.5 m^2(34.1%) shall be used for greenbelt development.

15. The PP proposed to set up an Environment Management Cell (EMC) by engaging senior plant manager execute two departments Department of OHS and Department of operation under which safety officer, assistant manager, executive officer and safety engineer for the functioning of EMC.

16. The PP submitted that Carbon sequestration estimate for the project green belt area

Total number of tree species proposed in greenbelt	8
Total number of individual trees proposed in the greenbelt	900
Mean height	5
Mean DBH (cm.)	21.7
Above ground carbon (tons.)	1305.5
Below ground carbon (tons.)	414.1
Total live Tree Carbon Stock (tons.)	1719.6

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

18. The PP submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.2011 "*We, M/s. Ubica Lifesciences Pvt. Lid,, hereby declare that we have hired QCI-NABET accredited Environmental Consultant NI/s. AM Enviro Engineers, Bengaluru to conduct the Environment Impact Assessment (EIA) studies for the proposed "Active Pharmaceutical Ingredients (API's) and Intermediates Manufacturing Unit" at Plot No. 119, Kadechur Industrial area, Yadgir Taluk & District, Karnataka based on the prescribed TOR (File No. IA-1-11011/599/202 I -IA-11(1) dated 2nd November 2021) with respect to EIA-EMP studies. Information has been compiled while conducting the EIA studies. The*

content (Information and data) as given by us and mentioned by the consultant in the EIA-EMP report are factually correct with full knowledge of the undersigned".

19. The Consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 that "M*/s. AM Enviro Engineers,* ***Bengaluru*** *has taken all reasonable precautions in preparation of EIA/EMP report as per TOR prescribed by MoEF&CC, New Delhi. The EIA/EMP report has been prepared based on project related factual data submitted by M/s. Ubica Lifesciences Pvt. Ltd. & baseline Environmental data collected by SLN Testing Laboratory during one full season covering three months i.e., December 2021 to February 2022".*

20. The estimated project cost is ₹ 10 Crores. Total Employment will be 60 persons.

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 PFR/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 PFR /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 was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load. The EAC also deliberated on the pollution load as estimated by the PP/Consultant.

The Committee noted that the PFR/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the domestic wastewater and EAC suggested that domestic wastewater should be sent septic followed by multigrade filter and the supernatant liquid should be used for gardening. PP committed for the same and submitted the revised water balance vide letter dated 12.7.2012.

The Committee deliberated on the carbon footprint study, energy conservation measures, suggested PP to submit undertaking regarding for the utilization of briquette as a primary fuel for boilers, and undertaking for not utilizing Ground water and cost provision for Environment Management Cell and to submit Pollution load for the proposed products. PP submitted carbon footprint study, commit to use some energy conserving measures, and submit the undertaking for the utilization of briquette as a primary fuel for boilers, and for not utilizing Ground water and also incorporated the cost of EMC, EAC found it to be satisfactory.

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 Expert 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 (SPCB), prior to construction & operation of the project.

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

(i) The PP shall develop Greenbelt over a minimum area of 4125.5 m^2 by planting additional 900 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 7.2 Lakh (capital cost) 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. PP should annually submit the audited statement of Rs. 5 lakh spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget propose under EMP is ₹ 81.2 Lakh (Capital cost) and Rs. 25 lakhs (Recurring cost)

shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) The total water requirement is 164.3 KLD of which fresh water requirement of 112.5 KLD will besourced from KIDAB. The PP should ensure that water supply should not be above the permissible limit and only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year

(v) As committed by the PP, The PP shall use Briquettes- as the first priority fuel and incase of unavailability of the same the unit may use 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.

(vi) As committed by the PP, the PP shall consume energy saving options and adopt energy efficient technologies for conservation of energy.

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

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

(ix) The project proponent shall comply with the environment norms for Pharmaceuticals/Bulk Drugs Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 541(E), dated 06.08.2021 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. ‘

(xiii) As already committed by the project proponent, the total effluent of quantity is 79.6 KLD, out of which industrial effluent of 77.3 KLD will be send to Common Effluent Treatment Plant (CETP), Kadechur and domestic effluent of 2.3 KLD will be send to septic tank followed by multigrade filter and the supernatant liquid will be used for gardening.

(xiv) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(xv) 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.

(xvi) 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.

(xvii) 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.

(xviii) 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.

(xix) 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.

(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 cleaning to reduce wastewater generation.

(xxii) 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 EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

Agenda No. 34.3

Proposed Formaldehyde manufacturing unit of production capacity 200 TPD located at Khasra no. 2//23, 8//3, 8//7, 8//8/1, Village: Sherpur, Tehsil: Naraingarh, Sub-Tehsil Shahzadpur, Dist.: Ambala, Haryana by M/s Surya Organics. - Consideration of Environmental Clearance

[Proposal No IA/HR/IND3/275340/2021; File No. IA-J-11011/433/2021-IA-II(I)]

1. The proposal is for environmental clearance to the project for Proposed Formaldehyde manufacturing unit of production capacity 200 TPD located at Khasra no. 2//23, 8//3, 8//7, 8//8/1, Village: Sherpur, Tehsil: Naraingarh, Sub-Tehsil Shahzadpur, Dist.: Ambala, Haryana by M/s Surya Organics.

2. 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 project is located outside the notified industrial area , so requires appraisal at Central Level by Expert Appraisal Committee (EAC)

3. The PP applied for ToR vide proposal number IA/HR/IND3/23379/2021dated 26.10.2022 and the **ToR** has been issued by the Ministry, vide letter No. A-J-11011/433/2021-IA-II(I) dated **29.11.2021**. PP reported that PH is conducted on 13.4.2022 which was presided by the Additional Deputy commissioner. The PP applied for Environment Clearance on 23.6.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP reported in Form-2 that it is a **Fresh EC.** Due to some shortcomings, the Project was referred back to PP on 8.6.2022 and reply to the same was submitted on14.6.2022. The proposal is now placed in 34th EAC Meeting held on 12-13 July, 2022, wherein the Project Proponent and the accredited Consultant Vardan Environet. [Accreditation number NABET/EIA/2023/SA 0158 Valid up to May, 5, 2023 made a detailed presentation on the salient features of the project and informed the following.

4. The PP reported that the proposed Land area is 0.8447 Ha and no R& R is involved in the Project. The details of products are as follows-

S. No.	Particular	CAS No.	Capacity
1	Formaldehyde	50-00-0	200

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that there are no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from site. However, the Gandhari PF is located at 8.90 km in SE direction from project site. The PP reported that there is no forest land involved in the proposed project and two Schedule I species i.e Python morulus, Pavo cristatus exist within 10 km study area of the project, conservation plan is submitted to PCCF on 30.5.2022 with budgetary provision of ₹ 6.0 Lakh. The PP committed to implement the plan in one year.

7. The PP reported that Ambient air quality monitoring was carried out at 8 locations during October-December 2021 and baseline data indicates that concentrations of PM_{10} for all the 8 Air Quality monitoring stations were found to be 98.2 µg/m^3 and 71.8 µg/m^3 respectively, while for $PM_{2.5}$ varies between 58.4 µg/m^3 and 36.7 µg/m^3. the prescribed limits under NAAQ Standards for residential and rural areas has never surpassed at any station. The minimum and maximum concentrations of NO_2 were found to be 70 µg/m^3 and 16.3 µg/m^3 respectively. The maximum and minimum concentrations of SO_2 were found to be 70 µg/m^3 and 0.62 µg/m^3 respectively. The maximum and minimum concentrations of CO were found to be 3.5 mg/m^3 and 0.56 mg/m^3 respectively. The prescribed limits as per NAAQ, CPCB notification, 2009 of SO_2 and NO_2 is 80 µg/m^3 and CO is 2 mg/m^3 for residential and rural areas has never surpassed at any monitoring station. All values are within prescribed limit of NAAQ, CPCB notification, 2009. The prescribed limits of SO_2 and NO_2 is 80 µg/m^3 and CO is 2 mg/m^3 for residential and rural areas has never surpassed at any monitoring station. The noise levels recorded at all locations were within the ambient noise standards as per the Noise Pollution (Regulation & Control) Rules, 2000. The pH of Ground water analysis varies from 7.49 to 7.83, TDS from 348 to 510 mg/l and hardness from 233 to 278 mg/l. All values are within permissible limit. The pH of Surface water analysis varies from 7.69 to 7.86, TDS from 998 to 1048 mg/l and hardness from 718.82 to 735 mg/l. All values are within permissible limit. The analysis results show that soil is basic in nature as pH value ranges from 7.59 to 7.75 with organic matter 0.25% to 0.42%. The concentration of Nitrogen (127.66 Kg/ha. to 181.11 Kg/ha.), Phosphorus (9.51 Kg/ha. to 15.06 Kg/ha.) and Potassium (106.42 Kg/ha. to 162.11 Kg/ha.) has been found to be in good amount in the soil samples.

8. The PP reported that total water requirement for the proposed project will be 150 KLD which will be sourced from own tube well for which the application has been submitted to HWRA vide application no. HWRA/IND/N/2021/1670 dated 3.12.2021. Evaporator will be installed to treat RO Reject and other trade effluents. No effluent generation from the process. It is based on Zero Liquid Discharge. Domestic effluent of 0.8 KLD will be send to septic tank followed by soak pit.

9. The PP reported that Maximum power requirement for the proposed unit will be 200 kVA. The power will be supplied from UHBVNL (Uttar Haryana Bijli Vitran Nigam Ltd.) Two D.G. sets of capacity 180 KVA & 250 KVA will be installed for the power backup. 1 no. of boiler with capacity 800 kg/hr.

10. Details of Process Emissions Generation and their Management:

S. No.	Name of Gas	Pollution Control Equipment's/ Treatment Methods	Disposal methods
1	Carbon Dioxide	Scrubber	For neutralization use alkali solution
2	CO	Scrubber	Generated CO will be reused within the process.

11. Details of Solid and Hazardous Waste Generation and its Management:

Type of Waste	Cat.	Source of Waste	Proposed Quantity per Year (MT/Year)	Method of storage	Method of Disposal
Salts from Evaporator	37.3	Evaporator	0.19	Stored in covered area with platform	Send to TSDF facility.
Empty Barrels/Containers	33.1	Storage go down	1	Stored in covered area with platform	Send to vendor/ Sell to approved HSPCB approved scrap dealer
Used Lub. Oils	5.1	Utilities	400 litres/year	Stored in covered area with platform	Send to TSDF facility.
Solid waste					
Fly ash	-	Utilities	300 kg/annum	Stored in covered area with platform	Sent to brick manufacturer/ Cement industry

12. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 33.26 Lakhs (capital) and the Recurring cost (operation and maintenance) will be about ₹ 3.5 Lakhs per annum which includes Stack with Online Monitoring System [₹ 6.0 lakh (capital) and ₹ 1.0 lakh/annum (Recurring)], Air Pollution Control- Wet Scrubber, Bag Filter [₹ 6.0 lakh (capital) and ₹ 0.4 lakh/annum (Recurring)], Water Pollution Control-Evaporator, Soak pit , Filter press [₹ 8.0 lakh (capital) and ₹ 0.5 lakh/annum (Recurring)], Rain Water Collection tank [₹ 1.0 lakh (capital) and ₹ 0.2 lakh/annum (Recurring)], Green Belt Development [₹ 4.76 lakh (capital) and ₹ 0.4 lakh/annum (Recurring)], Occupational Health and Safety [₹ 2.0 lakh (capital) and ₹ 0.3 lakh/annum (Recurring)] and Solid and hazardous waste management [

₹ 1.5 lakh (capital) ₹ 0.2 lakh/annum (Recurring)], Energy Conservation- Solar Panel installed [₹ 4.0 lakh (capital) and ₹ 0.5 lakh/annum (Recurring)], Industry proposes to allocate ₹ 7.0 Lakh towards CER for Avenue Plantation.

13. The PP reported The PP submitted that the advertisement for Public Hearing was published in newspaper one in English and the other one in Hindi on 13.3.2022 and the Public Hearing for the project was conducted by the Haryana Pollution Control Board on **13.4.2022**, which was presided by Additional Deputy commissioner. The main issues raised during the public hearing were What would be the disposal and treatment of effluent discharged from wet scrubber? What would be arrangement for checking the leakage of formaldehyde/ Methanol, How much quantity of Water will be stored in the unit, How many workers will be employed in the plant and how many will be from local area, drainage system, fuel.

14. The PP reported that Green belt will be developed around 51.65% area of the total plant area. Out of the 8447.82 m^2. of the plant area, about 4364m^2. of area will be developed as greenbelt which is approx. 51.65%.

15. The PP proposed to set up an Environment Management Cell (EMC) by engaging Manager (EHS) (01) and supervisor (01), Chemist (01), Worker (Safety) (01), Worker (Environment) (01) for the functioning of EMC.

16. The PP submitted that as per carbon sequestration analysis, the total CO2 emissions will be 225.84 Tonnes/Annum from the process, fuel and transportation of raw materials and finished products. To sequestrate the carbon emissions green belt plantation, scrubber and bag filter will be provided. Total 1091 trees will be planted at project site from which total 3709.28 tonnes CO2 will be sequestrated.

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

18. The PP submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.2011 ""*I hereby undertake that prescribed ToR with respect to the EIA/EMP Studies for "Formaldehyde manufacturing unit of capacity 200 TPD at Khasra no. 2//23, 8//3, 8//7, 8//8/1 Village: Sherpur, Tehsil- Naraingarh, Sub-Tehsil: Shahzadpur, Dist.: Ambala - Haryana by* ***M/s Surya Organics.*** *"has been complied with conducting EIA/EMP Studies. The contents (Information & Data) as given by our consultant in the EIA/EMP report are factually correct with full knowledge of undersigned".*

19. The Consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 that. "*We do hereby declare that we have undertaken the Environment Impact Assessment Study for the subject job as per EIA Notification 2006 and in compliance with finalized Terms of Reference issued by MoEF&CC vide F. No. IA-J-11011/433/2021-IA-II(I) dated 29th November, 2021. The prescribed ToRs have been complied with and that the data submitted is factually correct while preparing EIA Report*"

20. The estimated project cost is ₹ 7.0 Crore. The PP reported that total 20 persons will be required for the proposed project during operation phase. Some temporary manpower will be hired from local areas during construction phase.

21. Deliberations by the EAC:

The EAC, constituted under the provisions of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the 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 the budgetary provisions under occupational health and safety of workers. PP submitted that Rs. 2.0 Lakhs capital cost and Rs. 0.3 lakh per annum is recurring cost. The EAC deliberated on the greenbelt and plantation and suggested to develop plants as per tree density 2500 trees/ha and to increase the number of trees after considering the survival rate of the trees. PP committed to develop 51.65 % out of the total area as a greenbelt. 1310 number of trees shall be planted after considering the survival rate of the trees.

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 Expert 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**: -

(i) The PP shall develop Greenbelt over an area at least 51.65% i. e 4364 m^2 by planting 1310 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 ₹ 4.76 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 Manager (EHS) (01) and supervisor (01), Chemist (01), Worker (Safety) (01), Worker (Environment) (01) within a month of grant of EC. In addition to this one safety & health officer with suitable qualification and experience shall be engaged within six month of grant of EC PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget propose under EMP is ₹ 33.26 lakh (Capital cost) and 3.5 lakh (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) The total water requirement for the proposed project will be 150 KLD which will be sourced from own tube well for which the application has been submitted to HWRA vide application no. HWRA/IND/N/2021/1670 dated 3.12.2021The 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.

(v) 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.

(vi) 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.

(vii) 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.

(viii) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

(ix) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

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

(xi) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and the Domestic effluent of 0.8 KLD will be send to septic tank followed by soak pit and Evaporator will be installed to treat RO Reject and other trade effluents.No effluent generation from the process.

(xii) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB 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.

(xiii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xiv) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xv) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action

plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

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

(xvii) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xviii) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xix) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high-pressure hoses for equipment cleaning to reduce wastewater generation.

(xx) 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. 34.4

Proposed Synthetic organic chemicals (Resin) Manufacturing unit of production capacity 2000 Mt/month located at Survey No. 261, Village Indrad, Taluka Kadi, District Mahesana, Gujarat, by M/s Amura Polymers UNIT-2 - Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/210491/2021; File No. IA-J-11011/189/2021-IA-II(I)]

1. The proposal is for environmental clearance to the project for Proposed Synthetic organic chemicals (Resin) Manufacturing unit of production capacity 2000 Mt/month located at Survey No. 261, Village Indrad, Taluka Kadi, District Mahesana, Gujarat, by M/s Amura Polymers UNIT-2.

2. 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 project is located outside the notified industrial area , so requires appraisal at Central Level by Expert Appraisal Committee (EAC)

3. The PP applied for ToR vide proposal number IA/GJ/IND3/210491/2021 dated 27.4.2021 and the Standard **ToR** has been issued by the Ministry, vide letter No. IA-J-11011/189/2021-IA-II(I) dated **30.4.2021** . PP reported that PH is conducted on 21.01. 2022 which was presided by the District Magistrate & Collector, Mehsana. The PP applied for Environment Clearance on 13.5.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP reported in Form-2 that it is a **Fresh EC.** Due to some shortcomings, the Project was referred back to PP on 23.5.2022 and reply to the same was submitted on14.6.2022. The proposal is now placed in 34th EAC Meeting held on 12-13 July, 2022, wherein the Project Proponent and the accredited Consultant T. R. Associates. [Accreditation number NABET/EIA/1922/SA 0153 Valid up to April, 8, 2023 made a detailed presentation on the salient features of the project and informed the following.

4. The PP reported that the proposed Land area is 0.6788 Ha and no R& R is involved in the Project. The details of products are as follows-

S. No.	Description	Physical Form	Type of Packing / Storage/ Mode of storage	Transportation	Capacity of storage
1	Alkyd Resin	Liquid	Drum	will be transported by road, rail & ship	0.22 MT
2	Polyester Resin	Liquid	Drum	will be transported by road, rail & ship	0.22 MT
3	Polyamide Resin	Liquid	Drum	will be transported by road, rail & ship	0.22 MT
4	Acrylic Resin	Liquid	Drum	will be transported by road,rail & ship	0.22 MT
5	Rosin ester	Liquid	Drum	will be transported by road, rail & ship	0.22 MT
6	Epoxy Resin	Liquid	Drum	will be transported by road, rail & ship	0.22 MT
7	P.F. Resin	Liquid	Drum	will be transported by road, rail & ship	0.22 MT

8	M.F. Resin	Liquid	Drum	will be transported by road, rail & ship	0.22 MT
9	U.F. Resin	Liquid	Drum	will be transported by road, rail & ship	0.22 MT
10	Ketonic Resin	Liquid	Drum	will be transported by road, rail & ship	0.22 MT

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that there are no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from site. However, Nearest sanctuary is Thol Bird Sanctuary 17.43 km in South direction. The PP reported that there is no forest land involved in the proposed project and four Schedule I species i.e Indian Peafowl, Shikra, Pallid Harrier, Blackbuck exist within 10 km study area of the project, conservation plan is submitted to PCCF and CWW on 1.11.2021 with budgetary provision of ₹ 5.0 Lakh. The PP committed to implement the plan in five year.

7. The PP reported that Ambient air quality monitoring was carried out at 8 locations during October- December 2021 and baseline data indicates that PM10 concentration is observed within the study area in the range of 59.26 µg/m^3 to 86.61 µg/m^3. The maximum concentration is observed at Chhatral GIDC with the result 86.61 µg/m^3. The maximum concentration 98th percentile is recorded at Chhatral GIDC with the result of 86.58 µg/m^3 as the industrial area is at Chhatral GIDC. PM2.5 concentrations is observed within the study area in the range of 27.01 µg/m^3 to 51.43 µg/m^3. The maximum concentration 98th percentile is recorded at Chhatral GIDC with the result of 51.10 µg/m^3 as the industrial area is at Chhatral GIDC. SO2 concentration is observed within the study area in the range of 6.17 µg/m^3 to 26.86 µg/m^3. The maximum concentration is observed at Chhatral GIDC with the result 26.8 µg/m^3. The maximum concentration 98th percentile is recorded at Chhatral GIDC with the result of 26.75 µg/m^3 as the industrial area is at Chhatral GIDC. NO2 concentration is observed within the study area in the range of 17.21 µg/m^3 to 47.6 µg/m^3. The maximum concentration is observed at Chhatral GIDC with the result 47.63 µg/m^3. The maximum concentration 98th percentile is recorded at project site with the result of 47.47 µg/m^3, as the industrial area is at Chhatral GIDC. Sound levels had been recorded according to IS: 9989:1991 (Reaffirmed 2001). The maximum noise level measured in the study area was 74.2 dB (A) in day time and 69.4 dB (A) in night time at Chhatral GIDC, which were below the stipulated standards. The noise levels (Leq) of the residential area within the impact zone varied from 49.9 –05.7 dB (A) in the day time and 40.0 – 43.6 dB (A) in the night time. pH is found between 7.36 to 8.33 which is well within the acceptable limit at all locations. TDS is found between 872 to 1944 which is well within the permissiable limit at all locations. Chloride is found higher than the acceptable limit at project site, Indrad, Karannagar, Irana, Budasan, Kadi and and Bileshwarpura but the Floride is found well within the permissible limit at all the locations. Total hardness is found higher than the acceptable limit at all the location and higher than permissible limit at Budasan, project site, Indrad, Kadi. Magnesium is found higher then acceptable & permissible limit at except Chhatral GIDC. Calcium is found higher than the acceptable

limit at Indrad, Irana, Budasan, kadi and Chhatral GIDC and well within the permissible limit at all the location. Water quality index is found to be **Excellent** at Canal near Karannagar and Rajpur whereas the water quality index were found to be good at Irana, Budasan, Dhanot, Ambavpura and at Chhatral GIDC can be used for domestic as well as for industrial purpose after primary treatment followed by disinfection. Soil pH ranged from 6.53 to 7.41 indicating that soils are neutral in reaction. It means that soil is normal. Organic carbon content of all the soil samples were found from sufficient to more than sufficient. A possible explanation for high organic carbon content may be that the farmers would have buried crop residues after harvest of the crops and used organic manures. EC values of soil samples ranges from 104 to 348 (µs/cm) shows that soil of the sampling location had normal EC. CEC varies ranged from 8.88 to 39.91 meq/100gm. Sampling locations such as Rajpur and Chhatral had low value, project site had medium value and remaining sampling locations had high value. High organic matter and more amount of Mg salt would have contributed to higher CEC. The soil having low or medium CEC are generally less fertile soil and the soil having high CEC are generally high fertility with more clay content. Nutrient availability of soil samples reveals that soils were low with N and P_2O_5 and high in K_2O. Calcium content in soil samples was below critical levels (i.e. < 25% of CEC) and Magnesium content in soil was more than critical level (i.e. < 4% of CEC). The soils of project site, Indrad, Bileshwarpara and Rajpar are sandy clay loam and remaining soil smapling locations have sandy loam. Water holding capapcity of sandy clay laom and sandy loam soil found to be good and moderate respectively. SAR values found to be low to medium indicating soil are slightly salt affected. Bulk density of soil samples was ranged from 1.58 to 2.43 (g/cm^3). Sodium value was ranged from 1.41 to 3.40 (mg/gm).

8. The PP reported that Total water requirement is 11.16 **KLD** (Fresh 6.12 KLD + Reuse 5.04 KLD) which will be met from **Bore Well.** As well as unit will provide 2 tanks of 50 KLD for rainwater harvesting for proposed unit. Effluent of 4.04 m^3/day quantity will be treated through Effluent Treatment Plant & 1.85 KLD domestic effluent will be treated through Sewage Treatment Plant.

9. The PP reported that Energy/power requirement will be 100 KVA which will be procured through Uttar Gujarat Vij Company Limited (UGVCL). Flue gas emission will take place from stack attached to TFH (1000000 Kcal/hr) in which Briquettes will be utilized as fuel. There will also a provision of D. G. Set (120 KVA) as a source for power supply in the case of power failure. Diesel will be used as fuel in D. G. Set. Proposed unit will provide multi cyclone separator followed by bag filter to the TFH as an Air Pollution Control Measures to control the particulate matter emission in the flue gas. Adequate stack height 30 meter will be provided with TFH & adequate stack height 12 meter will be provided with D. G. set stack for the proper dispersion of pollutants into atmosphere.

10. Details of Process Emissions Generation and their Management:

S. No.	Stack attached to	Height of the stack In meter	APC System	Expected Pollutant	GPCB Limit

1.	Process Reactors of Alkyld Resin, Polyster Resin, Epoxy Resin,	12 m	Activated Carbon column	VOCs	--
2.	Process Reactors of PF resin, Ketonic Resin	12 m	Activated Carbon column	VOCs	--

11. Details of Solid and Hazardous Waste Generation and its Management:

S. No.	Description	Category	Quantity	Mode of Disposal
1	ETP Sludge	35.3	12.12 MT/Annum	Collection, storage and disposal at approved TSDF/CHWIF site
2	Evaporator residue	35.3	24.24 MT/Annum	Collection, storage and disposal at approved TSDF site
3	Used Oil	5.1	0.05 MT/Annum	Collection, storage and used within premises as a lubricant / sold to registered recycler.
4	Discarded Plastic Bags / Barrels	33.1	27.04 MT/Annum	Collection, storage & sold to authorized vendor.
5	Spent Carbon	35.1	16.35 MT/Annum	Collection, storage and disposal at approved CHWIF site
6	Resin Residue	23.1	12.00 MT/Annum	Collection, storage and disposal at approved CHWIF site

13. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 109.07 Lakhs (capital) and the Recurring cost (operation and maintenance) will be about ₹ 49.32 Lakhs per annum which includes Air Pollution [₹ 13.0 lakh (capital) and ₹ 1.2 lakh/annum (Recurring)], Water Pollution [₹ 8.85 lakh (capital) and ₹ 1.2 lakh/annum(Recurring)], Noise pollution [₹ 0.12 lakh (capital) and ₹ 0.14 lakh/annum (Recurring)], Hazardous / Solid Waste Management [₹ 0.7 lakh (capital) and ₹ 5.26 lakh/annum(Recurring)], AWH [₹ 25.92 lakh/annum (Recurring)], Green Belt [₹ 7.38 lakh (capital) and ₹ 3.5 lakh/annum (Recurring)] and Fire safety & Occupational Health & Safety [₹ 34.97 lakh (capital) ₹ 1.05 lakh/annum (Recurring)], Miscellaneous (Rain Water Harvesting & CER) [₹ 44.04 lakh (capital) and ₹ 11.05 lakh/annum (Recurring)], Industry proposes to allocate ₹ 40 Lakh towards CER for Installation of Solar panels, Infrastructure development in nearby Villages, provision of sewing machines to needy women in nearby villages, Provision of "Bala Rasayan" to children at Anganvadi and PHC to recover children from malnutrition in nearby villages.

14. The PP reported that the advertisement for Public Hearing was published in newspaper viz.

Business standard and in *"Gujarat Samachar "* on 14.12.2021 and the Public Hearing for the project was conducted by the Gujarat Pollution Control Board on **21.1.2022** which was presided by District Magistrate & Collector. The main issues raised during the public hearing were wastewater, air emission, hazardous waste, safety related issues raised during public hearing.

15. The PP reported that total land area of premises is **6,788 m^2**, out of which **2293.06 m^2 (33.78 %)** area will be developed for greenbelt.

16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environmental Engineer (02) , chemist (01) , safety health officer (01) for the functioning of EMC.

17. The PP submitted that Net CO_2 emitted = 543.73 MT/year, Production per year - 24,000 MT/year and Net CO2 emitted per ton of product- 0.0227 MT or 22.7 kg Approximately 13 % CO2 will be sequestrated by use of renewable energy, approximately 21 % CO2 will be sequestrated by greenbelt development. Approximately 17 % CO2 will be sequestrated by greenbelt development.

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

19. The PP submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.2011 " *I, **Mr. Mukeshbhai Patel -** Partner of for **M/s. Amura Polymers Unit-2** located at **Survey no. 261 Village: Indrad, Taluka: Kadi District: Mahesana, Gujarat - 382715** do hereby give undertaking with reference to MoEF&CC O.M. No. J-11013/41/2006-IMI.(I) dated 05th October 2011, that the data and information given in the Environmental Impact Assessment (EIA) report are factually correct and we will responsible for any discrepancy in the EIA report. We also undertake that content including information & data of the EIA report is own by us and data or information not taken from any other EIA report. The above stated fact is true to the best of my knowledge".*

20. The Consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 that *"I, **T. R. Patel, Proprietor of M/s. T. R. Associates** located at A-401, S. G. Business Hub, B/w. Sola Bhagwat & Gota Over Bridge, Near Umiya Campus, S. G. Highway, Ahmedabad - 380060, Gujarat, **do hereby give undertaking** with reference to MoEF O.M. No. J-11013/41/2006- II(I) dated 04th August 2009, that we have prepared EIA report for **M/s. Amura Polymers Unit-2** located at **Survey no. 261 Village: Indrad, Taluka: Kadi District: Mahesana, Gujarat - 382715,** as per Terms of Reference (ToR) prescribed wide letter no.: **IA-]11011/189/2021-IA-II(I),** dated **30th April 2021.** The stated ToRs have been complied with and the data mentioned in the EIA report are factually correct".*

21. The estimated project cost is ₹20 Crore. The PP reported that about **30 persons**, skilled & unskilled will get employment for the operation and maintenance of the proposed project in efficient way.

22. <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 carbon sequestration and suggested to increase carbon sequestration up to 50 % by greenbelt development or by using renewable energy. PP submitted the revised carbon sequestration study of the project along with social forestry, proposed mitigation measures and committed to plant 560 number of trees in an area of 2237 m^2 outside the premises in next 5 years. PP submitted an undertaking that industry will increase the carbon sequestration from 34% to 50 % by means of renewable energy, greenbelt development and social forestry. EAC also suggested to increase the budgetary provision for EMP and greenbelt development, PP committed to increase the budgetary provision for EMP and greenbelt. The EAC also noted the CER activity and EAC suggested PP to provide nutraceuticals like Bala Rasayana etc. to children suffering from malnutrition in villages. PP committed for 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.

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

The 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.

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

(i) The PP shall develop Greenbelt over an area at least 2293.06 m^2 by planting 688 number of trees within a year of grant of EC. Additionally, 560 number of trees will be planted in an area of 2237 m^2 outside the premises. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be ₹ 7.38 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 by the PP shall engage Environmental Engineer (02) , chemist (01) , safety health officer(01). In addition to this one safety & health officer with suitable qualification and experience shall be engaged within six 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 in case of unavailability of the same the unit may use 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 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 ₹109.07 lakh (Capital cost) and 49.32 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) Total water requirement is 11.16 KLD (Fresh 6.12 KLD + Reuse 5.04 KLD) which will be met from 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. 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. 34.5

Proposed Synthetic Organic Chemicals Unit of production capacity 2150 TPM, located at Survey No. 69, Paiki 2, Village Chanchavadarda, Taluka Maliya Miyana, District Morbi, Gujarat by Keshari Unipolypro LLP - Consideration of Environmental Clearance

[Proposal No IA/GJ/IND3/229913/2021; File No. IA-J-11011/390/2021-IA-II(I)]

1. The proposal is for environmental clearance to the project for Proposed Synthetic Organic Chemicals Unit of production capacity 2150 TPM, located at Survey No. 69, Paiki 2, Village Chanchavadarda, Taluka Maliya Miyana, District Morbi, Gujarat by Keshari Unipolypro LLP.

2. 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 project is located outside the notified industrial area , so requires appraisal at Central Level by Expert Appraisal Committee (EAC).

3. The PP applied for ToR vide proposal number IA/GJ/IND3/229913/2021 dated 30.9.2021 and the **ToR** has been issued by the Ministry, vide letter No. IA-J-11011/390/2021-IA-II(I) dated **5.10.2021** PP reported that PH is conducted on 25.3.2022 which was presided by the Additional Collector & Additional District Magistrate. The PP applied for Environment Clearance on 16.6.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP reported in Form-2 that it is a **Fresh EC.** The proposal is now placed in 34th EAC Meeting held on 12-13 July, 2022, wherein the Project Proponent and the accredited Consultant T. R. ASSOCIATES [Accreditation number NABET/EIA/1922/SA 0153 Valid up to April , 8 2023 made a detailed presentation on the salient features of the project and informed the following.

4. The PP reported that the proposed Land area is 1.129 Ha and no R& R is involved in the Project. The details of products are as follows-

S. No.	Name of Product	Group	Production Capacity	CAS No.
1	Dimethyl Phthalate	Group A	1000 MT/Month	131-11-3
2	Diethyl Phthalate			84-66-2
3	Di butyl Phthalate /Di Isobutyl Phthalate			84-69-5
4	Di Octyl Phthalate/ Di Iso Octyl Phthalate			27554-26-3
5	Di Iso Nonyl Phthalate			28553-12-0
6	Di Iso Decyl Phthalate			26761-40-0
7	Tri Octyl Tri Mellitate (TOTM)			3319-31-1
8	Tri-Isodecyl-Trimellitate (TIDTM)			36631-30-8
9	Di-Octyl Adipate			103-23-1
10	Di Iso Decyl Adipate (DIDA)			27178-16-01
11	Polyester Resin	Group B	300 MT/Month	113669-95-7
12	EO base Binder	Group C	200 MT/Month	--
13	Isoper L (Isomer of paraffin)	Group D	500 MT/Month	64742-48-9
14	Pigment Emulsion	Group E	150` MT/Month	--
TOTAL			**2150 MT/Month**	

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that there are no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from site. However, Nearest sanctuary is Wild Ass sanctuary 13.90 km in West direction. The PP reported that there is no forest land involved in the proposed project and one Schedule I species i.e Indian Peafowl exist within 10 km study area of the project, conservation plan is submitted to PCCF and CWW on 10.1.2022 with budgetary provision of ₹ 5.0 Lakh. The PP committed to implement the plan in five years.

7. The PP reported that Ambient air quality monitoring was carried out at 8 locations during October- December 2021 and baseline data indicates that PM10 concentration is observed within the study area in the range of 54.09 µg/m^3 to 86.97 µg/m^3. The maximum concentration is observed at project site with the result of 86.97 µg/m^3. The maximum concentration 98th percentile is recorded at project site with the result of 86.77 µg/m^3. As the sampling location project site located near state highway-947. PM2.5 concentrations is observed within the study area in the range of 31.52 µg/m^3 to 54.81 µg/m^3. The maximum concentration is observed at project site with the result 54.81 µg/m^3. The maximum concentration 98th percentile is recorded at project site with the result of 54.72 µg/m^3. SO_2 concentration is observed within the study area in the range of 3.8 µg/m^3 to 18.97 µg/m^3. The maximum concentration is observed at Project site with the result 18.97 µg/m^3. The maximum concentration 98th percentile is recorded at Project site with the result of 18.85 µg/m^3, as the Project site is located at just 0.01 km from NH 947 and SH 6. NO2 concentration is observed within the study area in the range of 17.21 µg/m^3 to 36.52 µg/m^3. The maximum concentration is observed at Project site with the result 36.52 µg/m^3. The maximum concentration 98th percentile is recorded at Project site with the result of 36.51 µg/m^3, As the Project site is located at just 0.01 km from NH 947 and SH 6. All the results are found well within the prescribed limits of National Ambient Air Quality standards for 24 hrs. Sound levels had been recorded according to IS: 9989:1991 (Reaffirmed 2001). The maximum noise level measured in the study area was 72.6 dB (A) in day time and 63.5 dB (A) in night time at Project site, which is below the stipulated standards in day time as well as in Night time also the Leq value of the same is within stipulated norms. The noise levels (Leq) of the residential area within the impact zone varied from 35.8 – 54.7 dB (A) in the day time and 34.9 – 44.7 dB (A) in the night time. pH is found between the range of 7.9 to 9.9. The pH value is higher than the acceptable limit at all locations except Nana Dahisara and Sarvad. Chloride is found higher than the acceptable limit at all locations except Taraghari (174.4 mg/L). Total hardness is found higher than the acceptable limit at Bore well near Project site, Targhari, Pipliya, Luntavadar , Nana dahisara, and Derala and higher than permissible limit at Chachavadarda and Sarvad. Magnesium is found higher then acceptable limit at all the locations and higher than the permissible limit at Chachavadarda. Calcium is found higher than the acceptable limit at Bore well near Project site, Chachavadarda, Sarvad and Derala. TDS is found higher than the acceptable limit at all the locations and higher than the permissible limit at Bore well near Project site and Sarvad. Results of soil analysis reveals that soil of proposed project area are neutral to slightly alkaline in reaction, have normal EC and organic carbon low to high. Soil of

project site, Chanchavadarda, Pipaliya, Luntavadar and Targhadi villages have high organic carbon content, various soil of Dearala, Mahendranagar and Sarvad villages possessed low organic carbon content. A possible reason for high organic carbon content would be that the farmers would have buried crop residues after harvest of crops and used organic manures. Nutrient availability of soil samples reveals that soil are low to medium in Nitrogen, low in P_2O_5 and high in K_2O.

8. The PP reported that total fresh water requirement for the proposed project will be **23.95 KL/day** which will be fulfilled by own borewell. NOC for ground water from CGWA has been obtained for 23.95 KLD Noc No. CGWA/NOC/IND/ORIG/2022/14464 valid from 31.1.2022 to 30.1.2025. For domestic activities **1.25 KL/day**, for industrial activities **17.23 KL/day** & for green belt development **5.47 KL/day** fresh water will be required. Total **1.17 KL/day** sewage will be generated which will be treated in STP and will be reused in Gardening. About **19.79 KL/day** effluent will be generated from Cooling Tower, Process and Washing activity. About **1.0 KL/day** wastewater will be generated from floor washing. About **1.22 KL/day** wastewater will be generated from cooling tower as blow down. About **13.77 KL/day** wastewater will be generated from Process. Unit will maintain **Zero liquid Discharge.**

9. The PP reported that Energy/power requirement will be 500 KVA which will be procured through Paschim Gujarat Vij Company Limited (PGVCL). Fuel will be required for Boiler (2TPH) & TFH (10 lac Kcal/hr). Diesel will be utilized for D. G. Set. Required fuel will be purchased from the nearby trader within nearby market. Industry will provide one steam boiler of 2 TPH [Fuel : Briquettes (6.87 Ton/day). Multicyclone dust collector followed by bag filter followed by water scrubber with stack height of 30 m will be installed with Boiler for controlling the particulate emissions within the statutory limit. Additionally, TFH 1000000 Kcal/hr [Fuel : Briquettes (5 Ton/day)] will be installed. Multicyclone dust collector followed by bag filter followed by water scrubber with stack height of 30 m will be installed with TFH for controlling the particulate emissions within the statutory limit.

10. Details of Process Emissions Generation and their Management:

Sr. No.	Stack attached to	Height of the stack In meter	APC System	Expected Pollutant	GPCB Limit
1	3 reactors of Group A product	11	Activated Carbon Column	VOCs	As per GPCB Norms
2	3 reactors of Group A product	11	Activated Carbon Column	VOCs	As per GPCB Norms
3	2 reactors of Group C product	11	Activated Carbon Column	VOCs	As per GPCB Norms
4	2 reactors of Group B product	11	Activated Carbon Column	VOCs	As per GPCB Norms

Note: There are total 6 reactors of 6.5 KL capacity for Group A product, Total 2 reactors of 6.5 KL capacity for Group C product and Total 2 reactors of 2.5 KL capacity for Group B product.

11. Details of Solid and Hazardous Waste Generation and its Management:

S. No.	Description	Category	Quantity (MT/Annum)	Mode of Disposal
1.	ETP Sludge	35.3	112.68	Collection, storage and disposal at approved TSDF site
2.	Evaporation Residue	35.3	112.68	Collection, storage and disposal at approved TSDF site
3.	Distillation residue	20.3	38.64	Collection, storage and disposal at approved CHWIF site
4.	Process waste (Spent Charcoal)	36.2	173.88	Collection, storage and disposal at approved CHWIF site
5.	Spent Solvent	20.2	2301	Collection, storage and reuse within process or send to rule-9
6.	Used Oil	5.1	0.05	Collection, storage and used within premises as a lubricant / sold to registered recycler
7.	Discarded Plastic Bags /Barrels	33.1	82.23	Collection, storage & sold to authorized vendor
8.	Spent Carbon	35.1	163.68	Collection, storage and disposal at approved CHWIF site

12. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 110.5 Lakhs (capital) and the Recurring cost (operation and maintenance) will be about ₹ 171.81 Lakhs per annum which includes **Air Pollution** [₹ 35 lakh (capital) and ₹ 14.09 lakh/annum (Recurring)], water pollution [₹ 20.9 lakh (capital) and ₹ 60.18 lakh/annum (Recurring)], Noise Pollution [₹ 0.12 lakh (capital) and ₹ 0.63 lakh/annum (Recurring)], Hazardous / Solid Waste Management [₹ 1.0 lakh (capital) and ₹ 68.49 lakh/annum (Recurring)], Green Belt& social forestry [₹ 16.82 lakh (capital) and ₹ 5.02 lakh/annum (Recurring)], soil [₹ 0.1426 lakh/annum (Recurring)] and Fire safety & Occupational Health & Safety [₹ 3.17 lakh (capital) ₹ 0.75 lakh/annum (Recurring **Miscellaneous & Rain Water Harvesting** [₹ 5.0 lakh (capital) and ₹ 22.5 lakh/annum (Recurring)], Industry proposes to allocate ₹ 12 Lakh towards CER for Provide “Bala Rasayan” to malnutrition children in Anganvadi and PHC of nearby villages, Drinking facilities (Fully Automatic R.O Facility with Cooler) in schools of Chanchavadarda village, Installation of solar panel (10 KW) in Gram-panchayat and school of Pipaliya village, Providing computers and free books in school of Sarvad village.

13. The PP reported The PP submitted that the advertisement for Public Hearing was published in newspaper viz. The Times of India and in “Saurashtra Bhaskar ” on

23.2.2022 and the Public Hearing for the project was conducted by the Gujarat Pollution Control Board on **25.3.2022**, which was presided by Additional Collector & Additional District Magistrate. The main issues raised during the public hearing were issued raised about CER activities, worker safety training.

14. The PP reported that Total land area of premises is **11129** m2, out of which **3813 m^2** (34.26 %) area will be developed for greenbelt.

15. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environmental Engineer (02) , chemist (01) , safety health officer(1) for the functioning of EMC.

16. The PP submitted that as per carbon sequestration analysis, the total CO_2 emissions will be 225.84 Tonnes/Annum from the process, fuel and transportation of raw materials and finished products. To sequestrate the carbon emissions green belt plantation, scrubber and bag filter will be provided. Total 1091 trees will be planted at project site from which total 3709.28 tonnes CO_2 will be sequestrated.

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

18. The PP submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.2011 "I*, Mr. Kiritbhai B. Fulyariya - Partner of M/s. Keshari Unipolypro LLP. located at Survey No. 69 paiki 2, Village: Chanchavadarda, Taluka: Maliya Miyana, District- Morbi, Gujarat- 363670 do hereby give undertaking with reference to MoEF&CC O.M. No. J-11013/41/2006-IA.II.(I) dated 05th October 2011, that the data and information given in the Environmental Impact Assessment (EIA) report are factually correct and we will be responsible for any discrepancy in the EIA report We also undertake that content including information & data of the EIA report is own by us and data or information not taken from any other EIA report. The above stated fact is true to the best of my knowledge.".* '

19. The Consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 that "I, **T. R. Patel, Proprietor of M/s. T. R. Associates** located at A-401, S. G. Business Hub, B/w. Sola Bhagwat & Gota Over Bridge, Near Umiya Campus, S. G. Highway, Ahmedabad - 380060, Gujarat, **do hereby give undertaking** with reference to MoEF O.M. No. J-11013/41/2006- II(I) dated 04th August 2009, that we have prepared EIA report for **M/s Keshari Unipolypro LLP** located at **Survey no. 69 Paiki2, Village: Chanchavadarda, Taluka: Maliya Miyana, District-Morbi, Gujarat- 363670** as per Terms of Reference (ToR) prescribed wide letter no.: **IA-]11011/189/2021-IA-II(I),** dated **30th April 2021.** The stated ToRs have been complied with and the data mentioned in the EIA report are factually correct. The above stated fact is true to the best of my knowledge.*".*

20. The estimated project cost is ₹ 6.16 Crore. The PP reported About **15 persons**, skilled & unskilled will get employment for the operation and maintenance of the proposed project in efficient way.

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 the carbon sequestration study along with proposed mitigation measures, also along with the details of social forestry additionally 2000 number of trees will be plantesd in a village Targhari Taluka maliya Miyana and Distict Morbi within 5 years. The commitment made between Taraghari gram panchayat and Keshari UNipolypro LLP has been submitted by the PP. The PP submitted that Unit will sequestrate upto 50.4 % of the total carbon emitted from the project and undertaking for the same jhas been submitted by the PP. The EAC also suggested to increase the budgetary provision for EMP. The EAC also noted about the CER activity and the EAC suggested the PP to provide nutraceuticals like Bala Rasayana etc. to children suffering from malnutrition in surrounding villages. PP committed for 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.

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

The 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**: -

(i) The PP shall develop Greenbelt over an area at least **3813 m^2** by planting 2000 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 ₹ 16.82 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 by the PP shall engage Environmental Engineer (02), chemist (01), safety health officer (1). In addition to this one safety & health officer with suitable qualification and experience shall be engaged within six months of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget propose under EMP is ₹110.5 lakh (Capital cost) and 171.81 lakh (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) The total fresh water requirement for the proposed project will be 23.95 KL/day which will be fulfilled by own borewell. NOC for ground water from CGWA has been obtained for 23.95 KLD vide NOC No. CGWA/NOC/IND/ORIG/2022/14464 valid from 31.1.2022 to 30.1.2025. 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 detais 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) 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.

(vi) 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.

(vii) 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.

(viii) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

(ix) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

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

(xi) As already committed by the project proponent, Zero Liquid Discharge shall be ensured that total 1.17 KL/day sewage will be generated which will be treated in STP and willbe reused in Gardening.

(xii) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB 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.

(xiii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xiv) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xv) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action

plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

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

(xvii) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xviii) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xix) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high -pressure hoses for equipment cleaning to reduce wastewater generation.

(xx) 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. 34.6

Amendment in Environment Clearance for the Change of Fresh Water Source for the Unit of M/s. Shrey Industries, located at Survey No. 111 & 112, Plot no. 7 & 8, Village: Dhanot, Taluka: Kalol, District. Gandhinagar, Gujarat

[Proposal No. IA/GJ/IND3/273834/2022; File No. IA-J-11011/369/2018-IA-II(I)]

1. The proposal is for amendment in the **Environmental Clearance** granted by the Ministry vide **letter No. IA-J-11011/369/2018-IA-II(I) dated 18.11.2020** for the project of **Synthetic Organic Chemicals manufacturing unit** located at **Survey No. 111 & 112, Plot no. 7 & 8, Village: Dhanot, Ta.: Kalol, Dist. Gandhinagar, Gujarat** in favour of **M/s. Shrey Industries.**

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

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised / read as	Justification/ Reasons
1	**Condition no. 9**	Total water requirement is 84.6 KLD of which fresh water requirement of 49 KLD will be met from **Gujarat Water Supply & sewerage Board (GWSSB).** 35.6 KLD will be recycled/treated water. Process effluent (47.4 KLD), along with effluent from washing (5.0 KLD), utilities (1.0 KLD), scrubber (0.5 KLD) will be taken into ETP. Them it will be passes through RO. RO permeate (35.6 KLD) will be reused, RO reject (18.3 KLD) will be spray dried in common spray drying facility. The plant will be based on zero liquid discharge system. Domestic effluent of 0.8 KLPD will goes to soak pit via	Total water requirement is 84.6 KLD of which fresh water requirement of 49 KLD will be met from **Bore well.** 35.6 KLD will be recycled/treated water. Process effluent (47.4 KLD), along with effluent from washing (5.0 KLD), utilities (1.0 KLD), scrubber (0.5 KLD) will be taken into ETP. Them it will be passes through RO. RO permeate (35.6 KLD) will be reused, RO reject (18.3 KLD) will be spray dried in common spray drying facility. The plant will be based on zero liquid discharge system. Domestic effluent of 0.8 KLPD will goes to soak pit via septic tank.	The GWSSB is allowing use of water only for domestic activity. They are not allowing use of water for the industrial activity. Hence, we want to change the source of the fresh water. The NOC for abstraction for ground water with NOC no. CGWA/NOC/IND/ORIG/2022/14768 valid from 9.3.2022 to 8.3.2025 is attached.

		septic tank.		

Deliberations by the EAC:

The Committee observed that **Environmental Clearance** granted by the Ministry vide **letter No. IA-J-11011/369/2018-IA-II(I) dated 18.11.2020**. the EAC deliberated on the usage of water by the Industry and noted that GWSSB has allowed use of water for domestic activity only and not for the industrial activity.

The EAC also noted that CGWA application for ground water abstraction is also valid till 8.3.2025.

After detailed deliberations, the EAC accepted the request of the PP and **recommended** the proposal for Amendment in EC condition, as detailed in above mentioned table. The Committee also recommended the following additional specific conditions:

(i). 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.

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

Agenda No. 34.7

Proposed Expansion of Formaldehyde Manufacturing Unit from 80 TPD to 250 TPD in Existing Facility located at Sampla-Beri Road, Ismaila, 11-B, District Rohtak, Haryana by M/s Banke Bihari Overseas Pvt. Ltd. - Consideration of Environmental Clearance [Under violation category]

[Proposal No. IA/HR/IND3/268419/2021; File No. IA-J-11011/100/2021IA.II(I)]

1. The proposal is for environmental clearance to the project for Proposed Expansion of Formaldehyde Manufacturing Unit from 80 TPD to 250 TPD in Existing Facility located at Sampla -Beri Road, Ismaila, 11-B, District Rohtak, Haryana by M/s Banke Bihari Overseas Pvt. Ltd.

2. 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 the Schedule of Environment Impact Assessment (EIA) Notification2006 (as amended) as the project is located outside the notified industrial area. Therefore, the project requires appraisal at Central Level.

3. The PP applied for ToR vide proposal number IA/HR/IND3/204355/2021 dated 18.3.2021 and the ToR has been issued by the Ministry, vide letter No. IA-J-11011/100/2021-IA.II (I)

dated 8.7.2021 .The PP submitted that Public hearing is conducted on 2.10.2021 which was presided by the Additional District Commissioner. The PP applied for Environment Clearance on 29.4.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP in the Form-2 reported that it is a **Fresh EC.** Due to some shortcomings, the Project was referred back to the PP on 6.5.2022 and reply to the same was submitted on 20.6.2022. The proposal is now placed in 34th EAC Meeting held on 12-13 July, 2022, wherein the Project Proponent and an accredited Consultant, Vardan EnviroNet, [Accreditation number NABET/EIA/2023/SA/0158 Valid up to 5.3.2023], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 0.54 Ha and no R& R is involved in the Project. The details of products and by–products are as follows:

Product	April, 2019-18.05.2021	Proposed Expansion	Total
Formaldehyde CAS No.- 50-00-0	80 TPD	170 TPD	250 TPD

5. The PP reported that there is violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and court notice direction (case no 02/22) is issued under E(P) Act/Air Act/Water Act. The PP reported that the unit had started construction in April 2019 (construction lasts over 3 months i.e. June, 2019) and came in operation in 15th September 2019 to 18th May 2021 without securing Environmental Clearance, hence, it attracts the violation as per EIA Notification, 2006 and 14.03.2017.

6. The PP reported that certified compliance of CTO is obtained from the Haryana State Pollution Control Board vide letter no. HSPCB/BDR/2022/782 dated 31.5.2022.

7. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger /Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Ismaila distributary is flowing at a distance of 0.70 km in East Direction The PP reported that no forest area is involved in the proposed project. and four Schedule I species i.e. Black Buck, Black Panther, Python, Indian peafowl exist within 10 km study area of the project, conservation plan is submitted to PCCF and Divisional wildlife officer on 27.4.2022 with budgetary provision of ₹ 9.0 Lakh. The PP committed to implement the plan in one year.

8. The PP reported that Ambient air quality monitoring was carried out at 8 locations during 1st October 2020 – 31st December 2020 to and the baseline data indicates the ranges of concentrations as: PM_{10} (63.40 $\mu g/m^3$ and 96.3 $\mu g/m^3$), $PM_{2.5}$ (34.10 $\mu g/m^3$ and 59.20 $\mu g/m^3$), SO_2 (23.60 $\mu g/m^3$ and 9.50 $\mu g/m^3$) and NO_2 (39.90 $\mu g/m^3$ and 21.30 $\mu g/m^3$). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 96.408 $\mu g/m^3$, 23.92 $\mu g/m^3$ and 39.92 $\mu g/m^3$ with respect to PM_{10}, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Ambient noise levels were measured at 08 locations around the proposed project site. Minimum and maximum noise levels recorded during the day time were from 49.50 Leq dB and 69.80 Leq dB respectively and minimum and maximum level of noise during night time were 39.50 Leq dB and 60.40 Leq dB respectively. The analysis results show that soil is basic in nature as pH value ranges from 7.38 to 7.64 with organic matter 0.35% to 0.5%. The concentration of Nitrogen (176 Kg/ha. to 223.57 Kg/ha.), Phosphorus (15.35 Kg/ha. to 19.63Kg/ha.) and Potassium (123 Kg/ha.

To 191.4Kg/ha.) has been found to be in good amount in the soil sample. Mostly, the parameters fall within the permissible limits of drinking water standards. The baseline results of ground and surface water were compared with the data for provided by HWRA/CGWA and were found to be in course with the same.

9. The PP reported that the total water requirement for the project after expansion will be 490 KLD which will be sourced from own tubewell. Ground water NOC for existing requirement i.e. 60 KLD is obtained vide letter no. HWRA/NOC/IND/N/2021/104 valid from 13.09.2021 upto 13.09.2022. Application to HWRA for the total water required after expansion i.e., 490 KLD has been submitted to HWRA vide HWRA/IND/N/2022/3816 dated 13.7.2022. There will be no effluent generation from the process. Total domestic waste water generation is 1.6 KLD. This will be treated through Septic tank (2 KLD).The plant will be based on Zero liquid discharge system.

10. The PP reported Maximum power requirement for the existing unit is 140 KW. After expansion, the total power requirement will be 430 KW. The power is supplied from UHBVN (Uttar Haryana Bijli Vitran Nigam). One DG sets of 250 kVA capacity is already existing as site as backup support. 1 more DG set of 250 KVA is proposed for the capacity expansion of formaldehyde. Existing unit has 0.9 TPH HSD fired boiler. No additional boiler is required

S. No.	Attached to	Fuel	Control measures
1	Boiler	HSD	Stack height of 30 m will be provided
2	DG Set	HSD	Acoustic Enclosure with 6 m stack

11. Details of Process Emissions Generation and their Management:

S. No.	Name of Gas	Pollution Control Equipment's/ Treatment Methods	Disposal methods
1	Carbon Dioxide	Scrubber	-
2	CO	Scrubber	Generated CO will be reused within the process.

12. Details of Solid Waste Generation and its Management:

Type of Waste	Cat.	Source of Waste	Quantity	Method of storage	Method of Disposal
Salts from Evaporator	37.3	MEE	0.99 TPD	Stored in covered area with platform	Send to TSDF facility.
Empty Barrels/ Containers	33.1	Storage godown	2.0	Stored in covered area with platform	Send to vendor/ Sell to approved HSPCB

					approved scrap dealer
Used Oils	5.1	Utilities	400 litre/annum	Stored in covered area with platform	Authorized recyclers identified by HSPCB

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 45 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 4.6 Lakh per annum, which includes Stack with Online Monitoring System [₹ 12 lakh (capital) and ₹ 2.0 lakh/annum (Recurring)], Air Pollution Control- Wet Scrubber pit [₹ 8 lakh (capital) and ₹ 1.0 lakh/annum (Recurring)], Water Pollution Control-Evaporator, Soak pit [₹ 10 lakh/annum (capital) and ₹ 0.5 lakh/annum (Recurring)], Rain Water Collection tank [₹ 5.0 lakh (capital) and ₹ 0.2 lakh/annum (Recurring)], Green Belt Development [₹ 3.0 lakh (capital), ₹ 0.3 lakh/annum (Recurring)], Occupational Health and Safety [₹ 2.0 lakh/annum (capital) and ₹ 0.2 lakh/annum (Recurring)], Solid and hazardous waste management [₹ 1 lakh (capital) and ₹ 0.2 lakh/annum (Recurring)], Environmental Monitoring- Environmental monitoring activities (In-house & Outsourced) [₹ 4 lakh (capital) and ₹ 0.2 lakh/annum (Recurring)], Industry proposes to allocate ₹ 18 Lakhs towards CER for Plantation of trees at road side near project site , Renovation of government school in nearby Village- Ismaila and Rohad.

14. The PP reported that the advertisement for Public Hearing was published in newspaper viz. The Tribune and in Hari Bhumi on 2.10.2021 and the Public Hearing for the project was conducted by the Haryana Pollution Control Board on **9.11.2021**, which was presided by Additional District Commissioner. The main issues raised during the public hearing were issued raised about benefits from the project, regarding air emission, waste generation such as solid waste, liquid waste, hazardous waste from the unit, of offsite/ onsite emergency plan of the unit, detail of rain water harvesting provide by unit, storage of raw material as methanol is explosive substance.

15. Industry has already developed 33.33% of green belt (450 trees are already in the premises) i.e. 1800 Sq.m. out of total area of the project. Industry will develop out of the 0.54 ha. of the plant area i.e., 0.18 Ha of the total land is under green belt development.

16. The PP proposed to set up an Environment Management Cell (EMC) by engaging General Manager, Manager (EHS) and Chemist, supervisor, worker (safety), worker (Environment) for the functioning of EMC.

17. The PP reported that as per carbon sequestration analysis, the total CO_2 emissions will be 7,434.50 Tonnes/Annum from the process, fuel and transportation of raw materials and finished products. To sequestrate the carbon emissions green belt plantation, scrubber will be provided. Total 450 trees will be planted at project site from which total 36,571.13 tonnes CO_2 will be sequestrated.

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

19. The PP also submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.*2011 'I hereby undertake that prescribed ToR with respect to the EIA/EMP Studies for "Capacity* ***expansion of Formaldehyde manufacturing unit***

in existing facility from 80 TPD to 250 TPD at Sampla-Beri Road, Ismaila, 11-B, District Rohtak, Haryana by M/s Banke Bihari Overseas Pvt. Ltd." *has been complied with conducting EIA/EMP Studies. The contents (Information & Data) as given by our consultant in the EIA/EMP) report are factually correct with full knowledge of undersigned*.

20. The consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 "*We do hereby declare that we have undertaken the Environment Impact Assessment Study for the subject job as per EIA Notification 2006 and in compliance with finalized Terms of Reference issued by MoEF&CC vide F.No. IA-J-11011/100/2021-IA-II(I) dated 08 th July 2021. The prescribed ToRs have been complied with and that the data submitted is factually correct while preparing EIA Report."*

21. The estimated project cost is ₹ 9.0 Crores. Total employment will be 12 nos. (Existing: 5, (Proposed Operation Phase: 7) will be appointed.

22. <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 the greenbelt and plantation that as suggested, the PP has now submitted that the industry have been planted 450 trees and the thickness of the greenbelt will be increased to 6 meter and additional 150 trees will be planted and total trees will be 600 trees within the premises. Additionally, 3500 trees are proposed for plantation on the road in front of the unit called Sampla- Beri road and Rs. 14 Lakh has been earmarked for the same. The EAC also noted about the CER cost, water balance and application for GW withdrawal for the existing as well for proposed quantity vide application number HWRA/IND/N/2022/3816 dated 13.7.2022.

The Member Secretary informed that Ministry has issued a Standard Operating Procedure dated 7th July 2021 bearing the file no. 22-21/2020-IA.II, for identification and handling of violation cases under EIA Notification 2006 in compliance to order of the Hon'ble

National Green Tribunal in Appeal No. 34/2020 (WZ) titled Tanaji B. Gambhire Vs Chief Secretary, Government of Maharashtra. This SOP was challenged in the Madurai Bench of the Hon'ble High Court of Madras in the matter W.P.(MD) No. 11757 of 2021 titled Fatima Vs Union of India and was interim stayed vide order dated 15t July 2021. Recently, in the Order dated 9th December 2021 in the matter of Civil Appeal Nos. 7576-7577 of 2021 in Electrosteel Steels Limited Vs Union of India and Ors., the Hon'ble Supreme Court of India has inter-alia observed the following:

"*The interim order passed by the Madras High Court appears to be misconceived. However, this Court is not hearing an appeal from that interim order. The interim stay passed by the Madras High Court can have no application to operation of the Standard Operating Procedure to projects in territories beyond the territorial jurisdiction of Madras High Court. Moreover, final decision may have been taken in accordance with the Orders/ Rules prevailing prior to 7th July, 2021*."

The EAC observed that in this regard, the Ministry issued O.M. number 22-21/2020-IA.III dated 28.1.2022. Further, the instant proposal is of State of Haryana and should be dealt as per the provision of SOP dated 7.7.2021 for handling of violation cases. The Committee observed that as per the **Step-1 of said SOP,** the units which were operating without EC needs to be closed. But in the instant case, as reported by PP, the Hon'ble NGT vide order dated 03.06.2021 in Original Application No. 840/2019 (Ayush Garg Vs. Union of India & Ors.) concluded that *"no further direction appears to be necessary except that the State PCB may ensure that the unit does not re-start functioning without requisite statutory clearance*". Further, HSPCB, Bahadurgarh on 19.5.2021 issued directions to stop operation of unit in view of expiry of relaxation granted to formaldehyde units by Haryana Government vide letter no. HSPCB/BDR/2021/419.HSPCB, Bahadurgarh on 20.05.2021 sealed the unit against closure order passed by Environment & Climate Change Department, Haryana.

It was informed to the Committee that the PP (Banke Bihari Overseas Pvt. Ltd. & Ors.), filed IA No. 95483 of 2021 for the exemption from filing of the certified copy of the impugned judgement dated 03.06.2021, IA No. 95481 of 2021 for ex-parte stay and IA No. 95485 of 2021 to file Additional Documents/ Facts/ Annexures in Civil Appeal No (s). 4654 of 2021 titled Banke Bihari Overseas Pvt. Ltd. Vs Vineet Nagar. The Hon'ble Supreme Court vide order dated 16.08.2021 tagged the matter with the Civil Appeal No. 2881 of 2021 titled Neetu Solvents Vs Vineet Nagar & Ors. Further, vide order dated 25.08.2021 in the above mentioned matter subsequently tagged with the Civil Appeal No. (s) 4795 of 2021 titled Pahwa Plastics Pvt. Ltd. Vs Dastak NGO. The PP reported that Hon'ble Supreme Court, vide order dated 25.03.2022 passed the judgement to set aside the Hon'ble NGT orders for the unit having CTE and CTO from HSPCB and the PP was allowed to operate the units.

The EAC noted that as per **Step-3 of the said SOP,** and as reported by the PP, they have received Court Notice issued by the Special Environment Court, Kurukshetra to be appear on 13.07.2022. The PP also submitted the a) Damage Assessment Plan, b) Remedial Plan and c) Community Augmentation plan. The PP initially proposed ₹ 32.96 Lakh for the said plans but now revised the same and the budget proposed is ₹ 36.12 Lakh. The details of the same is as follows-

A. Environment Damage Assessment Plan	
Air Environment	59,500
Water Environment	7,31,556
Noise Environment	2,05,000

Land Environment	8,10,975
Biological Environment	1,80,000
Total – 1	**19,87,031**

B. Natural Resource Augmentation Plan					
S. No.	**Proposed Activities**	**Budget (Rs.)**			
		1st Year	**2nd Year**	**3rd Year**	**Total**
1	Renovation of Cow sheds and fodder storage yard in Asanda, Ismaila and Rohad villages	--	6,00,000	--	**6,00,000**
				Total-2	**6,00,000**

C. Community Resource Augmentation Plan					
S. No.	**Proposed Activities**	**Budget (Rs.)**			
		1st Year	**2nd Year**	**3rd Year**	**Total**
1	Renovation of Drainage system in Ismail, Asanda and Sampla Tehsil	3,00,000	4,24,613	3,00,000	**10,24,613**
Total -3					**10,24,613**
Total 1+2+3					**36,11,644**

The EAC observed that as per Step-3 B (viii), *the project proponent will be required to submit a bank guarantee equivalent to the amount of Remediation Plan and Natural & Community Resource Augmentation Plan with Central / the State Pollution Control Board (depending on whether it is appraised at Ministry or by SEIAA). The quantification of such liability will be recommended by Expert Appraisal Committee and finalized by Regulatory Authority. The bank guarantee shall be deposited prior to the grant of environmental clearance and will be released after successful implementation of the Remediation plan and Natural & Community Resource Augmentation Plan.*

The EAC observed that as per para 12 of the SOP dated 7.7.2021, there is a provision of Penalty. The instant proposal falls under category 12(a) (II) and for the compliance of the same, the PP submitted the following penalty amount. The EAC agreed with the same. The MS informed that authority to which penalty is to be deposited will be finalized shortly by the Ministry. The EAC is of the view that the PP shall deposit the penalty amount to the Authority as communicated by the Ministry**.**

Details	Amount (in Rs.)	Penalty %	Penalty in (Rs.) =B x C
A	B	C	D
Project cost incurred upto 29.4.2022 i.e date of filling of application along with EIA/EMP report	44100000	1	441000
Total turnover during this period of violation (2019-2020, 2020-2021, 1.4.2021 to 18.5.2021 and 2.5.2022 to 12.7.2022)	473445278	0.25	1183613.20
Total			16,24,613.2

The Committee deliberated on the greenbelt and plantation plan submitted by the PP and asked for the revised plan. The PP submitted the revised plan as per which additional 150 trees will be planted and total trees will be 600 trees within the premises. Further, 3500 trees are proposed to be planted on the road in front of the unit called Sampla- Beri road. The budget earmarked for the same is Rs. 14 Lakh. The EAC also noted that PP revised the CER cost to from ₹ 13 Lakh to ₹ 18 Lakh. As desired by the EAC the PP submitted the proof of application submitted to HWRA for abstraction of ground water vide application number HWRA/IND/N/2022/3816 dated 13.7.2022.

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

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

The 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 the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I**:-

(i) The Budget earmarked towards Remediation plan and Natural and Community Resource Augmentation plan is ₹ 36.12 Lakh. The PP is required to submit the bank guarantee for an amount as approved by regulatory Authority to SPCB.

(ii) The PP shall spent amount proposed for Remediation plan and Natural and Community Resource Augmentation plan within a span of three years. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of activities carried out etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) Remediation plan shall be completed in 3 years whereas bank guarantee shall be for 5 years. The bank guarantee will be released after successful implementation of the remediation plan and Natural and Community Resource Augmentation Plan, and after the recommendation by regional office of the Ministry, Expert Appraisal Committee and approval of the Regulatory Authority.

(iv) Approval/permission of the CGWA/SGWA shall be obtained before drawing ground water for the project activities, if applicable. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.

(v) Preventive measures to be taken to control ignition sources in bulk storage area and fire protection system to be established above ground storage tanks. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.

(vi) The Project Proponent shall keep inventory of solvents and fuel not more than five days. Sensors for odours will be installed at sensitive locations.

(vii) The PP shall develop Greenbelt over an area at least 1122 m^2 by planting 600 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 ₹ 14 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.

(viii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage General Manager, Manager (EHS) and Chemist, supervisor, worker (safety), worker (Environment). In addition to this one safety & health officer with suitable qualification and experience shall be engaged within six 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.

(ix) 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 ₹ 45 Lakh (Capital cost) and ₹ 4.6 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.

(x) The total water requirement for the project after expansion will be 490 KLD which will be sourced from own tube well. Ground water NOC for existing requirement i.e. 60 KLD and 490 KLD has been submitted to Haryana water Resources Authority vide letter no. HWRA/ /IND/N/2022/3816 valid from 13.07.2022.The PP should ensure that water utilization should not be above the permissible limit and only after obtaining valid agreement from 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

(xi) 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.

(xii) 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.

(xiii) The project proponent shall comply with the environment norms for Pharmaceuticals/Bulk Drugs Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 541(E), dated 06.08.2021 under the provisions of the Environment (Protection) Rules, 1986.

(xiv) 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.

(xv) 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.

(xvi) 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.

(xvii) As already committed by the project proponent, 8.8 KLD will be treated in primary ETP and sent to CETP, M/s Eco Green Solution Systems (P) Ltd., located at Doddaballapura Industrial area. Other effluents viz., boiler blowdown – 1 KLD is used for ash quenching,

cooling tower bleed -1 KLD is used for gardening, scrubber effluent 3 KLD will be sold as by-product, 1.5 KLD is treated in septic tank and disposed to soak pit

(xviii) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(xix) 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.

(xx) 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.

(xxi) 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.

(xxii) 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.

(xxiii) 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.

(xxiv) 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.

(xxv) 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.

(xxvi) 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. 34.8

Expansion of Fertilizer plant of Deepak Fertilizers and Petrochemicals Corporation Limited located at Plot K1- K5, MIDC Industrial area, Taloja, District Raigad, Maharashtra by M/s Smartchem Technologies Limited - Consideration of Amendment in Environmental Clearance

[Proposal No. IA/MH/IND3/276713/2022; File No. J-11011/167/2016-IA II (I)]

1. The proposal is for amendment in the **Environmental Clearance** granted by the Ministry vide **letter No.** 11011/167/2016-IA II (1) **dated 2.9.2019** for the project of Expansion of Fertilizer plant of M/s Deepak Fertilisers and Petrochemicals Corporation Limited at Plot K1-K5, MIDC Industrial area, Taloja, District Raigad, Maharashtra**.**

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

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised / read as	Justification/ reasons
1	Pg. No.4, Sr.No.11 (h)	Only 1500 m^3/day wastewater shall be sent to CETP.	Only 2309 m^3/day wastewater shall be sent to CETP	Based on the IIT Mumbai Assessment Report, ETP is working properly complying with the consented parameters and is capable of taking additional load of the proposed expansion. As per the current CTO outlet is 3340.88 m^3/d. To comply with the NPK norms and EC expansion condition of reducing ETP outlet to 1500 m^3/d, IIT-Mumbai team worked on minimization of the waste and increase water reuse. For which following projects were taken to reduce ETP load, boost recycle and reuse of treated waters – 1. Reduction of wastewater loads to ETP by installation of

				PSF-UF-RO-MEE system to recover N&P and enhance the reuse of treated water (572 m^3/day), 2. Reuse of ETP treated water in the existing NPK plants as well as for expansion in NPK plant (total 100 m^3/d), and 3. Enhancement of water reuse through reject streams from Advanced Process Water Treatment Plant (634 m^3/d) for polishing raw water using UF & RO. The Permeate from APWT plant is used as DM feed thus reducing regeneration volume by four folds. Reject from APWT plant is used as CT make up water thus reducing the fresh raw water demand. Beyond this initiative there will be reduction of water footprint but to achieve this we need to use higher fossil fuel which will increase carbon footprint disproportionally. Thus, sustainable discharge from the ETP outlet will be 2309 m^3/d as per the mass balances and optimization exercises carried out by IIT Mumbai team.

3. **Deliberations by the EAC**:

The EAC deliberated on the issue and observed that the PP previously obtained an amendment in EC on 16.11.2021, the PP needs to justify, as to why this amendment was not proposed at that time. Further, the amount of wastewater mentioned in the EIA Report is not matching with the quantity mentioned by the PP now. The PP needs to first submit the details mentioned in the EC compliance report submitted to IRO with respect to this condition, the amount of wastewater generated after grant of EC year-wise and also submit the latest EC

compliance report. The PP is also required to submit the details of carbon foot prints and carbon sequestration study w.r.t. proposed project and details of onsite and offsite emergency plan. The Committee therefore**, deferred** the proposal.

Agenda No. 34.9

Proposed project for manufacturing of Fine Chemicals of production capacity (Chlorinated products) – 200 MTPM and Inorganic Salt – 100 MTPM located at Survey No. 184 p9/p2, Village: Vora-Kotda, Tal: Gondal, Dist. Rajkot, Gujarat by M/s Avsar Chloratech – Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/205464/2021; File No. IA-J-11011/118/2021-IA-II(I)]

1. The proposal is for environmental clearance to the proposed project for manufacturing of Fine Chemicals of production capacity (Chlorinated products) – 200 MTPM and Inorganic Salt – 100 MTPM located at Survey No. 184 p9/p2, Village: Vora-Kotda, Tal: Gondal, Dist. Rajkot, Gujarat by M/s Avsar Chloratech.

2. 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) as the project is located outside the notified industrial area. Therefore, the project requires appraisal at Central Level.

3. The PP applied for ToR vide proposal number IA/GJ/IND3/205464/2021 dated 6.4.2021 and the Standard ToR has been issued by the Ministry, vide letter No IA-J-11011/118/2021-IA-II(I) dated 10.4.2021 .The PP submitted that Public hearing is conducted on 24.3.2022 which was presided by the Additional Collector and Additional District Magistrate. The PP applied for Environment Clearance on 6.6.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP in the Form-2 reported that it is a **Fresh EC.** Due to some shortcomings, the Project was referred back to PP on 8.6.2022 and 14.6.2022 and reply to the same was submitted on 8.6.2022 and 22.6.2022. The proposal is now placed in 34th EAC Meeting held on 12-13 July, 2022, wherein the Project Proponent and an accredited Consultant, San Envirotech Pvt. Ltd., [Accreditation number NABET/EIA/1922/RA0216 Valid up to 23.12.2022], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 0.8094 Ha and no R& R is involved in the Project. The details of products and by–products are as follows:

Sr. No.	Name of the Products	CAS no.	Quantity MT/Month	End use
Organic Chemicals				
1.	Chloranil	118-75-2	100	Intermediate in dyes & pigments
2.	Mono Chloro Acetic Acid	79-11-8	100	Intermediate for Pharmaceuticals
3.	Chloro Acetyl Chloride	79-04-9		
4.	Tri Chloro Acetyl Chloride	76-02-8		
5.	Tri Chloro Acetic Acid	76-03-9		

6.	Sodium Mono Chloro Acetate	3926-62-3		Intermediate for Pharmaceuticals, Dye stuff, Textile chemicals
		Sub Total	**200**	
Inorganic Salt				
7.	Calcium Chloride	10043-52-4	**100**	Used in specialty chemicals manufacturing
		Grand Total	**300**	

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance of the project site. Veri River is at a distance of 0.5 km in SE direction, Bhadar Reservoir is at a distance of 6.0 km in South direction. The PP reported that there is no forest land involved in the proposed project and one Schedule I species i.e Indian Peafowl exist within 10 km study area of the project, conservation plan is submitted to Deputy conservator of Forest on 30.5.2022 with budgetary provision of ₹ 3.2 Lakh. The PP committed to implement the plan in one year.

7. The PP reported that Ambient air quality monitoring was carried out at 8 locations during March, 2021 to May, 2021 and the baseline data indicates the ranges of concentration as: PM_{10} (62.6 - 67.2 µg/m^3), $PM_{2.5}$ (32.1 - 34.4 µg/m^3), SO_2 (13.5 - 15.5 µg/m^3), NOx (19.4 - 23.1 µg/m^3). AAQ modelling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 3.300 µg/m^3, 1.005 µg/m^3, 0.881 µg/m^3, 0.112 µg/m^3 and 0.022 µg/m^3 with respect to PM, SO_2, NOx, HCl and Cl_2. The resultant concentrations are within the national ambient air quality standards (NAAQS). The monitored noise level in the day time Leq (Ld) varies from 48.7 to 53.9 dB(A) and the night time Leq (Ln) varies from 38.2 to 41.4 dB(A) within the study area. Higher noise value of 53.9 dB(A) was recorded during day time at 250 m South from the site & lower noise value of 38.2 dB(A) was recorded during night time at Village Gomta. It is found that, all the Ground water samples meet the permissible limit authority (BIS). The results have been compared with the drinking water quality standards specified in IS: 10500-2012. It was observed that all the physico-chemical parameters and heavy metals from surface water samples are within stipulated drinking water standards and are suitable for domestic purposes. In the study area, variations in the pH value ranging from 7.42 to 7.69. which shows that the soil is slightly alkaline in nature. Organic Matter ranges from 2.2 to 3.2 mg/kg in the soil samples. Soil of the study area is known to be moderate for cultivation because high salinity. Generally, soils with low bulk density have favorable physical conditions (porosity and permeability) whereas those with high bulk density exhibit poor physical conditions for agriculture crops.

8. The PP reported that total water requirement (Industrial + Domestic + Greenbelt) of the unit will be 53.5 KLD; out of which 41.5 KLD will be fresh water requirement & 12 KLD will be recycle/treated water (ETP-RO permeate). Unit will satisfy its fresh water requirement from the Borewell. The application for abstraction of ground water has been submitted to CGWA vide application code 75240 dated 6.06.2022. Major water demand will be for industrial – mainly Process (2.0 KLD), Washing (4.0 KLD), Scrubber

(21.5 KLD) and Utility (18.0 KLD). Water requirement for Domestic will be 3.0 KLD and Greenbelt will be 5.0 KLD. Total wastewater generation will be 18.0 KLD (Industrial - 15.5 KLD + Domestic – 2.5 KLD). Sources of industrial effluent generation will be from process, washing, scrubber and utilities. Total trade effluent will be taken into ETP, after treatment, effluent will be passed through RO. RO permeate (12 KLD) will be reused within premises and RO reject will be evaporated in evaporator. Thus, unit proposed to achieve ***Zero Liquid Discharge*** **(ZLD).** Unit will build full-fledged ETP to treat effluent. Sewage (2.5 KLD) will be disposed into soak pit though septic tank.

9. The PP reported that total power requirement will be 225 kVA, which will be fulfilled from Paschim Gujarat Vij Company Limited (PGVCL). Unit will also install one stand by D.G. Set of 125 kVA capacity to meet the power requirement of project in case of power failure from grid. In proposed unit, Unit proposes to use Agro Briquettes/Coal 14 TPD in proposed utilities. HSD 30 lit/hr. will be used in stand by D.G. Set (125 kVA).

S. No.	Utility	Capacity	Fuel Type	Consumption Rate
1	Boiler	2 TPH	Agro Briquettes/ Coal	10 TPD
2	Hot Air Generator	5 Lakhs KCal/hr. x 2 Nos.	Agro Briquettes/ Coal	4 TPD
3	D G Set	125 kVA x 1 no.	HSD	30 lit/hr.

10. Details of Process Emissions Generation and their Management: Process gas emission will be from stack attached with reaction vessels of Multi-Purpose Plant (MPP) and one vent of Spin Flash Dryer. Pollutants from process stacks will be HCl, Cl_2 and SO_2 and Pollutants from SFD will be PM. The details of flue gas stacks & process gas stacks and emission quality of Stacks.

S. No.	Stack attached to	Fuel Type	Stack Height (m)	APC measures	Probable emission
Flue Gas Stacks					
1.	Boiler (2 TPH)	Agro Briquettes /Coal 10.0 MT/day	21	Multi Cyclone, Bag filter	PM<150 mg/Nm^3 SO_2<100 ppm NO_x<50 ppm
2.	Hot Air Generator-2 Nos. (5 Lakhs KCal/Hr)	Agro Briquettes /Coal 4 MT/day	21 (common stack)	Multi Cyclone, Bag filter	
3.	D.G. Set - 125 KVA (Stand by)	HSD 30 Liter/hr.	11	Adequate stack height	
Process Gas Stacks					

1.	Process vent of Multi-Purpose Plant	--	21	Two stage water Scrubber followed by Alkali Scrubber	Cl_2<9 mg/Nm^3 HCl<20 mg/Nm^3 SO_2<40 mg/Nm^3
2.	Spin Flash Dryer (200 Kg/hr.)	--	11	Inbuilt bag filter	PM<45 mg/Nm^3

11. Details of Solid and Hazardous Waste Generation and its Management:

S. No.	Name of waste	Category of waste as per Haz. Rules, 2016	Quantity	Disposal method
1.	ETP sludge	35.3	8.0 MT/month	Collection, Storage, Transportation, Disposal at TSDF site
2.	Salt from Evaporator	35.3	8.0 MT/month	Collection, Storage, Transportation, Disposal at TSDF site
3.	Distillation residue	26.1	3.0 MT/month	Collection, Storage, Transportation, Disposal at TSDF site
4.	Discarded Containers/ Liner/Bags	33.1	2000 Nos./Year 1 MT/Year	Collection, Storage, Decontamination, Transportation, Disposal by selling to Registered Recyclers
5.	Used Oil	5.1	500 Lit/Year	Collection, Storage, Transportation, Disposal by selling to registered re-refiners
6.	Spent HCl (28-30%)	26.3	495 KL/month	Collection, Storage, partly use in in-house production (312 KL/month) and partly will be sell (183 KL/month) to actual users under Rule-9
7.	ML of MCA	26.3	26 KL/month	Collection, Storage, and captive use in in-house production

12. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 55.0 Lakhs (capital) and the Recurring cost (operation and maintenance) will be about ₹ 28.1 Lakhs per annum which includes Air Pollution Control [₹ 30.0 lakh (capital) and ₹ 16.0 lakh/annum (Recurring)], water pollution control [₹ 9.0 lakh (capital) and ₹ 3.5 lakh/annum (Recurring)], Noise Pollution control [₹ 1.5 lakh (capital) and ₹ 0.5 lakh/annum (Recurring)], Hazardous Waste Management [₹ 4.0 lakh (capital) and ₹ 1.5 lakh/annum (Recurring)], Environment Monitoring and Management [₹ 2.5 lakh (capital) and ₹ 3.0 lakh/annum (Recurring)], occupational health [₹ 3.0 lakh (capital) and ₹ 2.0 lakh/annum (Recurring)], Greenbelt Development plan [₹ 1.5 lakh (capital) ₹ 0.6 lakh/annum(Recurring)], Rain Water Harvesting System [₹ 3.5 lakh (capital) and ₹

1.0 lakh/annum(Recurring)], Industry proposes to allocate ₹ 5.0 Lakh towards CER for solar street light in village Vora Kotda.

13. The PP reported that the advertisement for Public Hearing was published in newspaper viz. Times of India and in Divya Bhaskar on 16.2.2022 and the Public Hearing for the project was conducted by the Gujarat Pollution Control Board on **24.3.2022**, which was presided by Additional Collector & Additional District Magistrate. The main issues raised during the public hearing were issued raised about elated to air pollution, water pollution, asked about benefits in the surrounding areas due to project.

14. The unit will develop greenbelt in an area of 2672 m^2. Overall greenbelt area will be 33% of the total area of the project.

15. The PP proposed to set up an Environment Management Cell (EMC) by engaging Manager EHS, ETP/RO in–charge, safety officer, ETP operator for the functioning of EMC.

16. The PP submitted that The unit will install Solar panel (15 KW) Roof top of School and Gram Panchayat office in Vora Kotda and Chordi Village. The unit will install Solar Panel (55 KW) at Roof top of Industrial shed and surrounding. Assumptions: Reduction of CO2 emission per 1 kWh of solar power = 1 kg of CO2 So, the unit will sequestrate CO2 approximately 102.2 MT per year. Approximately 11.8% CO2 will be sequestrated by use of renewable energy. To sequestrate this CO2 emissions, 670 nos. of trees will be planted in 2672 m2 (33.0%) area within the premises.
Outside Factory premises at Village Vora Kotda and Chordi Village ~ 1200 nos. of trees will be planted Approx. 1 MT of CO2 will be absorbed by 6 mature trees per year Approx. 311.7 MT CO2 will be absorbed by 1870 nos. trees per year after 5 years. Approximately 3.6% CO2 will be sequestrated by greenbelt development.

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

18. The PP submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.2011 "**I, *Mr. Kishan Satodiya, Partner of Mis. Avsar Chloratech to be located at Survey No. 184 p9/p2, Village: flora-Kotda, Tal: Gonda!, Dist. Rajkot, Gujarat do hereby undertake as underWe undertake that, the data & information given in the application and enclosures are true and we will be responsible for any factual discrepancy in EIA report. The ownership of EIA report remain with usWe undertake that, content including information & data of EIA report is own by us and data or information are not taken from any other EIA report What is stated here in above is true to the best of my knowledge and the same I believe to be true.***".

19. The Consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 that "***I, Dr. Mahendra Sadaria, EIA Coordinator of M/s. San Envirotech Pvt. Ltd. located at 424, Medicine Market, Paldi Cross Road, Paldi, Ahmedabad undertake that; I undertake that, prescribed TORs have been complied with and the data submitted is***

factually correct. I hereby declare that, what is stated herein above is true to the best of my knowledge and same I believed to be true*.".*

20. The estimated project cost is ₹ 2.5 Crore. Total employment will be 20 persons as direct.

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 the layout covering additional greenbelt at wide road side. PP has submitted the additional greenbelt at road side by reducing road width from 17.82 m to 11.82 m and total greenbelt area will be increased from 2672 m^2 to 3615.14 m 2. The EAC also suggested to increase the stack height from 21 m to 31 m and to design the soak pit as per the latest design where sewage can be recycled in Greenbelt and PP committed for the same.

The Committee suggested to use Agro- Briquettes- as the first priority (Primary Fuel) and incase of unavailability, the Unit will use coal as an alternative fuel. The PP committed for the same and EAC found it to be satisfactory.

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 Expert 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**: -

(i) The PP shall develop Greenbelt over an area at least 3615.14 m^2 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 ₹ 1.5 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 by the PP shall engage Manager EHS , ETP/RO in – charge, safety officer , ETP operator. In addition to this one safety & health officer with suitable qualification and experience shall be engaged within six 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 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 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 ₹ 55.0 lakh (Capital cost) and 28.1lakh (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 (Industrial + Domestic + Greenbelt) of the unit will be 53.5 KLD; out of which 41.5 KLD will be fresh water requirement & 12 KLD will be recycle/treated water (ETP-RO permeate). Unit will satisfy its fresh water requirement from Borewell. The application for abstraction of ground water has been submitted to CGWA vide application code 75240 dated 6.06.2022The 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 Total trade effluent will be taken into ETP, after treatment, effluent will be passed through RO. RO permeate (12 KLD) will be reused within premises and RO reject will be evaporated in evaporator.

(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. 34.10

Proposed Expansion in Existing Unit of production capacity of Formaldehyde from 900 MTPM to 3000 MTPM and Resins from 1000 MTPM to 3000 MTPM located at S. No. 357/2C, Village - Nani Chirai, Taluka - Bhachau, Dist – Kutch Gujarat by M/s A K Formaline PVT. LTD. - Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/273389/2011; File No. J-11011/312/2010-IA II (I)]

1. The proposal is for environmental clearance to the project for Proposed Expansion in Existing Unit of production capacity from Formaldehyde from 900 MTPM to 3000 MTPM and Resins from 1000 MTPM to 3000 MTPM located at S. No. 357/2C, Village - Nani Chirai, Taluka - Bhachau, Dist – Kutch Gujarat by M/s A K Formaline PVT. LTD.

2. 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) as the project is located outside the notified industrial area. Therefore, the project requires appraisal at Central Level.

3. The PP applied for the ToR vide proposal number IA/GJ/IND2/73638/2018 dated 23.3.2018 and the ToR has been issued by the Ministry, vide letter No 11011/312/2010-IA II (I) dated 10.5.2018. The PP submitted that Public hearing is conducted on 10.12.2021 which was presided by the Additional District Magistrate. The PP applied for Environment Clearance on 18.5.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP in the Form-2 reported that it is an **Expansion case.** Due to some shortcomings, the Project was referred back to PP on 24.5.2022, 8.6.2022, 16.6.2022 and reply to the same was submitted on 1.6.2022, 9.6.2022, 23.6.2022. The proposal is now placed in 34th EAC Meeting held on 12-13 July, 2022, wherein the Project Proponent and an accredited Consultant, Bhagwati Enviro Care Pvt. Ltd, [Accreditation number QCI/NABET/ENV/ACO/22/2299 Valid up to 5.7.2022], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 0.3574 Ha and no R& R is involved in the Project. The details of products and by–products are as follows:

S. No	Product Name	Existing Quantity	Proposed Quantity	Total Quantity
1.	Formaldehyde (37% solution)	900 TPM	2100 TPM	3000 TPM
2.	Resin Urea formaldehyde Phenol formaldehyde Melamine formaldehyde	1000 TPM	2000 TPM	3000 TPM
	Total	**1900 TPM**	**4100 TPM**	**6000TPM**

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act.

6. The PP reported that certified compliance of CTO is obtained from Regional office Bhopal vide no 5-63/2013(ENV)/403 dated 28.6.2019 and inspected on 9.1.2019.

7. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger /Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Bhimasar Pond is at distance of 5.55. km in west direction and Varsana Pond is at a distance of 2.31 km in South. The PP reported that no forest area is involved in the proposed project and no Schedule I species exist within 10 km study area of the project.

8. The PP reported that Ambient air quality monitoring was carried out at 8 locations during 1st October 2018 – 31st December 2018

9. The PP reported that the total Water Consumption: 116 KLD Existing: 91.3 KLD + Proposed: 24.7 KLD and the source of water will be GWIL Water Supply Domestic water consumption: 4 KLD Domestic waste water: 3.7 KLD will be disposed off soak pit via septic tank. Industrial water consumption: 98 KLD Industrial Effluent generation: 38.5 KLD, Generated Process effluent 23 KLD will be evaporated in in-house thermic fluid evaporator. Generated DM reject 8 KLD, RO reject 4 KLD, Cooling 0.5 KLD will be treated in primary treatment then after 12.5 KLD goes to RO treatment RO permeate 9.5 KLD will be reused in gardening/ plantation purpose. RO reject 3 KLD will be evaporated in in-house thermic fluid evaporator. Total 26 KLD effluent will be evaporated in in-house thermic fluid evaporator and Unit will achieve **Zero Liquid Discharge (ZLD)**.

10. The PP reported he source of power will be Paschim Gujarat Vij Company Ltd. The power demand for the proposed expansion manufacturing activity will be 150 KW. If in future, it is required then in alternate unit will install DG set after obtaining required permission.

11. Details of Process Emissions Generation and their Management: There is no process emission from existing as well as proposed manufacturing process.

12. Details of Solid Waste Generation and its Management:

S. No	Type of Waste with category Number	Existing	Proposed	Total After Expansion	Management
1.	Discarded Containers (Cat. No.33.3)	61.50 MT/ Year	60.00 MT/ Year	121.5 MT/ Year	Collection, Storage, Transportation, Disposed by selling out to authorized decontaminator.
2.	Used Oil (Cat. No. 5.1)	0.02 MT/ Year	0.04 MT / Year	0.06 MT/ Year	Collection, Storage, Transportation, Disposed by selling out to registered

					recycler
3.	ETP Sludge (Cat. No. 35.3)	34.3 MT/ Year	36 MT/ Year	70.3 MT/ Year	Collection, Storage, Transportation & Disposed to TSDF of SEPPL, Kutch.

13. The estimated project cost is ₹ 4.88 Crores. Total 15-20 local people will get employment in M/s. A.K. Formaline (I) Pvt. Ltd. as per their qualification and experience.

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

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Expert Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted deficiencies in the proposal viz. density of the plants, plantation schedule, carbon footprint, microbial diversity of flora and fauna, water and energy conservation measures proposed in the unit. The plantation plan was not as per the standard requirement. The consultant should have considered spacing of 2m x 2m and number of trees has to be increased. The area for planation seems to be higher side as compared with that obtained from KML file.

The Committee also noted that being an expansion project as per O.M. No. IA 3-22/10/2022-IA.III (E 177258) dated 8.6.2022 certified compliance report is not valid. The Committee also seen the previous certified compliance report as per which in most of the conditions, PP was required to submit the information to IRO and was required to obtain the fresh report. The Committee therefore **returned the proposal in present form** and is of the view that proposal may only be considered after submission of the following:

(i) The PP shall submit the valid Certified Compliance Report from the IRO, MoEF&CC as per requirement of Ministry's O.M. F. No IA 3-22/10/2022-IA.III (E 177258) dated 8.6.2022 in the Form-2.

(ii) The PP shall submit a time bound action plan for green belt keeping in mind that species selected should have high carbon sequestration potential, green belt needs to be developed within a year time.

(iii) 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.

(iv) The PP needs to submit the details of Onsite/Offsite emergency plan and mitigation measures to be proposed during implementation of the project.

(v) The PP shall prepare a detailed rain water harvesting plan so that unit may become water positive. The study report shall be submitted to IRO, MoEF&CC and submit the quantity of rain water harvested to before IRO, MoEF&CC before 1st July of

every year for the rain water harvested during previous year.

(vi) The PP needs to submit an undertaking that it's not a violation case as per SOP dated 7.07.2021 and submit the supporting documents including the actual production of all the products vis-à-vis EC capacity.

(vii) In Form -2, the PP uploaded the Consultant NABET Accredited certificate which is not valid, the PP needs to submit the valid certificate of the Accredited consultant. Certificate of consultant for the period of baseline data collection and preparation of EIA/EMP, certificate of testing lab and ensure to attach original test report.

(viii) The PP needs to submit the microbial diversity of flora and fauna of the project area and the effect of formaldehyde on the soil.

Agenda No. 34.11

Proposed Expansion of Formaldehyde manufacturing unit in existing facility of production capacity from 100 TPD to 200 TPD on 0.6430 ha existing land located at Khasra No. 11//23/4/2, 23/3/2,23/1/2, 23/2/2, 18/2 V.P.O. Kurali Tehsil Bilaspur District. Yamuna Nagar, Haryana by M/s OM Chem - Consideration of Environmental Clearance [Under violation category]

[Proposal No. IA/HR/IND3/267241/2021; File No. IA-J-11011/106/2021--IAII(I)]

1. The proposal is for the environmental clearance to the project for Proposed Expansion of Formaldehyde manufacturing unit in existing facility of production capacity from 100 TPD to 200 TPD on 0.6430 ha existing land located at Khasra No. 11//23/4/2, 23/3/2,23/1/2, 23/2/2, 18/2 V.P.O. Kurali Tehsil Bilaspur District. Yamuna Nagar, Haryana by M/S OM Chem.

2. 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) as the project is located outside the notified industrial area. Therefore, the project requires appraisal at Central Level.

3. The PP applied for the ToR vide proposal number IA/HR/IND3/204931/2021 dated 20.7.2021 and the ToR has been issued by the Ministry, vide letter No IA-J-11011/106/2021--IA-II(I) dated 20.7.2021. The PP submitted that Public hearing is conducted on 24.12.2021 which was presided by the Additional District Commissioner. The PP applied for Environment Clearance on 12.4.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP in the Form-2 reported that it is a **Fresh EC case.** Due to some shortcomings, the Project was referred back to PP on 20.4.2022 and reply to the same was submitted on 28.6.2022. The proposal is now placed in 34th EAC Meeting held on 12-13 July, 2022, wherein the Project Proponent and an accredited Consultant Vardan Environet, [Accreditation number NABET/EIA/2023/SA0158 Valid up to 6.11.2022], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 0.6430 Ha and no R& R is involved in the Project. The details of products and by–products are as follows:

Capacity	CAS No.	Existing	Proposed	Total
Formaldehyde	50-00-0	100 TPD	100 TPD	200 TPD

5. The PP reported that there is a violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and one direction, Sealing Order of the unit Under Section 31-A as per Air Act, 1981 and Under Section 33-A of Water Act, 1974 is issued under E (P) Act/Air Act/Water Act and PP also reported that Credible action taken by Special Environment Court, Kurukshetra dated 15.03.2022 (Case no. 11 of 2021).

6. The PP reported that the unit had started construction in April, 2018 (construction lasts over 3 months i.e. June, 2018) and came in operation in March, 2019 to May, 2021 without securing Environmental Clearance, hence, it attracts the violation as per Notification 14.03.2017. Due to stay on operations by Hon'ble NGT, the plant was not operational from May 2021 till April 2022. Now, HSPCB has granted CTO to the unit vide letter no. HSPCB/Consent/313096622YAMCTO2334592 dated 27.04.2022 valid upto 30.09.2023. On the basis of Hon'ble Supreme Court order dated 25.03.2022 in the matter of Pahwa Plastics Pvt. Ltd. & Anr. vs Dastak NGO and Ors., the unit is currently in operation.

7. The PP reported that certified compliance of CTO is obtained from Haryana State Pollution Control Board vide no. HSPCB/YMN/2022/3588 dated 23.6.2022.

8. 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. Nakdi Nadi is flowing at a distance of 1.5 km in NW Direction. The PP reported that no forest area is involved in the proposed project. and one Schedule I species i.e Pavo cristatus exist within 10 km study area of the project, for which conservation plan is submitted to PCCF on 19.5.2022 with budgetary provision of Rs. 2.0 Lakh for 1 year.

9. The PP reported that Ambient air quality monitoring was carried out at 8 locations during 1st March 2021 – 31st May 2021 to and the baseline data indicates the ranges of concentrations as: PM_{10} (66.9 $\mu g/m^3$ and 96.8 $\mu g/m^3$), $PM_{2.5}$ 30.3 $\mu g/m^3$ and 57.4 $\mu g/m^3$, SO_2 5.1 $\mu g/m^3$ and 18.4 $\mu g/m^3$ and NO2 14.1 $\mu g/m^3$ and 37.5 $\mu g/m^3$). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 57.4 $\mu g/m^3$, 18.4 $\mu g/m^3$ and 37.50 $\mu g/m^3$ with respect to PM_{10}, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The noise levels recorded at all locations were within the ambient noise standards as per the Noise Pollution (Regulation & Control) Rules, 2000. The soil data was compared with the soil classification from Hand Book of Agriculture, Indian Council of Agricultural Research and the data was found to be fairly suitable for agriculture and plantation purposes. All the Toxic substances like Selenium, Arsenic, Cadmium, Lead, cyanide, Mercury in ground water samples were found below the detection limits indicating water free from any industrial pollution. E-coli are absent at all sampling locations in ground water samples depicts that no interception of untreated sewage in the groundwater table within the study area. The Surface water quality data indicates that surface water samples fall under Class 'C' classification, which means that water sources that must undergo special or intensive treatment, such as activated carbon adsorption, ion exchange, and

reverse osmosis, etc., before they may be used as public water source. In study area, water quality has been observed not to vary considerably between the sampling locations. Mostly the parameters fall within the permissible limits of drinking water standards. The baseline results of ground and surface water were compared with the data for Yamunanagar provided by HWRA/CGWA and were found to be in course with the same.

10. The PP reported that total water requirement after the proposed expansion project will be 195 KLD which will be sourced from own tubewell for which the Groundwater abstraction application has been submitted to HWRA. There will be no effluent generation from the process. Domestic sewage will be send to septic tank followed by soak pit. The plant will be based on Zero liquid discharge system.

11. The PP reported that the Power requirement for the project is **250 KVA (Existing – 160 kVA, Proposed- 90 kVA)** which will be sourced from UHBVN (Uttar Haryana Bijli Vitran Nigam). One DG sets of **325 kVA** capacity is already existing as site as backup support. 1 more DG set of 325 KVA is proposed for the capacity expansion of formaldehyde. Existing unit has **0.6 TPH HSD** fired boiler. No additional boiler is required for proposed expansion.

12. Details of Process Emissions Generation and their Management:

S. No.	Attached to	Fuel	Control measures
1	Boiler	HSD	Stack height of 30 m will be provided
2	DG Set	HSD	Acoustic Enclosure with 6 m stack

Air emissions from process and management

S. No.	Name of Gas	Quantity (Tonnes/day)	Pollution Control Equipment's/ Treatment Methods	Disposal methods
1	Carbon Dioxide	1.0	Scrubber	-
2	CO	3.12	Scrubber	Generated CO will be reused within the process.

13. Details of Solid Waste Generation and its Management:

Type of Waste	Cat.	Source of Waste	Quantity	Method of storage	Method of Disposal
Salts from Evaporator	37.3	MEE	0.002 TPD	Stored in covered area with platform	Send to TSDF facility.

Empty Barrels/ Containers	33.1	Storage godown	2.0	Stored in covered area with platform	Send to vendor/ Sell to approved HSPCB approved scrap dealer
Used Oils	5.1	Utilities	400 litre/annum	Stored in covered area with platform	Authorized recyclers identified by HSPCB

14. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 35.0 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 2.6 Lakh per annum, which includes Air Pollution Management- Wet scrubber, Stack with online Monitoring System ₹ 15.0 lakh/annum (capital) and ₹ 1.0 lakh/annum (Recurring)] Water and Waste Water Management- Septic tank followed by Soak pits for domestic waste water. Single Stage Evaporator etc. (Remark: No Effluent generation from the process [₹ 6.0 lakh (capital) and ₹ 0.3 lakh/annum (Recurring)], Occupational Health and Safety- In plant arrangement of safety of workers, Safety gadgets, health checkup, medical assistance if any. [₹ 3.0 lakh/annum (capital) and ₹ 0.3 lakh/annum (Recurring)], Greenbelt Development- Procurement of sampling, providing Metal Guard Manure, digging and plantation cost etc. [₹ 4.0 lakh (capital) and ₹ 0.2 lakh/annum (Recurring)], Environmental Monitoring- Environmental monitoring activities (In-house & Outsourced) [₹ 4.0 lakh (capital), ₹ 0.3 lakh/annum (Recurring)], Rain Water Harvesting [₹ 2.0 lakh/annum(capital) and ₹ 0.3 lakh/annum (Recurring)], Soild Hazardous waste management [₹ 1.0 lakh (capital) and ₹ 0.2 lakh/annum (Recurring)], Industry proposes to allocate ₹ 18.5 Lakhs towards CER for Computer distribution in Govt. Sr. Sec. School, Bilaspur, Road side plantation, Solar street-lights.

15. The PP reported that the advertisement for Public Hearing was published in newspaper viz. The Tribune and in "Dainik Jagran" on 23.11.2021 and the Public Hearing for the project was conducted by the Haryana Pollution Control Board on **24.12.2021**, which was presided by Additional District Commissioner. The main issues raised during the public hearing were regarding What will be the impact on ground water table of the nearby villages due to wastewater generated from the said industrial unit? What is the procedure to check whether unit is operating as per norms.

16. The PP reported that Industry will develop 36.50% of green belt (295 trees are already planted in the premises and 292 trees are proposed to be planted in the premises) i.e. 2347m^2. out of total area of the project.

17. The PP proposed to set up an Environment Management Cell (EMC) by engaging General manager (01), Manager EHS (01), supervisior (01), chemist (01), worker safety (01), worker Environment (01) for the functioning of EMC.

18. The PP reported that as per carbon sequestration analysis, the total CO_2 emissions will be **6,031.65 Tonnes/Annum** from the process, fuel, transportation of raw materials & finished products, electricity and employee travel. To sequestrate the carbon emissions green belt plantation will be provided along with other Air Pollution Control devices. Total 587 trees will be planted at project site from which total **1,13,30373.7** tonnes CO_2 will be sequestrated.

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

20. The PP also submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.*2011* '' ***I hereby undertake that prescribed ToR with respect to the EIA/EMP Studies for "Formaldehyde manufacturing unit in the existing facility from 100 TPD to 200 TPD at village Kurali, Sahapur Road, Tehsil Bilaspur, District Yamuna Nagar, Haryana by M/s OM chem" "has been complied with conducting EIA/EMP Studies. The contents (Information & Data) as given by our consultant in the EIA/EMP report are factually correct with full knowledge of undersigned***".

21. The consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 "***We do hereby declare that we have undertaken the Environment Impact Assessment Study for the subject job as per EIA Notification 2006 and in compliance with finalized Terms of Reference issued by MoEF&CC vide F.No. IA-J-11011/106/2021-IA-II(I) dated 20th July, 2021. The prescribed ToRs have been complied with and that the data submitted is factually correct while preparing EIA Report****"*

22. The estimated project cost is ₹ 6.99 Crores. Total employment will be **12 nos.** (Existing: 10, Proposed Operation Phase: 2) will be appointed.

23. <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 Member Secretary informed that Ministry has issued a Standard Operating Procedure dated 7th July 2021 bearing the file number 22-21/2020-IA.II, for identification and handling of violation cases under EIA Notification 2006 in compliance to order of the Hon'ble National Green Tribunal in Appeal No. 34/2020 (WZ) titled Tanaji B. Gambhire Vs Chief Secretary, Government of Maharashtra. This SoP was challenged in the Madurai Bench of the Hon'ble High Court of Madras in the matter W.P.(MD) No. 11757 of 2021 titled Fatima Vs

Union of India and was interim stayed vide order dated 15t July 2021. Recently, in the Order dated 9th December 2021 in the matter of Civil Appeal Nos. 7576-7577 of 2021 in Electrosteel Steels Limited Vs Union of India and Ors., the Hon'ble Supreme Court of India has inter-alia observed the following:

" *The interim order passed by the Madras High Court appears to be misconceived. However, this Court is not hearing an appeal from that interim order. The interim stay passed by the Madras High Court can have no application to operation of the Standard Operating Procedure to projects in territories beyond the territorial jurisdiction of Madras High Court. Moreover, final decision may have been taken in accordance with the Orders/ Rules prevailing prior to 7th July, 2021*."

The EAC observed that Ministry issued OM number 22-21/2020- IA.III dated 28.1.2022 in this regard. Further, the instant proposal is of State of Haryana and should be dealt as per the provision of SOP dated 7.7.2021 for handling violation cases. The Committee observed that as per the step-1 of said SOP the unit which were operating without EC the same needs to be closed. The Hon'ble NGT vide order dated 03.06.2021 in Original Application No. 840/2019 (Ayush Garg Vs. Union of India & Ors.) concluded that *"no further direction appears to be necessary except that the State PCB may ensure that the unit does not re-start functioning without requisite statutory clearance*". Further, Hon'ble Supreme Court, vide order dated 25.03.2022 passes a judgement to set aside Hon'ble NGT orders for the unit having CTE and CTO from HSPCB and PP was allowed to operate the units and based on this order the HSPCB granted CTO to the unit vide letter no. HSPCB/Consent/313096622YAMCTO2334592 dated 27.04.2022 valid upto 30.09.2023.

The Committee also observed that creditable action has already been by taken as per requirement of the SOP dated 7.07.2021.

Further as per Step-3 (B) of the said SOP, the PP submitted the a) Damage Assessment Plan, b) Remedial Plan and c) Community Augmentation plan. PP initially proposed 32.22 Lakh for the said plans but now revised the same is ₹ 43.19 lakh as per the following details:

A. Environment Damage Assessment Plan	
Air Environment	1,15,000
Water Environment	27,47,162
Noise Environment	2,10,000
Land Environment	12,07,150
Biological Environment	40,000
Total –1	**43,19,312**

B. Natural Resource Augmentation Plan					
S. No.	**Proposed Activities**	**Budget (Rs.)**			
		1st Year	**2nd Year**	**3rd Year**	**Total**
1	Trees plantation along the road side from plant site	1,00,000	5,00,00	-	**1,50,000**
				Total -2	**1,50,000**

C. Community Resource Augmentation Plan					
S. No.	Proposed Activities	Budget (Rs.)			
		1st Year	2nd Year	3rd Year	Total
1	Renovation of	--	1,00,000	80,000	**1,80,000**
				Total -3	**1,80,000**
				Total 1+2+3	**43,19,312**

The EAC observed that as per para 12 of the SOP dated 7.7.2021 there is a provision of Penalty. The instant proposal falls under category 12(a) (II) and for the compliance of the same PP submitted the following penalty amount. The EAC agreed with the same. The MS informed that authority to which penalty is to be deposited will be finalized shortly by the Ministry. EAC is of that PP shall deposit the penalty amount to the Authority as communicated by the Ministry.

Details	Amount (in Rs.)	Penalty %	Penalty in (Rs.) =B x C
A	B	C	D
Project cost incurred upto 12.04.2022 i.e. date of filling of application along with EIA/EMP report	4,99,00,000	1	4,99,000
Total turnover during this period of violation (2018-2019 to 2020-2021, Apr-2021 to 7.05.2021 and 1.05.2022 to 12.07.2022)	64,85,14,562.74	0.25	16,21,286.46
Total			**21,20,286.46**

The Committee deliberated on the greenbelt and plantation that as suggested, the PP has now submitted that the industry have been planted 295 trees and 292 more plants will be planted for the proposed expansion. The Thickness of the greenbelt will be increased to 6 – meter and additional 113 trees will be planted bring the total count to 700 trees within the premises. Additionally, 625 proposed for planation on the road in front of the unit. PP submitted that total 1325 number of trees will be planted.

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 Expert 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.

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

(i) The Budget earmarked towards Remediation plan and Natural and Community Resource Augmentation plan is ₹ 43.19 Lakh. The PP is required to submit the bank guarantee for an amount as approved by regulatory Authority to SPCB.

(ii) The PP shall spend the amount proposed for Remediation plan and Natural and Community Resource Augmentation plan within a span of three years. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of activities carried out etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) Remediation plan shall be completed in 3 years whereas bank guarantee shall be for 5 years. The bank guarantee will be released after successful implementation of the remediation plan and Natural and Community Resource Augmentation Plan, and after the recommendation by regional office of the Ministry, Expert Appraisal Committee and approval of the Regulatory Authority.

(iv) Approval/permission of the CGWA/SGWA shall be obtained before drawing ground water for the project activities, if applicable. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.

(v) Preventive measures to be taken to control ignition sources in bulk storage area and fire protection system to be established above ground storage tanks. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.

(vi) Project Proponent shall keep inventory of solvents and fuel not more than five days. Sensors for odours will be installed at sensitive locations.

(vii) The PP shall develop Greenbelt over an area at least 36.50 % of total area by planting 587 trees within a year of grant of EC. In addition to this PP shall plant 625 trees on the road in front of the unit called Sabapur Road. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be ₹ 4.0 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.

(viii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage General manager (01), Manager EHS (01), supervisior (01), chemist (01), worker safety (01), worker Environment (01). In addition to this one safety & health officer with suitable qualification and experience shall be engaged within six 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.

(vii) 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 ₹ 35.0 Lakh (Capital cost) and ₹ 2.6 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.

(viii) The total water requirement after the proposed expansion project will be 195 KLD which will be sourced from own tubewell for which the Groundwater abstraction application has been submitted to HWRA dated 1.7.2021. The PP should ensure that water utilization should not be above the permissible limit and only after obtaining valid agreement from 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

(ix) 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.

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

(xi) The project proponent shall comply with the environment norms for Pharmaceuticals/Bulk Drugs Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 541(E), dated 06.08.2021 under the provisions of the Environment (Protection) Rules, 1986.

(xii) 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.

(xiii) 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.

(xiv) 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.

(xv) As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities.

(xvi) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(xvii) 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.

(xviii) 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.

(xix) 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.

(xx) 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.

(xxi) 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.

(xxii) 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.

(xxiii) 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.

(xxiv) 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. 34.12

Proposed manufacturing of Synthetic Organic Chemicals of production capacity 3575 TPM, located at Sy. No. 11,16 & 18 p, Gumpam Village, Pusapatirega Mandal, Vizianagaram District, Andhra Pradesh by M/s IVAX Paper Chemicals Private Limited - Consideration of ToR

[Proposal No. IA/AP/IND3/278569/2022; File No. IA-J-11011/140/2022-IAII(I)]

1. The proposal is for the proposed manufacturing of Synthetic Organic Chemicals of production capacity 3575 TPM, located at Sy. No. 11,16 & 18 p, Gumpam Village, Pusapatirega Mandal, Vizianagaram District, Andhra Pradesh. by M/s IVAX Paper Chemicals Private Limited.

2. The project/activity is covered under Category 'A' of item 5(f) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). PP reported that the project is located outside the notified industrial area.

3. The PP applied for the ToR vide proposal number No. **IA/AP/IND3/278569/2022** dated 17.5.2022. The proposal was referred back to PP on 23.06.2022 as there were some shortcomings in the proposal and the PP provided its reply on 29.06.2022. The proposal is now placed in 34th EAC Meeting held on 12-13 July, 2022, wherein the Project Proponent

made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that the details of products are as follows:

Sl. No.	List of Existing Products	Quantity (TPM)	Quantity (TPA)	End Use
1.	AKD Wax Emulsion	1000	12000	Pharmaceutical, Food grade paper manufacturing industries as per FDA-CFR 21 guidelines
2.	Starch Based Products	300	3600	
3.	Rosin Based Products	1875	22500	
Total Current Production capacity		**3175**	**38100**	
Proposed Additional Product				
4.	Akenyl Succinic Anhydride (ASA)	400	4800	
Total Proposed Production capacity		**3575**	**42900**	

Note: EC is required only for product mentioned at Sl. No. 4 above i.e. Akenyl Succinic Anhydride (ASA).

5. This Unit is the only manufacturer of ASA in India as well as in the entire South East Asian Region and the said product is used by all leading paper mills of India for the production of packaging items used as packaging materials for packing pharmaceutical products, the unit is also exporting the said product in a big way and thereby earning valuable foreign exchange under the theme of “Make in India” and “Atma Nirbhar Bharat Abhiyan”.

6. The PP reported that there is no violation as per EIA Notification, 2006, no court case is pending against the proposal and no direction issued under E(P) Act/Air Act/Water Act.

7. The PP reported that the proposed land area is 4.425 Ha and no R&R is involved in the Project.

8. The PP reported that proposal does not involves Approval/ Clearance under Forest (Conservation) Act,1980, wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. There is no forest, Eco sensitive areas/National Park/Wildlife Sanctuary in 10 km radius of the site. The project doesn’t fall under CRZ boundaries. Kandivalasa gedda (stream) is at 4.3 km in East direction. Champavathi gedda (stream) is at a distance of 67.2 km in SW direction from project site.

9. The PP reported that the total water requirement is 210.1 KLD (incl. recycle of 57 KLD) out of which existing water requirement is 94.4 KLD. Water requirement is met through ground water supply.

10. The PP reported that the total power requirement of the plant will be 600 KVA (incl. existing 500 KVA). Power will be met from Andhra Pradesh State Eastern Power Distribution Company. There is no additional DG sets in Proposal. Existing DG Sets are 2 nos. of 365 KVA and 25 KVA. DG sets will be used as standby during power failure. 166 Ltr/Hr of Diesel will be required for DG sets.

11. The PP reported that Greenbelt is developed within an area of 1.565 Ha out of total area of 4.425 Ha (@1500 trees) i.e. 35.37%. Total of 2500 trees and about 3000 scrubs are

maintained under greenbelt within the Plant Premises and 2100 number of trees along the approach village roads of about 2 km are also maintained.

12. The PP reported that overall proposed investment is Rs. 1.3 Crores in addition to the existing Rs. 59.4 Crores. Total cost of the project like land, building, plant & machinery is Rs. 60.7 Crores. Total capital cost invested towards environmental pollution control measures is Rs.126.2 lakhs. Recurring cost is about Rs. 36.8 lakhs per annum.

13. The PP submitted that they have sought an expert opinion from Prof. Bhaskar N. Thorat, Professor of Chemical Engineering, Institute of Chemical Technology, Mumbai and former SEAC Member, Maharashtra & EIA Advisor regarding applicability of Environment Clearance for our Product "Alkenyl Succinic Anhydride (ASA)", who had given his opinion after visit of our plant on 10.07.2022 and verifying all the facts. The said opinion inter-alia, states the following:

- Due to the lack of clarity on applicability of EC for one of their products, namely, "Alkenyl Succinic Anhydride (ASA)", the company is seriously facing a challenging time since last one year for no fault of theirs and without violating any norms of MoEF&CC.
- ASA is an adduct compound of two raw materials with complete conversion without any by-products, no solid waste, nil liquid effluent and zero air emissions. It is similar to obtaining any formulation product.
- As per the guidelines of CPCB, the pollution score of ASA was found to be less than 40, which classifies this product under Green Category.
- ASA is non-hazardous, safe to handle and FDA approved.
- ASA is a performance chemical that is used for adding certain characteristics to the paper.
- ASA does not fall under the clause 5 (f) of MoEF Notification dated 14.09.2006 relating to the synthetic organic chemicals.

In view of above, ASA may be exempted from EC.

14. The PP, further submitted the following:

"We would like to highlight some of the facts from Technical EIA Guidance Manual for Synthetic Organic Chemicals Industry:

- As per Chapter 3 clause 3.1, Synthetic Organic Chemical Sector is broadly divided into flowing categories –
  - Basic organic chemicals
  - Dyes and dye intermediates
  - Bulk drugs and intermediates
  - Synthetic rubbers
  - Other synthetic organic chemicals and chemical intermediates

As per our understanding, our Product ASA falls under Basic Organic chemicals based on the interpretation we derive from clause 3.2.1 – Manufacturing process of basic organic chemicals.

- As per clause 3.2.1 –

Basic organic chemicals are produced by chemical reactions of organic materials, which seldom go to completion. The degree of completion of organic reactions is generally very much less than those involving inorganic reactions. The law of mass action states that in order to transform one reactant fully, the other reactant must be present far in excess in weight than the stoichometric requirement. This law is applied in practical field. As a result, the final Mass of an organic reaction is associated with not only the desired product of its intermediates, but also untreated reactants and undesired products of side reactions or partially completed reaction. The manufacture of organic chemicals is hardly accomplished in one reaction; multi-reactions are involved in most cases. It involves various unit processes and unit operations.
In each reaction state, some raw materials remain unreacted and some unwanted products are formed, which remain in the system. Desired products are carefully recovered in each step from the system. Unwanted products are discarded. These inevitably become pollutants in wastewater and solid waste. Some are vented out in the atmosphere.
Although, in some cases some recyclable materials are also profitably taken back into the system. Impurities present in raw materials may also react with one another and in many cases show up as a scum, froth or tar or simply as unreacted raw material. In order to understand the generation of wastewater, solid waste and emission, understanding of unit process and operation is required.

- The highlighted portion says that in order to transform one reactant fully during production of basic organic chemicals, the other reactant must be present far in excess in weight than required as per reaction - This is true in our case also i.e. to transform maleic anhydride fully, we have to use olefin in excess, that is why as per our understanding, ASA falls in the category of Basic Organic Chemicals.

However, further it is said that –

- The manufacture of organic chemicals is hardly accomplished in one reaction; multi-reactions are involved in most cases – not true in our case. Our process is completed in one reaction.
- In each reaction state, some raw materials remain unreacted and some unwanted products are formed – though in our case also excess olefin remains unreacted but no unwanted products are formed and total excess olefin is recovered through vacuum distillation and used in next batch along with fresh olefin.
- Unwanted products are discarded. These inevitably become pollutants in wastewater and solid waste. Some are vented out in the atmosphere – not true in our case as no unwanted products are formed and hence there is no waste water, solid waste and nothing vented in air except the nitrogen which is used for blanketing during reaction and is finally vented through vacuum pumps after reaction is complete.

Based on the above facts, we strongly believe that though ASA falls under category of Basic Organic Chemicals, it does not attract EC as it does not produce any unwanted products which result in solid waste, liquid waste or air emissions because of which basic organic chemicals are considered for Environment clearance, as mentioned in TGM (highlighted above)".

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

The Member Secretary informed that Ministry has issued a Standard Operating Procedure dated 7th July 2021 bearing the file no. 22-21/2020-IA.II, for identification and handling of violation cases under EIA Notification 2006 in compliance to order of the Hon'ble National Green Tribunal in Appeal No. 34/2020 (WZ) titled Tanaji B. Gambhire Vs Chief Secretary, Government of Maharashtra. This SOP was challenged in the Madurai Bench of the Hon'ble High Court of Madras in the matter W.P.(MD) No. 11757 of 2021 titled Fatima Vs Union of India and was interim stayed vide order dated 15t July 2021. Recently, in the Order dated 9th December 2021 in the matter of Civil Appeal Nos. 7576-7577 of 2021 in Electrosteel Steels Limited Vs Union of India and Ors., the Hon'ble Supreme Court of India has inter-alia observed the following:

"*The interim order passed by the Madras High Court appears to be misconceived. However, this Court is not hearing an appeal from that interim order. The interim stay passed by the Madras High Court can have no application to operation of the Standard Operating Procedure to projects in territories beyond the territorial jurisdiction of Madras High Court. Moreover, final decision may have been taken in accordance with the Orders/ Rules prevailing prior to 7th July, 2021*." The EAC observed that Ministry issued O.M. number 22-21/2020- IA.III dated 28.1.2022 in this regard.

The Member Secretary informed the Committee that violation is defined in SOP dated 07.07.2021 as *"Violation" means cases where projects have either started the construction work or installation or excavation, whichever is earlier, on site or have expanded the production capacity and / or project area beyond the limit specified in the Environmental Clearance (Prior-EC) without obtaining Prior-EC or change of scope without prior approval from the Ministry".* The Ministry in its Circular No J-11013/41/2006-IA. II(I) dated 21.11.2006 inter-alia mentioned that *"Consent to Establish (NOC) and prior Environment Clearance are separate legal requirement, any project proponent has to fulfil. NOCs required under Water and Air Acts are mandatory requirement under those Acts and will have to be taken as required and do not required to be linked to environment clearance"*.

The Committee observed that in the instant case, the Consent to Establish (CTE) was issued on 24.02.2014 by SPCB and thereafter, CTO was issued from time to time. But in 2020, during the renewal of CTO, the SPCB sought clarification regarding requirement of EC for ASA and renewed the CTO vide order dated 20.06.2022 for three products only. The details are as follows:

Details	**AKD Wax Emulsion**	**Akenyl Succinic Anhydride**	**Starch Based products**	**Rosin Based Products**
CTE 24.02.2014	12000 TPA	2400 TPA	3600 TPA	22500 TPA
CTO 05.02.2015 valid till 31.01.2016	12000 TPA	2400 TPA	3600 TPA	22500 TPA
CTO 26.02.2016 valid till 31.01.2021 (extended upto 30.06.2021)	12000 TPA	2400 TPA	3600 TPA	22500 TPA

CTO 20.06.2022 valid till 31.01.2023	**12000 TPA**	**--**	**3600 TPA**	**22500 TPA**

The EAC observed that although the ASA is a synthetic organic chemical attracting schedule 5 (f) of the EIA Notification, 2006, it's an additive product and it's manufacturing process is a closed loop system resulting in very low emissions and pollution load, which was also justified by the PP and through their expert opinion provided.

Since all the synthetic organic chemicals, irrespective of their pollution load, require EC as per schedule 5 (f) of the EIA Notification, 2006, the EAC recommends ToR for preparation of EIA/EMP for this project under the current rule position. However, from the pollution load and environmental impacts, the EAC, prima-facie, is of the view that the manufacture of ASA may not require EC, but requires further deliberation for quantification of the pollution load before a final decision is made.

The EAC appreciates the measures taken by the PP so far, for the protection of environment which includes installation of the state-of-the-art manufacturing facilities and their maintenance, proper housekeeping and green belt development.

Regarding the manufacturing of ASA without EC, the EAC is of the view that it should not be considered as a violation since the manufacturing of ASA was being done with all the requisite permissions from SPCB from time to time, SPCB had directed to seek clarification on the applicability of EC for the first time, PP is the only manufacturer of ASA in India and more importantly, the very low pollution load and appreciable environmental performance of the unit. Such units should not be discouraged in the name of violation and procedures therein.

The EAC also recommends that APPCB may issue CTO on priority for the production of ASA for the earlier granted capacity of 200 TPM/2400TPA since the PP is in the process of obtaining EC and also in view of the above observations of EAC w.r.t the pollution load, environmental impacts and applicability of EC for the manufacture of ASA.

The EAC noted that the project is not in a notified industrial area and require public consultation as per Ministry's O.M. J-11011/321/2016-IA.II(I) dated 27.04.2018.

16. The Committee, after detailed deliberations, **recommended** the project for the grant of ToR for preparation of EIA/EMP (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **with public hearing** as per the provisions of the EIA Notification, 2006:

(i) The PP should conduct Public Hearing as per provisions of the EIA Notification, 2006 and all issues and its Action Plan should be addressed in the EIA/EMP
(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) Make provisions for Reuse/recycle of treated wastewater, wherever feasible. Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan needs to be submitted. Provision for Zero liquid discharge whenever techno-economically feasible. Provision for Continuous monitoring of effluent quality/quantity.

(v) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.

(vi) Activity-wise, a time bound action plan along with budgetary provision for occupational health & surveillance, environment management plan, and green belt development plan.

(vii) The PP shall clarify whether project involved ground water utilization. In case of ground water abstraction, a copy of application made to concerned authorities for the same need to be submitted

(viii) The PP shall prepare a detailed rain water harvesting plan so as to ensure that unit will become water positive i.e able to recharge the quantity equivalent to fresh water requirement of the plant or use only re-charged/restored water as a fresh water requirement.

(ix) The PP should develop Greenbelt 2500 saplings/ha, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Number of Trees have to be planted with spacing of 2m x 2m and has to be calculated accordingly.

The meeting ended with thanks to the Chair.

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ANNEXURE-I

GENERAL EC CONDITIONS

- No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- The 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.
- The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- A copy of the clearance letter shall be sent by the 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.
- 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.
- The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.
- The 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.

- The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

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ANNEXURE-II

STANDARD TERMS OF REFERENCE CONDITIONS

A. STANDARD TERMS OF REFERENCE

1) Executive Summary

2) Introduction

i. Details of the EIA Consultant including NABET accreditation
ii. Information about the project proponent
iii. Importance and benefits of the project

3) Project Description

i. Cost of project and time of completion.
ii. Products with capacities for the proposed project.
iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
iv. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
v. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
vi. List of raw materials required and their source along with mode of transportation.
vii. Other chemicals and materials required with quantities and storage capacities
viii. Details of Emission, effluents, hazardous waste generation and their management.
ix. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
x. Details of boiler/gensets (including stacks/exhausts) and fuels to be use
xi. Details of boiler/gensets (including stacks/exhausts) and fuels to be used
xii. Process description along with major equipment's and machineries, process flow sheet (quantitative) from raw materials to products to be provided
xiii. Hazard identification and details of proposed safety systems.
xiv. Expansion/modernization proposals:

a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, copy of the latest CTO and status of compliance of Consent to Operate for the ongoing/existing operation of the project from SPCB shall be attached with the EIA-EMP report.
b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4) Site Details

i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
ii. A topo-sheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
iii. Details w.r.t. option analysis for selection of site
iv. Co-ordinates (lat-long) of all four corners of the site.
v. Google map-Earth download of the project site.
vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
viii. Land-use break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
x. Geological features and Geo-hydrological status of the study area shall be included.
xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land. Documents related to conversion of land for Industrial purpose.
xiii. R&R details in respect of land in line with state Government policy

5) <u>Forest, wildlife and CRZ related issues (if applicable):</u>

i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
ii. Land-use map based on High resolution satellite imagery of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha)*
iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife
vii. Recommendations and NOC from the concerned State/UT Coastal Zone

Management Authority on CRZ angle

6) Environmental Status

i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
   - AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Study should indicate minimum, maximum value of different parameters for the period (3 months) collected. Collected data should be supported by the reference data of either CPCB or SPCB. AAQ data & GLC of pollutants from stack emissions should suggest technology/ measures- Best Practiced Technology (BPT) indicating best achieved results.

ii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

iii. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.

iv. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.

v. Ground water monitoring at minimum at 8 locations shall be included.

vi. Noise levels monitoring at 8 locations within the study area.

vii. Soil Characteristic as per CPCB guidelines.

viii. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.

ix. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

x. Socio-economic status of the study area.

7) Environment Impact and Environment Management Plan

i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.

ii. Water Quality Modelling – in case of discharge in water body

iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.

iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules 1986.
v. Details of stack emission and action plan for control of emissions to meet standards.
vi. Measures for fugitive emission control
vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
xii. Action plan for post-project environmental monitoring shall be submitted.
xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8) Occupational health

i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers
ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9) Corporate Environment Policy

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
ii. Does the Environment Policy prescribe for standard operating process / procedures

to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

v. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

10) Corporate Environmental Responsibility (CER)

i. Adequate funds, as per the Ministry's OM/Guidelines, shall be earmarked towards the Corporate Environmental Responsibility based on Public Hearing issues/socio-economic issues and item-wise details along with time bound action plan shall be included (CER activities shall be related to environment). Socio-economic development activities need to be elaborated upon. For the projects where public hearing is not conducted, CER plan shall be provided based on socio-economic study of the area.

11) Additional studies/Measures to be considered

(i). Provide latest and ecofriendly technology for product manufacturing.
(ii). Emphasize on Green chemistry/Clean Manufacturing
(iii). Provide CAS No. of products along with product list.
(iv). Provide details of amount of carbon sequestered in their unit through greenbelt/other modes, in case of expansion project.
(v). Life structure and sustainability for carbon and water foot print.
(vi). Detailed pollution Load estimation.
(vii). Transportation of Hazardous substance, effluents etc shall be carriedout through authorized and GPS enable vehicles/Trucks only.
(viii). Category of Hazardous Wastes shall be mentioned in the EIA/EMP report and in presentation.
(ix). Details of greenhouse gases and emissions shall be provided.
(x). Greenbelt shall be developed in the first year of the project and wind breaks shall be erected.
(xi). Study area map shall be overlapped with all the associated features.
(xii). Emphasize on green fuels.
(xiii). The project from NCR shall not use Coal as fuel. Further, PP shall avoid use of Coal in the CPAs and elsewhere also if alternatives are available.
(xiv). Provide the Cost-Benefit analysis with respect to the environment due to the project.

12) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

13) A tabular chart with index for point wise compliance of above TORs and its details needs to be submitted in the EIA/EMP Report.

B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR 5(f) CATOGORY 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)

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH3*,chlorine*,HCl*,HBr*,H2S*,HF*,*etc*.,(*-as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

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Annexure-III

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

S. No.	Name of Member	Designation
1.	**Prof. (Dr.) A.B. Pandit** Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India Email: ab.pandit@ictmumbai.edu.in	Chairman
2.	**Dr. Ashok Kumar Saxena, IFS** Bungalow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
3.	**Prof. (Dr.) S. N. Upadhyay** Research Professor (Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail: snupadhyay.che@iitbhu.ac.in	Member
4.	**Prof. (Dr.) Suneet Dwivedi,** Professor in K Banerjee Centre of Atmospheric and Ocean Studies, University of Allahabad, Allahabad - 02 Uttar Pradesh E-mail:dwivedisuneet@rediffmail.com /suneetdwivedi@gmail.com	Member
5.	**Shri Santosh Gondhalkar** 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
6.	**Prof. (Dr.) Vijay S. Moholkar** Professor in Department of Chemical Engineering, Block-K (Academic complex), Room No. 111, Indian Institute of Technology Guwahati, Guwahati – 781039 E-mail: vmoholkar@iitg.ac.in	Member
7.	**Dr. Suresh Panwar** House No.4, Gayatri Green Society, NH 58 Bypass, Kankerkhera, Meerut, Uttar Pradesh Email: spcppri@gmail.com	Member

8.	**Shri Tukaram M Karne** "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member
9.	**Shri Dinabandhu Gouda** Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032 E-mail: dinabandhu.cpcb@nic.in	Member
10.	**Shri Sanjay Bisht** Scientist 'E', Room No. 517, Office of the Director General of Meteorology, Indian Meteorological Department, Musam Bhawan, Lodhi Road, New Delhi -110003 E-mail: sanjay.bist@imd.gov.in	Member
11.	**Dr. M. Ramesh** Scientist 'E' Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. A-233, Agni Wing, Jor Bagh Road, New Delhi-110003 Tel. 011-20819249 E-mail: ramesh.motipalli@nic.in	Member Secretary

MOM approved by

Professor Aniruddha B Pandit, Chairman

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