

**GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IMPACT ASSESSMENT DIVISION
INDUSTRY-2 SECTOR)**

Dated: 26th May, 2020

**MINUTES OF THE 19th MEETING OF THE EXPERT APPRAISAL COMMITTEE
(INDUSTRY-2 SECTOR) HELD DURING 11-13 MAY, 2020**

Venue: Meeting conducted through Video Conferencing (VC) and moderated by the Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003.

Time: 10:40 AM

(i) Opening Remarks by the Chairman: The Chairman welcome to the Committee and appreciated the effort of the Committee. After opening remarks, the Chairman opens the EAC meeting for further deliberations.

(ii) Confirmation of the Minutes of the 18th Meeting of the EAC (Industry-2) held during 13-15 April, 2020 at MoEFCC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC members on the minutes of its 18th EAC meeting held during 13-15 April, 2020 conducted through Video Conferencing (VC), confirmed the same.

After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

Details of the proposals considered during the meeting **conducted through Video Conferencing (VC)**, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under:-

**DAY 1: 11th May, 2020 (Monday) Meeting held through
Video Conferencing (VC) Mode**

Consideration of Environmental Clearance

Agenda No. 19.1

Developmental Drilling of additional 37 no. of onshore wells in Tanot, Dandewala & Bagitibba Mining Lease Block of 250 sq. Km area, at village Tanot,

Tehsil Ramgarh in Jaisalmer District of Rajasthan, under Rajasthan Project of M/s Oil India Limited-Consideration of Environmental Clearance

[IA/RJ/IND2/67524/2017 dated 9th March, 2020, J-11011/430/-2017-IA-II(I)]

The Project Proponent and the accredited Consultant ABC Technolabs India Pvt Ltd, made a detailed presentation through Video Conferencing on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Developmental Drilling of 37 onshore wells in Tanot, Dandewala & Bagitibba Mining Lease Block covering an area of 250 sq km located at Village Tanot, Tehsil Ramgarh, District Jaisalmer, Rajasthan by M/s Oil India Ltd. The ToR has been issued by Ministry vide letter dated 16th October 2017.

The project/activity is covered under category A of item 1(b) 'Offshore and onshore oil and gas development & production' of schedule to the Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at central level by sectoral Expert Appraisal Committee in the Ministry.

Land area available for the project is 250 sqkm. The estimated project cost is Rs. 370 Crore. Total capital cost earmarked towards environmental pollution control measures is 11.1 Crores and the Recurring cost (operation and maintenance) will be about 50 lakhs per annum. Total Employment (approximately) will be 65 persons per drilling well. Industry initially proposed to allocate Rs 6.05 Crore towards Corporate Environmental Responsibility, which is now increased and proposed to allocate Rs. 10 crore. There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the block area.

Ambient air quality monitoring was carried out at 8 locations during 1st October 2018 to 31st December 2018 and the baseline data indicates the ranges of concentrations as: PM10 (84-184 µg/m³), PM2.5 (34.7-90.2 µg/m³), SO₂ (5.0-7.1 µg/m³) and NO₂ (8.1-14.1 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.31 µg/m³, 0.46 µg/m³ and 0.17 µg/m³ with respect to PM10, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement is 45 m³/day will be met from Tanker Supply. Effluent of 15 m³/day quantity will be treated through mobile ETP system. The plant will be based on Zero Liquid discharge system. Power requirement after operation will be 4330 KVA including existing 0 KVA and will be met from DG sets. Proposed 1 x 1170 KVA DG Sets (Drilling operation), 1 x 2340 KVA DG Sets (Mud Pump Engine), 1 x 500 KVA DG Sets (PCR, area lighting), 1 x 320 KVA DG Sets (Camp) DG sets are used during developmental drilling activities. Stack (height 16 m) will be provided as per CPCB norms

to the proposed DG sets. No Process emissions generation during developmental drilling process.

Drill Cuttings will be about 500 Tons/well (Approx.) and Waste Drilling mud generated from Water based Mud, not contaminated with oil will be about 250 Tons/well (Approx.). Drill cutting will be separated from water based mud (WBM) and unusable drilling fluid will be stored in HDPE lined pit for solar drying for temporary storage. The cuttings/mud residues so stored will then be treated and disposed in accordance with CPCB regulations specified for onshore oil & gas industry.

Public Hearing for the proposed project has been conducted by the Rajasthan State Pollution Control Board on 8th November 2019 which was presided over by Additional District Magistrate. The main issues raised during the public hearing are related to employment, medical facilities. It is reported that no litigation is pending against the proposal.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report. 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 project proponent proposed to use 45 cum/day/well fresh water sourced through tanker supply. Considering the technical advancement in drilling and scarcity of water in the area, it was suggested to submit revised water balance with reduction in fresh water requirement. The Committee was of the view that 20 cum/day/well would suffice for drilling. The Committee has also suggested the project proponent to submit an action plan for managing gas leakage, if any, from the drilling site and storage facilities. The EAC has also suggested the project proponent to submit a revised CER plan with the increased budget and taking into account requirement of medical facility and public hearing issues.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and found to be addressing the issues in the study area and the issues raised during the public hearing.

The Member Secretary informed the Committee that the additional information desired by the Committee requires appraisal by the EAC and submission of the documents to the Ministry does not serve the purpose. The Member Secretary has also informed the Committee that, as per the details of public hearing, the project proponent hold a EC dated 3rd September, 2018 for exploration activities of 20 wells in the same area, and certified compliance report shall be required as per provisions of OM May 2012 so that the Committee may see the compliance status of earlier EC.

The project proponent has informed that, as public hearing exemption has been sought for the instant proposal, the Committee earlier has not agreed to the same stating different scope of the project. In view of the same, the instant proposal may be dealt separately and certified report shall not be made mandatory.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i) 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, shall be obtained from the State Pollution Control Board.
- (ii) As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body and/or on land. Mobile ETP along with RO plant shall be installed to treat the waste water.
- (iii) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (iv) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (v) Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM₁₀, PM_{2.5}, SO₂, NO_x, CO, CH₄, HC, Non-methane HC etc.

- (vi) During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored using appropriate technology.
- (vii) The project proponent also to ensure trapping/storing of the CO₂ generated, if any, during the process and handling.
- (viii) Approach road shall be made pucca to minimize generation of suspended dust.
- (ix) The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.
- (x) Total fresh water requirement shall not exceed 30 cum/day/well. Prior permission shall be obtained from the concerned regulatory authority. Mobile ETP coupled with RO shall be installed to reuse the treated water in drilling system. Size of the waste shall be equal to the hole volume+ volume of drill cutting and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.
- (xi) The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.
- (xii) Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.
- (xiii) Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.
- (xiv) The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.
- (xv) The company shall develop a contingency plan for H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S detectors in locations of high risk of exposure along with self containing breathing apparatus.

- (xvi) The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and Regional Office.
- (xvii) Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.
- (xviii) Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- (xix) On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment safety angle. In case of hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- (xx) All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.
- (xxi) As proposed Rs. 10 crore of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- (xxii) No lead acid batteries shall be utilized in the project/site.
- (xxiii) Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- (xxiv) Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office.
- (xxv) Company shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.

Agenda No.19.2

Expansion of chemical manufacturing unit by M/s Shimmer Chemicals Pvt. Ltd at Survey No. 313, village Mujpur, Taluka Padra, District Vadodara (Gujarat) - Consideration of Environmental Clearance

[IA/GJ/IND2/140871/2007, J-11011/763/2008-IAII(I)]

The project proponent and their consultant M/s Aryan Greens made a detailed presentation on the salient features of the project through Video Conferencing (VC).

During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of chemical manufacturing unit from 210 TPM to 1000 TPM by M/s Shimmer Chemicals Pvt. Ltd., in an area of 16200 sqm., located at Survey No. 313, village Mujpur, Taluka Padra, District Vadodara (Gujarat).

The details of existing and proposed product and capacity are as under:-

S. No.	Name of Products	Existing (TPM)	Proposed (TPM)	Total (TPM)
1.(Existing)	Benzyl Alcohol	6	19	25
2.(New)	Ortho/Para Chloro Benzyl Alcohol (2-chloro Benzyl Alcohol)	--	25	25
3.(Existing)	Benzylidene Acetone	20	30	50
4.(Existing)	Ortho Chloro Benzyl Chloride	40	235 (Max)	275 (Either individual or total of 7 products)
5.(Existing)	Benzyl Chloride	15	260 (Max)	
6.(New)	Para Chloro Benzyl Chloride (4-Chloro Benzyl Chloride)	--	275 (Max)	
7.(New)	2-Methyl Benzyl Chloride (2-chloro Ortho xylene)	--		
8.(New)	Dichloro Ortho Xylene (2,2-Dichloro Ortho Xylene)	--		
9.(New)	2,4-Dichloro Benzyl Chloride	--		
10.(New)	Meta-Chloro Benzyl Chloride	--		
11.(Existing)	Ortho ChloroBenzaldehyde	4	296 (Max)	300 (Either individual or total of 4 products)
12.(New)	Para ChloroBenzaldehyde	--	300 (Max)	
13.(Existing)	Benzaldehyde	88	212 (Max)	
14.(New)	2,4-DichloroBenzaldehyde	--	300 (Max)	
15.(Existing)	N-Chloro Pentane	37 (Either individual or total of	288 (Max)	325 (Either individual or total of 4 products)
16.(Existing)	N-Butyl Chloride			
17.(Existing)	1,6-Dichloro Hexane			

		3 products)		
18.(New)	N-Hexyl Chloride	--	325 (Max)	
Total		210	790 (Max)	1000

The project/activity is covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

Earlier environmental clearance was granted by the Ministry vide letter no. J-11011/763/2008-IA.II (I); dated 30/01/2009 to the existing project for production of 210 TPM in favour of M/s Shimmer Chemicals Pvt. Ltd. The Certified compliance report submitted by RO, MoEF&CC, vide letter no: 5-111/2009(ENV)/020, dated 06/01/2020. The Committee deliberated the compliance report and noted that Out of 35 conditions, it may be seen that 24 are complied, 8 are partly complied, 2 are agreed to comply and 1 is noted. There is no court matter pending against the project.

The standard terms of references (TORs) for the Project was granted by the Ministry on 13th September, 2018.

The Committee noted that the EIA report has been prepared by the non-accredited consultant i.e. M/s Aryan Greens. Also the unit has not obtained permission for fresh water withdrawal yet and operated the existing unit without said prior permission. The Committee

The EAC, after detailed deliberations decided to **defer the proposal for want of requisite information as under** and have asked the PP to revise the Report along with following clarification/information: -

- (i) Submit the permission for fresh water withdrawal and submit clarification for operating the existing unit without prior permission for fresh water withdrawal.
- (ii) Action Taken Report on non-compliance points in the existing EC conditions which needs to be forwarded by the Regional Office of the Ministry.
- (iii) Submit the copy of public hearing report forwarded by the Head office of Gujarat Pollution Control Board as the said report uploaded on the PARIVESH portal is not opening. Also issues raised during public hearing, response by the project proponent, action plan with budgetary allocation and its time lines needs to be submitted.

- (iv) The Committee observed that District Vadodara comes under Critically Polluted area, however PP mentioned that this is away from CPA. In this context, the Committee suggested that PP shall submit the copy of letter either from CPCB or SPCB about the location of project in Critically Polluted area or not as there are different provisions of appraisal of projects which comes under CPA.
- (v) Detailed effluent analysis report needs to be submitted.
- (vi) Status of TSDF membership needs to be submitted.

Agenda No.19.3

Setting up bulk drug intermediates manufacturing unit by M/s Theo Chemical at Plot No. 523, GIDC industrial Estate Panoli District Bharuch, Gujarat-Consideration of Environmental Clearance

[IA/GJ/IND2/148941/2019, IA-J-11011/103/2020-IA-II(I)]

The project proponent did not attend the meeting. The Member Secretary informed to the EAC that the State Level Environment Impact Assessment Authority (SEIAA), Gujarat vide email dated 11th May, 2020 has forwarded the list of proposals which are under consideration at SEIAA, Gujarat and it has been informed that this instant proposal has been considered by the SEIAA in its meeting held on 9th May, 2020, wherein the SEAC has deferred the proposal for want of additional information.

The EAC noted that as the project proponent has submitted proposals both at Central and State level the same needs to be clarified by the project proponent/consultant. The EAC, therefore decided to **return the proposal** in present form for the present.

Agenda No. 19.4

Molasses based Distillery (160 KLPD) along with 7.0 MW cogeneration power plant at Village Bhatiyura Prathipur, Tehsil Tilhar, District Shahjahanpur, Uttar Pradesh by M/s Malbros International Pvt. Ltd.-Consideration of Environmental Clearance

[IA/UP/IND2/90871/2019 dated 3rd March, 2020, IA-J-11011/16/2019-IAII(I)]

The Project Proponent and the accredited Consultant M/s J M EnviroNet Pvt. Ltd., made a detailed presentation on the salient features of the project through videoconferencing and informed that:

The proposal is for environmental clearance to the project for Setting up Molasses based distillery of 160 KLPD along with 7 MW Co-generation power plant at Village Bhatiyura Prathipur, Tehsil Tilhar, District Shahjahanpur, Uttar Pradesh by M/s Malbros International Private Limited.

Standard ToR has been issued by the Ministry of Environment, Forest & Climate Change vide letter dated 13th February, 2019. The project/activity is covered under category A of item 5 (g) 'Distilleries' of the Schedule to the Environment Impact Assessment Notification, 2006 and requires appraisal by the EAC at central level in the Ministry.

The land area available for the project is 12.328 Hectares (123280 m²). Industry will develop greenbelt in an area of 33% i.e. 4.07 Hectares (40700 m²) out of total area of the project. The estimated project cost is Rs. 225 Crores for proposed project. Total capital cost earmarked towards environmental pollution control measures is Rs. 45 Crores and the Recurring cost (operation and maintenance) will be about Rs. 4.5 Crores per annum. Total Employment during operation phase is 200 persons (80 permanent and 120 temporary). Industry proposes to allocate Rs. 3.875 Crores towards Corporate Environment Responsibility, which is now proposed to be increased to Rs. 5.5 crores.

PP reported that there are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site. No schedule-I species reported in the study area. There are four rivers i.e. Khandni Nadi at a distance of 1.5 km in East direction, Kaimua Nadi at a distance of 1.7 km in SSE direction, Katna River at a distance of 6.4 km in WNW direction & Khanaut River at a distance of 9.5 km in ESE direction.

Ambient air quality monitoring was carried out at 8 locations during Summer Season (March to May, 2019) and the baseline data indicates the ranges of concentrations as: PM₁₀ (58.4 to 89.8 µg/m³), PM_{2.5} (26.8 to 48.9 µg/m³), SO₂ (5.8 to 15.9 µg/m³) and NO₂ (12.4 to 27.4 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.13 µg/m³, 0.24 µg/m³, 1.16 µg/m³, 2.36 µg/m³ with respect to PM_{2.5}, PM₁₀, SO₂ and NO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement for the proposed project will be 1120 KLPD (1100 KLPD for distillery & co-generation power plant & 20 KLPD for domestic & others) which will be met from Groundwater. Application in this regard has been submitted to CGWA on 20th October, 2019. Effluent of 1980 KLPD quantity will be treated through Condensate Treatment Plant (Based on Anaerobic, aerobic treatment, filters and Reverse Osmosis) of capacity 2150 KLPD. The plant will be based on Zero Liquid discharge system.

Total power requirement will be 4.5 MW which will be met from proposed 7.0 MW co-generation power plant. D.G. Sets of 1000 & 1500 KVA capacity will be used as standby

during power failure. Stack (7 m height) will be provided as per CPCB norms to the proposed DG sets.

The PP has proposed 65 TPH incineration boiler which is slope (Conc. Spent Wash) fired Boiler with auxiliary fuel like Bagasse, Coal & Rice husk. Electrostatic Precipitator with a stack height of 75 meters will be installed for controlling the particulate emissions within the statutory limit for the proposed boiler.

Table: Details of Process emissions generation and its management.

Source	Emissions	Management
Incineration Boiler (Co-generation power plant)	Particulate matter, SO ₂ , NO _x	<ul style="list-style-type: none"> Electrostatic Precipitator will be installed. Adequate stack height (75 m) will be provided. Necessary temperature profile will be maintained.
Fermentation	Carbon dioxide	Carbon dioxide generated will be collected and sold to authorized vendors.

Ash will be used as manure due to rich potash content (biomass ash) or supplied to brick manufacturers (coal ash). Conc. spent wash will be used as fuel in boiler combined with auxiliary fuel. Sludge generated will be used as manure. Used oil generated from plant machinery as hazardous waste will be sold to authorized vendors.

Public Hearing for the proposed project has been conducted by Uttar Pradesh Pollution Control Board on 4th October, 2019 which was presided over by Additional District Magistrate. The main issues raised during the public hearing are related to employment, development of villages, water pollution, greenbelt development in nearby villages, power supply. The action plan on the issues were deliberated by the Committee and found in order. It is reported that no Litigation is pending against the proposal.

The details of products and capacity as per Form-I, PFR, EIA/EMP Report are as under:

S. No.	Units	Capacity	Products
1.	Molasses based Distillery	160 KLPD	Ethanol/Extra Neutral Alcohol/Rectified Spirit/Impure alcohol
2.	Co-generation power plant	7.0 MW	Power

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

the Project Proponent. The Member Secretary informed to the Committee that the Form-I, PFR, TOR, PH, EIA/EMP Report shall have the same scope of the project.

The EAC noted that the Project Proponent has given 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 report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and CER plan and found to be addressing the issues in the study area and the issues raised during the public hearing.

The Committee noted that the acquired land is yet to be converted for Industrial use and necessary permission in this regard has not been obtained by the project proponent from the concerned regulatory authority. The project proponent has informed that the ownership of the land is with the company and application for conversion of land for industrial usage has been submitted to Deputy Collector, Bareilly, Shahjahanpur on 26th September, 2019. It was informed that all the formalities and documentation by the concerned Department has been completed and the process is pending due to the present pandemic only.

The EAC, after detailed deliberations, gave its in principal recommendation for grant of environmental clearance to the project, however, desired that the project proponent shall obtain permission for industrial use of the land first. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

The EAC, after detailed deliberations, recommended the project for grant of environmental clearance, **subject to submission of land conversion documents for industrial usage**, and subject to compliance of terms and conditions as under, and general terms of conditions at **Annexure:-**

- (i) Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.

- (ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iii) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (v) Total fresh water requirement shall not exceed 1120 cum/day proposed to be met from ground water source. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.
- (vi) The spent wash/other concentrates shall be incinerated as proposed.
- (vii) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.
- (viii) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (ix) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- (x) The company shall undertake waste minimization measures as below:-
 - (a) Metering and control of quantities of active ingredients to minimize waste.
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xi) The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

- (xii) All the commitments made regarding issues raised during the public hearing/consultation meeting shall be satisfactorily implemented.
- (xiii) The project proponent shall provide 80% of the employment to the villagers residing in the local area.
- (xiv) As proposed Rs. 5.5 crores shall be allocated for Corporate Environment Responsibility (CER). As proposed, the CER allocation shall be spent mainly for addressing the issues (Medical and welfare facilities and public health infrastructure) raised during public consultation/hearing.
- (xv) The project proponent shall develop solar power facilities and majority of the lighting facility in the unit shall be met from solar.
- (xvi) The project proponent shall ensure rain water harvesting system in the project area and reduce dependency on ground water.
- (xvii) For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (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) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xx) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.
- (xxi) Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xxii) 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.
- (xxiii) CO₂ generated from the process shall be bottled/made solid ice and sold to authorized vendors.
- (xxiv) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

Agenda No. 19.5

Proposed Dyes & Intermediates manufacturing project of 150 MT/Month (Crude) [Disperse Azo Dyes (All colours) - 100 MT/Month, Coumarine Dyes (All colours)- 25 MT/Month & Methine Dyes (All colours) -25 MT/Month], at Khasara no 670/521 of Revenue Village - Untwalia, Tehsil & District - Churu, (Rajasthan) by M/s Krishnum Dyes & Intermediate Pvt. Ltd - Consideration of Environmental Clearance

[IA/RJ/IND2/74141/2018, IA-J-11011/134/2018-IA-II(I)]

The Project Proponent and the accredited Consultant M/s J M EnviroNet Pvt. Ltd., made a detailed presentation on the salient features of the project through video conferencing (VC) and informed that:

The proposal is for environmental clearance to the project for Setting up Dyes & Intermediates Manufacturing Project of capacity 150 TPM at Khasara no. 670/521, Village Untwalia, Tehsil & District Churu, Rajasthan) by M/s Krishnum Dyes & Intermediate Pvt Ltd.

The project/activity is covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

Standard ToR has been issued by the MoEFCC, vide letter dated 18th May, 2018. Land area available for the project is 1 Hectares (2.47 acre). Industry will develop greenbelt in an area of 33% i.e. 0.33 Hectares out of total area of project.

The estimated project cost is Rs. 20.21 Crores for proposed project. PP has obtained land conversion from the State Govt. Total capital cost earmarked towards environmental pollution control measures is Rs. 1.5 Crores and the Recurring cost (operation and maintenance) will be about Rs. 35 lakhs per annum. Total Employment during construction phase will be 55 persons (5 regular and 50 contractual) operation phase will be 99 persons (40 Regular and 59 contractual). Industry proposes to allocate Rs. 40.50 Lakhs i.e. maximum percentage (2.0 %) of total project cost as per Office Memorandum dated 1stMay, 2018 towards Corporate Environment Responsibility.

PP reported that there are no national parks, wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the plant site. Water body Pithrana Johra exists at a distance of 0.3 km in NE direction.

Ambient air quality monitoring was carried out at 8 locations during Summer Season (March, 2018 to May, 2018) and the baseline data indicates the ranges of concentrations as:PM₁₀(56.8to 87.4µg/m³), PM_{2.5}(24.9 to 43.8 µg/m³), SO₂(5.7 to 14.2µg/m³) and

NO₂(10.2 to 25.2µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.84 µg/m³, 0.28 µg/m³, 1.75 µg/m³, 1.96 µg/m³with respect to PM₁₀, PM_{2.5}, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 117.8 KLPD of which fresh water requirement of 34.8 KLPD will be met from Ground water or local suppliers. Effluent of 82.5 KLPD quantity will be treated through tertiary level Effluent Treatment Plant (Based on aerobic digestion (MBBR), Ultrafiltration, Reverse Osmosis and MEE) of capacity 100 KLD. Domestic Effluent of 9 KLD quantity will be disposed of in soak pits via septic tank. The plant will achieve on Zero Liquid discharge system.

Total Power requirement for proposed project will be 500KVA to be sourced from Jodhpur Vidhyut Vitran Nigam Limited (JDVVNL). 2 nos. of DG sets of capacity 125 KVA each will be installed for standby during power off. Stack (height 6.5 m above from ground level) will be provided per CPCB norms to the proposed DG sets.

Unit has proposed one 5 TPH coal fired boiler. Multi cyclone with bag filter with stack height of more than 30 m will be installed for controlling particulate emissions within statutory limit for the proposed boilers.

Details of Process emissions generation and its management:

Source	Emissions	Management
Process	Hydrochloric & Sulphuric acid bearing Acidic Fumes	<ul style="list-style-type: none"> Alkali Scrubber with vent of 11 meter or above Installation of Sensors to ensure that no acid fumes are released.
Boiler	PM, SO ₂ , NO _x	<ul style="list-style-type: none"> Multi-Cyclone with Bag filter Stack of 30 meters Use of Low Sulphur Imported Coal in the Boiler
DG Set	-	<ul style="list-style-type: none"> Stack of adequate height
Raw Material Handling, Storage & Transportation	PM	<ul style="list-style-type: none"> Water sprinkling. Proper maintenance and check pollution under control of vehicles Greenbelt / plantation along the plant boundary

Process sludge (4-5 tonnes/ annum) and Spent Solvent (25.54 TPM) will be generated from process which will be Sold to approved /registered vendors. Evaporator residue (0.35 TPM) generated from MEE will be Collected in drums packed, labelled and stored at specified area and finally will be sent to common waste landfill site (TSDF). Fly Ash (55 TPM) from the boiler will be supplied to brick manufacturer. ETP sludge (10 TPM) will be send to approved landfill site (TSDF). Used oil & grease (20 LPM) generated from

plant machinery/gear boxes as hazardous waste will be sold to the authorized recyclers. Discarded drums / Containers / Barrels / PP Liners / Bags (1.5 Tons / Month), Electronic And Electrical Waste (400-500 kg/ annum) and Waste Lead Acid Batteries, whole or crushed (2-3 batteries/ annum) will be sold to approved / registered vendors.

Public Hearing for the proposed project has been conducted by Rajasthan State Pollution Control Board on 18th September, 2019 which was presided over by the District Collector. The main issues raised during the Public Hearing are related to employment opportunities, pollution control, development in the nearby villages, development of schools in nearby areas, waste water treatment method for no discharge outside and regular health check-up of the workers. It is informed that no Litigation is pending against the proposal.

The details of products and capacity as under:

S. No.	Products	Capacity (TPM)
1	Disperse Azo Dyes (All colours)	100
2	Coumarin Dyes (All colours)	25
3	Methine Dyes (All colours)	25
Total		150 (Crude)

The EAC during deliberations noted that the project area is classified **as semi critical area for water extraction and requires analysis on alternate source of water**. The Committee has opined that if there is a storage of raw materials having high safety issues, the project proponent shall go for advanced modelling and prediction and make management plan accordingly. The Committee after detailed deliberations, **deferred** the proposal and insisted for requisite information/clarification with respect to the following:

- (i) The EAC during deliberations noted that the project area is classified as semi critical area for water extraction and requires analysis on alternate source of water. Permission for ground water extraction. Analysis on alternate source of water, if any, and commitment/MoU needs to be relooked and submitted.
- (ii) Commitment for not using any banned raw materials/solvent needs to be submitted.
- (iii) Since the Project proponent has submitted proposal for All colors Azodyes manufacturing therefore the Project proponent is needed to provide details of colour index generic number with their respective colour index number of azodyes and confirm that there is no prohibition on their handling vide SO No.243(E)dated 26 March,1997 of MoEF.

- (iv) Details of issues raised during public hearing, action plan with budgetary allocation with timelines needs to be submitted.
- (v) Details of Corporate Environmental Responsibility allocation and its plan with timelines and budgetary provisions.
- (vi) Water body Pithrana Johra exists at a distance of 0.3 km in NE direction, In this context PP needs to submit the mitigation measures to protect the water bodies as it is very near to the proposed site.
- (vii) PP needs to submit the following details on the Risk associated with the hazardous chemicals proposed to be used as a raw material;
 - Risk need to be carried out for medium and Catastrophic ruptures/leak even for Methanol, Bromine including Hydrochloric acid, Sulphuric acid and Benzoyl Chloride etc.
 - Frequency/Probability of leak per year as done for any risk analysis.
 - Individual risk contours and societal risk F-N curves to assess against risk acceptance criteria using advanced 3D modeling.
 - PP to submit above referred.

The proposal was there for **deferred** for the needful.

Agenda No. 19.6

Proposed Bulk Drug & Bulk Drug Intermediates Manufacturing Unit by M/s Ozone Life Science located at Plot No. 8006/2, GIDC Industrial Estate-Ankleshwar, Tal - Ankleshwar, District - Bharuch, Gujarat -Consideration of Environment Clearance

[IA/GJ/IND2/141783/2019, IA-J-11011/101/2020-IA-II(I)]

The project proponent did not attend the meeting. The Member Secretary informed the EAC that the State Level Environment Impact Assessment Authority (SEIAA), Gujarat vide email dated 11th May, 2020 has forwarded the list of proposals which are under consideration at SEIAA, Gujarat and it has been informed that this instant proposal is presently under consideration at SEIAA.

The EAC noted that as the project proponent has submitted proposals both at Central and State level the same needs to be clarified by the project proponent/consultant. The EAC, therefore decided to **return the proposal** in present form for the present.

Agenda No.19.7

Modernization of bulk drugs and bulk drug intermediates manufacturing unit by M/s Apicore Pharmaceuticals Private Limited at Block No. 252-253, Village Dhobikuwa, Opposite Jain Irrigation, Padra-Jambusar Road, Taluka Padra, District Vadodara (Gujarat) - Environmental Clearance

[IA/GJ/IND2/127500/2007, J-11011/454/2007-IA-II(I)]

The project proponent and their accredited consultant M/s. En-vision Enviro Technologies Pvt. Ltd, made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal was earlier considered by the EAC in its meeting held during 21-23 January, 2020 and 25-27 February, 2020. The additional information desired by the Committee and response from the project proponent is as under:

S. No.	Query Raised in earlier EAC meeting	Query Reply Given by PP
1.	Latest Certified Compliance report duly forwarded from Ministry's Regional office to be submitted.	Regional office of the MoEFCC has submitted the certified compliance report vide letter dated 31.01.2018. The project proponent has informed that the action plan has been submitted to the Ministry's Regional office on each of partial complied points. The Committee deliberated the same.
2.	Conservation plan for schedule-I species needs to be submitted	The project proponent has confirmed that they have submitted the conservation plan to Chief Wildlife Warden, Vadodara for further approval on 29 th February, 2020. The Committee deliberated the same.
3.	Submit the copy of latest Consent to operate.	The project proponent has submitted the latest Consent to operate.
4.	Submit action plan as per the Ministry's office memorandum 31st October, 2019 regarding projects located in Critically Polluted Area.	Not applicable for the present proposal as the project does not comes inside the Critically polluted area.
5.	Onsite emergency plan as per MSIHC Rules and occupational health plan.	Onsite Emergency Plan has been submitted. The Committee deliberated the same.

6.	Justification for high PM 10 values recorded during and its mitigation plan to control/reduce.	<p>PM10 values at all locations are within permissible limits of NAAQS. High PM10 values are observed, as nos. of pharma, pigment industries are present within the study area which has resulted in heavy vehicular movement on internal village roads; at majority locations surrounding area of monitoring locations was non paved surface. Mitigation plan to control/ reduce PM10 values from the project is as under:</p> <ul style="list-style-type: none"> • Open area is covered with green belt or is paved surface. • Greenbelt consisting of dust capturing species is developed in 9,200 m² area & in expansion 2,000 m² will be developed. • Raw materials are stored in isolated storage area and containers are kept tightly closed. • Manual handling of raw material is avoided. <p>The Committee deliberated the mitigation measures.</p>
7.	Alternate source for fresh water.	<p>The project proponent has mentioned that on 1/09/2015, they had requested Executive Engineer, Narmada Project Canal, Division No. – 20, Vadodara seeking permission for surface water supply from Narmada canal. In turn, Sardar Sarovar Narmada Nigam Limited replied and confirmed that “permission for using Narmada water for industrial purpose will not be granted” vide Letter No. NPCDN-10/PB-1/85/3024 of 2015 dated 03/09/15. Further, they have also requested Talati of Dhobikuwa Village to grant permission for using ground water.</p>

The proposal is for environmental clearance to the project for modernization of bulk drugs and bulk drug intermediates manufacturing unit by **reducing the capacity from 5000 kg/Month to 1697.32 kg/Month** by M/s Apicore Pharmaceuticals Private Limited in an area of 32,000 sqm., located at Block No. 252-253, Village Dhobikuwa, Opposite Jain Irrigation, Padra-Jambusar Road, Taluka Padra, District Vadodara (Gujarat).

The details of existing and proposed products are as under:

S. No.	Name of Products	Existing (kg/Month)	Proposed (kg/Month)	Total after Expansion (kg/Month)
Category-1				
1	Alcaftadine		1.7	1.7
2	Cangrelor			
3	Cetrotorelix Acetate			
4	Delamanid			
5	Dydrogesterone			
6	Ganirelix Acetate			
7	Eribulin Mesylate			
8	Everolimus			
9	Ferumoxytol			
10	Fingolimod Hydrochloride			
11	Lubiprostone			
12	Lanreotide			
13	Metyrosine			
14	Pasireotide			
15	Riociguat			
16	Sincalide			
17	Thiotepa			
18	Tiotropium Bromide Monohydrate			
19	Tigecycline			
20	Trabectedin			
21	Vandetanib			
22	Verteporfin			
Total		0	1.7	1.7
Category-2				
23	Alosetron Hydrochloride		8.32	8.32
24	Ambrisentan			
25	Bedaquiline Fumarate			
26	Cabergoline	4.2		
27	Carfilzomib			
28	Decitabine			
29	Deutetrabenazine			
30	Granisetron Hydrochloride	3.2		
31	Eliglustat Tartrate			
32	Ferric Gluconate Complex			
33	Ferric Pyrophosphate Citrate			
34	Lenalidomide			

35	Ixazomib			
36	Nitisinone			
37	Perampanel			
38	Primaquine Phosphate			
39	Rucaparib Camsylate			
40	Teriparatide			
41	Tolvaptan			
Total		7.4	8.32	8.32
Category-3				
42	Anidulafungin			
43	Azacitidine			
44	Azapentacene			
45	Bepotastine Besilate			
46	Bexarotene			
47	Bortezomib			
48	Busulfan			
49	Carglumic Acid			
50	Clofarabine			
51	Conivaptan			
52	Diflunisal			
53	Fludrocortisone Acetate			
54	Fusafungine			
55	Frovatriptan Succinate Monohydrate		37	37
56	Iodixanol			
57	Methylene Blue			
58	Midostaurin			
59	Misoprostol			
60	Octreotide			
61	Pantoprazole			
62	Procarbazine			
63	Selexipag – Mannitol Premix			
64	Telavancin Hydrochloride			
65	Tetrabenazine			
66	Triptorelin Pamoate			
Total		0	37	37
Category-4				
67	5- Aminoleuvilinic acid HCL			
68	Alectinib Hydrochloride		75.5	75.5
69	Bezedoxifine Acetate			
70	Bromfenac Sodium			

71	Dalbavancin Hydrochloride			
72	Degarelix Acetate			
73	Gadofosveset Sodium			
74	Felbamate	333.3		
75	Gadobenate Dimeglumine			
76	Gadoterate Meglumine			
77	Gadoteridol			
78	Iloperidone			
79	Iohexol			
80	Iopamidol			
81	Leuprolide Acetate			
82	Linaclotide			
83	LRG Side Chain			
84	Metaxalone			
85	Phentolamine Mesylate			
86	Plerixafor			
87	Pomalidomide			
88	Regadenoson			
Total		333.3	75.5	75.5
Category-5				
89	Bedaquiline			
90	Canagliflozin			
91	Dacarbazine			
92	Dapagliflozin			
93	Dimetindene Maleate			
94	Empagliflozin			
95	Ethacrynic Acid			
96	Ferric Carboxymaltose			
97	Flibanserin			
98	Fomepizole	4.2		
99	Gadobutrol		196.8	196.8
100	Lanthanum Carbonate			
101	Macitentan			
102	Micafungin Sodium			
103	Mifepristone			
104	Olanzapine			
105	Ponatinib Hydrochloride			
106	Proglumetacine			
107	Pyrimethamine			
108	Sapropterin Dihydrochloride			
Total		4.2	196.8	196.8

Category-6			
109	Aprmilast		
110	Atomoxetine Hydrochloride		
111	Brinzolamide		
112	Brivaracetam		
113	Disulfiram		
114	Droxidopa		
115	Ethacrynate Sodium		
116	Flucytosine		
117	Isosulfan blue		
118	Liraglutide		
119	Mafenide acetate		
120	Miglustat		
121	Netupitant		
122	Penicillamine		
123	Pentason Polysulfate		
124	Perphenazine		
125	Rufinamide		
126	Rotigotine		
127	Safinamide Mesylate		
128	Saxagliptin Monohydrate		
129	Sodium Nitroprusside		
130	Sugammadex Sodium		
131	Trientine Hydrochloride		
132	Valbenazine Tosylate		
133	R&D Products / Pilot Plant Batches / Development Batches		
Total		0	
		518	518
Category-7			
134	Azathioprine		
135	Barium Sulfate		
136	Cevimeline Hydrochloride		
137	Colestipol Hydrochloride povidone premix		
138	Cyclophosphamide Monohydrate		
139	Dimethyl Fumarate		
140	Molindone hydrochloride	12.5	
141	Nadolol		
142	Voriconazole		
		860	860

143	Vortioxetine HCl Propylene Glycol Solvate			
144	Zileuton			
Total		12.5	860	860
Previous to be removed				
145	Alendronate Sodium	416.7	-416.7	0
146	Anastrozole	3.3	-3.3	0
147	Atenlolol	2500	-2500	0
148	Gemcitabine	16.7	-16.7	0
149	Letrozole	1.7	-1.7	0
150	Meprobamate	416.7	-416.7	0
151	Onedenstron hydrochloride	162.5	-162.5	0
152	Phenoxybenzamine Hydrochloride	12.5	-12.5	0
153	Protriptyline hydrochloride	8.3	-8.3	0
154	Quetiapine fumarate	100	-100	0
155	Trifluridine	4.2	-4.2	0
156	Venlafaxine hydrochloride	1000	-1000	0
Total		4642.6	-4642.6	0
Grand Total		5000	-3302.68	1697.32

The project/activity is covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

Earlier environmental clearance was granted by the Ministry vide letter no. J-11011/454/2007-IA.II(I) dated 28th May, 2008 to the existing project of Bulk Drugs and Bulk Drugs Intermediates Manufacturing Unit in favour of M/s. Apicore Pharmaceuticals Private Limited. The Certified compliance report submitted by RO, MoEF&CC vide letter dated 31st January, 2018. Out of 32 conditions, it may be seen that 20 are complied, 5 are complied subject to acceptance of MoEF&CC, 2 are partly complied, 4 are agreed to comply and 1 is not complied. The project proponent has informed that they have submitted the action taken report to the Ministry's Regional office at Bhopal for each partial/ non complied points. The EAC found the Compliance report to be satisfactory.

The standard terms of reference was granted by the Ministry on 2nd March, 2019. Public Hearing for the proposed expansion project has been conducted by the State Pollution Control Board on 15/11/2019. The public hearing was presided over by Additional District Magistrate. The main issues raised during the public hearing are related to employment, implementation of padre policy, installation of rain water harvesting system in nearby villages, etc.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Mahi River is flowing at a distance of 3.5 in NNE direction. The project proponent has confirmed that they have submitted the conservation plan for schedule I species to Chief Wildlife Warden, Vadodara for further approval on 29th February, 2020. The Committee deliberated the same.

Existing land area of is 32,000 m², No additional land will be acquired for proposed expansion. Industry has developed greenbelt in an area of 28.75 % i.e. 9,200 m² out of total area of the project. Additionally, unit will develop greenbelt in an area 6.25 % i. e. 2,000 sqm. The estimated project cost is Rs 38.885 crore including existing investment of Rs. 30 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 63.5 Lacs and the recurring cost (operation and maintenance) will be about Rs. 14.97 Lacs per annum. Total Employment will be 357 persons as direct & 200 persons indirect after expansion.

Total water requirement is 147.5 m³/day of which fresh water requirement of 143.5 m³/day and will be met from ground water using bore well. Effluent of 74 m³/day quantity will be treated through ETP and sent to CETP for further treatment and disposal. The committee suggested to adopt the complete ZLD. The project proponent was agreed with the same.

Power requirement after expansion will be 2168 KVA including existing 1000 KVA and will be met through Madhya Gujarat Vij Company Limited (MGVCL). Existing unit has 1 DG sets of 125 kVA capacity, additionally 1 DG sets of 750 KVA will be provided as per CPCB norms to the proposed DG sets. Existing unit has 1 TPH LDO fired boiler. Additionally, 2 TPH LDO fired boiler will be installed. A stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm³ for the proposed boiler.

Ambient air quality monitoring was carried out at 8 locations during December 2018 to February 2019 and baseline data indicates that ranges of concentrations of PM10 (64.71 – 91.43 µg/m³), PM2.5 (31.06 – 43.89 µg/m³), SO₂ (11.35 – 20.59 µg/m³) and NO₂ (13.05 – 23.67 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.10 µg/m³, 0.15 µg/m³ and 0.06 µg/m³ with respect to PM10, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and CER plan and found to be addressing the issues in the study area and the issues raised during the public hearing.

Additional information submitted by the project proponent to be satisfactory and addressing the concerns of the Committee. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i) 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, shall be obtained from the State Pollution Control Board.
- (ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. All the waste water to be collected and to be reused after treatment.
- (iii) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- (v) Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.

- (vi) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (vii) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (viii) 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.
- (ix) Total fresh water requirement shall not exceed 143.5 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.
- (x) Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system. All the vent pipes should be above the roof level.
- (xi) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps. Raw material and products should be stored in leak proof containers. Spent acid to be stored over the ground tank and to be sent to TSDF.
- (xii) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xiii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

- (xiv) Fly ash should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.
- (xv) The company shall undertake waste minimization measures as below:-
 - (a) Metering and control of quantities of active ingredients to minimize waste.
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xvi) The green belt of at least 5-10 m width shall be developed in not less than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xvii) As proposed Rs. 50 Lakhs shall be allocated towards Corporate Environment Responsibility (CER). As proposed, and the CER allocation shall be spent mainly for addressing the issues (social, health, employment, infrastructure, drinking water facility, skill development, plantation etc.) raised during public consultation/hearing.
- (xviii) Preference shall be given to local villagers for employment in the unit. For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xix) 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.
- (xx) Occupational health surveillance including dental check up of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxi) 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 ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

Agenda No. 19.8

Proposed expansion Project for Manufacturing of Synthetic Organic Chemicals (Acrylic Co-Polymers for Construction Chemicals & Other Industries) at Plot No.D-30/7, TTC Industrial Area MIDC, Turbhe, Navi Mumbai (Maharashtra) by M/s Chryso India Private Limited- Reconsideration of Environmental Clearance

[IA/MH/IND2/113824/2019 dated 30th November 2019, No.IA-J-11011/253/2019-IA-II(I)]

The Project Proponent and their accredited consultant M/s ERM India Pvt. Ltd. made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal was earlier considered by the EAC in its meeting held on 30-31 December, 2019 & 1st January, 2020. The information desired by the EAC and response of the project proponent is as under:

S. No.	Point raised in the Meeting	Compliance
1.	EIA report to be revised as per the terms of reference(ToR) granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.	The EIA study report of the project has been revised as per ToR granted for the project and conforms to Appendix III of EIA Notification, 2006. The Committee deliberated the same.
2.	EAC noted that PP has not submitted adequately TOR compliance and PP needs to be Re-submit the TOR Compliance adequately.	As per EAC comment, The ToR Compliance section has been updated in the EIA report and the same has been provided. The Committee deliberated the same.
3.	The Committee noted that most of the surface water (e.g.Patalganga, Morbe Reservoir, MIDC raw water tank & Jambhivali dam) reported the similar concentration of chloride (17 PPM), however the TDS is entirely different of these samples. PP needs to conduct the root cause analysis of reporting wrong results of the water samples	Environmental monitoring was carried out by Mitra S.K. Pvt. Ltd., NABL accredited Lab. The monitoring results of surface water quality was rechecked by Lab. The Lab confirmed that, the monitoring results reported in the report was correct. The confirmation of the result from the Lab has been provided. The Committee deliberated the same.

4.	Revised layout plan with 33% greenbelt area.	As per EAC meeting, the Site does not have enough land within its premise for green belt development. Chryso had approached to MIDC management for allotment of adjacent land to the proposed project for development of Greenbelt. This land will be maintained for CHRYSO for greenbelt development and maintenance, while the ownership of this land will be with MIDC. After detailed discussion with CEO of MIDC, it was recommend that a proposal shall be submitted to MIDC garden committee for appraisal. As per MIDC garden committee meeting dated 24.02.2020, CHRYSO has been allotted the adjacent plot i.e. Plot No: OS-9 of area 6295 sq.m for development of greenbelt. The existing greenbelt area with the premise is 650 sq.m and area used from the additional area allocated is 2000 sq.m which accounts to 2650 sq.m i.e. 33% of total project area. Detailed greenbelt layout plan has been attached along with MIDC order has been provided.
5.	Onsite emergency plan as per MSIHC Rules and occupational health plan	On-site emergency plan and occupational health plan has been prepared by Chryso as MSIHC Rules and the same has been provided.
6.	Revised water balance with details of total water and fresh water requirement	<p>During EAC meeting water balance had a small minor change, the same has been updated in EIA report and a summary has been updated as stated below:</p> <p>Total fresh water requirement is 108 m³/day, which will be met from MIDC piped water supply. The proposed project would require 63 m³/day while the existing facility while continue to require 45 m³/day for operation. Effluent of 0.27 m³/day quantity will be treated through effluent treatment plant and domestic wastewater of quality 0.8 m³/day will be treated through septic tank and soak pit. The same has been updated in EIA report. Same has been updated in Annexure-I and attached</p>

7.	Revised prediction of GLC due to the proposed project	<p>During EAC meeting it was pointed that there was an misinterpretation of GLC values in the summary letter. The same has been corrected and the revised write-up is mentioned below:</p> <p>Ambient air quality monitoring was carried out at 8 locations during October 2018-December 2018 and the average baseline data indicates the ranges of concentrations as: PM₁₀ (42.5-96.4 µg/m³), PM_{2.5} (20-58 µg/m³), SO₂ (6-12 µg/m³) and NO₂ (8-49 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.67 µg/m³, 7.62 µg/m³ and 4.35 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Same has been updated in Annexure-I and attached</p>
8.	Details of Schedule 1 species in the study area and conservation plan	<p>Schedule I species in study area has been listed and details Wild Life Conservation Plan has been submitted to Deputy Conservator of Forests, Alibag. Receipt copy along with Wild life conservation plan has been provided. The Committee deliberated the same.</p>
9.	Details of SC NBWL recommendations, if applicable	<p>The Karnala Bird Sanctuary is located 3.62 km from the Project site. The ESZ of Karnala Bird Sanctuary is also located 2.67 km from the project site. As the project site is not located in eco-sensitive area; recommendation from SC of NBWL is not required. However, potential impact on ecological habitat has been assessed and management plan has been provided in EIA report.</p>
10.	All the Consent to Operate before 2006 and the present needs to be submitted	<p>The existing facility is operational from 2018, the present Consent to Operate (CTO) has been provided. The Committee deliberated the same. The current operations does not fall under the purview of the EIA Notification, 2006 and EC was not required during inception. Company has obtained Consent to Operate (Consent No. RO-Raigad/Consent-1805000636 dated</p>

		15.05.2018) from Maharashtra Pollution Control Board for manufacturing of Cement Admixture & Cement Grinding Aid through blending & mixing activities only.
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The proposal is for environmental clearance to the project for Setting up of Acrylic Co-Polymers manufacturing unit of capacity 4000 TPM in the existing Industrial facilities at Plot No, E-72, MIDC Additional Patalganga, Karade (Budruk), Taluka Panvel, District Raigad, Maharashtra by M/s Chryso India Private Limited.

The ToR has been issued by Ministry vide letter dated 23rd October 2019. Public Hearing is exempted as the project is located in the Industrial area.

The project/activity is covered under category B of item 5(f) 'Synthetic organic chemicals industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006. However considering the general condition (location of the project site within 5 km of Wildlife sanctuary), the project requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

The current operations does not fall under the purview of the EIA Notification, 2006 and EC was not required during inception. Company has obtained Consent to Operate (Consent No. RO-Raigad/Consent-1805000636 dated 15.05.2018) from Maharashtra Pollution Control Board for manufacturing of Cement Admixture & Cement Grinding Aid through blending & mixing activities only.

The existing land area is 8001 m², and no additional land will be required for proposed expansion. Industry will develop greenbelt in an area of 5 % i.e., 0.04 Ha. within existing facility. In order to comply with 33% greenbelt requirement, an additional plot adjacent to existing facility (Plot No.OS-9) of 0.6295 Ha (6295 sq.m.) has been allocated by MIDC. Approximately 0.2 Ha (2000 sq.m) will be used for greenbelt development. Hence, the total green belt area for the proposed project is 0.264 Ha (2650 sq.m.) i.e. approximately 33% of total project area.

The estimated project cost is Rs.7.8 crores and recurring cost (operation and maintenance) earmarked towards environmental pollution control measures is Rs. 0.1005 crore per annum. Total employment will be approximately 20 persons.

Karnala Bird Sanctuary (3.62 km West) and Karnala Eco-Sensitive Zone (2.67 West) is within 10 km of the project site. Patalganga River is flowing at a distance of 0.64 km in west direction. It has been informed that the ESZ of Karnala Bird Sanctuary has been notified on 22nd January, 2016.

Ambient air quality monitoring was carried out at 8 locations during October 2018-December 2018 and the average baseline data indicates the ranges of concentrations as: PM₁₀ (42.5-96.4 µg/m³), PM_{2.5} (20-58 µg/m³), SO₂ (6-12 µg/m³) and NO₂ (8-49 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.67 µg/m³, 7.62 µg/m³ and 4.35 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement is 108 m³/day, which will be met from MIDC piped water supply. The proposed project would require 63 m³/day while the existing facility while continue to require 45 m³/day for operation. Effluent of 0.27m³/day (0.18 m³/day from existing process and 0.09 m³/day from proposed process) quantity will be treated through effluent treatment plant and reused in existing process along with 2.2 m³/day wastewater generated from scrubber and cooling tower blowdown. Domestic wastewater of quality 0.8 m³/day will be treated through septic tank and soak pit.

Power requirement for proposed project is 185 kVA/225 KW, sufficed through grid Supply from Maharashtra State Electricity Distribution Company. One (1) 250 KVA DG set is will kept as standby. Stack will be provided as per CPCB norms to the proposed DG sets. Power requirement for existing facility is 185 kVA/225 KW, supplied by Maharashtra State Electricity Distribution Company and for back-up one(1) 250 KVA DG set is installed within the facility. There are no boiler operation involved in the project. Used/Spent Oil, Bags, Liners and Empty Barrels will be disposed of through MPCB Authorized Recycler. While chemical Sludge from ETP will be disposed through, MPCB authorized TSDF. Paper waste will be disposed to municipal waste collection trucks regularly.

The details of products and capacity as under:

S No	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1	Acrylic co-polymer	---	4000 MTM	4000 MTM
2	Cement Admixture & Cement Grinding Aid	60000 MTM	---	60000 MTM

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the additional documents/details and CER plan and found to be addressing the issues in the study area and concerns raised by the Committee.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i) In view of increased frequency of chemical accident taking place in the country, it become imperative to appraise Individual risk contours and societal risk F-N curves which are not given/assessed by the PP as reveals from chapter 7 page 137-149 of the submitted documents for Acrylic acid. The EAC suggested that the PP required to submit individual risk contours and societal risk F-N curves for acrylic acid. Risk Assessment be under taken by using 3D CFD technique.
- (ii) 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, shall be obtained from the State Pollution Control Board.
- (iii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. All the waste water to be collected and to be reused after treatment.
- (iv) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (v) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21st July, 2010 and amended from time to time shall be followed.

- (vi) Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.
- (vii) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (viii) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (ix) 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) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 99.7% recovery.
 - (d) Solvents shall be stored in a separate space specified with all safety measures.
 - (e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - (f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (x) Total fresh water requirement shall not exceed 108 cum/day, proposed to be met from MIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (xi) Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system. All the vent pipes should be above the roof level.
- (xii) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps. Raw material and products should be stored in leak proof containers. Spent acid to be stored over the ground tank and to be sent to TSDF.
- (xiii) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xiv) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

- (xv) Fly ash, if any, should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.
- (xvi) The company shall undertake waste minimization measures as below:-
 - (a) Metering and control of quantities of active ingredients to minimize waste.
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xvii) The green belt of at least 3-5 m width shall be developed, mainly along the plant periphery, in downward wind direction, and along road sides etc. Considering the land constraints in the project site, as proposed green belt shall be developed in the adjacent plot covering 33% of total project area. The project proponent shall purchase the adjacent land or shall have agreement with the concerned authority for a longer period. The status of the greenbelt and additional area so acquired shall be informed to the Regional Office of the Ministry through the six monthly compliance report.
- (xviii) Wild Life Conservation Plan shall be implanted as proposed, with the guidance from the State Forest/Wildlife Department.
- (xix) At least 2.5 % of the project cost shall be allocated towards Corporate Environment Responsibility (CER). The CER amount shall be spend within a period of 3 years in the nearby villages as per the socio-economic study. The project proponent shall have separate CER budget and the same shall not be linked with CSR. Details of work done shall be informed to the Regional Office of the Ministry in six monthly compliance report.
- (xx) For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xxi) 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.
- (xxii) Occupational health surveillance including dental check up of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxiii) 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 ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

Agenda No.19.9

Expansion of Specialty Chemicals, Pesticide, Fluoro Chemicals & Captive Power Plant by M/s SRF Limited at Plot No. D-2/1, Village Suva, GIDC Phase II, Dahej, Taluka Vagra, District Bharuch (Gujarat) – Amendment in Environment Clearance.

[IA/GJ/IND2/128318/2019, J- 11011/379/2016-IA.II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter F.No. J-11011/379/2016-IA II (I) dated 19th December 2017 for the project Expansion of Specialty Chemicals, Pesticide, Fluoro Chemicals & Captive Power Plant in favour of M/s SRF Limited at Plot No. D-2/1, Village Suva, GIDC Phase II, Dahej, Taluka Vagra, District Bharuch (Gujarat).

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 as/ read as	Justification/ reasons
1.	Condition No. 12 Sub-Condition : (t)	Raw Materials Storage should not exceed 3 days at any point of time	Raw Materials Storage should be kept in a safe manner at any point of time	We are using raw materials, which are either imported or procured from various corners of India. It is practically not possible to store inventory of only 3 days for following reasons: 1. Lot size: If RMs are imported (ISOs or containers), minimum inventory would be about 20 MT. How many days of inventory is sufficient would then depend upon plant capacity. Many of our key RMs are not available domestically, so it is practically not possible to avoid imports. 2. Campaigns: If the company is taking a campaign, RMs are ordered based on planned production. a. Delayed startup: If the startup of the campaign is delayed due to any reason, inventory would build up initially and eventually get consumed when the campaign is taken.

				<p>b. Delayed achievement of yield/capacity: If a new product is being commercialized, sometimes it takes some time to achieve design yield/ capacity. While the plant is yet to achieve design capacity, the same quantity of inventory can represent many more days of consumption.</p> <p>c. Delayed achievement of product quality: If a new product is being commercialized, sometimes it takes some time to achieve the right product quality. In the interim, we may have some work-in-progress that is to be reprocessed and/or blended with subsequent good material before dispatch. Until the batch is completed, the work-in-progress reflects as inventory.</p> <p>d. Better than expected solvent recovery: The company does its best to recover solvents and estimates requirement conservatively. To the extent, actual recovery is better than plan, solvent inventory would be more than plan, and the impact may be substantial.</p> <p>3. Extended BCTs: We have processes that may take 7,10, 15, 20, even 45 days before the final product comes out. The RM consumption would reflect as on-site inventory till such time production is declared. It is practically impossible to have not more than 3 days of RM inventory if we have 45 days' of RMs in the process.</p> <p>4. Safety and Ownership of Hazardous Inventory: The company would prefer to keep hazardous inventory on-site rather than leaving it at dealers, suppliers or (bonded) warehouses as we feel we are much more competent and equipped to ensure safe storage and handling of hazardous chemicals. On-site inventory may therefore be higher</p>
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				<p>than what other industries (e.g., automobiles) may find necessary.</p> <p>5. Reduction of Risk: Some key RMs are made by very few suppliers, or specially for us against an order. Further, customer contracts sometimes have heavy penalties for non-delivery (e.g., 5 million dollars for late or incomplete delivery). To protect itself and minimize risk of breach of contract, the company may be forced to take and keep inventory at the time it is available to ensure we are able to produce and dispatch in line with commitments. e.g.: BTF, mABTF.</p> <p>6. Safeguard against Unplanned Plant Downtimes: There are gaps in production due to unplanned plant downtimes. Some inventory is kept to safeguard against unplanned downtime of a feedstock plant based on statistical analysis of historical downtimes. e.g.: 1,1,2,2-Tetrafluoroethyl Methyl Ether.</p> <p>7. Safeguard against Planned Plant Downtimes: Specific inventory may be built up to feed downstream plants if an upstream plant will be shut down for planned maintenance, enhancement in capacity, improvement in process to improve yield and/or production capacities. To keep the downstream plant operating while the upstream plant is down, RM inventory for the downstream plant would be built up before the shutdown, and this would be more than 3 days' worth.</p> <p>8. Some raw materials are dispatched in standard packing/ container /packing size hence we can break consignments as per our consumption pattern of three days.</p> <p>9. Import of some material happens in bulk containers – in this case unloading of inventory of more than three days comes by default. For example, daily</p>
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				<p>consumption of one material in ONE ton and packing size is of TWENTY TONS then how it will be possible to import and store inventory of THREE TONS</p> <p>10. Strategic Raw material (i.e. Fluorspar), availability worldwide is challenge so procured with bulk ordering and imported in bulk. Spar is not available locally.</p> <p>11. In house AHF/TCE/PCE generation and consumption. Critical raw material for all HFC plants and Speciality Chemicals. AHF/TCE/PCE plant goes in shutdown once in every 35 ~ 40 days during this period; stock goes down. So, this minimum seven-day stock margin will be needed.</p>
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The proposal was earlier considered by the EAC in its meeting held on 30-31 December, 2019 & 1st January, 2020, wherein, the EAC, after detailed deliberations, has asked for clarification/inputs, in respect of the following: -

- (i) Data base of additional raw material in respect of hazardous chemicals.
- (ii) Risk assessment study shall be carried out by using advanced model.
- (iii) Details of locally available raw materials and imported raw materials.
- (iv) Certified compliance report of existing EC dated 19th December 2017.
- (v) Details of developed green belt.
- (vi) Status of implementation report on the issues raised during PH and implementation of CER/ESC

The EAC during deliberation noted that the additional information submitted by the project proponent is not satisfactory, the said information need to revised as per the observation of the Committee. The Committee suggested that PP should come with proper preparation and necessary presentation before coming to the EAC. The project proponent also need to submit the inventory in respect of the raw materials required for the project.

The EAC, therefore decided to **defer** the proposal.

Agenda No. 19.10

Molasses/Grain based Distillery 945 KLD), Co-generation Plant (30 MW) and Captive Powe Plant (1.5MW) at S.F.No.51, village Makavalli, Tehsil Krishnarajpet, District Mandya, Karnataka by M/s Coromandel Sugars Ltd – Amendment in Environmental Clearance.

[IA/KA/IND2/125303/2019, J-11011/565/2010-IA II (I)]

The proposal is for extension in validity of the environmental clearance granted by the Ministry vide letter number J-11011/565/2010-IA II (I) dated 31st December 2012 for the project M/s Coromandel sugars located at Survey No. 151, Makavalli Village, Krishnarajapet Taluk, Mandya District.

The project proponent has requested for extension in validity of the environmental clearance and 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 by PP
1.	Validity is not mentioned in the EC letter issued	Validity of the EC as per Office memorandum no. 22-27/2015-IA-III dated 12 th April 2016 is 7 years	The validity of the EC is extended by 3 years	Due to Hon'ble NGT court case the considerable amount of time is lost in erection of the distillery in the litigation before the Hon'ble NGT and in the process PP's financial conditions also got affected. PP is now planning to proceed with the installation of the distillery plant without any change in the configuration. Hence, PP requested the EAC to consider for the extension/ validity of EC.
2.	<ul style="list-style-type: none"> • Subject of Environmental clearance letter • Point Number 2.0 of Environmental clearance letter 	S.F. No.51	S.F. No mentioned as 51 in the EC, to be amended as Survey No. 151	Typographical error in the application submitted earlier is to be corrected now.

The proposal was earlier considered by the EAC in its meeting held on December 30-31, 2019 & January 1, 2020, wherein the EAC suggested to submit action taken report on each non complied points mentioned in the report of RO, MoEFCC dated 27th

December, 2019. The proposal for validity extension will be taken up after the receipt of said action taken report duly forwarded by the Ministry's Regional office.

The project proponent has submitted the action taken report duly forwarded by the Ministry's Regional office at Bangalore vide dated 17th February, 2020. The EAC found that the said compliance report to be satisfactory. The project proponent also confirmed that at present there is no court case pending against the project.

The Committee, after detailed deliberations, has **recommended** for extension of validity of the environmental clearance till 30st December 2022, to complete the work as per the scope of the project and correction in SF No. from 51 to 151 as proposed, with all other terms and conditions remain unchanged.

DAY 1: 12th May, 2020 (Tuesday) Meeting held through Video Conferencing (VC) Mode

Agenda No. 19.11

Development (2Nos.)/Exploratory (3Nos.) wells, Group Gathering station and pipe line Kasomarigaon by M/s Oil and Natural Gas Corporation - Consideration of Environment Clearance

[IA/AS/IND2/27521/2012 dated 6th August, 2015, J-11011/563/2011-IA-II, Ref File: F. No. J-11011/30/2012-IA-II(I)pt]

The Project Proponent and the accredited Consultant M/s SENES Consultants India Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal was last considered by the EAC in its meeting held during 8-9 December, 2016. During deliberations the PP informed that they have forest clearance for development of wells at KSAC location and the wells located at KSDA, KSDB, and KSAG will be drilled from KSAC horizontally. The PP has submitted a copy of the forest clearance issued by the Ministry's North Eastern Regional Office at Shillong vide letter no. 3-AS B 035/2011-SHI/1609-11 dated 21.08.2012. The PP further requested for issuing the Environmental Clearance for the locations namely KSAC, KSDA, KSDB, and KSAG.

The PP also submitted that they want to drop the proposal for grant of Environmental Clearance for the locations KSAD, KSAE and Group Gathering Station and Pipeline from KSAC to Boroholla GGS due to non-availability of Forests Clearance.

The EAC also noted that the PP has conducted EIA study for all the proposed locations including the locations to which stage -1 forest clearance could not be obtained. In view of the importance of the project from Country's oil production/demand point of view and unusual delay being occurred due to pending stage-1 forest clearance the EAC recommended that the Ministry may consider the request made by the PP for issuing the environment clearance for the locations namely KSAC, KSDA, KSDB, and KSAG; **whereas, the proposal for other locations namely KSAD, KSAE and Group Gathering Station and Pipeline from KSAC to Boroholla GGS may be considered as dropped due to non-availability of Forests Clearance.**

Now, it has been informed that the present proposal is for environmental clearance to the project for Drilling of development wells (KSDA and KSDB) and conversion of exploratory wells (KSAB and KSAG) to development wells at Kasomarigaon, Assam Asset at Kasomarigaon, Assam by M/s Oil and Natural Gas Corporation limited.

The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 32nd meeting held during 16th – 17th February, 2012 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/563/2011-IA -II; dated 28th May, 2012.

The project/activity was covered under category A of item 1(b) 'Offshore and onshore oil and gas development & production' of schedule to the Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at central level by sectoral Expert Appraisal Committee in the Ministry.

The land area available for the project is 43500 m². The estimated project cost is Rs 50 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 44.82 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 10 lakhs per annum. Total Employment will be 10-12 persons indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. River/water body Ghiladhari River is flowing at a distance of 1.0 KM in SW direction.

Ambient air quality monitoring was carried out at 08 locations during April, 2013 to June, 2013 and the baseline data indicates the ranges of concentrations as: PM10 (55.29 - 79.14µg/m³), SO₂ (<4µg/m³) and NO₂ (21.07-24.71.µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.0445 µg/m³, 0.024 µg/m³ and 7.758 µg/m³ with respect to PM10, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Additional Data which is collected in October, 2019 for one month

ONGC has further compared present Baseline Data for one month collected during October 2019 in the same project area in Kasomarigaon. Ambient air quality monitoring was carried out at 01 (one) location during October, 2019 and the baseline data indicates the ranges of concentrations as: PM10 (70.0 – 74.0µg/m³), PM2.5 (30.0-36.0.µg/m³), SO₂ (8.1 – 10.3µg/m³) and NO₂ (13.6 -18.3.µg/m³). AAQ modelling study for point

source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.09 µg/m³, 0.072 µg/m³ and 27µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 25 m³/day of which fresh water requirement of 21 m³/day will be met from Ground Water. Effluent of 06 m³/day quantity will be treated through Mobile ETP at Drilling Rig. The plant will be based on Zero Liquid discharge system.

Power requirement is fulfilled by DG sets of 750 KW (2 operable and 1 standby). Stack (7 m) will be provided as per CPCB norms to the proposed DG sets.

Details of Solid waste/ Hazardous waste generation and its management

S. No.	Types of Waste	Mode of Disposal
1	Drill Cuttings	Drill cuttings separated from drilling fluid will be adequately washed and temporarily stored and disposed in an impervious pit lined by HDPE. The waste pit after it is filled up will be covered with impervious liner over which a thick layer of native top soil with proper top slope will be provided.
2	Drilling Mud and wash water	Mobile ETP will be used to treat the waste water
3	Used Oil/ Spent Oil	Collection, Storage, Transportation and Sold to Recycler, Re processor or used as Lubricants for Machineries

Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 20th September, 2014 at Chollangpathar High School, Dist. Golaghat. The main issues raised during the public hearing are related to Road infrastructure, Mitigation measures for environmental pollution, Land acquisition and compensation, Job opportunities and Funds for development of schools, church, namghor, etc. There is no litigation pending against the proposal.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will

be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data, and additional data collected and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and found to be addressing the issues in the study area and the issues raised during the public hearing. Industry proposes to allocate Rs. 0.50 Crores towards Corporate Social Responsibility, which will be increased to Rs.1 crore based on the suggestions of the EAC.

It was informed to the Committee that as per record of minutes of the earlier EAC meeting, the initial proposal was for Development/ Exploratory Wells, Group Gathering Station and pipeline laying from KSAC to Borholla GGS at Kasomarigaon, Assam. The Block is located in the South of River Brahmaputra in the Dhansiri watershed, close to Nagaland Hills. Two development wells ISK-KSDA and ISK-KSDB are proposed to be drilled in this Block. KSAB and KSAG which has already been drilled as exploratory wells will be converted to development wells. Another two exploratory cum development wells (KSAD and KSAE) are proposed to be drilled at two new locations. It was reported that the proposed activities are located at Dayang reserve Forest where the forest lands are presently used for agricultural practices.

The project proposal was earlier considered by the EAC (Industry -2) in its 3rd meeting held during 18th -19th January, 2016, 16th meeting held during 8th- 9th December, 2016 and 22nd meeting held during 17th -18th April, 2017 for environmental clearance.

The PP during the presentation in the 3rd EAC meeting held in 18-19th January, 2016 informed that the proposal was for Development/ Exploratory Wells, Group Gathering Station and pipeline laying from KSAC to Borholla GGS at Kasomarigaon, Assam. Two development wells ISK-KSDA and ISK-KSDB are proposed to be drilled in this Block. KSAB and KSAG, which has already been drilled as exploratory wells will be converted to development wells. Another two exploratory cum development wells (KSAD and KSAE) are proposed to be drilled at two new locations. The proposed activities are located at Dayang reserve Forest where the forest lands are presently used for agricultural practices. It was reported that ONGC has already applied for the diversion of 9 hectares of Forest Land for constructing GGSKSAG and KSAB. Applications for the diversion of forest land for the new exploratory sites KSAD, KSAE and pipeline has been made. Land for drilling site of KSAC, KSAG and KSAB is available with ONGC. 2.25 hectare of land is required for each exploratory drill sites-KSAD and KSAE. Further 9 ha of land is required for construction of GGS. The 3rd meeting of the EAC has recommended the proposal for grant of Environmental Clearance subject to submission of Stage-1 Forest Clearance along with other conditions.

The PP during the 16th EAC meeting has informed that they have forest clearance for development of wells at KSAC location and the wells located at KSDA, KSDB, and KSAG will be drilled from KSAC horizontally. The PP has submitted that they want to drop the proposal for Environmental Clearance for the locations KSAD, KSAE and Group Gathering Station and Pipeline from KSAC to Boroholla GGS due to non availability of Forests Clearance.

The EAC in its 22nd meeting held during 17th -18th April, 2017 has considered that the wells located at KSDA, KSDB, and KSAG will be drilled from KSAC horizontally for which Forest Clearance has been obtained vide Ministry's North Eastern Regional Office at Shillong letter no. 3-AS B 035/2011-SHI/2624-25 dated 22nd December, 2011. Forest clearance for the location KSAB has been received vide Ministry's North Eastern Regional Office at Shillong letter no. 3-AS B 061/2007-SHI/209-11 dated 12th June, 2008.

The EAC in its 22nd meeting held during 17th -18th April, 2017 has considered that the wells located at KSDA, KSDB, and KSAG will be drilled from KSAC horizontally for which Forest Clearance has been obtained vide Ministry's North Eastern Regional Office at Shillong letter no. 3-AS B 035/2011-SHI/2624-25 dated 22nd December, 2011. Forest clearance for the location KSAB has been received vide Ministry's North Eastern Regional Office at Shillong letter no. 3-AS B 061/2007-SHI/209-11 dated 12th June, 2008.

The project proponent has informed the EAC that the Ministry has clarified that in view of the statutory provisions of Forest Conservation Act, 1980, the proposal requires forest clearance for grant of Environmental Clearance and proposal was delisted. The project proponent has also informed that MoEFCC has issued "Guidelines specific to hydrocarbon sector for undertaking seismic surveys and exploratory drilling in forest areas" (enclosed for reference) vide letter F. No. 11-423/2011-FC dated 30.09.2019 wherein clause (vii) states that:

'The process of exploration drilling for hydrocarbon in 130 m x130 m area causes total damage to vegetation (both flora and faunal elements) in the area and cannot be considered as temporary vegetation change. It is a case of proper diversion for the purpose of FCA 1980 and must be considered for processing with application in form A of FCA rules and not under Form C. This will enable the user agency to use the area fully and can change the land use within the diverted area if the change in land use plan is approved by any Government agency'.

The above fresh guidelines issued by the Forest Department clarifies that the forest area once diverted for exploratory drilling shall enable the User Agency to use the area fully. Therefore, FC granted earlier for exploratory drilling is applicable for development wells and taking production, and accordingly requested to issue environmental clearance for operations.

The Member Secretary informed the Committee that the guidelines does not give authority to the project proponent to undertake activities without obtaining the requisite

forest clearance. The Member Secretary suggested that decision into the matter can be taken after obtaining comments of the FC section of the Ministry. The Member Secretary also informed the Committee that considering the date of ToR, date of EIA submission and delay in submission of FC details, the project would require appraisal/process *de novo*.

However, the EAC has deliberated the proposal and has made 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 Committee was of the opinion that the project is of national importance and the Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance subject to clarification from FC Division w.r.t. issues on FC clearance, further subject to compliance of terms and conditions as under, and general terms of conditions at **Annexure**:-

- (i) 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, shall be obtained from the State Pollution Control Board.
- (ii) As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body and/or on land. Mobile ETP along with RO plant shall be installed to treat the waste water.
- (iii) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (iv) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (v) Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM₁₀, PM_{2.5}, SO₂, NO_x, CO, CH₄, HC, Non-methane HC etc.
- (vi) During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored using appropriate technology.
- (vii) The project proponent also to ensure trapping/storing of the CO₂ generated, if any, during the process and handling.
- (viii) Approach road shall be made pucca to minimize generation of suspended dust.

- (ix) The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.
- (x) Total fresh water requirement shall not exceed 25 cum/day/well. Prior permission shall be obtained from the concerned regulatory authority. Mobile ETP coupled with RO shall be installed to reuse the treated water in drilling system. Size of the waste shall be equal to the hole volume+ volume of drill cutting and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.
- (xi) The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.
- (xii) Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30th August, 2005.
- (xiii) Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.
- (xiv) The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.
- (xv) The company shall develop a contingency plan for H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S detectors in locations of high risk of exposure along with self containing breathing apparatus.
- (xvi) The Company shall carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and Regional Office.
- (xvii) Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.

- (xviii) Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- (xix) On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment safety angle. In case of hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- (xx) All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.
- (xxi) At least Rs. 1 crore of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- (xxii) No lead acid batteries shall be utilized in the project/site.
- (xxiii) Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- (xxiv) Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office.
- (xxv) Company shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.

Agenda No. 19.12

Expansion of existing 17 production wells and gas production & processing facilities to 522 Gas production/development wells, 5 Gas production and processing facilities each of 65 mmscf/d (including CO2 removal facility) and 40 appraisal wells by M/s Focus Energy Limited located at Block- RJ-ON/6, Village- Langtala, Tehsil & District- Jaisalmer, Rajasthan-Consideration of Environmental Clearance

[IA/RJ/IND2/150738/2009, J-11011/289/2009-IA II (I)]

The Project Proponent and the accredited Consultant M/s Wolkem India Limited made a detailed presentation on the salient features of the project through video conferencing (VC) and informed that:

The proposal is for environmental clearance to the project for Expansion of 17 Production Wells and Gas Production & Processing Facilities to 522 Gas Production/Development

Wells, 5 Gas Production And Processing Facilities Each Of 65 MMSCF/Day (Including CO₂ Removal Facility) And 40 Appraisal Wells at block no. RJ-ON/6 Block, Village Langtala, Jaisalmer, Rajasthan will be developed by M/s Focus Energy Limited.

The PP has initially obtained the TOR on 30.07.2015 & 31.08.2015. The TOR have been expired and further PP has submitted the proposal for combing of the project and accordingly obtained the TOR on 24 February, 2020.

All Offshore and Onshore Oil & Gas Exploration, Development and Production activities are listed at S.No. 1 (b) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

The Ministry had issued EC earlier vide letter no. J-11011/1095/2007-IA-II(I); dated 20.08.2008 and vide letter no. J-11011/289/2009-IA-II(I); dated 10.07.2009 to the existing project in favour of M/s Focus Energy Limited.

The expansion is done on the existing land area of 2176 km². Industry has already developed green belt in an area of 2,00,000 sqm. and will develop additional greenbelt in an area of 3,00,000 m² out of the total area of the project. The estimated project cost towards expansion is Rs 2570 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 13.67 crores and the Recurring cost (operation and maintenance) will be about Rs 6.92 crores per annum. Total Employment will be 8050 persons at any one time (including 1000 persons at drilling rig, 750 at gas processing facility and 6300 persons at production well) Industry proposes to allocate Rs 6.4 Crores @ of 0.25 % towards Corporate Environmental Responsibility within 5 year of project development

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Canal near Alam Ka Gaon and Canal near Kolootala are the nearest water bodies flowing at a distance of 17.11 Km & 19.34 Km in the SSE & NNE direction respectively.

Ambient air quality monitoring was carried out at 18 locations during December 2019 to February 2020 and the baseline data indicates the ranges of concentrations as: PM₁₀ (45.28 - 90.35 µg/m³), PM_{2.5} (25.62 - 49.11 µg/m³), SO₂ (4.16 - 7.2 µg/m³) and NO₂ (14.55 -25.45 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 9.11 µg/m³, 1.23 µg/m³ and 6.87 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 25-30 KLD (Per Well) and 45-50 KLD (Per Gas Processing Facility) sourced from Borewell. Waste water generated from per production well will be 7.5-8.7 KLD, out of which 5-6 KLD will be discharged and treated in bio toilets and approx. 2.5-2.7 KLD via solar evaporation after treating it with lime. Waste water

generated from per gas processing facility will be 20-25 KLD, out of which 18-22 KLD will be sent to the solar evaporation tank after treating it with lime and 2-3 K LD will be discharged and treated in bio toilets.

Power requirement for proposed project Per Drilling Well is 500 kVA & Per Gas Production Facility is 5 MW will be met from a gas turbine of capacity 5.7 MW. DG set of 5 x 1500 KVA (gas processing facility), 3 x 500 KVA (at each drilling site) are used. Stack (height 5 m) will be provided as per CPCB norms.

Details of Process emissions generation and its management

Source	Details	Existing	After Expansion
Process Emissions	VOC, Methane & non-Methane Hydrocarbon	HOT Flaring of other Non hydrocarbon gasses.	HOT Flaring of other Non hydrocarbon gasses.

Details of Solid waste/ Hazardous waste generation and its management

Type of waste	Disposal	Solid waste generation from each well
Drill cuttings- Non Hazardous	Drill cuttings will be stored on site in HDPE lined pits and disposed of into the waste pit as per the direction of regulatory authority. Drilling mud will be reused in the system. Waste mud after completion of drilling operation will be transferred to forward location. If it is not used, it will be tested to ascertain hazardous or non-hazardous nature and disposed of as per directions from regulatory authority.	drill cutting- 180-200 cum/day
Domestic Solid Waste	Approved vendor/recycler	15 kg/day (for each drilling site); 4 kg/day (for each production well); 23 kg/day (for each processing facility)
Used Oil- Hazardous	Authorised vendor	16 litres/day/well

Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 18.05.2017. The main issues raised during the public hearing are related to water availability, transportation facility, medical facility, education facility, no

employment to the local people, and the animals are dying due to the polluted water at the rig side. The Committee noted that since PP has submitted the EIA/EMP report within three years after conducting the PH and accordingly the PH may be accepted.

The Certified Compliance of Exploratory drilling and testing for hydrocarbons in Block RJ-N0/6 in District Jaisalmer in Rajasthan, was granted to the project vide File no:IV/ENV/R/PL-8/677/2008/665 dated 01.03.2019 that was submitted by RO, MoEF&CC. PP reported that there is no litigation pending.

The details of products and capacity as under:

No. Particulars	Existing (Nos.)	Proposed (Nos.)	Total (Nos.)
Gas production Wells	17	505	522
Gas Processing Facilities	1	4	5
Gas Appraisal Wells	0	40	40

The EAC during deliberations noted that the Mine Lease area is reported to be allocated to M/s ONGC and as such the instant project requires additional information/inputs for consideration. The Committee after detailed deliberations, **deferred** the proposal and insisted for requisite information/clarification with respect to the following:

- (i) Details of PL/ML area with the project proponent. Confirmation from DGH regarding non allocation of same lease area to other project proponents.
- (ii) Plan to mitigate blow out/safety/risk management in drilling site and storage area.
- (iii) Plan for advance technology for water treatment and reuse.
- (iv) Details of EIA/EMP report vis-à-vis ToR and scope of work proposed.
- (v) Details of public hearing conducted, location/districts, ToR for the same. Action plan on public hearing issues with budgetary allocation
- (vi) Permission for ground water extraction. Analysis on alternate source of water, if any, and commitment/MoU.
- (vii) Cross verification of baseline AAQ data and incremental GLCs.
- (viii) Details of Corporate Environmental Responsibility allocation and plan.

- (ix) Certified compliance report and Action Taken Report on non-compliance points forwarded by the Regional Office of the MoEFCC.

The proposal was there for **deferred** for the needful.

Agenda No.19.13

PROPOSED EXPANSION OF BULK DRUG & BULK DRUG INTERMEDIATES (FROM 64.3 MT/ MONTH TO 199 MT/ MONTH) IN EXISTING UNIT at Plot No. 291, GIDC Estate, Ankleshwar, Dist. Bharuch, Gujarat - 393 002,,Anklesvar,Bharuch,Gujarat by M/s CADILA HEALTHCARE LIMITED (UNIT-1)- Consideration of Environment Clearance

[IA/GJ/IND2/149999/2019, IA-J-11011/98/2020-IA-II(I)]

The project proponent did not attend the meeting. The Member Secretary informed the EAC that the State Level Environment Impact Assessment Authority (SEIAA), Gujarat vide email dated 11th May, 2020 has forwarded the list of proposals which are under consideration at SEIAA, Gujarat and it has been informed that this instant proposal has been recommended by the SEAC in its meeting held on 16th April, 2020.

The EAC noted that as the project proponent has submitted proposals both at Central and State level the same needs to be clarified by the project proponent/PP. The EAC, therefore decided to **return the proposal in present form** for the present.

Agenda No.19.14

PROPOSED BULK DRUG AND BULK DRUGS INTERMEDIATES AT M/s VARDA LIFE SCIENCE LLP, PLOT NO. 3202/A/2,GIDC INDUSTRIAL ESTATE, ANKLESHWAR, DIST: BHARUCH-393002 (GUJARAT)- Consideration of Environment Clearance [IA/GJ/IND2/142674/2019, SEIAA/GUJ/TOR/5(f)/951/2019]

The project proponent did not attend the meeting. The Member Secretary informed the EAC that the State Level Environment Impact Assessment Authority (SEIAA), Gujarat vide email dated 11th May, 2020 has forwarded the list of proposals which are under consideration at SEIAA, Gujarat and it has been informed that this instant proposal is under consideration by the SEAC.

The EAC noted that as the project proponent has submitted proposals both at Central and State level the same needs to be clarified by the project proponent/PP. The EAC, therefore decided to **return the proposal in present form** for the present.

Agenda No.19.15

PROPOSED EXPANSION PROJECT FOR MANUFACTURING OF SYNTHETIC ORGANIC CHEMICALS BY M/s EFKAM ORGANICS, PLOT NO. 4801/A-10 &11, GIDC ESTATE, ANKLESHWAR, DIST.-BHARUCH, GUJARAT Consideration of Environment Clearance

[IA/GJ/IND2/150061/2019, IA-J-11011/97/2020-IA-II(I)]

The project proponent did not attend the meeting. The Member Secretary informed the EAC that the State Level Environment Impact Assessment Authority (SEIAA), Gujarat vide email dated 11th May, 2020 has forwarded the list of proposals which are under consideration at SEIAA, Gujarat and it has been informed that this instant proposal is under consideration by the SEAC.

The EAC noted that as the project proponent has submitted proposals both at Central and State level the same needs to be clarified by the project proponent/PP. The EAC, therefore decided to **return the proposal in present form** for the present.

Agenda No.19.16

Setting up Pesticides Technical Grade Manufacturing Unit by M/s Godavari Farm Chemical Industries Pvt Ltd at Plot No. 113, SIPCOT Industrial Complex, Bagur, Village Parandipalli, Taluk Pochampalli, District Krishnagiri (Tamil Nadu) - Consideration of Environmental Clearance

[IA/TN/IND2/145195/2019, J-11011/184/2019-IA-II(I)]

The project proponent and their accredited consultant M/s Rightsource Industrial Solutions Pvt. Ltd. made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

During deliberations the EAC noted the following:

The proposal is for environmental clearance to the project for setting up pesticides technical grade manufacturing Unit of capacity 90 kg/month by M/s Godavari Farm Chemical Industries Pvt Ltd in an area of 2 acres at Plot No. 113, SIPCOT Industrial Complex, Bagur, Village Parandipalli, Taluk Pochampalli, District Krishnagiri (Tamil Nadu).

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

Details of proposed products are as under:

S. No.	Product Name	Quantity in Kg/Month	Quantity in Kg/Day
Insecticides			
1	Acephate	25.00	833.33
2	Acetamiprid	5.00	166.67
3	Bifenthrin	5.00	166.67
4	Buprofezin	5.00	166.67
5	Cartap hydrochloride	5.00	166.67
6	Chlorpyrifos	25.00	833.33
7	Deltamethrin	10.00	333.33
8	Diafenthiuron	25.00	833.33
9	Fipronil	20.00	666.67
10	Imidacloprid	25.00	833.33
11	Lamba Cyhalothrin	15.00	500.00
12	Profenofos	5.00	166.67
13	Thiamethoxam	20.00	666.67
	Total (Any 2 products will be manufactured at any point of time)	50.00	1666.66
Herbicides			
1	Atrazine	15.00	500.00
2	Clodinafop Propargyl	7.00	233.33
3	Glyphosate	30.00	1000.00
4	Imazethapyr	15.00	500.00
5	Metsulfuron Methyl	6.00	200.00
6	Paraquat Hydrochloride	10.00	333.33
7	Pendimethalin	6.00	200.00
8	Pyriithiobac sodium	6.00	200.00
9	Sulfosulfuron	5.00	166.67
	Total (Any 1 products will be manufactured at any point of time)	30.00	1000.00
Fungicides			
1	Hexaconazole	10.00	333.33
2	Tebuconazole	10.00	333.33
3	Tricyclazole	10.00	333.33
	Total (Any 1 products will be manufactured at any point of time)	10.00	333.33

	Total (Any 4 products will be manufactured at any point of time)	90.00	3000.00
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The standard terms of references (TORs) for the Project has been issued by the Ministry vide letter dated 6th June, 2019. Public hearing is exempted as per para 7(i), III. Stage (3), (i)(b) of the EIA Notification, 2006, and in accordance with the Ministry's OM dated 27th April 2018, as the project site is located in the notified industrial area.

The proposed project will be established in a land area of 2.00 Acres (8100 sqm). Industry will develop Greenbelt in an area of 41.14% i.e 0.82Acres out of 2.00 Acres of area of the project. The estimated project cost is Rs. 9.01 Crores including investment on proposed project. Total capital cost earmarked towards environmental pollution control measures is Rs. 85 Lakhs and the recurring cost (operation and maintenance) will be about Rs. 14 Lakhs per annum. Total Employment will be 50 persons. There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, rivers etc. within 10 km distance.

Ambient air quality monitoring was carried out at 8 locations during October 2019 - December 2019 and submitted baseline data indicates that ranges of concentrations of PM10 (57.95 – 65.98µg/ m³), PM2.5(19.21 – 28.36µg/ m³), SO₂(15.15 – 15.98µg/ m³), NO_x (16.41 – 23.82µg/ m³), CO (0.48 – 0.9mg/ m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM10, PM2.5, SO₂& NO_x would be 0.817µg/ m³, 0.269µg/ m³, 1.52µg/ m³& 2.76 µg/ m³ respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The total water requirement is 96.73 m³/day of which fresh water requirement of 73.60m³/day and will be met from SIPCOT Industrial Complex Water supply. Generated effluent of 28.68m³/day will be treated through stripper followed by MEE/ATFD, Biological Treatment Plant followed by RO plant will be based on Zero Liquid Discharge System.

Power requirement will be 750 KVA and will be met from Tamil Nadu Electricity Board (TNEB). DG sets of 380 KVA & 125 KVA capacity, Stack (height 10 mts & 7 mts) will be provided as per CPCB norms to the proposed DG sets. 4 TPH Coal fired boiler is proposed with stack of height 30 mtrs each, Multi cyclone separator/ bag filter each will be installed for controlling the particulate emissions (within statutory limit of 115 mg/ Nm³). The committee suggested to use biomass briquette as boiler fuel. The project proponent was agreed with the same.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report

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 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 report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i) 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, shall be obtained from the State Pollution Control Board.
- (ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iii) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv) National Emission Standards for Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13th June, 2011, as amended from time to time, shall be followed.
- (v) Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.

- (vi) No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having $LD_{50} < 100$ mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.
- (vii) To control source and the fugitive emissions (at 99.99%), suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (viii) 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.
- (ix) Total fresh water requirement shall not exceed 73.60 cum/day and will be met from SIPCOT Water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (x) Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system
- (xi) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- (xii) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xiii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.

- (xiv) The company shall undertake waste minimization measures as below:-
- (a) Metering and control of quantities of active ingredients to minimize waste.
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv) The green belt of at least 5-10 m width shall be developed in not less than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. In addition, the project proponent shall develop greenbelt outside the plant premises also such as avenue plantation, plantation in vacant areas, social forestry etc.
- (xvi) As committed, fund allocation for the Corporate Environment Responsibility (CER) shall be Rs. 50 Lakhs. The CER plan shall be completed within two years and activities as proposed like drinking water supply to nearby villages etc. shall be implemented.
- (xvii) Safety and visual reality training shall be provided to employees.
- (xviii) For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xix) 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.
- (xx) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxi) 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.
- (xxii) Mitigating measures suggested during process safety and risk assessment studies shall be undertaken by advance model accordingly.

(xxiii) All the workers shall wear mask during working in process area.

Agenda No.19.17

Manufacturing of Synthetic Organic Chemicals (Acrylate Polymers) by M/s Corel Pharma Chem Pvt. Ltd., located at Survey No. 473 & 481, Borisana Village, Kadi Thol Road, Kadi, Dist: Mehsana, Gujarat - Consideration of Environment Clearance

[IA/GJ/IND2/65363/2017, IA-J-11011/313/2017-IA-II(I)]

The Member Secretary informed the PP vide email dated 05.05.2020 requested to withdraw the application and PP want to revise the application. Based on the request of PP the EAC, therefore decided to **return the proposal in present form.**

Agenda No.19.18

Proposed Expansion of Monochloro Acetic Acid (MCA) plant at Village Atul, District Valsad, Gujarat by M/s Anaven LLP - Reconsideration of Environmental Clearance

[IA/GJ/IND2/79197/2018, IA-J-11011/286/2018-IA-II(I)]

The project proponent and their accredited consultant M/s Kadam Environmental Consultant, made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal was earlier considered by the EAC in its meeting held during 20-22 November, 2019 and 21-23 January, 2020, wherein the EAC noted that the Consultant needs to submit correct information as desired against query at serial no. 6 raised by the EAC. This act of the consultant is treated as concealing the facts and shall be reported to the NABET/QCI. The Committee suggested that project site may be visited to verify the facts of PH and issues of Air Environment as per EIA report and presentation.

Based on recommendation of EAC, the proposal was further examined in the Ministry and accordingly the proposal was again sent back to the EAC for reconsideration as the site visit may not be possible in view of the current crisis caused by the Corona Virus infection. The Committee deliberated the issue w.r.t. site visit and is of the view that site visit may be condone due to this pandemic situation.

During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of Monochloro Acetic Acid (MCA) manufacturing unit from 5100 TPA to 32000 TPA by M/s Anaven LLP in an area of 6630.32 sqm at Village Atul, District Valsad, Gujarat.

The project/activity is covered under category A of item 5(f) 'Synthetic Organic Chemicals' of schedule to the Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at Central level in the Ministry.

The details of products and capacity as under:

S. No.	Name of Products	Production capacity in MTPA		
		Existing	Proposed	Total
1	Monochloro acetic acid	5100	26900	32000
2	36% HCl	6630	34970	41600
3	HE- Di-chloro and Tri-chloro acetic acid	71.4	376.6	448.0

The standard ToR for the project was granted on 28th October, 2018. Public hearing for the project was conducted by the State Pollution Control Board on 25th June 2019. The Public hearing was chaired by the District Magistrate. The main issues raised during the public hearing are related to employment, air pollution and management of hazardous waste.

Existing land area is 6630.32 sqm. Industry has already developed greenbelt in an area of 9.8 % i.e., 647 sqm. out of total area of the project. Additional 24% greenbelt is developed at Atul Village. The estimated project cost is Rs 187.5 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 2048.24 Lacs and the Recurring cost (operation and maintenance) will be about Rs. 647.95 Lacs per annum. Total Employment will be ~72 persons as direct & indirect after expansion.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. River Par flows at a distance of 0.42 km in South West.

Total water requirement is 499.4 m³/day including existing requirement of 84.3 KLD of which fresh water requirement of 186.1m³/day will be met from river Par. Effluent of 318 quantity will be treated through ETP from that 313.3 KLD will recycled back from RO- MEE. The plant will be Zero Liquid discharge. Power requirement after expansion will be 1360 KVA(86,10,000 kW/Annum) including existing 217 KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has No DG set, additionally 1 DG set of 500 kVA is used as standby during power failure. Stack (height 10m) will be provided as per CPCB norms to the proposed DG sets.

Ambient air quality monitoring was carried out at 8 locations during December, 2017 to February, 2018 and the baseline data indicates the ranges of concentrations as: PM10 (32-93µg/m³), PM2.5 (14-45µg/m³), SO₂ (6-11µg/m³) and NO₂ (12- 23µg/m³). AAQ

modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.11µg/m³, 5.2µg/m³ and 1.32µg/m³ with respect to PM₁₀, Sox and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

PP reported that permission was granted to M/s Atul Ltd. before EIA notification came into existence and later CCA was split and transferred to Anaven LLP in April 2018. Unit has received CTO from GPCB vide dated 23rd April, 2018. The expenditure towards CER for the project would be Rs. 3.31 crores of the project cost as committed by the project proponent.

The Committee deliberated the proposal and noted that M/s Kadam Environmental Consultants was retained as consultant by the ANAVEN LLP Village, Atul for conducting EIA studies and has presented the following proposal:

1. PP/Consultant was advised to redo/confirm the incremental GLC values on Nov.21, 2019. Subsequently, the Consultant after rechecking confirmed in writing through their presentation on Jan.22, 2020 that GLC values provided in EIA/Form 2 were correct.
2. However, the Consultant while presenting the agenda item on May 12, 2020 during the 19th EAC meeting revised the GLC values again thereby contradicting from their previous statement (as mentioned above). This conduct of the consultant can be treated as concealing of facts/ misleading the EAC and ministry.
3. The revised reply presented during 19th EAC meeting and from this it is revealed that Ambient Air Quality Guidelines not followed for Generating the Primary Baseline Data by the consultant. The 8 locations selected for generating the baseline data is not proper / does not meet the EIA requirement.
 - a) Secondary Meteorology data has been obtained from Climatological Tables of IMD. As per the report (Table 3.6), the first and second most predominant wind directions, during the post-monsoon season are From E to NE and NW to W.
 - b) Primary Meteorological data has been generated during the post-monsoon season by the consultant. The reported first and second most predominant wind directions as per EIA (Table 3.8) are from E to NE & NW to W.
 - c) Maximum stack height is 40 m. Therefore, the maximum ground level concentration (MGCL) is expected between 240 m to 400 m distance from the stack in the downwind direction. Other significant impact of the project due to point source emission is anticipated within 1 to 1.5 km distance from the stack.
 - d) (i) No ambient air quality monitoring was done within 2 km from the plant (as evident from locations mentioned in Table 4.10).

(ii) No ambient air quality monitoring was done at downwind MGLC locations in the W to SW and NE to E direction of project.

(iii) Therefore, it is not possible to find out the impact of the existing plant on ambient air quality (under operation) and the predicted impact of the new sources.

4. Input emission load used for air quality dispersion modeling is not correct because proper emission factors were not applied. In Table 4.6, 4.7 and 4.8 of the EIA document emission load used as input to model were mentioned. The emission load and stack dimensions were corrected for Process and DG stack after the 22nd January EAC meeting, and dispersion modeling was redone. *However, the emission factor used for calculating the emission load of Trucks is not correct (latest emission factors derived by ARAI not applied). Therefore, the revised output data is not correct.*

5. Risk Assessment for accidental release of Chlorine, Hydrogen and Acetic Acid not done in proper manner.

- a. Consequence data mentioned in Table 7.7 of EIA report is not correct. Chlorine is a heavy gas and its accidental release will result in ground hugging dispersion resulting in toxic damage to human health. The receptors were not identified and the impact was not assessed properly.
- b. Hazard identified as pool fire due to hydrogen leak is not correct (Table 7.7).
- c. Acetic acid is a corrosive liquid. The consequence of an accidental spillage during the storage and handling which may result in damage to human health and contamination of surface and ground water and soil not described in RA.

Therefore, this Agenda item cannot be recommended for grant of EC due to serious shortcomings in the EIA. The Consultant has also tried to conceal the facts and mislead the EAC and Ministry. The attitude of the consultant may be reported to QCI to debar from this sector for presenting the cases before EAC in MoEFCC for two years.

The Committee **deferred** the proposal.

Agenda No. 19.19

Augmentation of specialty chemicals from 11,000 to 22,000 TPA within the existing plant at Konnagar, Hooghly District (West Bengal) by M/s Nalco Water India Limited - Reconsideration of Environmental Clearance

[IA/WB/IND2/60903/2016 dated 17 June 2019, J- 11011/360/2016-IA.II(I)]

The project proponent and their consultant made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal was earlier considered by the EAC in its meeting held on 29-31 July 2019 wherein the EAC deferred the proposal and sought the following requisite information.

The information desired by the Committee and response of the project proponent is as under:

S. No.	Information desired by the EAC	Reply submitted by the PP
1	Revised modelling of the environmental parameters, and analysis of incremental GLCs due to the project.	Completed and submitted.
2	Green belt plan for 33% of the total land area.	Completed, taken additional land on 25 yrs. lease for green belt development only (Agreement no. – 49 dated March 19, 2020)
3	Action plan for issues raised during public hearing.	Addressed for all 10 points with time bound target & an investment plan of INR 276 lacs.
4	Revised water balance to be submitted	Completed and submitted

The proposal is for environmental clearance to the project for Capacity augmentation of specialty chemicals manufacturing unit from 11,000 TPA to 22,000 TPA at Konnagar, District Hooghly, West Bengal by M/s Nalco Water India Limited (NIWL).

The project/activity is covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposal was considered by the 17th Expert Appraisal Committee (Industry-2) meeting held during 26st - 29th December, 2016 respectively and issued Terms of Reference (ToR) for the project vide letter dated 28th February, 2017.

The plant was established in the year 1988, obtained industrial license from Department of Industrial Development, New Delhi vide letter no: CIL:215(8B)/Regn. No. 1261(86)/IL/MRTP/SCS, dated 12th September 1988. And also obtained No Objection Certificate (NOC) from West Bengal Pollution Control Board, Calcutta in Environment concerns vide letter no: 565-10/WPB-S(11), dated 7th June, 1988. The plant is not having any prior EC as plant was established in 1988-89.

The existing land area is 2.02 ha (5.0 acres). No additional land is required for the proposed expansion. Industry has developed greenbelt in an area of 0.65 Acre in the existing land & is developing a further green belt of 1.5 acre on the external lease land in nearby area to cover more than 33% green belt. The estimated cost of the project is about Rs. 10 crores and proposes to spend about Rs 3.25 crore towards environmental protection measures in a phase wise manner with a recurring cost of Rs. 10 lakhs per year. Total 33 nos. of skilled and unskilled manpower will be employed. No major construction activity involved. Majority of labour will be employed from the nearby

villages. Total expenditure in the last three years is about 49.1 lacs towards Corporate Social Responsibility.

There are no National parks, Wildlife sanctuaries, biosphere reserves, Tiger/elephant reserves, wildlife corridors within 10 km distance from the project site. Hooghly river is flows at 1.3 km, east from the project site.

Ambient air quality monitoring was carried out at 8 locations during the period of 1st December, 2016 to 28th February, 2017. And baseline data indicated the ranges of concentrations as PM₁₀ (45.8 µg/m³), PM_{2.5} (24.8 µg/m³), SO₂ (14.6 µg/m³) and NO₂ (18.3 µg/m³). AAQ modelling for point source emissions indicate that the maximum incremental GLCs after the proposed project would be 46.6 µg/m³, 15.7 µg/m³ and 19.1 µg/m³ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Standards (NAAQS).

Water requirement of our existing plant is 65 m³/day out of which 45 m³/day comes from bore well installed within the plant premises and the balance 20 m³/day comes as recycled water from Effluent treatment plant (ETP) after necessary treatment. For proposed capacity expansion additional water of 45 m³/day is required and the total water requirement will be 110 m³/day out of which 56 m³/day will come from existing bore well, and 40 m³/day will come as recycled water from Effluent treatment plant (ETP) after necessary treatment and remaining 14 m³/day will come from rainwater reuse.

PP reported that detailed studies have been carried out by M/s Retas Enviro Solutions Private Limited, New Delhi for installation of roof top rainwater collection, storage and reuse at plant. As per the observations of study approximate water savings will be about 5000 m³/annum. The project is under progress with an investment @ Rs 55 Lakh – expected to be commissioned in September 2020.

Current effluent generation from our existing plant is @ 37 m³/day and additional @ 24 m³/day will be generated from proposed capacity augmentation project. The total effluent (@ 61 m³/day) will be treated in our existing ETP and treated water will be utilized in the plant operations like our existing practice on the concept of zero liquid discharge to outside water bodies. The power requirement for the proposed expansion will be about 20,00,000 KWh unit per year which will be sourced from Calcutta Electricity Supply Corporation. To support the safe operations during power failure, 1 no of D.G set (1010 KVA) is also provided. The process does not have any by-product for emission. Any vapour from raw materials are completely absorbed in caustic / water scrubbing system. These are very effectively scrubbed in water and alkali scrubbers. ETP sludge of 1 ton/month will be generated and disposed to WBPCB authorised dealers (WBWML). General polymeric waste – rinse water for latex polymers – stored in HDPE Tote and disposed to WBPCB authorised dealers (WBWML).

Public Hearing has been conducted by WBSPCB on 09.08.2018 at Konnagar, Hooghly district, West Bengal which was presided over by Additional District Magistrate. And the major issues are related to land, environment management, traffic, employment & CSR activities which has been planned with a time bound action plan.

It was also informed during the meeting that the project proponent will spend Rs. 1 Crore towards Corporate Environmental Responsibility (CER) during execution of Capacity expansion project of Konnagar Plant, in period 2020-2023. This would be spent broadly under the potential projects in below mentioned areas,

- a. Water conservation & Clean water for the community
- b. Sanitation & Hygiene
- c. Tree plantations in forest area.
- d. Solar power / solar lighting system to community.

No Objection Certificate (NOC) is obtained from West Bengal Pollution Control Board, , vide letter no: 565-10/WPB-S (11)/88, dated 7th June, 1988. Renewal of Consent to Operate from West Bengal Pollution Control Board vide letter no: 292/PCB/HGY/R/85-97 dated 27th June 2017. No litigations involved pertaining to project.

The details of products and capacity augmentation:

Sr. No.	Products	Existing as per current CTO		Proposed increase	Total (Existing + Proposed)
		Ton per month (maximum)	Ton per year (maximum), (##)	Ton per year	Ton per year
1	Water Treatment Chemicals	600	6600	4400	11000
2	Industrial Additives	250	2750	3750	6500
3	Oil Field Chemical	150	1650	2850	4500
Total		1000	11000	11000	22000

(##) In all old consent to operate (CTO) till issue dated June 24, 2011 by WBPCB, the volume was mentioned in Ton per year and the total volume was mentioned as 11,000 Ton per year but in next CTO, dated September 24, 2014 by WBPCB, the volume mentioned in Ton per month instead of Ton per year with some changes of product mix but the yearly maximum volume restricted to 11,000 ton per year only based on old consent and as permitted by ministry of Industries, Govt. of India, dated September 12, 1988 (CIL No. : 215(88) / Regn. No. 1261(86)/IL/MRTP/SCS. In short, the maximum permitted capacity per month is 1000 Ton but maximum permitted capacity per year is limited to 11000 Ton only as per our earlier consent.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and CER plan and found to be addressing the issues in the study area and the issues raised during the public hearing. Additional information submitted by the project proponent to be satisfactory and addressing the concerns of the Committee.

It was informed to the Committee the project proponent is not meeting the norms for 33% greenbelt as per the ToR, and plantation outside the factory premises just to meet the norms may not serve the purpose. It was also informed that the project proponent is submitting the product details in general and it would be appropriate to seek specific product details in each category to understand the toxicity of the chemicals. The Member Secretary has also informed that the project proponent is still reporting incremental GLCs due to the proposed project in a higher level and needs verification. The ground water extraction by the project proponent is also seems to without permission from the concerned authority. Member Secretary has also informed to the Committee that PP needs to submit the name of product for which EC is required as per provisions of the EIA Notification, 2006.

The EAC has deliberated the proposal, observation of the Member Secretary and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance subject to submission of name of products, subject to compliance of terms and conditions as under, and general terms of conditions at **Annexure:-**

- (i) 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, shall be obtained from the State Pollution Control Board.
- (ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. All the waste water to be collected and to be reused after treatment.
- (iii) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- (v) Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.
- (vi) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (vii) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (viii) 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) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
 - (d) Solvents shall be stored in a separate space specified with all safety measures.
 - (e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - (f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

- (ix) Total fresh water requirement shall not exceed 56 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.
- (x) Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system. All the vent pipes should be above the roof level.
- (xi) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps. Raw material and products should be stored in leak proof containers. Spent acid to be stored over the ground tank and to be sent to TSDF.
- (xii) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xiii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- (xiv) Fly ash should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.
- (xv) The company shall undertake waste minimization measures as below:-
 - (a) Metering and control of quantities of active ingredients to minimize waste.
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xvi) The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. As proposed, the greenbelt can be developed in the additional acquired area. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xvii) As proposed Rs. 1 crore shall be allocated towards Corporate Environment Responsibility (CER). As proposed, the CER allocation shall be spent mainly for addressing the issues (Water conservation & Clean water for the community,

Sanitation & Hygiene, Tree plantations in forest area, Solar power / solar lighting system to community) and other issues raised during public consultation/hearing and requirement of local authorities. Preference shall be given to local villagers for employment in the unit.

- (xviii) For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xix) 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.
- (xx) Occupational health surveillance including dental check up of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxi) 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 ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

Agenda No. 19.20

Expansion of Pesticides & Pesticide Specific Intermediate by M/s UPL Limited (Unit 1) at Plot No. 117/118, GIDC Industrial Estate, Ankleshwar, District Bharuch (Gujarat) - Amendment in Environment Clearance

[IA/GJ/IND2/150538/2020, J-11011/582/2017-IA-II(I)]

The proposal is for amendment in the environmental clearance granted by Ministry vide letter No J-11011/582/2017-IA-II(I) dated 29th November, 2019 to the project for *expansion of Pesticide & Pesticide Specific* Intermediate located at Plot No 117/118, Industrial Estate, GIDC, Ankleshwar (Gujarat) in favour of M/s UPL Limited (Unit 1).

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 EC	To be Revised / Read as	Justification

1	<p><i>EC Condition No 3</i> - The details of Existing & Proposed Product are given as under:-</p>	<p>The Details of Pesticide Technical given in Table (A) & Details of Pesticide Intermediates given in Table (B).</p>	<p><i>Request for Addition of Table (C) - Details of By Products.</i> <i>(attached)</i></p>	<ul style="list-style-type: none"> • The details of By Products Existing & Proposed generated are given in Pre-Feasibility Report (Table 2.3) & EIA Report (Table 2.3). • The GPCB has asked for addition of By Products in granted EC for further consideration under by Product Category in Consent To Operate (CTO). • In Our earlier Granted ECs, All By Products were listed with Product List, However in above Environmental Clearance only product list given. • The By Products are high value items and If not included in CC&A, Shall be treated as per Hazardous Waste & Disposed as per HWM Rules 2016, which requires additional compliances such as separate space / documentation / disposal within 90 days / Limitation in Transport at Other States & Export etc. • The Pure By Product even gets less than 50% of Rates if sold as Hazardous Waste. • The By product listed as Hazardous Waste having limitation on sale to customers we have limitation with selling to only parties having Authorisation for Acceptance of Hazardous Waste.
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Details of By-products

S. No	Name of By Product	Existing Quantity in MT/Annum	Additional Quantity in MT/Annum	Total Proposed Quantity After Expansion in MT/Annum
1	Manganese Hydroxide	0	234	234
2	Sodium Sulphate Dry Powder	372	406	778
3	Sodium Sulphate Liquid	8844	9816	18660
4	NaHS	42	379	421
5	Zinc Hydroxide	0	2418	2418
6	Methyl Chloride*	2100	1680	3780
7	Methanol	132	523	655
8	Sodium Bi sulphite	108	547	655
9	HCl 30 %	1656	6483	8139
10	Sodium Bromide	1140	1260	2400
11	Di Calcium Phosphate (DCP)	14400	14400	28800
12 A	Calcium Chloride - CaCl ₂ Solution	60000	60000	120000
12 B	Calcium Chloride - CaCl ₂ Solid Fused /Anhydrous	21600	21600	43200
13	NH ₄ Cl - Ammonium Chloride	10476	10476	20952
14	Aqueous Ammonia	25500	47716	73216
15	Anhydrous Ammonia	5100	9543	14643
16	Di Methoxy Methane	0	869	869
17	Ethanol	138	524	662
18	Sodium Sulphite	3576	0	3576

The Committee during deliberation observed that the project proponent want to mentioned the list of by-products in the environmental clearance dated 29th November, 2019 as the Gujarat Pollution Control Board has asked for the same. The Committee noted that environmental clearance has been granted for manufacturing of products which requires prior EC under provisions of the EIA Notification, 2006, however the by-products will be manufactured while manufacturing process of said products and hence there may be no need to mention the list of by-products in the EC letter or to issue any amendment in EC therein.

The EAC, after detailed deliberation, the Committee accepted the request of PP and **recommended** the proposal for amendments.

Agenda No.19.21

Expansion of pesticide technical and pesticide specific intermediates manufacturing unit by M/s UPL Ltd at Plot No.3405/ 3406/3460A, Notified Industrial Estate, GIDC, Taluka Ankleshwar, District Bharuch (Gujarat) - Amendment in Environment Clearance

[IA/GJ/IND2/150783/2020, J-11011/77/2002-IA-II (I)]

The proposal is for amendment in the environmental clearance granted by Ministry vide letter No J-11011/77/2002-IA-II(I) dated 10th January, 2020 to the project for expansion of pesticide technical and pesticide specific intermediates manufacturing unit at Plot No.3405/ 3406/3460A, Notified Industrial Estate, GIDC, Taluka Ankleshwar, District Bharuch (Gujarat) in favour of M/s UPL Ltd.

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 EC	To be Revised / Read as	Justification (Reasons)
1	<i>EC Condition No 3</i> – The details of Existing & Proposed Product are given as under:-	The Details of Pesticide Technical & Pesticide Intermediates is given in Table.	<i>Request for Addition of Table (B) – Details of By Products.</i> <i>(attached)</i>	<ul style="list-style-type: none">• The details of By Products Existing & Proposed generated are given in Pre-Feasibility Report (Point no 2.2) & EIA Report (Table 2.2).• The GPCB has asked for addition of By Products in Granted EC for further consideration under By Product Category in Consent To Operate (CTO).• In Our Earlier Granted ECs, All By Products were listed with Product List, However in above Environmental Clearance only product list given.• The By Products are high value items and If not included in CC&A, Shall be treated as per Hazardous Waste & Disposed as per HWM Rules 2016, which requires additional compliances such as separate space /

				<p>documentation / disposal within 90 days / Limitation in Transport at Other States & Export etc.</p> <ul style="list-style-type: none"> • The Pure By Product even gets less than 50% of Rates if sold as By Product. • The By product listed as Hazardous Waste having limitation on sale to customers we have limitation with selling to only parties having Authorisation for Acceptance of Hazardous Waste.
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Details of By-Products

S.N.	By Product Name	Existing Generation (MT/Month)	Additional Generation (MT/Month)	Total Generation after Expansion (MT/Month)
1	30% HCL	68.72	4,079.40	4,148.12
2	Sodium Sulphite	563	353.9	916.9
3	Sodium Sulphate	60	125.61	185.61
4	Sodium Bromide	114	24.44	138.44
5	NaSH (30%)	331.5	1310	1,641.50
6	Ammonium Acetate (35%) OR	1,907	3,493	5,400
7	Acetic Acid (30%) OR	1,735	2,458.22	4,193.22
8	Acetic Acid (45%) OR	1,157	1,935.64	3,092.64
9	Acetic Acid (99%) AND	526	879.05	1,405.05
10	Ammonium Sulphate (90%)	636	1,509.57	2,145.57
11	Sodium Acetate (27%)	2,634	3,663.87	6,297.87
12	Spent Acid	145.8	0	145.8
13	Methyl Chloride	15.3	46.2225	61.5225
14	Ammonium Chloride	50	314.48	364.48
16	Methyl Acetate	36.4	36.4	72.8

17	Sodium Bi-Sulphate (17%)	96	83.6	179.6
18	KHCO ₃ +KCL Salt	0	56.75	56.75
19	Di Methoxy Methane-DMM (95%)	115.84	0	115.84
20	Ethanol	0.084	10.416	10.5
21	Methanol	11.84	0.539	12.379
22	POCL ₃ (98%)	20.46	0	20.46
23	Phenol	18.19	0	18.19
24	Ammonium Chloride Solution	50	17.52	67.52
25	Ammonia (20%)	0	158	158

The Committee during deliberation observed that the project proponent want to mentioned the list of by-products in the environmental clearance dated 10th January, 2020, as the Gujarat Pollution Control Board has asked for the same. The Committee noted that environmental clearance has been granted for manufacturing of products which requires prior EC under provisions of the EIA Notification 2006, however the by-products will be manufactured while manufacturing process of said products and hence there may be no need to mention the list of by-products in the EC letter or to issue any amendment in EC therein.

The EAC, after detailed deliberation, the Committee accepted the request of PP and **recommended** the proposal for amendments.

DAY 1: 13th May, 2020 (Wednesday) Meeting held through Video Conferencing (VC) Mode

Agenda No.19.22

Expansion of Cosmaceutical, Active Pharmaceuticals and Specialty Chemicals manufacturing unit by M/s Kumar Organic Products Limited at Plot No. 379 & 395, Village Luna, Tehsil Padra District Vadodara (Gujarat) - Consideration of Environmental Clearance

[IA/GJ/IND2/53481/2009, J-11011/118/2009-IA II(I)]

The project proponent and their consultant M/s Aryan Greens made a detailed presentation on the salient features of the project through Video Conferencing (VC).

During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of Cosmaceutical, Active Pharmaceuticals and Specialty Chemicals manufacturing unit from 162.17 to 409.17 TPM by M/s Kumar Organic Products Limited at Plot No. 379 & 395, Village Luna, Tehsil Padra District Vadodara (Gujarat).

Earlier environmental clearance was granted by the Ministry on 28th October, 2009 in favour of M/s Kumar Organic Products Ltd. for manufacturing of specialty chemicals manufacturing unit of capacity 129.17 TPM.

The project/activity is covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

The standard terms of references (TORs) for the Project was granted by the Ministry on 8th October, 2018.

The EAC, during deliberation observed that the environmental clearance was granted for manufacturing of specialty chemicals of capacity **129.17 TPM**, however, the proposal has been submitted for expansion from **162.17 TPM to 409.17 TPM**, the same reveals that the project proponent has increased the production capacity without prior permission. The EAC suggested to the project proponent to submit clarification with proper proof to establish that existing unit is operating with proper prior permission and to confirm that unit is not violating the provision contained in EIA Notification, 2006.

The EAC therefore **deferred** the proposal.

Agenda No.19.23

Expansion cum modernization of Soda Ash manufacturing unit and Co-generation power plant by M/s Saurashtra Chemicals (Division of Nirma Ltd) at Birlasagar, Porbandar, Gujarat - Consideration of Environmental Clearance

[IA/GJ/IND2/144203/2019, IA-J-11011/115/2017-IA-II(I)]

The project proponent and their accredited consultant M/s T.R. Associates, made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion cum modernization of Soda Ash manufacturing unit (from 35,720 TPM to 45020 TPM) and Co-

generation power plant (20 MW to 40 MW) by M/s Saurashtra Chemicals (Division of Nirma Ltd) in an area of 518974 sqm at Birlasagar, Porbandar (Gujarat).

The details of existing and proposed products is as under:

S. No.	Product	Production Capacity MT/Month		
		Existing	Proposed Additional	Total after expansion
1.	Soda Ash (Light)	35720	9300	45020
2.	Caustic Lye (100 %)	620	0	620
3.	Soda Ash (Dense)	5100	0	5100
4.	Sodium Bi-Carbonate	1800	600	2400
5.	Power (Co-generation Power Plant)	20 MW	20 MW	40 MW

The project/activities are covered under category A of item 4(e) 'Soda ash industry' and category B of item 1(d) 'Thermal Power Plants' of the schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal/approval at central level by the sectoral EAC in the Ministry.

The standard terms of reference (ToR) was granted by the Ministry on 24th May, 2019. The public hearing was conducted by the State Pollution Control Board on 10th January, 2020. The public hearing was presided over by the District Magistrate. The main issues raised during the Public Hearing are related to death of fishes due to discharge of effluent by the unit and fish harvesting by fishermen. The expenditure towards CER for the project would be Rs.3 crore as committed by the project proponent.

Existing land area is 518974 sqm, no additional land will be required for proposed expansion. Industry has already developed greenbelt in an area of 8256 sqm (2 %) and 2,47,660 sqm (40%) within premises and at Birlasagar colony. Also, 10898 sqm (2.5 %) greenbelt will be developed in surrounding villages. The estimated project cost is Rs.151.78 crores excluding existing investment of Rs. 764.16 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.1.25 crores and the recurring cost (operation and maintenance) will be about Rs.53.12 lakh per annum. Total existing employment is 1169 persons as direct & 400 persons will be indirect after expansion.

Porbandar Bird Sanctuary is at a distance of 885 meters in North- west direction. Arabian Sea is flowing at a distance of 0.520 km in SW direction. The project proponent has informed that the plant is outside the notified ESZ of Porbandar Bird Sanctuary.

Total water requirement is 176100 m³/day which will be met from Arabian Sea. The Effluent of 169960 m³/day quantity will be treated through Effluent Treatment Plant. Treated water will be discharged in to Arabian sea beyond lowest tide water level through closed pipeline and diffuser system. Domestic sewage (1000 KLD) shall be disposed off through septic tank/soak pit system. Power requirement after expansion will be 33.8 MW including existing 24.9MW and will be met from Captive Co-generation power plant & Paschim Gujarat Vij Corporation limited (PGVCL). Existing unit has one DG set of 1500 KVA capacity, is used as standby during power failure. Stack (height 20 m) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 240 TPH (Two boilers with 120 TPH each - regular) and one boiler 120 TPH (Standby) Circulating Fluidized Bed Combustion (CFBC) boilers. Additionally, 120 TPH CFBC boiler (presently stand by) will be in regular use. Electrostatic Precipitators with existing common stack of height of 100 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm³ for the proposed regularization of boiler.

Ambient air quality monitoring was carried out at 6 locations during October 2018 to December 2018 and the baseline data indicates the ranges of concentrations as: PM₁₀ (59.4µg/m³-86.49 µg/m³), PM_{2.5} (30.14µg/m³-51.61 µg/m³), SO₂ (6.22µg/m³-20.91 µg/m³), NO₂ (15.35µg/m³-35.68 µg/m³) and Ammonia (5.85µg/m³-12.79 µg/m³) AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.223 µg/m³, 8.403 µg/m³, 4.33 µg/m³ and 0.005 µg/m³ with respect to PM₁₀, SO_x, NO_x and NH₃. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Existing unit is operating since 1959 on consent to operate i.e. prior to EIA Notification, 1994 and 2006 and at that time environmental clearance was not required. The Ministry has granted CRZ clearance vide dated 22nd May, 2019 for replacement of existing sea water intake pipeline and enhancement in sea water intake by developing two earthen pond, and auxiliary facilities. The Committee deliberated and suggested that the detailed requirement of CRZ Clearance needs to be ascertain by the Ministry.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and CER plan and found to be addressing the issues in the study area and the issues raised during the public hearing.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

The EAC also suggested that PP shall conduct a study on effect of pollution on fish harvesting by a reputed organization and submit the report within 6 months for further appraisal before the EAC. PP should also carried out brief report on improvement done through modernization in existing process technology and reduction/alternation/reuse of existing raw material, fuel, CO₂ emission etc..

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance, **subject to** further examination vis-a-vis CRZ clearance. The Committee also recommended the compliance of terms and conditions as under, and general terms of conditions at **Annexure**: -

- (i) The EAC recommended that PP shall conduct a study on effect of pollution on fish harvesting by a reputed organization and submit the report within 6 months for further appraisal before the EAC. PP shall prepare a report on improvement done through modernization in existing process technology and reduction/alternation/reuse of existing raw material, fuel, CO₂ emission. These Report shall be submitted to the EAC within 6 months for further appraisal.
- (ii) 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, shall be obtained from the State Pollution Control Board.
- (iii) Treated water of 169960 m³/day shall be discharged to Arabian sea beyond lowest tide water level through closed pipeline and diffuser system.
- (iv) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.

- (v) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- (vi) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (vii) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (viii) Total water requirement shall not increase 176100 cum/day proposed to be met from Sea.
- (ix) Rainwater harvesting system shall be set up in the premises by construction of storage tanks and water shall be used for various industrial purpose in the unit. No water shall be permitted to pumped in the ground.
- (x) Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
- (xi) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- (xii) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xiii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- (xiv) Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.
 - a. The company shall undertake waste minimization measures as below:-
 - b. Metering and control of quantities of active ingredients to minimize waste.
 - c. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.

- d. Use of automated filling to minimize spillage.
 - e. Use of Close Feed system into batch reactors.
 - f. Venting equipment through vapour recovery system.
 - g. Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv) The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xvi) All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.
- (xvii) As committed Rs. 3 crore shall be allocated for Corporate Environment Responsibility (CER). The CER funds shall be utilized for meeting the issues suggested during public hearing. The CER plan shall be completed before commissioning of the expansion project. This CER amount shall spent for fisherman welfare activity.
- (xviii) For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xix) 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.
- (xx) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act. Workers shall be provided with adequate safety kits/mask for protection from carbon black/coal tar dust, if any, occur in the factory.
- (xxi) 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.
- (xxii) Mitigating measures suggested during process safety and advanced risk assessment studies shall be carried out.

Agenda No.19.24

Setting up synthetic organic chemical manufacturing unit by M/s Narayan Organics Pvt. Ltd (Unit III) at Plot No. 53/B & C/B, Nandesari Industrial Area, GIDC Estate, District Vadodara (Gujarat) - Consideration of Environment Clearance

[IA/GJ/IND2/150598/2018, IA-J-11011/99/2020-IA-II(I)]

The project proponent and their accredited consultant M/s Perfect Enviro Solutions Pvt Ltd, made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for setting up synthetic organic chemical manufacturing unit of capacity 660 TPM by M/s Narayan Organics Pvt Ltd (Unit III) in an area of 7102.83 sqm at Plot No. 53/B & C/B, Nandesari Industrial Area, GIDC Estate, District Vadodara (Gujarat).

The details of products are as under:

S. No.	Product Name	CAS No./ CI No.	Proposed Capacity	End use of Product
A. Organic Pigments- 660 TPM (7920 TPA)				
1	Pigment Green 7/36 (CPC Green)	14832-14-5/74260	250 TPM/ (3000 TPA)	Coloring agent for Paints/Inks/Plastic/Rubber/ Textile
2	Pigment Alpha Blue (PB150/15 1/15 2)	147-14-8/74160	100 TPM/ (1200 TPA)	Coloring agent for Paints/Inks/Plastic/Rubber/ Textile
3	Pigment Beta Blue (PB 15 3/15 4)	147-14-8/74160	200 TPM/ (2400 TPA)	Coloring agent for Paints/Inks/Plastic/Rubber/ Textile
4	Pigment Violet 23	215247-95-3/ 55316	10 TPM (120 TPA)	Coloring agent for Paints/Inks/Plastic/Rubber/ Textile
5	AZO Pigments (Red/Yellow/Orange)	----	100 TPM/ (1200 TPA)	Coloring agent for Paints/Inks/Plastic/Rubber/ Textile
B. Inorganic Products: 3547 TPM (42564 TPA)				

1	Poly Aluminum Chloride Solution	1327-41-9	3127 TPM (37524 TPA)	Treatment and purification of water industry & Pulp industry. The product is used as a flocculant in water purification, in treatment water, wastewater treatment
1A	Aluminium Hydroxide Powder	21645-51-2	175 TPM (2100 TPA)	Pharmaceutical & chemical Flame retardants and also used as a raw material for other aluminum salts
1B	Boehmite	1318-23-6	175 TPM (2100 TPA)	Paint, Refinery & Polymer Used sol-gel ceramics, binder for catalysis, refractory materials, rheology control, surface frictionising and paint detackification.
2	Copper Sulphate	7758-98-7	70 TPM (840 TPA)	Paint industry uses it in antifouling paints and it plays a part in the coloring of glass.
C. ByProducts- 5512.275 MT/Month (66147.3 TPA)				
1	Sodium Hypochlorite Solution (NaClO)	7681-52-9	518 TPM (6216 TPA)	Used as santising and disinfectant liquid
2	Aluminum Chloride Solution	7446-70-0	2340 TPM (28080 TPA)	Shall be sold to industrial users having permission under rule-9 of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 or permission will be taken if consumed internally
3	Copper Salt/ sludge	-	61.25 TPM (735 TPA)	Shall be Given to authorized recyclers or Sell to industrial users having permission under rule-9 of Hazardous and Other Wastes (Management & Transboundary Movement)

				Rules, 2016
4	Dil. HCl	7647-01-0	589 TPM (7068 TPA)	Reuse for manufacturing in pigment beta blue, manufacturing Azo pigments (yellow/orange) & in the dawning process of CPC green. Permission will be taken as per Rule 9 of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016
5	Dil. Sulphuric Acid (H ₂ SO ₄)	7664-93-9	2000 TPM (24000 TPA)	Shall be sold to industrial users having permission under rule-9 of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016
6	Sodium Sulphide	1313-82-2	4.025 TPM (48.3 TPA)	Shall be sold to industrial users having permission under rule-9 of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016
Total Production (A+B+C)			9719.275 TPM (116,631.3 TPA)	

All 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) are listed in S.N. 5(f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'B' to be appraised at State level. However being the project is located inside the critically polluted area, the project appraised at Central level in the Ministry.

TOR was granted on 03.05.2019. Public hearing is exempted as per para 7(i), III. Stage (3), (i)(b) of the EIA Notification, 2006, and in accordance with the Ministry's OM dated 27th April 2018, as the project site is located in the notified industrial area.

Total land area is estimated to be 7102.83 sqm. Green belt will be developed in 40% i.e 2841.13 sqm out of total project area. The estimated project cost is Rs 17.34 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 235 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 36 Lakhs per annum. Total Employment will be 75 persons.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Mahi River is the nearest waterbody flowing at a distance of 1.92 Km in the West direction. Two schedule I species are reported in the study area and accordingly PP has prepared the conservation plan and further submitted to CWLW State Govt. for the approval. The Committee deliberated the plan and found in order.

Total water requirement is 522 cum/day of which fresh water requirement of 218 cum/day will be met from GIDC- Nandesari supply water. Effluent of 343 cum/day quantity will be treated through ETP capacity 400 cum/day, the obtained treated water 307 KLD will be sent to 3 stage RO Plant (350 KLD capacity) and 246 KLD RO permeate will be obtained and 61 KLD RO rejects shall be sent to MEE. From MEE, 58 KLD condensate shall be obtained and recycled along with RO permeate to make a total of 304KLD recycled water. MEE salts and residues shall be sent to TSDF. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement for the proposed project 2500 KVA will be met from Gujarat Electricity Board. One DG set of 1000 KVA shall be used as standby during power failure with stack height 30 m as per CPCB norms. Two biomass/ Coal based boilers of capacity 5 TPH each & two no.s of 20 lac kCal Thermic Fluid heaters shall be installed. Multi cyclone separator system followed by a Bag filter with 30 m stack height will be installed to control the particulate emissions within the statutory limit of 150 mg/Nm³ for the proposed boilers.

Ambient air quality monitoring was carried out at 7 locations during 15 February 2020 to 15 March 2020 and the baseline data indicates the ranges of concentrations as: PM₁₀ (75.9 -114.2 µg/m³), PM_{2.5} (36.8 - 51.5 µg/m³), SO₂ (13 - 19.5 µg/m³) and NO₂ (24 - 38.5 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.842 µg/m³, 0.829 µg/m³ and 2.76 µg/m³ with respect to PM₁₀, SO_x and NO_x.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

The Committee also deliberated the compliances of the Ministry's OM dated 31.10.2019 (Critically Polluted Areas) and accordingly stipulated the conditions. The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance, subject to compliance of terms and conditions as under, and general terms of conditions at **Annexure:-**

- (i) Consent to Establish/Operate (CTE/CTO) for the project shall be obtained from the State Pollution Control Board (SPCB) as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, and the SPCB shall follow the mechanism/protocol issued by the Ministry vide letter no. Q-16017/38/2018-CPA dated 24th October, 2019 and forwarded by Central Pollution Control Board vide letter dated 25th October, 2019 to the SPCB's, while issuing the CTE/CTO for the project, for improvement of environmental quality in the area.
- (ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. All the waste water to be collected and to be reused after treatment.
- (iii) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21st July, 2010 and amended from time to time shall be followed.

- (v) Fugitive emissions shall be controlled at 99.98% with effective chillers.
- (vi) Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.
- (vii) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (viii) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (ix) 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.
- (x) Total fresh water requirement shall not exceed 218 cum/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (xi) Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system. All the vent pipes should be above the roof level.
- (xii) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps. Raw material and products should be stored in leak proof containers. Spent acid to be stored over the ground tank and to be sent to TSDF.
- (xiii) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xiv) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989

as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

- (xv) Fly ash should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.
- (xvi) The company shall undertake waste minimization measures as below:-
 - (a) Metering and control of quantities of active ingredients to minimize waste.
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xvii) The green belt of at least 5-10 m width shall be developed in not less than 40% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xviii) As proposed 4% of the total project cost shall be allocated towards Corporate Environment Responsibility (CER). As proposed, and the CER allocation shall be spent mainly for addressing the issues (social, health, employment, infrastructure, Drinking water facility, skill development, plantation etc).
- (xix) Preference shall be given to local villagers for employment in the unit. For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (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) Occupational health surveillance including dental check up of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxii) 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 ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

Agenda No.19.25

Setting up technical grade pesticides manufacturing unit by M/s Bharat Products Limited at Plot no. 3206/B, GIDC Ankleshwar Industrial Estate, Ankleshwar District Bharuch (Gujarat) - Consideration of Environmental Clearance

[IA/GJ/IND2/132691/2019, IA-J-11011/432/2019-IA-II(I)]

The project proponent and their accredited consultant M/s Shivalik Solid Waste Management Ltd made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

During deliberations the EAC noted the following:

The proposal is for environmental clearance to the project for setting up technical grade pesticides manufacturing unit by M/S Bharat Products Limited in an area of 10710 sqm at Plot No. 3206/B, GIDC Ankleshwar Industrial Estate, Ankleshwar, District Bharuch (Gujarat).

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

Details of proposed product is as under:

S. No.	Products	Quantity (TPM)	Quantity (TPA)
A	Herbicides		
1	Pendimethalin Technical	20	240
2	Atrazine Technical	10	120
3	Metribuzin Technical	10	120
4	Glyphosate Technical	10	120
5	Clodinafop-Propargyl Technical	10	120
6	Pretilachlor Technical	9	108
7	2,-4, Dichlorophenoxy Acetic Acid	9	108
8	Bispyribac Sodium	4	48
9	Dicamba Technical	4	48

10	Oxyfluorfen Technical	4	48
Total		90	1080
B	Fungicides		
11	Tricyclazole Technical	10	120
12	Hexaconazole Technical	10	120
13	Difenoconazole Technical	5	60
14	Propiconazole Technical	5	60
15	Tebuconazole Technical	5	60
16	Azoxystrobin Technical	10	120
Total		35	540
C	Insecticides		
16	Thiamethoxam Technical	22	264
17	Diaphenthiuron Technical	5	60
18	Imidacloprid Technical	8	96
19	Fipronil Technical	8	96
20	Chlorpyrifos Technical	10	120
21	Metaxyl Technical	5	60
C	Insecticides		
22	Cypermethrin Technical	10	120
23	Lambda Cyhalothrin Technical	15	180
24	Novaluron	5	60
25	Abamectin Technical (miticide)	10	120
26	Emamectin Benzoate Technical	10	120
27	Acetamiprid Technical	4.5	54
28	Propargite Technical (miticide)	5	60
Total		117.5	1410
D	Pesticide Intermediates		
30	CCMT	30	360
31	MNIO	32	384
32	4 NITRO O'XYLENE	25	300
33	LAMBDA ACID	40	480

34	PMIDA	15	180
D	Pesticide Intermediates		
35	CMAC	17	204
36	MPBD	25	300
37	CCMP	25	300
38	Triazoles	24.5	294
Total		233.5	2802
E	Biopesticide	54	648
Total Quantity (A+B+C+D+E)			6480

The standard terms of references (ToR) for the project was granted by the Ministry on 10th March, 2020. Public hearing is exempted as per para 7(i), III. Stage (3), (i)(b) of the EIA Notification, 2006, and in accordance with the Ministry's OM dated 27th April 2018, as the project site is located in the notified industrial area.

The total land area is 10710 sqm. Industry will develop greenbelt in an area of 40 % i.e. 4284 sqm out of the total area of the project. The estimated project cost is Rs. 25 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.162 Lakhs and the Recurring cost (operation and maintenance) will be about Rs.75 Lakhs per annum. Total Employment will be 100 persons.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, rivers etc. within 10 km distance. Amaravati River flows at 2.91 km in North East.

Ambient air quality monitoring was carried out at 8 locations during December 2018 to February 2019 and the baseline data indicates the ranges of concentrations as: PM10 (55.8 -183.2 µg/m³), PM2.5 (28.4 - 90.8 µg/m³), SO₂ (5.4 - 17.7 µg/m³) and NO₂ (16 -46.6 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.8 µg/m³, 0.31 µg/m³ and 1.96 µg/m³ with respect to PM10, SO_x and NO_x.

Total water requirement is 157 m³/day of which fresh water requirement of 63 m³/day will be met from GIDC Supply. Effluent of 101 KLD. quantity will be treated through ETP capacity 120 KLD . The plant will be based on Zero Liquid discharge system. Power requirement for the proposed project will be 500 kVA which will be met from Dakshin Gujarat Vij Company Limited (DGVCL). DG set of 400 kVA will be used as standby during power failure. Stack (height 30 m) will be provided as per CPCB norms. 2TPH steam generation boiler will be installed. Wet Scrubber with a stack of height of 30m will be installed to control the particulate matter.

The Committee noted that the baseline data (PM10 & PM2.5) is in higher side in various locations viz. Brahmanpuri, Ankleswar etc. and the project proponent has not submitted any justification/ action plan to control the same. The EAC suggested to the project proponent to submit an action plan to control the same. PP has also not submitted the storage time for raw material adequately.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project are higher than the NAAQ standards. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i) The PP shall undertake 3D modelling for mitigating measures for process safety and risk assessment.
- (ii) Consent to Establish/Operate (CTE/CTO) for the project shall be obtained from the State Pollution Control Board (SPCB) as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, and the SPCB shall follow the mechanism/protocol issued by the Ministry vide letter no. Q-16017/38/2018-CPA dated 24th October, 2019 and forwarded by Central Pollution Control Board vide letter dated 25th October, 2019 to the SPCB's, while issuing the CTE/CTO for the project, for improvement of environmental quality in the area.

- (iii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iv) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (v) National Emission Standards for Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13th June, 2011, as amended from time to time, shall be followed.
- (vi) No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD₅₀<100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.
- (vii) To control source and the fugitive emissions (at 99.98%), suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (viii) 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.
- (ix) Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.
- (x) Total fresh water requirement shall not exceed 63 cum/day and will be met from GIDC Water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.

- (xi) Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system
- (xii) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- (xiii) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xiv) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.
- (xv) The company shall undertake waste minimization measures as below:-
 - (a) Metering and control of quantities of active ingredients to minimize waste.
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xvi) The green belt of at least 5-10 m width shall be developed in not less than 40% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. In addition, the project proponent shall develop greenbelt outside the plant premises also such as avenue plantation, plantation in vacant areas, social forestry etc.
- (xvii) As committed, fund allocation for the Corporate Environment Responsibility (CER) shall be 4% of the total project cost. The CER plan shall be completed within two years and activities as proposed like distribution of solar light to nearby villages etc. shall be implemented.
- (xviii) PP agreed to install 500 KW solar power plant for the factory.

- (xix) Safety and visual reality training shall be provided to employees.
- (xx) For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xxi) 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.
- (xxii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxiii) 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.

Agenda No. 19.26

Expansion of existing & addition of new explosive products by M/s KELTECH ENERGIES LIMITED, located at Village Garamsur, Post Dudhala, Tehsil Katol, District Nagpur, Maharashtra - Consideration of Environmental Clearance

[IA/MH/IND2/83338/2018 dated 11th March 2020, IA-J-11011/360/2018-IA-II(I)]

The Project Proponent and their accredited Consultant M/s Anacon Laboratories Pvt. Ltd, made a detailed presentation through Video conferencing on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Expansion explosive production manufacturing unit at Village Garamsur, Post Dudhala, Tehsil Katol, District Nagpur, Maharashtra by M/s Keltech Energies Ltd.

The project/activity is covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

The ToR has been issued by Ministry vide letter dated 03 Dec, 2018. Existing land area is 459962.7 m², no additional land will be used for proposed expansion. The proposed activities will be within the existing land area. Industry has already developed greenbelt of 234705.66 m² i.e. 51% and additionally, 64345 m² will developed i.e. 14% covering total 65 % i.e., 299050.66 m² out of total area 459962.7 m² of the project.

The estimated project cost is Rs.63.17 Crores including existing investment of Rs. 13.57 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 0.96 Crores and the Recurring cost (operation and maintenance) will be about Rs. 0.295 crores per annum. Total Employment will be 254 persons as direct & 200 persons indirect after expansion. Industry has spent Rs. 2.12 Lakhs (years 2017-2018) towards Corporate Social Responsibility in study area of 10 Km.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Bor Nadi is flowing at a distance of 4.02 km in SE direction.

Ambient air quality monitoring was carried out at Eight locations during 01 Oct 2018 To 30 Dec 2018 and the baseline data indicates the ranges of concentrations as: PM10 (47.8-75.1µg/m³), PM2.5 (15.4-26.6 µg/m³), SO₂ (5.1-20.3 µg/m³) and NO₂ (9.3-28.1 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.2 µg/m³, 1.0 µg/m³, 14.5 µg/m³ with respect to PM10, Sox and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 80 m³/day of which fresh water requirement of 60 m³/day will be met from ground water. Effluent of 23 m³/day (Existing 3 m³/day proposed 20 m³/day) quantity will be treated through ETP. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 1000 KVA including existing 500 KVA and will be met from Maharashtra State Electricity distribution corporation limited (MSEDCL). Existing unit has 1x200 KVA, 1x500 KVA DG sets of 700 KVA capacity, additionally 1x500 KVA DG set are used as standby during power failure. Stack (height 8m) will be provided as per CPCB norms to the proposed DG set. Existing unit has 1 TPH Briquette fired boiler. Additionally, 3 TPH Briquette fired boiler will be installed. Multi cyclone separator/ bag filter with a stack of height of 13 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.

Details of Process emissions generation and its management.

PETN Plant: There are emissions of nitrous fumes generating during manufacturing PETN. The gases are scrubbed though wet scrubbers. The outlet of scrubbing system is connected with vent of diameter 0.200 M and height 12 M.

MMA Plant: The vent gases mainly NOx fed to the scrubber. The outlet of scrubbing system is connected with vent of diameter 0.200 M and height 12 M.

Details of Solid waste/ Hazardous waste generation and its management.

- A. Solid Waste (Non-Hazardous): Boiler ash generated from boiler is collected from the Multiclone dust collector. The bio fuel ash from briquettes will be utilised for levelling low lying areas within factory premises. Existing Quantity = 240 kg/day and proposed quantity =650 kg/day. Perlite ore waste: 5 Metric Ton/ Month disposal at own plant land filling
- B. Solid Waste (Hazardous): Chemical Sludge from ETP (Category 34.3). ETP sludge is separated at the sludge drying beds of ETP. Sun dried sludge is collected and stored in LDPE lined bags and disposed to CHWTSDF.
- C. Explosive Waste: Waste contaminated with explosives is safely burnt under supervision at location approved by the licencing authority as per Explosives Rules, 2008. The ash is collected and stored in LDPE lined bags and disposed to CHWTSDF.
- D. Non Explosive Waste such as packing cartons, cotton waste, etc.: Waste such as packing cartons, liners etc. which have been used to pack explosives and cleaning items like cotton waste may have traces of explosives. These items are collected and safety stored in designated containers. This waste is safely burnt under supervision at location approved by the licencing authority as per Explosives Rules, 2008. The ash is collected and stored in LDPE lined bags and disposed to CHWTSDF.

QUANTITY OF HAZARDOUS WASTE TO BE GENERATED & ITS MANAGEMENT / DISPOSAL

S. No.	Type of Waste	Quantity			category	Treatment	Disposal Facility
		Existing	Proposed	Total			
1.	Used spent oil	25/lit/ A	--	25/lit/ A	5.1	--	CHWTSD
2.	Waste / residue containing Oil	40kg/ A	40kg/ A	80kg/ A	5.2	--	CHWTSD
3.	Discarded containers / barrels / liners	120 kg/day	120 kg/day	240kg/day	33.3	--	CHWTSD
4.	Chemical sludge from wastewater treatment	10kg/day	10Kg/ Day	20Kg/ Day	34.3	--	CHWTSD

Presently explosives contaminated waste is burnt in open on burning pits approved by CCE

- The hazardous waste generation, handling and disposal records will be maintained and displayed regarding generation, handling, and disposal of hazardous waste on the board at main gate. The disposal of hazardous wastes generated by the industry in different categories will be executed as per the authorization to the CHWTSDF Butibori.
- Solvent (acetone,) will be used by the industry in the manufacturing process will recovered and reused in the process and recovery of solvent will monitored closely. The recovered solvents is reused in the process of subsequent batches of the products
- Discarded containers will be sold to authorized traders after decontamination.

Risk Assessment and Disaster management specialised studies are conducted by GexCon India Pvt. Ltd., Pune. The Committee deliberated the studies.

Public Hearing for the 24th July 2019 which was presided over by Additional District Collector. The main issues raised during the public hearing are related to employment to local population and noise during testing of explosives in villages homes. No litigation pending against the proposal.

The details of products and capacity as under:

PROPOSED PRODUCTS REQUIRING EC				
Sl. No.	Product ⁽²⁾	Capacity	Storage⁽¹⁾	
1.	PETN	1,600 MTPA	200 MT at any time	
2.	Lead Styphanate	5 MTPA	0.005 MT at any time	
3.	Lead Azide	12 MTPA	0.005 MT(at any given time)	Max. Annual qty. handled 12 MTPA
4.	Mono Methyl amine nitrate (MMAN)	5000 MTPA	-	
5.	TNT (purchased – only storage at site)	-	60 MT at any time	Max. Annual qty handled 100MTPA
6.	Ammonium nitrate(purchased – only storage at site)	-	1200 MT at any time	Max. Annual qty handled 100,000 MTPA
7.	Mono Methyl amine(purchased – only storage at site)	-	48 MT at any time	Max. Annual qty handled 15000 MTPA

PROPOSED PRODUCTS REQUIRING EC				
Sl. No.	Product ⁽²⁾	Capacity	Storage⁽¹⁾	
8.	LPG /CNG(purchased – only storage at site)	-	48 MT at any time	Max. Annual qty handled 15000 MTPA
⁽¹⁾ Refer schedule II & III of MSIHC Rules 1989 amended 2000				
⁽²⁾ As is or in form of compounded products-hetero-mixed stabilized formulations (physical mixing as per explosive standard)				

Sl.no.	Proposed product not requiring EC	Maximum Quantity	DIPP license
1.	SME Bulk	20,000 MTPA	20,000 MTPA
2.	Slurry/ Emulsion	45000 MTPA	45000 MTPA
3.	Detonators	150 million Nos.	150 million Nos.
a	Shock tube	50 million meters	
b	Delay Elements	50 million Nos.	
4.	Detonating Fuse	50 Million Meters	50 Million Meters
5.	Cast Booster	200MTPA	200 MTPA
6.	Expanded Perlite	10 MT/day	NA
Note – MTPA (metric ton per annum) & MT/day (metric ton per day)			

STORAGE DETAILS OF PRODUCTS

Existing and proposed storage details of products			
Storage explosive Products	Existing capacity	Proposed Expansion	Total Capacity after Expansion
Slurry & Emulsion	195 MT at any time	220 MT at any time	415 MT at any time
PETN/DF/ Cast Booster	60 MT at any time	140 MT at any time	200 MT at any time
HSD	20 KL at any time	--	20 KL at any time
Ammonium Nitrate	600 MT at any time	600 MT at any time	1200 MT at any time
TNT	7 MT at anytime	53 MT at any Time	60 MT at any time
SME	-	40 MT at any time	40 MT at any time
Mono Methyl amine	-	48 MT at any time	Max. Annual qty handled 15000 MTPA

LPG /CNG	-	48 MT at any time	Max. Annual qty handled 15000 MTPA
Styphnic acid	-	2 MT at any time	Max. annual qty handled 10 MTPA
*At any time quantity as per schedule II & III of MSIHC Rules 1989 amended 2000 Note – MTPA (metric ton per annum) & MT/day (metric ton per day)			

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

It was informed to the Committee that though, as per the ToR, the project proponent was required to undertake any risk assessment advanced modelling, however the project proponent has undertaken the 3D modeling. However, there was no pragmatic conclusion and recommendation on the safety aspect related to the project other than the general recommendations. The details of the study have also not been presented and provided. It was informed to the Committee that incremental GLC of NOx due to the proposed project is reported to be at higher side and needs to be understood in details considering the gravity of the project. It was also informed to the Committee that the unit is not able to provide any permission for existing and proposed ground water use. The Member Secretary requested that considering prevailing examples in the Country and project being considered is of explosive in nature, shall be appraised vigorously keeping the environmental and safety issues.

The EAC noted that the Project Proponent has given 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 report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and CER plan and found to be addressing the issues in the study area and the issues raised during the public hearing.

The Committee has in turn observed that the project proponent has done 3D modelling, which suffice the risk assessment issues. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the

recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i) The Project Proponent shall obtain all other statutory/necessary permissions/recommendations/NOCs prior to start of construction/operation of the project, which required under the various Acts/Rules/Statutory from concerned regulatory authorities, as applicable to the project.
- (ii) Necessary permission from the concerned regulatory authorities shall be obtained for mining and explosives manufacture and testing.
- (iii) 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, shall be obtained from the State Pollution Control Board.
- (iv) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. All the waste water to be collected and to be reused after treatment.
- (v) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (vi) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- (vii) Control room shall be set up with blast proof wall all around.
- (viii) Work in explosive process buildings should be confined to approved man limit and explosive quantity limits. Water based grit traps should be provided at entry of explosive plant buildings to prevent grit ingress. Adequate static discharge stations should be provided at entry / exit of the explosive production buildings, and magazines. Entry to explosives plant area should be restricted to authorized personnel and in minimal essential numbers.
- (ix) Suitable lightning arresting devices should be provided for explosive plant building. Work in explosive manufacturing process should be stopped during thunderstorm.

- (x) Noise and vibration monitoring stations shall be set up in the project site and villages and data generated during testing/explosion shall be submitted to State PCB and Regional Office of the Ministry.
- (xi) Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.
- (xii) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (xiii) Trees shall not be cut for the proposed expansion. As proposed, the project proponent shall develop/maintain green belt area of 65 % out of total area of the project.
- (xiv) Canal with sand shall be developed along the project area/explosive area for absorption of vibration due to explosion and testing.
- (xv) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (xvi) Solvent management shall be carried out as follows:
 - (a) Reactor shall be connected to chilled brine condenser system.
 - (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - (c) Solvents shall be stored in a separate space specified with all safety measures.
 - (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xvii) Total fresh water requirement shall not exceed 60 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.
- (xviii) Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system. All the vent pipes should be above the roof level.
- (xix) Storage of explosive materials should be in specified and approved storage places (store houses and magazines) only.

- (xx) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps. Raw material and products should be stored in leak proof containers. Spent acid to be stored over the ground tank and to be sent to TSDF.
- (xxi) Standard Operating Procedures and General Safety Directions should be displayed in the explosive plant working area. First-Aid facility should be provided in each process area, and Ambulance services to be made available for emergency.
- (xxii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- (xxiii) Fly ash should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.
- (xxiv) The company shall undertake waste minimization measures as below:-
 - (a) Metering and control of quantities of active ingredients to minimize waste.
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xxv) As proposed the green belt of at least 5-10 m width shall be developed in nearly 65 % of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xxvi) At least Rs.1.75 crore of the total project cost shall be allocated for Corporate Environment Responsibility (CER). As proposed, and the CER allocation shall be spent mainly for addressing the issues raised during public consultation/hearing and also for skill and economic development, health and medical, drinking water facility, drainage and sanitation, community development etc.
- (xxvii) For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.

- (xxviii) 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.
- (xxix) Occupational health surveillance including dental check up of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxx) 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 ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xxxi) Safety and risk assessment suggested during the advanced modelling shall be carried out.
- (xxxii) Risks and Hazards should be displayed at each Building in local language.
- (xxxiii) All Rules and Guidelines of Safety and Environmental Control must be followed in transportation of Explosive & Hazardous items within the facility and in vehicles being loaded at the factory. Adequate vehicle parking arrangements should be provided in factory premises to avoid transport vehicles agglomeration of Roads near the Factory Area.

Agenda No.19.27

Setting up resin manufacturing unit by M/s Niser Industries at Survey No. 350, Paiki 3, Plot No. 7, Village Bagathala, Taluka & District Morbi (Gujarat) - Consideration of Environmental Clearance

[IA/GJ/IND2/142892/2019, No.IA-J-11011/52/2019-IA-II(I)]

The project proponent and their accredited consultant M/s T.R. Associates, made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

During deliberations the EAC noted the following:

The proposal is for environmental clearance to the project for setting up resin manufacturing unit (Phenol Formaldehyde Resin- 100 TPM, Urea Formaldehyde Resin- 300 TPM and Unsaturated Polyester Resin- 50 TPM) by M/s Niser Industries in an area of 1970 sqm at Survey No.350, Paiki 3, Plot No. 7, Village Bagathala, Taluka & District Morbi (Gujarat).

The project/activity is covered under category A of item 5(f) 'Synthetic organic chemicals industry' of schedule to the Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at Central level in the Ministry.

The standard terms of reference (ToR) was granted by the Ministry on 24th March, 2019. The public hearing was conducted by the State Pollution Control Board on 16th January, 2020. The public hearing was presided over by the District Magistrate. The main issues raised during the public hearing are related to the development in the nearby village as per government rules.

Total land area is 1970 sqm. Greenbelt will be developed in an area of 37.66% i.e, 742 sqm out of total area of the project. The estimated project cost is Rs.140 lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs.12.31 lakhs and the recurring cost (operation and maintenance) will be about Rs.6.89 lakh per annum. Total Employment will be 6 persons as direct.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc within 10 km distance of the project site.

Total water requirement is 3.88 m³/day which will be met from Bore Well. Effluent of 0.61 m³/day quantity will be treated through Effluent Treatment Plant. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge. Power requirement will be 50 kVA and will be met from Paschim Gujarat Vij Corporation limited (PGVCL). Industry has 6 Lakh Kcal/hr Thermic Fluid Heater.

Ambient air quality monitoring was carried out at 8 locations during March 2019 - May 2019 and the baseline data indicates the ranges of concentrations as: PM₁₀ (51.21 µg/m³ to 82.59 µg/m³), PM_{2.5} (30.00 µg/m³ to 51.20 µg/m³), SO₂ (8.50 µg/m³ to 21.49 µg/m³) and NO₂ (10.16 µg/m³ to 37.46 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.000008 µg/m³, 0.000028 µg/m³ and 0.0000234 µg/m³ with respect to PM₁₀, Sox and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will

be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and CER plan and found to be addressing the issues in the study area and the issues raised during the public hearing.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i) 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, shall be obtained from the State Pollution Control Board.
- (ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. All the waste water to be collected and to be reused after treatment.
- (iii) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- (v) Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.
- (vi) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.

- (vii) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (viii) 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.
- (ix) Total fresh water requirement shall not exceed 3.88 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.
- (x) Underground tank shall be constructed to store the collected rain water from the roof tops and reduce the fresh water demand accordingly.
- (xi) Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system. All the vent pipes should be above the roof level.
- (xii) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps. Raw material and products should be stored in leak proof containers. Spent acid to be stored over the ground tank and to be sent to TSDF.
- (xiii) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xiv) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- (xv) Fly ash should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.

- (xvi) The company shall undertake waste minimization measures as below:-
- (a) Metering and control of quantities of active ingredients to minimize waste.
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xvii) The green belt of at least 5-10 m width shall be developed in not less than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xviii) As proposed Rs 5 lakhs shall be allocated towards Corporate Environment Responsibility (CER). As proposed, and the CER allocation shall be spent mainly for addressing the issues (social, health, employment, infrastructure, Drinking water facility, skill development, plantation etc.) raised during public consultation/hearing.
- (xix) Preference shall be given to local villagers for employment in the unit. For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (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) Occupational health surveillance including dental check up of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxii) 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 ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

Agenda No. 19.28

Proposed expansion of Sugar Factory from 4900 TCD to 7500 TCD (increase by 2600 TCD), Co-generation Plant from 11MW to 30 MW and Molasses/Sugarcane juice based Distillery from 30 KLPD to 200 KLPD at watwate, Mohol, District Solapur 9Maharashtra) by M/s Jakraya Sugar Ltd - Reconsideration of Environmental Clearance

[IA/MH/IND2/118448/2012 dated 20th September 2019, J-11011/314/2012-IA II (I)]

The Project Proponent and the Accredited Consultant M/s Equinox Environments (I) Pvt Ltd, made a detailed presentation through Video conferencing (VC) on the salient features of the project and informed that:

The proposal was earlier considered by the EAC in its meeting held during 20-22 November, 2019. The details desired by the EAC and additional information submitted by the project proponent is as under:

S. No.	Details sought by the EAC	Reply submitted by the PP and further deliberation of the EAC
1	Great Indian Bustard (GIB) Sanctuary is located 4.10 km from project site. Requirement of obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, for the existing project and status of the application of the proposed project.	<p>There is no condition put towards procurement of NBWL clearance in EC granted to our existing 30 KLPD molasses distillery unit vide No. J-11011/314/2012-IA II (I) dated 28.10.2015. However, in light of direction during 14th EAC meeting held on 21.11.2019, an application is submitted to NBWL for procurement of Wildlife Clearance w.r.t. existing 30 KLPD Distillery unit. Moreover, the application is also submitted to NBWL for procurement of Wildlife Clearance w.r.t. expansion of Distillery up to 200 KLPD. The applications and its timeline details is presented.</p> <p>But, recently the MoEFCC has finalized the ESZ for GIB sanctuary vide Notification S.O. 654 (E) dated 11.02.2020. As per said notification, the project site is located about 3.6 Km from notified ESZ & is outside of ESZ. Therefore, now the condition of procurement of NBWL clearance will not be applicable to our project. The Committee deliberated and suggested that the Ministry may examine this issue for non-compliance for not obtaining NBWL clearance.</p>

2	The Committee noted that there are 5 Schedule I species in the study area. PP needs to prepare the species specific conservation plan along with budgetary allocation and PP to take approval for the Wildlife conservation and management plan from CWLW State Government	The conservation plan for Scheduled I species is prepared and submitted to CWLW; Mumbai Acknowledgement copy of same is submitted. The Committee deliberated the same.
3	Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation. Public hearing proceedings to be forwarded by the Member Secretary, SPCB along with complete public hearing/consultation documents.	Issues raised during Public Hearing along with action plan and budget allocation is presented. Moreover, the copy of PH proceedings forwarded by Member Secretary; MPCB to MoEFCC is also submitted. The Committee deliberated the same and found in order.
4	Revised water balance with reduction in fresh water requirement, and permission from concerned regulatory authority.	The revised water balance and permission for lifting fresh water from Bhima river is presented. The Committee deliberated the same and found in order.
5	Effluent treatment mechanism with plan for Zero Liquid Discharge.	The details regarding achieving ZLD w.r.t. effluent from sugar factory is presented. Further, effluent from proposed expansion of molasses/sugarcane juice based distillery will have forwarded to Agitated Thin Film Dryer (ATFD) for drying spentwash to powder, thus thereby achieving Zero Liquid Discharge. The Committee deliberated the same and found in order.
6	Commitment for not releasing treated/untreated waste water outside the plant premises.	Commitment by Management of JSL towards not releasing treated /untreated waste water outside plant premises is submitted.

7	Onsite emergency plan as per MSIHC Rules.	The onsite emergency plan as per MSIHC rules is submitted. The Committee deliberated the same and found in order.
8	Plan for Corporate Environmental Responsibility	The details of CER with Rs. 4.54 crore action plan is presented. The Committee deliberated the same and found in order.
9	Compliance status of the existing EC conditions and action taken Report on non complied points forwarded by the Regional Office of the Ministry	Compliance towards conditions from EC is submitted. The Committee deliberated the same and found in order.

The proposal is for Environmental Clearance (EC) to the project for Expansion of Sugar factory from 4900 TCD to 7500 TCD, Co-gen plant from 11 MW to 30 MW, and Molasses/Sugarcane juice based Distillery from 30 KLPD to 200 KLPD at Gat no. 61-A, 70, 71, 72, 73, 74, A/P: Watwate, Taluka Mohol, District Solapur, Maharashtra by M/s Jakraya Sugar Limited (JSL).

The project/activities are covered under category A of item 5 (g) 'Distilleries', 5 (j) 'Sugar' and 1(d) 'Thermal Power Plant' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal/approval at central level in the Ministry.

The Standard ToRs has been issued by Ministry vide letter No. F. No J11011/314/2012-IA-II (I) dated 30th Oct., 2018 for Sugar (4900 to 7500 TCD), Cogen (11 – 30 MW), and Molasses based Distillery (30-200 KLPD). For addition of Sugarcane juice as an alternate to Molasses a fresh ToRs has been issued by Ministry vide letter No. F. No J-11011/314/2012-IA-II (I) dated 09th August, 2019 for Sugar (4900 to 7500 TCD), Cogen (11 – 30 MW), and Molasses/ Sugarcane Juice Distillery (30 –200 KLPD).

The existing land area is 22.51 Ha. Industry has already developed an area of 7.32 Ha. (32 % of total plot area) and additional green belt area of 0.19 Ha. (0.84% of total plot area) will be developed. After expansion the total green belt area would be 7.51 Ha which accounts for 33.36 % of total plot area. The estimated project cost is Rs.302.52 Crores including existing investment of Rs. 161.52 Crores. Total capital cost earmarked towards environmental pollution control measures under expansion is Rs. 24.25 Crores and the Recurring cost (operation and maintenance) will be about Rs. 2.08 Crores per annum. Total Employment would be 506 persons as direct as well as indirect after expansion of projects. Industry proposes to allocate Rs.4.54 Crores @ of 3.2 % towards Corporate Environmental Responsibility.

The Great Indian Bustard(GIB) Sanctuary is located 4.10 Km from project site. The ESZ for GIB is finalized vide notification S.O. 654 (E) dated 11th February, 2020. As per said notification, the site is located 3.10 km from notified ESZ. River Bhima is flowing at a distance of 3.14 Km in West to South direction.

Ambient air quality monitoring was carried out at 8 locations during October 2018 – December 2018 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (54.93 – 63.32 µg/m³), PM_{2.5} (16.54 – 25.64 µg/m³), SO₂ (15.57 – 29.98 µg/m³) and NO_x (24.44 – 33.04 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the expansion project would be 0.882 µg/m³ PM₁₀ (towards South West side), 0.221 µg/m³ PM_{2.5} (towards South West side), 5.80 µg/m³ SO₂ (towards South West side) and 2.80 µg/m³ NO_x (towards South West side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement for Sugar Factory & Co-gen plant after expansion of project will be 3961 CMD. Out of which, 15 CMD will be fresh water from Bhima river while 3886 CMD will be cane condensate to be recycled, 60 CMD will be recycled treated water from STP. Total water requirement in Distillery unit after expansion will be 2197 CMD. Out of which 537 CMD will be fresh water, 1655 CMD will be recycled water from proposed distillery CPU, and 5 CMD will be treated water from STP. The permission for lifting of fresh water is granted to JSL by Irrigation Department; Govt. of Maharashtra from the Bhima River.

Effluent of 788.5 CMD after expansion of sugar factory & co-gen plant operations will be treated in existing ETP in the JSL premises which shall be duly upgraded. The ETP units comprises of namely Screen chamber & Oil & Grease trap, Anaerobic Lagoon - I, Aeration Tank – I, Primary Clarifier Tank, Secondary Clarifier Tank, treated water Sump, Dual Media Filter, Treated water Tank. The treated effluent shall be used for gardening and on share holders farmland. As per CREP norms, 15 days storage capacity tank for treated water shall be provided on site. The effluent generated from 200 KLPD distillery would be in the form of raw spent wash to the tune of 1600 M³/Day. Here, raw spent wash shall be treated in bio-methanation plant followed by concentration in Multiple (Five) Effect Evaporator (MEE). Concentrated spent wash to the tune of 320 M³/Day (1.6 KL/KL of alcohol against norm of 8 KL/KL of alcohol) shall be dried for powder. Powder will be used as manure.

Power requirement to the tune of 9.5 MW after expansion of project will be procured from own Co-gen Plant. Two DG set of capacity 625 KVA each has already been installed under existing project. DG sets will be used as standby during turbine tripping. Stack of height 5 M ARL is provided as per CPCB norms to the DG sets. Existing sugar & cogen plant & distillery unit has 70 TPH & 8 TPH bagasse and biogas fired boilers. Additionally, 90 TPH bagasse (39MT/Hr) fired boiler will be installed Electrostatic Precipitator (ESP) will be installed to the same for controlling the particulate emission within the statutory limit of 115 mg/Nm³ for the proposed boiler.

The CO₂ generation shall take place in fermenters of the distillery. CO₂ to the tune of 150 MT/Day shall be released from 200 KLPD distillery plant. CO₂ shall be bottled and supplied to manufacturers of beverages.

Details of Solid waste/ Hazardous waste generation and its management.

Details of Solid waste generated & its management

No	Type of Waste	Existing MT/D	After Expansion MT/D	Disposal
1	Boiler Ash (Co-gen-Bagasse)	22	29	Given to brick manufacturers or manure
2	Yeast Sludge	5	33	Used as Manure
3	ETP sludge	0.16	0.26	Sludge is utilized as manure.
4	CPU sludge	0.16	0.33	Used as Manure

Details of Hazardous waste generated & its management

Hazardous Waste Category	Quantity (MT/ M)		Disposal
	Existing	After Expansion	
5.1- Used Oil	1.48	2.27	Burnt in own boiler as fuel

Public hearing for expansion project was conducted on 16th July, 2019 which was presided over by the District Magistrate. Issues were raised mainly w.r.t effluent generation its disposal, electricity generation, benefits to farmers from proposed project, APC installation, employment generation etc. The Committee deliberated the same.

The Ministry has issued EC earlier vide letter no. J-11011/314/2012-IA-II, dated 28th October, 2015 for Molasses based 30 KLPD Distillery unit in favour of M/s Jakraya Sugar Limited (JSL). The EC compliance has been inspected and certified by the Regional Officer; MoEFCC, Nagpur during his visit on 04.05.2019 and certification report dated 18.06.2019 was forwarded by the Regional Office to MoEFCC Nagpur. No any litigation is pending against the proposal.

Following are the list of products:

Industrial unit	Product & By-product	Quantity		
		Existing (4900 TCD)	Expansion (2600 TCD)	Total (7500 TCD)
Sugar Factory	White Sugar	17,640 MT/M	9,360 MT/M	27,000 MT/M
	By-product			
	Molasses	5,880 MT/M	3,120 MT/M	9,000 MT/M
	Bagasse	44,100 MT/M	23,400 MT/M	67,500 MT/M
	Press mud	5,880 MT/M	3,120 MT/M	9,000 MT/M
Co-Gen	Product	Existing	Expansion	Total

Industrial unit	Product & By-product	Quantity		
		Existing (4900 TCD)	Expansion (2600 TCD)	Total (7500 TCD)
	Electricity	11 MW	19 MW	30 MW
	Product	Existing (30 KLPD)	Expansion (170 KLPD)	Total (200 KLPD)
Distillery	Rectified Spirit /ENA	900 KL/M	5,100 KL/M	6,000 KL/M
	CO ₂ Gas	22 MT/D	128 MT/D	150 MT/D
	Potash Rich Powder	--	4020 MT/M	4020 MT/M

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and CER plan and found to be addressing the issues in the study area and the issues raised during the public hearing. The certified compliance report also found to be satisfactory.

Additional information submitted by the project proponent to be satisfactory and addressing the concerns of the Committee. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance **subject to examination of non-compliance issues** w.r.t. NBWL clearance by the Ministry, subject to compliance of terms and conditions as under, and general terms of conditions at **Annexure:-**

- (i) Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- (ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iii) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (v) Total fresh water requirement shall not exceed 552 cum/day proposed to be met from Bhima river. Prior permission shall be obtained from the concerned regulatory authority in this regard.
- (vi) As proposed, raw spent wash shall be treated in bio-methanation plant followed by concentration in Multiple Effect Evaporator (MEE). Concentrated spent wash shall be dried for powder and used as manure/by-product.
- (vii) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.
- (viii) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (ix)

The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- (x) The company shall undertake waste minimization measures as below:-
 - (a) Metering and control of quantities of active ingredients to minimize waste.
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.

- (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xi) The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xii) All the commitments made regarding issues raised during the public hearing/consultation meeting shall be satisfactorily implemented.
- (xiii) The project proponent shall provide employment to the villagers residing in the local area.
- (xiv) As proposed Rs. 4.54 crores shall be allocated for Corporate Environment Responsibility (CER). As proposed, the CER allocation shall be spent mainly for addressing the issues like non- conventional energy promotions, water supply infrastructure, public health infrastructure and for issues raised during public consultation/hearing.
- (xv) The project proponent shall develop solar power facilities and majority of the lighting facility in the unit shall be met from solar.
- (xvi) The project proponent shall ensure rain water harvesting system in the project area and reduce dependency on ground water.
- (xvii) As proposed Rs 50 lakhs shall be allocated for the wildlife conservation plan. The project proponent shall implement the GIB conservation plan with consultation from the State Forest/Wildlife Department.
- (xviii) For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xix) 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.
- (xx) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxi) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

- (xxii) Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xxiii) 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.
- (xxiv) CO₂ generated from the process shall be bottled/made solid ice and sold to authorized vendors.
- (xxv) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

Agenda No. 19.29

Expansion of unit for manufacturing of bulk drugs and intermediate located at Khasra No.588, Near Patwarmandal-Basani Kala, Tehsil-Mavali, District Udaipur Rajasthan by M/s US Amino Pvt. Ltd -Reconsideration of Environmental Clearance

[IA/RJ/IND2/106376/2017 dated 13th August 2019, IA-J-11011/542/2017-IA-II(I)]

The Project Proponent and their Consultant M/s Wolkem India Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal was earlier considered by the EAC in its meeting held during 26-27 September, 2019 wherein the EAC deferred the proposal. The information desired by the Committee and response of the project proponent is as under.

S. No.	Information desired by the EAC	Reply submitted by the PP and deliberation by the EAC
1	The Committee, during deliberation observed that the existing products i.e. synthetic organic chemicals (Carnitine Tratrote, Cystine, L-Lysine and N-Acetyl L Cystine HCL) are being manufactured since last two years i.e from 2016 onwards and are covered under item 5(f)	The project proponent is engaged in manufacture of formulation of bulk drugs in existing unit after obtaining Consent to Operate from the State Pollution Control Board.

	<p>of the EIA Notification, 2006 and requires prior environmental clearance. However, the project proponent claims that the existing products covered under inorganic chemical category and does not require prior EC.</p> <p>The EAC, after deliberations suggested to the project proponent to establish facts that existing products does not covered under the purview of the EIA Notification, 2006.</p>	<p>Formulation unit is not requiring prior EC for operations as per the EIA Notification, 2006. The Committee deliberated the same and found in order.</p>
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The proposal is for environmental clearance to the project for Manufacturing of Bulk Drugs, Active Pharmaceutical Ingredients & its Intermediates of capacity 38.4 TPA in the existing formulation unit at Ararji No. 588, Village Ladana, Patwar mandal-Basani Kala, Tehsil Mavali, District Udaipur, Rajasthan by M/s US Amino Pvt Ltd.

The project/activity is covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

The ToR has been issued by Ministry vide letter No. IA-J-11 011/542/2017 -IA-11(1); dated 26.12.2017. It is an expansion project, formulation of bulk drugs is being done in existing unit for which CTO has been granted vide letter no. F(Tech)/Udaipur(Mavli)/2561(1)/2015-2016/1808-1809 dated 31.03.2017)

Existing land area is 4129.0 m². No additional land will be used for proposed expansion. Industry has already been developed 33.01 % (1363 M².) of green belt area and proposed additional 15.84 % (654 M²) green belt out of total area of the project which will be developed during expansion of project. The estimated project cost is 2.35 corer including existing investment of 0.85 crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 3,50,000/- and the Recurring cost (operation and maintenance) will be about Rs 1,80,000/- per annum. Total existing Employment is 12 persons and proposed employment will be 8 persons after expansion. Industry proposes to allocate Rs 4,70,000 towards Corporate Environment Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Berach River is flowing at a distance of 9.5 Km in South Direction.

Ambient air quality monitoring was carried out at 8 locations during 1st January 2018 to 31st March 2018 and the baseline data indicates the ranges of concentrations as: PM10 (71.62 to 61.1 µg/m³), PM2.5 (39.35 to 34.4 µg/m³), SO₂ (10.84 to 8.07 µg/m³) and NO₂ (24.77 to 17.11 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project

would be 7.8 µg/m³, 3.7 µg/m³ and 5.6 µg/m³ with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement is estimated to be 8 cum/day, which will be met from Tanker water supply. Effluent of 3.7 KLD quantity will be treated through ETP. The plant will be based on Zero Liquid discharge system. Power requirement after expansion will be 150 kVA including existing 90 KVA and will be met from Ajmer Vidyut Vitran Nigam Limited (AVVNL). Existing unit has 1no. DG set of 62.5 kVA capacity, additionally No DG sets are used as standby during power failure. Stack (height 2m above the roof of DG set) is provided as per CPCB norms to the proposed DG set.

Existing Unit has 0.6 TPH Rice husk briquette fired boiler. No additional boiler will be installed. Multi cyclone separator/ bag filter with a stack of height of 30 m has already been installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.

Details of Process emissions generation and its management.

S. No.	Area of concern	Source	Pollution Control Measures
1.	Air Pollution		
	Particulate Matter, SO ₂ & NO ₂	Boilers	<ol style="list-style-type: none"> 1. Adequate stack height 30 M of the existing boiler is being maintained 2. The cyclone separator is being used to remove duct particles from stack gases 3. Low sulfur fuels are used to
	Fugitive Emissions of Dust.	Vehicular emission and raw material handling	<ol style="list-style-type: none"> 1. Existing Roads has already been paved / asphalted and shall be paved after expansion 2. Vehicular emission Control Plan. 3. Designated Parking Area & Water sprinkling on unpaved roads. 4. PUC of incoming vehicles will be ensured.
2.	Noise Pollution		

	Due to operation of Plant Facilities	Pumps/compressors /Plant Machinery	<ol style="list-style-type: none"> 1. The foundations of rotating machinery will be made strong to avoid vibrations. 2. The alignment and maintenance of the rotating machinery will be maintained up to date. 3. 33% Green belt has been development in existing premises
	Due to Power Back-up Facility	DG Sets	<ol style="list-style-type: none"> 1. The existing DG set is inbuilt in Acoustic enclosures and adequate stack heights to reduce
	Due to transportation of materials	Vehicles & Machinery	<ol style="list-style-type: none"> 1. Provision of PPE to workers 2. Maintenance of machinery & vehicles. Designated Parking areas
3.	Water Pollution		
	Plant Facilities	Boiler blow down, cooling water blow down.	<ol style="list-style-type: none"> 1. ETP- The wastewater is being treated in ETP shall be continue 2. The treated wastewater will be used in Green Belt Development
	Domestic waste water	Canteen, toilets etc	The domestic waste water will be sent to the soak pit.
4.	Solid Waste		
	ETP sludge	Primary and secondary stages of ETP	Dried sludge is being sent to STDF, Udaipur and shall be sent to TSDF for disposed as per agreement with UCCI, Udaipur.
	Ash from Boiler	Boiler	The ash is being packed in used gunny bags and sent to brick manufacturers for use in manufacture of bricks. Same will be done after expansion

Details of Solid waste/ Hazardous waste generation and its management

S. No	Hazardous Waste	Category	Existing Quantity	Proposed Quantity	Quantity	Disposal methods
1	Used Oil	5.1	50 Lit/annum	550 Lit/annum	600 Lit/annum	Collection, Storage, Transportation & Disposal by selling to Registered Re-processors / reuse as lubricant
2	ETP Sludge	34.2	1.0 MT/Annunum	8.0 MT/Annunum	9.0 MT/Annunum	Collection, Storage, Transportation & send to TSDF.
3	Discarded Barrels contaminated with hazardous wastes/chemicals	33.1	100	500	600 Nos./Annunum	Recycle for authorized agencies. Recycle to the supplier Re-used for storing the same material
4.	Process Residue	28.1	Nil	4MT/annunum	0.6MT/annunum	Collection, Storage, and send to TSDF
5	Spent Carbon	28.3	0.59MT/Annunum	Nil	0.59MT/Annunum	Collection, Storage, and send to TSDF
5.	Rice husk briquettes Ash	----	5.0MT/annunum	40.6MT/annunum	45.6MT/annunum	Collection, Storage, Transportation, Sale to brick manufacturer

Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 25.03.2019 which was presided over by the Additional District Collector. The main issues raised during the public hearing are related to employment to local people after expansion of unit. No litigation is pending against the project.

Details of existing and proposed products are as under:

S. No.	Product	Existing (formulation (TPA)	capacity only)	Proposed Capacity (TPA)
1	Carnitine Tratrote		60	---
2	Cystine		12	---
3	L-Lysine HCL		240	---
4	N-Acetyl L-cystine		60	---

5	Methotrexate	---	6.0
6	Rosuvastatin Calcium	---	2.4
7	Telmisartan	---	12.0
8	Sucralfate	---	6.0
9	Arteemether	---	6.0
10	Areteether	---	6.0

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and CER plan and found to be addressing the issues in the study area and the issues raised during the public hearing. The Committee noted that the existing unit is a formulation unit and the details as additional information submitted by the project proponent found to be satisfactory.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i) 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, shall be obtained from the State Pollution Control Board.

- (ii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. All the waste water to be collected and to be reused after treatment.
- (iii) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- (v) Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.
- (vi) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (vii) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (viii) 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) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
 - (d) Solvents shall be stored in a separate space specified with all safety measures.
 - (e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - (f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (ix) Total fresh water requirement shall not exceed 8 cum/day, proposed to be met from tanker supply. Fresh water shall be sourced from the government authorized tanker water suppliers only.
- (x) Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system. All the vent pipes should be above the roof level.

- (xi) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps. Raw material and products should be stored in leak proof containers. Spent acid to be stored over the ground tank and to be sent to TSDF.
- (xii) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xiii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- (xiv) Fly ash should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.
- (xv) The company shall undertake waste minimization measures as below:-
 - (a) Metering and control of quantities of active ingredients to minimize waste.
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xvi) The green belt of at least 5-10 m width shall be developed mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. As committed by the project proponent, the greenbelt area shall be developed and maintained in an area of 2017 sqm. (48%) out of the total project area.
- (xvii) All the Commitments made during public hearing shall be implemented in a timely manner.
- (xviii) As proposed Rs. 4.7 lakhs shall be allocated towards Corporate Environment Responsibility (CER). As proposed, the CER allocation shall be spent mainly for addressing the issues raised during public consultation/hearing including Drinking water facility/skill development/solar lights, etc. Preference shall be given to local villagers for employment in the unit.

- (xix) For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (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) Occupational health surveillance including dental check up of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxii) 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 ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

Agenda No.19.30

Expansion of pigment manufacturing unit by M/s A-One Chemicals at Plot No. A-1/ 4701 & 4702, GIDC Estate, Ankleshwar, District Bharuch (Gujarat) - Consideration of Environmental Clearance.

[IA/GJ/IND2/128045/2005, J-11011/383/2006-IA.II(I)]

The proposal was earlier considered by the EAC in its meeting held during 25-27 February, 2020 wherein the project proponent did not attend the meeting.

The project proponent and their consultant M/s. Jyoti Om Chemical Research Centre Pvt. Ltd. (High Court Stay order holder) made a detailed presentation on the salient features of the project through Video Conferencing (VC).

During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of pigment manufacturing unit from 350 TPM to 825 TPM by M/s A-One Chemicals in an area of 5460 sqm at Plot No. A-1/ 4701 & 4702, GIDC Estate, Ankleshwar, District Bharuch (Gujarat).

The details of existing and proposed product are as under:-

S. No.	Product	CAS No.	Existing Quantity as per CCA-96963 in (TPM)	Proposed capacity (TPM)	Total (TPM)
1.	CPC Blue	74160	300	350	650
2.	Beta Blue	74160	25	125	150
3.	Alpha Blue	74160	25	0	25
4.	Ammonium Sulphate	7783-20-2	120	380	500
Byproduct					
1.	Ammonium Carbonate	506-87-6	1500	1500	3000

All 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) are listed in S.N. 5(f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'B' to be appraised at State level. However being the project is located inside the critically polluted area, the project appraised at Central level in the Ministry.

The EAC, during deliberations noted that baseline data and GLC values seems not correct. The consultant which has prepared the EIA report is not having valid accreditation from QCI/NABET. The consultant has informed that they have taken High court stay. Also, the project details mentioned in the EIA report were not consistent with that presented during the meeting. The Committee also took serious note on the quality of the EIA/EMP report prepared by the consultant and underrated the consultant. The EAC, after detailed deliberations decided to **return the proposal in present form** and have suggested the PP has to revise the EIA/EMP Report & Form 2 on Parivesh Portal along with following clarification/inputs:-

- (i) PP has wrongly mentioned in form 2 that EC was granted on 13.06.2006, however this was operating from CTO. This is an expansion case and as per TOR PP needs to submit the compliance report of CTO from SPCB. However, PP has not submitted the same.
- (ii) The Committee noted that there are various deficiencies in Form 2 uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (iii) TOR compliance is not adequate in EIA/EMP report and need to revise as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.

- (iv) Onsite emergency plan as per MSIHC Rules and occupational health plan needs to be revise.
- (v) The Committee noted that the instant proposal falls under CPA and PP has not submitted the mitigation measures as per the Ministry's OM dated 31.10.2019. PP needs to revise the report and submit the action plan as per the Ministry's office memorandum 31st October, 2019 regarding projects located in Critically Polluted Area.
- (vi) Zero Liquid Discharge plan to be submitted.
- (vii) Consultant has forwarded the copy of old presentation (Feb 2020) to the EAC. The Committee took serious note that the Consultant/PP reads the documents before sending the same to the Committee.

Agenda No.19.31

Expansion of pigments manufacturing unit by M/s Shubhlaxmi Pigments at Plot No.502, GIDC Estate, Panoli, Ankleshwar, District Bharuch (Gujarat) - Consideration of Environmental Clearance

[IA/GJ/IND2/131023/2008, J-11011/790/2008-IA II (I)]

The proposal was earlier considered by the EAC in its meeting held during 25-27 February, 2020 wherein the project proponent did not attend the meeting.

The project proponent and their consultant M/s Jyoti Om Chemical Research Centre Pvt. Ltd (High Court Stay order holder) made a detailed presentation on the salient features of the project though Video Conferencing (VC).

During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of pigments manufacturing unit from 15 TPM to 90 TPM by M/s Shubhlaxmi Pigments in an area of 1575 sqm at Plot No.502, GIDC Estate, Panoli, Ankleshwar, District Bharuch (Gujarat).

The details of existing and proposed product is as under:-

S. No.	Name of Products	CAS no. /CI no.	Quantity MT/Month		
			Existing as per CCA (TPM)	Proposed (TPM)	Total (TPM)

1.	Phthalocyanine Alpha Blue	147-14-8/74160	5	25	30
2.	Phthalocyanine Beta Blue	147-14-8/74160	10	50	60
TOTAL			15	75	90

All 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) are listed in S.N. 5(f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'B' to be appraised at State level. However being the project is located inside the critically polluted area, the project appraised at Central level in the Ministry.

The EAC noted that the earlier environmental clearance was granted by the Ministry on 9th February, 2009 for manufacturing of product up to the capacity of 65 TPM, however the present proposal has been submitted from 15 to 90 TPM. **Also the project proponent has not submitted the certified compliance report from the Ministry's Regional office at Bhopal.**

The EAC, during deliberations noted that the consultant which has prepared the EIA report is not having valid accreditation from QCI/NABET. The consultant has informed that they have taken High court stay. Also, the project details mentioned in the EIA report were not consistent with that presented during the meeting. The Committee also took serious note on the quality of the EIA/EMP report prepared by the consultant and underrated the consultant. The EAC, after detailed deliberations decided to **return the proposal in present form** and have suggested the PP has to revise the EIA/EMP Report & Form 2 on Parivesh Portal along with following clarification/inputs:-

- (i) The EAC noted that the earlier environmental clearance was granted by the Ministry on 9th February, 2009 for manufacturing of product up to the capacity of 65 TPM, however the present proposal has been submitted from 15 to 90 TPM. **Also the project proponent has not submitted the certified compliance report from the Ministry's Regional office at Bhopal.**
- (ii) The Committee noted that the instant proposal falls under CPA and PP has not submitted the mitigation measures as per the Ministry's OM dated 31.10.2019. PP needs to revise the report and submit the action plan as per the Ministry's office memorandum 31st October, 2019 regarding projects located in Critically Polluted Area.
- (iii) The Committee noted that there are various deficiencies in Form 2 uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.

- (iv) TOR compliance is not adequate in EIA/EMP report and need to revise as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (v) Onsite emergency plan as per MSIHC Rules and occupational health plan needs to be revise.
- (vi) Zero Liquid Discharge plan needs to be submitted.
- (vii) Consultant has forwarded the copy of old presentation (Feb 2020) to the EAC. The Committee took serious note that the Consultant/PP reads the documents before sending the same to the Committee.

Agenda No.19.32

Pesticides specific intermediates and specialty chemical manufacturing unit by M/s Pragna Pharma Pvt. Ltd. at GIDC, Taluka Vagra, District Bharuch (Gujarat) - Amendment in EC

[Proposal No. IA/GJ/ IND2/113288/2019]

The project proponent did not attend the meeting. The EAC has **deferred** the proposal.

Agenda No. 19.33

Membrane Cell based Caustic Soda (400 TPD) and Membrane Cell Based Caustic Potash Plant (100 TPD) located at Sy. No.: 1-4, 7-8 &11, Village Balabhadrapauram, Mandal Bikkavolu, District East Godavari, Andhra Pradesh by M/s Grasim Industries Limited-Extension of validity of Environmental Clearance.

[IA/AP/IND2/133608/2019 dated 23rd April 2020, F.No. J-11011/90/2011-IA II (I)]

The proposal is for extension of validity of the environmental clearance dated 22nd March, 2013 issued in favour of M/s K P R Industries (India) Ltd, and transferred in favour of M/s M/s Grasim Industries Limited vide Ministry's letter dated 21st November, 2019, issued to the project for Membrane Cell based Caustic Soda (400 TPD) and Membrane Cell Based Caustic Potash Plant (100 TPD) at Sy. No. 1-4, 7-8 &11, Village Balabhadrapauram, Mandal Bikkavolu, District East Godavari, Andhra Pradesh.

The project proponent has requested for extension of validity of the environmental clearance with the details as under:

- (i) Consent to Establish was obtained by the M/s K. P. R. Industries (India) Ltd. from SPCB for the installation of plant on 24.05.2013 and project is under construction phase.
- (ii) Consent to Establish was obtained by the M/s K. P. R. Industries (India) Ltd. for the installation of 9 products out of 14 products. The project came to standstill after completion of 35% of the civil and mechanical work due to financial constraints.
- (iii) M/s Grasim Industries Ltd. took possession of the company on 19.02.2019 and obtained the letter for transfer of EC from MoEFCC vide letter no. J-11011/90/2011- IA II (I) dated 21.11.2019.
- (iv) The project works have been revived, with due verification of the integrity of the existing structures/buildings, which were abandoned almost 5 years back. The project is scheduled to be executed by GIL in two phases, i.e. 9 products in first stage (by October, 2020) and rest 5 products in second stage (December, 2023).
- (v) Looking into the preparedness and investment made for project; extension of the validity of the EC has been requested for another 3 years.

The Committee has made a detailed deliberation on the progress of the project and found to be satisfactory. The Committee after hearing the submissions of the project proponent and noting the preparedness for implementation of the project, has agreed to consider the request for extension of validity of EC. The Committee noted that the EC has been transferred in favour of the present applicant vide Ministry's letter dated 21st November, 2019.

The Committee, after detailed deliberations, has **recommended** for extension of validity of the environmental clearance dated 22nd March, 2013 till 22nd March, 2023, to complete the work as per the scope of the project, with all other terms and conditions remain unchanged.

Agenda No. 19.34

Expansion of agrochemicals and their intermediates manufacturing unit by M/s Bharat Rasayan Limited (Unit-II) at Plot No. 42/4, Amod Road, Dahej-I GIDC Industrial Estate, Dahej, District Bharuch, (Gujarat) - Consideration of Environmental Clearance

[IA/GJ/IND2/114039/2008, J-11011/961/2008-IA-II (I)]

Earlier the proposal was considered by the EAC in its meeting held on 23-25 October, 2019, wherein the EAC deferred the proposal for site visit by sub-committee of the EAC.

Based on recommendation of EAC and subsequent approval of the Ministry, a Sub-committee comprising of Dr. J P Gupta (Chairman, EAC) Dr. Uma Kapoor (Member, EAC), Dr. Tudi Indrasen Reddy (Member, EAC) and Dr. Saurabh Upadhyay (Scientist C, MoEF&CC) conducted the site visit on 12th January, 2020. The Sub-Committee during the site inspection suggested certain action and recommendation as under:-

Action suggested;

- (i) Immediate installation of volatile recovery systems, up to 99.997%. This is being followed by other pesticides companies in India;
- (ii) Existing facilities and expansion facilities needed to study Process Safety and Risk Management (PSMR) using advanced 3D modelling. All mitigation measures need to be implemented. Also, PSRM studies should include number of detectors and location of detectors;
- (iii) Expansion should be designed and engineered by a competent and reputed company;
- (iv) Forensic environment audit and energy audit, needed to be carried out;
- (v) Environment department has to be restructured. Environment Scientists/ Environment Engineers should be employed. This department should directly report to CMD of the company;
- (vi) As subsoil water is with high TDS, green belt cannot be grown. Company should undertake to plant at least 2 lakhs trees on both side of highway. Also, the entire plantation has to be maintained for a period of ten years.
- (vii) To save water, rain harvesting is extremely important for site with enough vacant land. Company will have storage tank of at least 2 lakh liters with RO and ZLD facilities. Purified water will be used for process operations and other activities.

Recommendations of Sub-Committee

The Sub-committee was of the opinion that the unit has enough space for proposed expansion and as the project proponent has already submitted the action taken report in respect of partly complied points to Ministry's Regional office at Bhopal. Accordingly, the Sub-committee is hereby recommending the EAC to take decision for grant of environmental clearance to the project for expansion of Agrochemicals and its Intermediates manufacturing unit submitted by M/s Bharat Rasayan Limited with the condition as under:

- (i) Cutting of trees shall be avoided during construction activity.

- (ii) Underground tank shall be constructed to store the collected rain water from the roof tops and reduce the fresh water demand accordingly.
- (iii) A ETP efficiency study shall be carried out & its recommendations shall be implemented.
- (iv) The green belt shall be enhanced with proper development plan.
- (v) Adequate Scrubbers shall be used to control the process emission and installation of volatile recovery systems, up to 99.997%.
- (vi) Automatic charged system shall be used for hazardous raw material feeding.
- (vii) Noise monitoring shall be carried out on a weekly basis all around the periphery of the unit & records maintained.
- (viii) Proper risk management system shall be followed by using Process Safety and Risk Management (PSMR) using advanced 3D modelling. All mitigation measures need to be implemented. Also, PSRM studies should include number of detectors and location of detectors;
- (ix) Gas Detectors should be installed in processing area.
- (x) Forensic environment audit and energy audit shall be carried out.
- (xi) Company will have storage tank of at least 2 lakh liters with RO and ZLD facilities. Purified water will be used for process operations and other activities.

The proposal was further considered by the EAC in its meeting held on 13-15 April, 2020 has considered the site inspection report submitted by the sub-committee and deferred the proposal for the present and suggested that the proposal may be placed only after submission of certification from the RO, MoEFCC. The EAC has also suggested that the Regional Office of the Ministry may be requested to provide the certification for further appraisal by the EAC.

Now the Regional office of the Ministry has forwarded the Action taken report vide email dated 15th April, 2020. The EAC found the same to be satisfactory.

The project proponent and their accredited consultant M/s. Siddhi Green Excellence Pvt. Ltd. made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

During deliberations the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of agrochemicals and their intermediates manufacturing unit from 12300 to 29200 TPA by M/s Bharat Rasayan Limited (Unit-II) in an area of 105106.75 sqm at Plot No. 42/4, Amod Road, Dahej-I GIDC Industrial Estate, Dahej, District Bharuch, (Gujarat).

Details of existing and proposed products are as under:

	Name of Product	CAS No.	Existing (TPA)	Proposed (TPA)	Total (TPA)	End Use	LD 50 - Oral (Rat) mg/kg	Remarks
1.	2,4-D-Ethyl Ester	533-23-3	0	700	700	Weedicide	650 – 800	New Product
2.	4-acetyl-2-methylbenzoic acid (AMBA)	55860-35-0	0	50	50	Intermediate	>300 (Mouse)	New Product
3.	Atrazine	1912-24-9	0	400	400	Herbicide	2220	New Product
4.	Azoxystrobin Technical	131860-33-8	0	200	200	Fungicide	>2000	New Product
5.	Bispyribac Sodium salt	125401-92-5	0	200	200	Herbicide	2635	New Product
6.	Butachlor Technical	23184-66-9	0	1000	1000	Herbicide	1740	New Product
7.	Carfentrazone-ethyl	128639-02-1	0	50	50	Herbicide	5143	New Product
8.	Cartap Hydrochloride	15263-52-2	0	300	300	Insecticide	250	New Product
9.	Cypermethric acid chloride (CMAC)	52314-67-7	0	2000	2000	Intermediate	>600	New Product
10.	Isopropyl 5-chloro-4-Methyl-2-nitrobenzoate (CMNBP)	1204518-43-3	0	100	100	Intermediate	>500	New Product

11.	Cymoxanil Technical (98%)	57966-95- 7	0	300	300	Fungicide	1100	New Product
12.	3,6- dichloropyrida zin-4-ol (DCHD)	2779-81-9	0	100	100	Inter- mediate	>200 (Fish)	New Product
13.	Deltamethrin Technical	52918-63- 5	0	300	300	Insectici de	>5000	New Product
14.	Fenoxaprop-P- ethyl	71283-80- 2	0	200	200	Herbicide	3150 - 4000	New Product
15.	Fenpropathrin Technical (90% min)	64257-84- 7	0	150	150	Insectici de	1000 (Skin & Eye)	New Product
16.	Halosulfuron- methyl	100784- 20-1	0	50	50	Herbicide	8866	New Product
17.	2-hydroxy propyloxyamine hydrochloride (HPOA HCl)	950595- 72-9	0	100	100	Inter- mediate	>300 (Mouse)	New Product
18.	Icaridin	119515- 38-7	0	15	15	Insectici de	4743	New Product
19.	Imibenconazol e	86598-92- 7	0	100	100	Fungicide	2800	New Product
20.	Isofetamid	875915- 78-9	0	100	100	Fungicide	1302 - 6690	New Product
21.	Lambda Cyhalothric Acid	72748-35- 7	0	1000	1000	Inter- mediate	980	New Product
22.	M,N,O-1,2 dimethyl-N- nitrosourea	255708- 80-8	0	100	100	Inter- mediate	>500	New Product
23.	Paclobutrazol	76738-62- 0	0	50	50	Plant growth regulator	1300	New Product
24.	Penoxsulam	219714- 96-2	0	100	100	Herbicide	>5000	New Product
25.	Picoxystrobin Technical	117428- 22-5	0	50	50	Fungicide	>5000	New Product
26.	Pymetrozine	123312- 89-0	0	100	100	Insectici de	>5000	New Product
27.	Pyriithiobac Sodium	123343- 16-8	0	50	50	Herbicide	3300	New Product

28.	Spiromesifen Technical	283594- 90-1	0	50	50	Insectici de	>2500	New Product
29.	Thifluzamide	130000- 40-7	0	170	170	Fungicide	>6500	New Product
30.	Thiodicarb Technical (94%)	59669-26- 0	0	150	150	Insectici de	120	New Product
31.	Thiophanate- methyl	23564-05- 8	0	200	200	Fungicide	6640	New Product
32.	Tolfenpyrad	129558- 76-5	0	50	50	Insectici de	260 – 386	New Product
33.	Topramezone	210631- 68-8	0	50	50	Herbicide	>2000	New Product
34.	Zeta Cypermethrin	52315-07- 8	0	350	350	Insectici de	>5000	New Product
35.	Zineb	12122-67- 7	0	200	200	Fungicide	1850 – 8900	New Product
36.	Dimefluthrin Technical	271241- 14-6	0	15	15	Insectici de	>2000	New Product
37.	Meperfluthrin Technical	915288- 13-0	0	8	8	Insectici de	>2000	New Product
38.	Pilot products#	--	0	100	100	--	--	New Product
39.	Acetamiprid Technical	135410- 20-7	100	500	600	Insectici de	217	Expansion
40.	Alpha Cypermethrin Technical	67375-30- 8	100	300	400	Insectici de	>2000 (Skin & Eye)	Expansion
41.	4-acetyl-2- methylbenzam ide (AMBAD)	1095275- 06-1	25	75	100	Inter- mediate	>300 (Mouse)	Expansion
42.	Bifenthrin Technical	82657-04- 3	100	600	700	Insectici de	>2000 (Rabbit) (Dermal)	Expansion
43.	Chlorpyrifos- methyl Technical	5598-13-0	100	400	500	Insectici de	3000	Expansion
44.	Clodinafop Propargyl Technical	105512- 06-9	250	50	300	Herbicide	1392	Expansion
45.	Cypermethrin Technical	52315-07- 8	400	800	1200	Insectici de	7180	Expansion

46.	Chlorimuron Ethyl Technical (95%)	90982-32-4	10	15	25	Herbicide	4102	Expansion
47.	Diafenthiuron Technical	80060-09-9	300	500	800	Insecticide	2068	Expansion
48.	Propanil Technical	709-98-8	50	100	150	Herbicide	367	Expansion
49.	Diuron Technical	330-54-1	900	300	1200	Herbicide	3400	Expansion
50.	Difenoconazole Technical	119446-68-3	50	250	300	Fungicide	1453	Expansion
51.	3',5'-Dichloro-2,2,2-trifluoroacetophenone (DCAP)	130336-16-2	25	75	100	Intermediate	>300 (Mouse)	Expansion
52.	Ethion Technical	563-12-2	700	300	1000	Insecticide	1084	Expansion
53.	Fipronil Technical	120068-37-3	60	540	600	Insecticide	>2000 (Skin & Eye)	Expansion
54.	Fenpyroximate Technical	134098-61-6	15	10	25	Insecticide	245	Expansion
55.	Isoprothiolane Technical (96%)	50512-35-1	100	50	150	Fungicide	1190	Expansion
56.	Imidacloprid Technical	138261-41-3	250	350	600	Insecticide	410	Expansion
57.	Indoxacarb Technical	144171-61-9	20	80	100	Insecticide	268	Expansion
58.	Imazethapyr Technical (97%)	81335-77-5	50	50	100	Herbicide	>5000	Expansion
59.	Lambda Cyhalothrin Technical	91465-08-6	600	400	1000	Insecticide	632 – 696 (Skin & Eye)	Expansion
60.	m-Phenoxybenzaldehyde	39515-51-0	2200	90	2290	Intermediate	1222	Expansion
61.	Metsulfuron-methyl Technical	74223-64-6	20	10	30	Herbicide	>5000	Expansion

62.	Metribuzin Technical	21087-64-9	300	600	900	Herbicide	1100	Expansion
63.	Novaluron Technical	116714-46-6	10	90	100	Insecticide	>5000	Expansion
64.	Propargite Technical	2312-35-8	25	75	100	Insecticide	2800	Expansion
65.	Pendimethalin Technical	40487-42-1	600	400	1000	Herbicide	3956	Expansion
66.	Phenthoate Technical	2597-03-7	400	100	500	Insecticide	435	Expansion
67.	Permethrin Technical	52645-53-1	250	250	500	Insecticide	383	Expansion
68.	Pretilachlor Technical	51218-49-6	100	400	500	Herbicide	2200	Expansion
69.	Pyrazosulfuron -ethyl Technical (97%)	93697-74-6	25	25	50	Herbicide	>5000	Expansion
70.	Sulfosulfuron Technical	141776-32-1	20	30	50	Herbicide	>5000	Expansion
71.	Tricyclazole Technical	41814-78-2	200	100	300	Fungicide	250	Expansion
72.	Transfluthrin Technical	118712-89-3	60	90	150	Insecticide	>5000	Expansion
73.	Thiamethoxam Technical	153719-23-4	600	400	1000	Insecticide	1563	Expansion
74.	Tebuconazole Technical (93%)	107534-96-3	100	500	600	Fungicide	1700	Expansion
75.	Flumethrin Technical	69770-45-2	15	15	30	Insecticide	500 – 1000	Expansion
76.	Imiprothrin Technical	72963-72-5	8	12	20	Insecticide	2400	Expansion
77.	Metofluthrin Technical	240494-70-6	4	18	22	Insecticide	>2000	Expansion
78.	Flumethric Acid	88419-72-1	15	35	50	Intermediate	>5000	Expansion
79.	Propoxy Ethyl Chloride	42149-74-6	100	100	200	Intermediate	204	Expansion
80.	Fenvalerate Technical	51630-58-1	200	0	200	Insecticide	451	No change
81.	Hexaconazole Technical	79983-71-4	150	0	150	Fungicide	>2000 (Dermal)	No change

82.	m-Phenoxybenzyl Alcohol	13826-35-2	400	0	400	Intermediate	1496	No change
83.	Myclobutanil Technical	88671-89-0	15	0	15	Fungicide	1600	No change
84.	Prallethrin Technical	23031-36-9	25	0	25	Insecticide	640	No change
85.	Profenofos Technical	41198-08-7	200	0	200	Insecticide	358	No change
86.	Propiconazole Technical	60207-90-1	150	0	150	Fungicide	1517	No change
87.	Cloquintocet-mexyl Technical (Safener Technical)	99607-70-2	50	0	50	Herbicide	>2000	No change
88.	Temephos Technical	3383-96-8	50	0	50	Insecticide	1000	No change
89.	Triclopyr Technical	55335-06-3	50	0	50	Herbicide	630	No change
90.	Methanesulfonamide, N-(2-cyanophenyl)-1,1,1-trifluoro (TSBN)	53718-42-6	50	0	50	Intermediate	>300 (Mouse)	No change
91.	Amitraz Technical	33089-61-1	60	0	60	Insecticide	400	No change
92.	Bromobenzene	108-86-1	250	0	250	Intermediate	2383	No change
93.	Buprofezin Technical	69327-76-0	140	(-140)	0	Insecticide	2198	Discontinue
94.	Chlorpyrifos Technical	2921-88-2	910	(-910)	0	Insecticide	135 – 163	Discontinue
95.	Dichlorvos Technical	62-73-7	150	(-150)	0	Insecticide	435	Discontinue
96.	Glyphosate Technical	1071-83-6	50	(-50)	0	Herbicide	>5000	Discontinue
97.	Paraquat Technical	4685-14-7	43	(-43)	0	Herbicide	113	Discontinue
98.	Triazophos Technical	24017-47-8	100	(-100)	0	Insecticide	>2000 (skin & eye)	Discontinue
Total			12300	16900	29200			
Formulation Products								

1.	Pesticide Formulation (Solid)	6000	0	6000	--	--	No Change
2.	Pesticide Formulation (Liquid)	6000	0	6000	--	--	No Change
# Pilot products shall be carried out for the betterment of proposed products (Sr. No.1 to only. Hence, Total pollution load from Pilot products shall be disposed to common incinerat							

The project/activity is covered under category A of item 5 (b) 'Pesticides industry and pesticide specific intermediates (excluding formulations)' of the schedule to the EIA Notification, 2006 and requires appraisal/approval at Central level in the Ministry.

The Terms of References (TORs) for the Project has been issued by the Ministry vide letter dated 11th April, 2019. Public hearing is exempted as per para 7(i), III. Stage (3), (i)(b) of the EIA Notification, 2006, and in accordance with the Ministry's OM dated 27th April 2018, as the project site is located in the notified industrial area. It was informed to the Committee that this proposal was earlier considered in four EAC meetings held during October 2019, February 2020, April 2020 & this meeting and followed by site visit. The Sub-Committee, in its report recommended for consideration of project for grant of EC with certain actions/compliances.

Existing land area is 105106.75 sqm. No additional land area will be required. Industry has already developed greenbelt in an area of ~33.10 % i.e. 34792.00 sqm out of total area of the project. The estimated project cost is Rs.200 Crore (for expansion only) & existing investment is Rs.90.15 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs.16 Crore and the Recurring cost (operation and maintenance) will be about Rs. 27.20 Crore per annum (for expansion only). Total Employment will be 850 Nos. persons as direct & 650 Nos. persons indirect after expansion. Industry proposes to allocate Rs. 1.5 Crore @ 0.75 % of project cost towards Corporate Environment Responsibility.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, rivers etc. within 10 km distance. Dahej Reserve Forest is covered at a distance of ~6 km towards West direction. Narmada Estuary is flowing at a distance of ~7 km towards South direction.

Ambient air quality monitoring was carried out at 10 locations including project site during January 2019 to March 2019 and the baseline data indicates the ranges of concentrations as PM10 (85-95 µg/m³), PM2.5 (33-45 µg/m³), SO₂ (17-31 µg/m³) and NO_x (26-33 µg/m³) (98th percentile values) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.669 µg/m³, 5.717 µg/m³ and 2.343 µg/m³ with respect to PM10, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 3122 m³/day of which fresh water requirement of 1512 m³/day will be met from GIDC supply. Industrial Effluent of 1815 m³/day will be treated through Effluent Treatment Plant (ETP) having Primary, Secondary & Tertiary Treatment, MEE and RO. 150 m³/day cooling tower blowdown will be treated through RO/Filtration and approx 130 m³/day RO permeate shall be used as makeup water for cooling tower. 20 m³/day RO reject shall be treated in MEE system. 800 m³/day industrial effluent will be treated through pre-treatment, stripper and MEE system. 760 m³/day MEE condensate and 865 m³/day industrial effluent shall be treated in ETP. 783 m³/day ETP treated effluent will be treated through RO, MEE and approximately 564 m³/day RO permeate and 209 m³/day MEE condensate shall be used as make-up water in Boiler. Treated effluent (837 m³/day) from ETP shall be passed through cartridge filter and 700 KLD shall be used for processing, APCM and washing purpose and 137 KLD shall be used as cooling tower make-up. Domestic effluent of 100 m³/day will be treated through Sewage Treatment Plant (STP).

Power requirement after expansion will be 7000 KVA including existing 2500 KVA and will be met from M/s. Dakshin Gujarat Vij Company Ltd. (DGVCL). Existing unit has 2 Nos. DG set of 750 KVA capacity of each, additionally 2 Nos. DG sets of 1500 KVA of each will be used as standby during power failure for proposed expansion. Existing 1 No. DG set of 750 KVA shall be discontinued after expansion. Stack (15 m Height) will be provided as per CPCB norms to the proposed DG Set.

Existing unit has Multi fuel boilers (1 No. 18 MT/h & 1 No. 12 MT/h standby) and Thermic Fluid Heaters (2 Nos. 4 Lakh kcal/h each - 1 operational + 1 standby). Additionally, Multi fuel boiler (1 No. 25 MT/h) and Thermic Fluid Heaters (2 Nos. 4 Lakh kcal/h each) will be installed. ESP shall be provided to Boilers and Bag filter shall be provided to Thermic Fluid Heaters with online CEMS on its stack (40 m height) for continuous monitoring. Natural gas OR Furnace Oil & Coal is used as Fuel for MFBs & TFHs, HSD is used as Fuel for DG Set and same will be used after expansion.

Ministry had issued EC earlier vide letter No. No. J-11011/961/2008-IA-II(I); dated 13th July, 2009 for manufacturing of agrochemicals manufacturing unit in favour of M/s Siris Crop Science Limited, the said EC further transferred in the name of M/s. Bharat Rasayan Limited (Unit-II) on 5th September, 2012 and amendment in EC granted for product mix change on 5th September, 2012. Further, the corrigendum granted on 10th January, 2013

The Certified report dated 2nd July, 2019 on the compliance status of the EC conditions has been forwarded by the Ministry's Regional Office at Bhopal. Further, the Regional office of the Ministry has forwarded the Action taken report on non/partial complied points vide email dated 15th April, 2020. The Committee deliberated the compliance report and found in order.

The project proponent has submitted the point wise action plan in respect of points suggested by the sub-committee as under:-

Point No.	Action Suggested by EAC Committee	Action taken and measures
1	<p>Immediate installation of volatile recovery systems, up to 99.997%. This is being followed by other pesticides companies in India.</p>	<p>The site is located in Dahej where the wind directions keep varying owing to coastal effects. Hence, odor generated at remote place is sometimes felt at other areas also, even when the source of odor is not nearby.</p> <p>We have carried out rigorous exercise to identify sources of VOC and odor at various sections of the plant and provided control measures to ensure maximum recovery of VOCs. Same approach shall be employed for new plant sections. Details are given herewith :-</p> <p>For process emission control, two stage scrubber systems consisting of packed columns with adequate height and intalox or saddle packings of PP or suitable resistant material are provided. The efficiency of scrubber systems is assured by –</p> <ol style="list-style-type: none"> 1) Continuous Emission Monitoring System (CEMS) installed on process stack for HCl, SO₂, Cl₂, HBr, Br₂, H₂S, DMA. It is also planned to provide CEMS to new process stacks and connect it with server. 2) Scrubbing media analyzed for pH and concentration – daily – once 3) Manual stack monitoring <ul style="list-style-type: none"> — monthly by Third party recognized laboratory — quarterly by GPCB recognized Schedule I Environmental Auditor
2	<p>Existing facilities and expansion facilities needed to study Process Safety and Risk Management (PSMR) using advanced 3D modelling. All mitigation measures need to be implemented. Also, PSRM studies should include number of detectors and location of detectors.</p>	<p>Consequence Analysis Study will be carried out by 3rd party M/s GEXCON-Pune as a 3D modelling will be carried out with CFD Technology. P.O. is already issued</p>

3	Expansion should be designed and engineered by a competent and reputed company.	We shall appoint competent and experienced Project Engineering EPC company for expansion.
4	Forensic environment audit and energy audit, needed to be carried out.	Environment Audit is carried out every year by Schedule I Auditor. The recommendations and cleaner production suggestions from the audit are implemented with definite action plan and timeframe. For energy conservation and possibility of sources we have consulted Devki Energy Auditor to identify the streams to control Energy loss in terms of Utility-Power.
5	Environment department has to be restructured. Environment Scientists/ Environment Engineers should be employed. This department should directly report to CMD of the company.	We have restructured our Organogram of EHS and have submitted the same to EAC. It is also ensured that EHS personnel are having academic qualifications in the field of Environment and safety and they possess knowledge and information on site's EHS management system, Effluents and their treatment and recycling systems and components, stack emissions and their control mechanisms, work place environment air quality management, Monitoring of EHS, etc. EHS head reports directly to Chairman & Managing Director
6	As subsoil water is with high TDS, green belt cannot be grown. Company should undertake to plant at least 2 lakhs trees on both side of highway. Also, the entire plantation has to be maintained for a period of ten years.	<p>Unit has planned to improve the soil quality of the greenbelt areas by filling new soil having proper composition and furnishing it with conditioners and micronutrients which can enhance the growth of greenbelt species.</p> <p>For this purpose management has allocated Rs. 50 lakh for carrying out the replenishment of soil at greenbelt areas.</p> <p>An annual budget of about 30 lakh is allocated for greenbelt maintenance.</p> <p><u>Plantation outside premises, on highways and at GIDC notified area</u></p> <p>Company is member of Dahej Industries Association (DIA) and as per district collector's initiative the company has participated in social forestry programmes of GIDC and Forest Department for tree plantation activities outside the premises at appropriate places in the nearby areas and elsewhere</p>

		including Bharuch-Dahej State highway. Company is also committed to maintain planted trees. Proponent planted >700 trees on GIDC roads in consultation with GIDC & notified area.
7	To save water, rain harvesting is extremely important for site with enough vacant land. Company will have storage tank of at least 2 lakh liters with RO and ZLD facilities. Purified water will be used for process operations and other activities.	EIA consultant has identified following areas which can be studied for roof-top rainwater harvesting potential :- Estimated Total roof top area available for rain water harvesting is 5467.80 m2. Estimated rooftop rain water harvesting potential is ~1972000 litre per annum. For this purpose, we shall provide two nos. of underground tank of capacity 1 Lakh litres each to store rain water during monsoon and utilize it for process operations and other activities after sufficient purification through filter media

The project proponent has also submitted the action plan in respect of each recommendations given by the Sub-committee as under:-

S. No.	Recommendations of Sub-Committee of EAC	Action Taken by the project proponent
1.	Cutting of trees shall be avoided during construction activity.	We commit that no trees shall be cut during construction activity. We shall also take utmost care of existing trees and greenbelt areas.
2.	Underground tank shall be constructed to store the collected rain water from the roof tops and reduce the fresh water demand accordingly.	Estimated total roof top area available for rain water harvesting is 5467.80 m2. Estimated rooftop rain water harvesting potential is ~1972000 litre per annum. For this purpose, we shall provide two nos. of underground tank of capacity 1 Lakh litres each to store rain water during monsoon and utilize it for process operations and other activities after sufficient purification through filter media.

3.	A ETP efficiency study shall be carried out & its recommendations shall be implemented.	Unit has already engaged Schedule I Auditor for auditing of overall EHS system and this practice is continued for every year. The recommendations and cleaner production suggestions from the audit shall be implemented with definite action plan and timeframe. Company is also in process to engage expert from Institute like IIT and this work will be implemented within 90-120 days and recommendation will be implemented by unit.
4.	The green belt shall be enhanced with proper development plan.	About 7332 Trees are planted in company premises. Trees planted are of native species such as Neem, Sharu, Peltophorum, Champa, Ficus. An annual budget of about 3 lakh is allocated for greenbelt maintenance.
5.	Adequate Scrubbers shall be used to control the process emission and installation of volatile recovery systems, up to 99.997%.	For process emission control, two stage scrubber systems consisting of packed columns with adequate height and intalox or saddle packings of PP or suitable resistant material are provided. The efficiency of scrubber systems is assured by – 1) Continuous Emission Monitoring System (CEMS) installed on process stack for HCl, SO ₂ , Cl ₂ , HBr, Br ₂ , H ₂ S, DMA. It is also planned to provide CEMS to new process stacks and connect it with server. 2) Scrubbing media analyzed for pH and concentration – daily – once 3) Manual stack monitoring — monthly by Third party recognized laboratory — quarterly by GPCB recognized Schedule I Environmental Auditor

6.	Automatic charged system shall be used for hazardous raw material feeding.	Manual charging of powder materials is eliminated and we have installed solid charging pumps in process for the addition of raw material. For liquid raw materials, we have partially implemented installation of metering pumps which will be interlocked with reaction vessels to automatically stop as per required charging quantity and shall be fully implemented within 180 days .
7.	Noise monitoring shall be carried out on a weekly basis all around the periphery of the unit & records maintained.	Company shall procure in-house sound level meter for noise monitoring and carry out weekly noise level monitoring at strategic locations on all the periphery of the unit. Records of noise levels shall be maintained and corrective action if required shall be taken immediately. Presently ambient noise is measured every month – by third party laboratory and quarterly by Environmental Auditor. Noise levels at utility, boiler remain between 65 – 74 dBA on account of adequate acoustic enclosure.
8.	Proper risk management system shall be followed by using Process Safety and Risk Management (PSMR) using advanced 3D modelling. All mitigation measures need to be implemented. Also, PSRM studies should include number of detectors and location of detectors;	Consequence Analysis Study will be carried out by 3rd party M/s GEXCON-Pune as a 3D modelling will be carried out with CFD Technology. P.O. is already issued. PP reported that Proper risk management system shall be conducted by using Process Safety and Risk Management (PSMR) using advanced 3D modelling. PP reported that work order for Consequence Analysis Study on 3D modelling using CFD Technology has already given, however due to pandemic this study is awaited.
9.	Gas Detectors should be installed in processing area.	48 nos. gas detectors have already been installed and additional gas detectors if required shall be installed at strategic location at production plants, packaging areas and tankfarms within 120 days.

10.	Forensic environment audit and energy audit shall be carried out.	Environment Audit is carried out every year by Schedule I Auditor. The recommendations and cleaner production suggestions from the audit are implemented with definite action plan and timeframe. For energy conservation and possibility of sources we have consulted Devki Energy Auditor to identify the streams to control Energy loss in terms of Utility-Power.
11.	Company will have storage tank of at least 2 lakh liters with RO and ZLD facilities. Purified water will be used for process operations and other activities.	Purified water will be used for process operations and other activities. For collection of rooftop rainwater, we shall provide two nos. of underground tank of capacity 1 Lakh litres each to store rain water during monsoon and utilize it for process operations and other activities after sufficient purification through filter media.

EAC, after deliberation, insisted the following:

- (1) During deliberations PP could not produce the PI Diagram as desired by the EAC committee to show the chilling systems installed at various locations which have been realizing toxic VOC in the environment. Also, VOC monitoring and detection systems not presented.
- (2) PP also failed to submit a detailed risk management report by using Process Safety and Risk Management (PSMR) using advanced 3D modeling with location of detectors and number of detectors
- (3) The industry being hazardous in nature and considering the recent Chemical Accident that took place in Visakhapatnam and other places, the PP can wait till the compliance of the above requirement.
- (4) PP is making an excuse in the name of Pandemic and is unable to show any evidence of compliances as sought by the Sub-Committee and EAC- Industry -II and therefore the EC can not be recommended at this stage for risking the community and infrastructure.
- (5) PP could not present how 33% greenery share with planted in light of very high TDS in the ground water.
- (6) Committee suggested PP to present action taken on all the points indicated in the visit report.

(7)The Committee informed PP that the Visit report has been alarming needing closure of the factory and thus, the points indicated in the visit report has to be complied with in letter and spirit.

It was informed to the Committee that the Sub-Committee after visiting the site has made certain observation/actions to be compiled by the PP which was already deliberated in the earlier EAC meetings.

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

The meeting ended with thanks to the Chair.

The EAC has appreciated the work of NIC Team for successful conduction of meeting through VC mode.

All the projects recommended for grant of environmental clearance by the EAC shall also comply with the following General conditions:

- (i)** The Project Proponent shall obtain all other statutory/necessary permissions/recommendations/NOCs prior to start of construction/operation of the project, which *inter alia* include, permission/approvals under the Forest (Conservation) Act, 1980; the Wildlife (Protection) Act, 1972; the Coastal Regulation Zone Notification, 2019, as amended from time to time, and other Office Memoranda/Circular issued by the Ministry of Environment, Forest and Climate Change from time to time, as applicable to the project.
- (ii)** The project proponent shall ensure compliance of 'National Emission Standards', as applicable to the project, issued by the Ministry from time to time. The project proponent shall also abide by the rules/regulations issued by the CPCB/SPCB for control/abatement of pollution.
- (iii)** The project authorities shall adhere to the stipulations made by the State Pollution Control Board/Committee, Central Pollution Control Board, State Government and any other statutory authority.
- (iv)** The project proponent shall prepare a site specific conservation plan and wildlife management plan in case of the presence of Schedule-1 species in the study area, as applicable to the project, and submit to Chief Wildlife Warden for approval. The recommendations shall be implemented in consultation with the State Forest/Wildlife Department in a time bound manner.
- (v)** 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. 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 to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (vi)** The energy source for lighting purpose shall be preferably LED based, or advance having preference in energy conservation and environment betterment.
- (vii)** The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- (viii)** The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- (ix)** 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 Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

- (x)** The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and to utilize the same for process requirements.
- (xi)** Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- (xii)** The company shall also 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.
- (xiii)** The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented.
- (xiv)** The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- (xv)** A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- (xvi)** 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.
- (xvii)** A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- (xviii)** The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective 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.

- (xix)** 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 Regional Offices of MoEF&CC by e-mail.
- (xx)** 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.
- (xxi)** 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.
- (xxii)** This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

List of the Expert Appraisal Committee (Industry-2) members participated during Video Conferencing (VC) meeting

S. No.	Name and Address	Designation
1.	Dr. J. P. Gupta	Chairman
2.	Shri R. K. Singh	Member
3.	Shri Ashok Agarwal	Member
4.	Dr. Y.V. Rami Reddy	Member
5.	Dr. T. K. Joshi	Member
6.	Dr. J. S. Sharma	Member
7.	Dr. T. Indrasena Reddy	Member
8.	Shri S.C. Mann	Member
9.	Dr. Uma Kapoor, CGWA	Member
10.	Shri Dinabandhu Gouda, CPCB	Member
11.	Shri A K Pateshshwary, Director	Member Secretary (Petro- chemical based)
12.	Dr. R. B. Lal, Scientist 'E', MoEFCC	Member Secretary (Chemical based)
MoEFCC		
13.	Dr Saurabh Upadhyay	Scientist 'C'
14.	Dr. E.P. Nobi	Research Officer

Approval Email of Chairman EAC

Email

rb.lal@nic.in

Re: Draft Minutes of the 19th EAC (Industry 2 Sector) meeting held during May 11-13, 2020 (through Video Conferencing)

From : jpglobalconsultinggroup@gmail.com

Tue, May 26, 2020 01:31 PM

Subject : Re: Draft Minutes of the 19th EAC (Industry 2 Sector) meeting held during May 11-13, 2020 (through Video Conferencing)

To : Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>

Dear Dr. R.B. Lal,
The minutes stand approved.

Regards,
Dr. J.P. Gupta