MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-2 SECTOR)
****

MINUTES OF THE 17th MEETING OF THE EXPERT APPRAISAL COMMITTEE (INDUSTRY-2 SECTOR) HELD DURING 25-27 FEBRUARY, 2020

Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003.

Time: 10:00 AM

(i) Opening Remarks by the Chairman

The Chairman welcomed the Committee members and gave the opening remarks.

(ii) Confirmation of the Minutes of the 16th Meeting of the EAC (Industry-2) held during 21-23 January 2020 at MoEFCC, Indira Paryavaran Bhawan, New Delhi

The EAC, having taken note that no comments were offered on the minutes of its 16thEAC meeting held during 21-23 January, 2020 at MoEFCC New Delhi, 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, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under:-

DAY 1: 25th February, 2020 (Tuesday)

Consideration of Environmental Clearance

Agenda No. 17.1

Onshore Oil and Gas Exploration drilling in OALP Block CB-ONHP-2017/9 Located in Kheda District, Gujarat by M/s Bharat PetroResources Ltd – Consideration of Environmental Clearance.

[IA/GJ/IND2/88387/2018, IA-J-11011/409/2018-IA-II(I)]

The EAC before initiating the presentation and discussion has informed the project proponent that, after receipt of references requesting for exemption from requirement of prior environmental clearance under the provisions of the EIA Notification, 2006 for exploration drilling in respect of on-shore and off-shore oil and gas, the Ministry has, issued a Notification S.O. 236(E) dated 16th January, 2020 mentioning that "**All project in respect of off-shore and onshore oil and gas exploration are categorized as 'B2' projects**". Accordingly, now, only projects in respect of off-shore and onshore oil and gas development

and production except exploration, are listed at Category A, requiring appraisal at the Central by the Expert Appraisal Committee. The proposed project of the project proponent requires appraisal as category B2 by the concerned Committee.

The EAC after detailed deliberation suggested the project proponent to submit the proposal at respective SEIAA for further consideration as project now comes under category B2.

The proposal was accordingly returned for the needful.

Agenda No.17.2

Expansion of synthetic organic chemical manufacturing plant by by M/s Jubilant Agri & Consumer Products Ltd at Block no. 129, Village Samlaya, Taluka Savali, Vadodara (Gujarat) - Consideration of Environmental Clearance.

[IA/GJ/IND2/108562/2019, IA-J-11011/209/2019-IA-II(I)]

The project proponent and their accredited consultant M/s Kadam Environmental Consultants made a detailed presentation 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 synthetic organic chemical manufacturing plant by by M/s Jubilant Agri & Consumer Products Ltd at Block no. 129, Village Samlaya, Taluka Savali, Vadodara (Gujarat).

The details of product and capacity as under:

S. No.	Name of Products	Production Capacity in TPA			Remark
		Existing	Proposed	Total	
1	Adhesives	0	18000	18000	
2	Wood Finish	0	6000	6000	
3	Butadiene Based Synthetic Lattices viz VP Latex, SBR Latex, NBR Latex	-16440	0	-16440	Delete due to name of products given as example
4	Butadiene Based Synthetic Lattices	16440	63560	80000	
	Total	**16,440**	**87,560**	**1,04,000**	

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 in the Ministry.

Standard Terms of References (ToR) for the project was issued by the Ministry vide

letter dated on 1st August, 2019.

Existing land area is 34,657 sqm. additional 40,400 m^2 land will be used for proposed expansion. Industry has already developed greenbelt in an area of 39% i.e. 29059 sqm out of total area of the project. The estimated project cost is Rs.151 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 683 Lacs and the recurring cost (operation and maintenance) will be about Rs. 216.1 Lacs per annum. Total Employment will be ~224persons as direct &indirect after expansion.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River Meni Riveris flowing at 0.33 kminSSE direction.

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

(i) 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, 1994 and 2006. In this regard PP needs to submit all the old CTE/CTO to verify the violation, if any. Also submit justification for carried out product mix in 2015 without environmental clearance.

(ii) 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.

(iii) Permission granted by CGWA for withdrawal of fresh water.

(iv) Submit documentary evidence that unit is not located inside the Critically Polluted Area.

(v) Onsite emergency plan as per MSIHC Rules and occupational health plan.

(vi) ZLD plan needs to be submitted.

(vii) Revised water requirements needs to be explored.

Agenda No.17.3

Setting up Carbon Black manufacturing unit & Power Generation unit by M/s Madura Carbon (India) Ltd located at 3705, 3708, 3719, 3725,3738, 4108, 4110, 4318, Village Fansa (Karajgam), Taluka Umbergaon, District Valsad (Gujarat) - Consideration of Environmental Clearance

[IA/GJ/IND2/76156/2018, IA-J-11011/266/2018-IA-II(I)]

The project proponent and their consultant M/s Precitech Laboratories Pvt. Ltd, made a detailed presentation 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 Carbon Black manufacturing unit of capacity 2,30,000 TPA& Power Generation unit of 45 MW by M/s Madura Carbon (India) Ltd located at 3705, 3708, 3719, 3725,3738, 4108, 4110, 4318, Village Fansa (Karajgam), Taluka Umbergaon, District Valsad (Gujarat).

The details of products and capacity are as under:

S. No.	Name of the Product	CAS No.	Quantity	End use of product
1.	Carbon Black	1333-86-4	230000 TPA	Reinforcing material & filler in rubber products
2.	Power Generation (Green Power)	--	45 MW	Power consumption

The project/activities are covered under category A of item 5(e) 'Petroleum products and petrochemical based processing such as production of carbon black and electrode grade graphite (processes other than cracking and reformation and not covered under the complexes)' and 1(d) 'Thermal Power Plant' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

Standard ToR for the project was granted on 6th April, 2019. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 19th July 2019 under the Chairmanship of District Magistrate. The main issues raised during the public hearing are related to land issues, water consumption, effluent generation & its disposal, air pollution, traffic load and health & safety etc. The Committee deliberated the action plan on the issues raised during PH and found in order.

Total Land area is 94499 sqm. Industry will develop greenbelt in an area of 26.24% i.e., 24800 sqm out of total area of the project. In addition to this additional greenbelt development outside premises in consultation with local forest department & gram panchayats to be done in around 7500 sqm area to fulfil the requirement of total greenbelt of the project. The committee suugested to develop greenbelt in 33% area. The PP agreed with it. The estimated project cost is Rs.440 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.86.5 Crores and the Recurring cost (operation and maintenance) will be about Rs. 26.45 Crores per annum. Total employment will be 760 persons as 400 persons direct & 360 persons indirect after proposed project.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. except patches of reserve forest (nearest patch of reserve forest is approx. 0.8 km) within 10 km distance from the project site. River Darothais flowing at a distance of 5 km in Eastdirection.

Total water requirement will be 3115 cum/day, of which fresh water requirement of 2525 cum/day will be met from Damanganga Canal Distry. Effluent of 630m^3/day will be

generated (Domestic: 45m^3/day& Industrial: 585m^3/day). The domestic wastewater will be treated in STP. Treated water from STP will be used for greenbelt development.Industrial wastewater mainly generated from industrial activities like boiler blowdown @55 KLD, Cooling blowdown @60 KLD, Plant washing @30 KLD, DeSOx blowdown @60 KLD, DM plant regeneration @20 KLD and miscellaneous (RO reject) @360 KLD.

The boiler & cooling blowdown will be directly recycled in DeSOx system for lime slurry preparation. DeSOx blowdown along with plant washing will be diverted to ETP. Treated water from ETP will be recycled through RO. 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 will be 13 MW, which will be met from in house turbine and provision will also be made for initial start-up power fromDakshin Gujarat Vij Co. Ltd. One DG set of 1000 kVA capacity will also be installed as standby during power failure. Stack (height: 35 m) will be provided as per CPCB norms to the proposed DG set.

Two nos. of Steam boilers of capacity 112 TPH & 72 TPH in two separate production lines will be installed for power generation. Common Stack of 110 m will be provided to boilers. Off-gas generated during manufacturing of Carbon Black will be used as fuel in boilers.

Off-gas will also be used in two nos. of Dryer Combustor provided in 2 production lines. Two separate stacks (60m) for each line will be provided, which will be connected to Vapour bag collector as well (process emission). DeSOx (FGD) system will be provided for control of SO_2 and DeNOx(SCR/SNCR) system will be provided for control of NOx emissions.

Ambient air quality monitoring was carried out at 10 locations during October 2018 to December 2018 and the baseline data indicates the ranges of concentrations as: PM_{10} (60-89µg/m^3), $PM_{2.5}$ (16-38µg/m^3), SO2 (9-22µg/m^3)andNO_2 (10-26µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.80µg/m^3, 6.09 µg/$m^3$and 1.86µg/$m^3$with respect to PM_{10}, SO_2 &NO_x,respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be Rs.10 crore as committed by the project proponent.

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. Issues raised during public hearing have been addressed by the project proponent.

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 deliberations, **recommended** the project for grant of environmental clearance, subject to compliance of terms and conditions as under:-

(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 Petrochemical (Basic & Intermediates) issued by the Ministry vide G.S.R. 820 (E) dated 9th November, 2012as amended time to time shall be followed.

(v) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.

(vi) 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. Bagfilter (PTFE/pulse jet) shall be installed to control the emissions. Proper control measures shall be provided for controlling fugitive emissions in all vulnerable section from where there are chances of fine carbon particles getting air borne.

(vii) ESP shall be installed as air pollution control measures for all major boilers & power generation unit.

(viii) Total fresh water requirement shall not exceed 2525 cum/day, proposed to be met from Damanganga Canal Distry. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(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) 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.

(xiii) 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. Brick manufacturing unit shall be set up in the premises for effective utilization of the ash.

(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 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. Green belt shall be increased with plantation of additional two rows along the existing greenbelt.

(xvi) All the commitments made to the public during public consultation/hearing shall be satisfactorily implemented.

(xvii) As committed Rs. 10.00 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.

(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) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.

(xxiii) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

(xxiv) Mitigating measures suggested during process safety and risk assessment studies shall be carried out.

Agenda No. 17.4

Expansion of existing synthetic organic chemicals manufacturing unit atPlot No-502, GIDC Estate Panoli,Gujarat by M/s Shubhlaxmi Pigments- Consideration of Environmental Clearance.

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

The project proponent vide email dated 24th February, 2020 has informed that due to some unavoidable circumstances they are not able to present during the presentation and requested to extend the same

The EAC therefore **deferred** the proposal.

Agenda No. 17.5

Setting up Pigment dyes manufacturing unit by M/s Pearl Chem at Plot No.2900/118, GIDC Estate, Ankleshwar District Bharuch (Gujarat) - Consideration of Environmental Clearance.

[IA/GJ/IND2/130766/2019, IA-J-11011/34/2020-IA-II(I)]

The project proponent and their consultant made a detailed presentation 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 Pigment dyes manufacturing unit by M/s Pearl Chem at Plot No.2900/118, GIDC Estate, Ankleshwar District Bharuch (Gujarat).

The EAC, during deliberations noted that baseline data and GLC values seems not correct. The project proponent has informed that during baseline study the consultant team has visited only three times (3 day). 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 Committee desired that the Ministry shall take action as appropriate on the matter against the consultant for providing wrong and inconsistent information the EIA/EMP and presentation.The EAC, after detailed deliberations decided to **return in present form** and PP needs to revise the EIA/EMP Report and submit the clarification/inputs, in respect of the following:-

(i) 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.
(ii) Alternate site analysis need to be carried out.
(iii) 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.
(iv) Onsite emergency plan as per MSIHC Rules and occupational health plan.
(v) One-month baseline data and prediction for air quality to be carried out by recognized labs/institution.
(vi) PP needs to revise the report as per provisions of the EIA Notification, 2006.
(vii) 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.
(viii) The Committee noted that Consultant has not followed the generic structure of the EIA Notification, 2006. EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.

Agenda No.17.6

Setting up pigment dyes manufacturing unit by M/s Avinash Industries at Plot No.2900/3, GIDC Estate, Ankleshwar District Bharuch (Gujarat) - Consideration of Environmental Clearance.

[IA/GJ/IND2/130890/2019, IA-J-11011/35/2020-IA-II(I)]

The project proponent and their consultant made a detailed presentation 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 pigment dyes manufacturing unit by M/s Avinash Industries at Plot No.2900/3, GIDC Estate, Ankleshwar District Bharuch (Gujarat).

The EAC, during deliberations noted that baseline data and GLC values seems not correct. The project proponent has informed that during baseline study the consultant team has visited only three times (3 day). 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 Committee desired that the Ministry shall take action as appropriate on the matter against the consultant for providing wrong and inconsistent information the EIA/EMP and presentation. The EAC, after detailed deliberations decided to **return in present form** and PP needs to revise the EIA/EMP Report and submit the clarification/inputs, in respect of the following:-

(i) 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.
(ii) Alternate site analysis need to be carried out.
(iii) 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.
(iv) Onsite emergency plan as per MSIHC Rules and occupational health plan.
(v) One-month baseline data and prediction for air quality to be carried out by recognized labs/institution.
(vi) PP needs to revise the report as per provisions of the EIA Notification, 2006.
(vii) 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.

(viii) The Committee noted that Consultant has not followed the generic structure of the EIA Notification, 2006. EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.

Agenda No.17.7

Manufacturing of Synthetic Organic Chemicals (Pigments) Expansion Project Plot No. A-1/ 4701 & 4702, GIDC Estate, Ankleshwar, Dist:-Bharuch, Gujarat by M/s A-One Chemicals-Consideration of Environmental Clearance.

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

The project proponent vide email dated 24th February, 2020 has informed that due to some unavoidable circumstances they are not able to present during the presentation and requested to extend the same

The EAC therefore **deferred** the proposal.

Agenda No.17.8

Expansion of Synthetic Organic Dyes manufacturing unit by M/s Jay Chemical Industries Ltd. Unit-3 at Plot No. Plot No. 109 and 220, Phase - II, GIDC, Vatva, Taluka & District Ahmedabad (Gujarat) - Consideration of Environmental Clearance.

[IA/GJ/IND2/125265/2017, IA-J-11011/37/2020-IA-II(I)]

The project proponent and their accredited consultant M/s. Kadam Environmental Consultants made a detailed presentation 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 Synthetic Organic Dyes manufacturing unit by M/s Jay Chemical Industries Ltd Unit-3 in an area of 11666 sqm at Plot No. Plot No. 109 and 220, Phase - II, GIDC, Vatva, Taluka & District Ahmedabad (Gujarat).

The EAC, during deliberations noted that terms of reference has been issued by the SEIAA and the said file need to be transferred to the Ministry. Also, the project details mentioned in the EIA report were not consistent with that presented during the meeting. The EAC, after detailed deliberations decided to **return in present form** and PP needs to revise the EIA/EMP Report and submit the clarification/inputs, in respect of the following:-

(i) 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.

(ii) 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.

(iii) Alternate source of fresh water need to be submitted and commitment not to use ground water.

(iv) Onsite emergency plan as per MSIHC Rules and occupational health plan.

(v) Clarification for high PM 10 values recorded during and plan to control/reduce.

Agenda No. 17.9

Expansion of grain based distillery (45KLPD to 85 KLPD) and Co-Generation power plant (1.3MW to 1.5 MW) at Plot no.1, Industrial Area Phase III, Sansarpur Terrace, Tehsil Jaswan Kotla, District Kangra, Himachal Pradesh,Jaswan(T), Kangra (Himachal Pradesh) by M/s Premier Alcobev Pvt Ltd. -Consideration of Environmental Clearance.

[IA/HP/IND2/136785/2018, J-11011/550/2008-IA II(I)]

The Project Proponent and their accredited Consultant M/s JMEnviroNet PvtLtd, made a detailed presentation 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 Grain based Distillery from 45 KLPD to 85 KLPD and Co-generation Power Plant from 1.3 MW to 1.5 MW by M/s Premier Alcobev Pvt Ltd in an area of 4.05 ha located at Plot no. 1, Industrial area, Phase III, Sansarpur Terrace, Tehsil Jaswan, District Kangra, Himachal Pradesh. It was suggested by the EAC that the proposed expansion shall be for bio fuel only.

The project/activity is covered under category B of item 5(g) 'Distilleries' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006. Due to applicability of general condition (Interstate boundary of Himachal Pradesh and Punjab at a distance of 0.2 km, i.e within 5 km), project requires appraisal at central level by sectoral Expert Appraisal Committee in the Ministry.

Standard ToR has been issued by the Ministry vide letter dated 4th February, 2019.Public hearing for the project has been conducted by the Himachal Pradesh State Pollution Control Board on 11th September, 2019 under the Chairmanship of Additional District Magistrate. The main issues raised during the public hearing are related to air and water pollution, fly ash management and employment.The Committee deliberated the action plan on the issues raised during PH and found in order.

The Ministry had issued EC earlier vide letter no. J-11011/550/2008-IA II (I) dated 20th September, 2010 to the existing 45 KLPD Grain based distillery in favour of M/s Premier

Alcobev Private Limited. Certified EC compliance report has been forwarded by RO, MOEFCC, Dehradun vide letter no. 6-167/2010-RO(NZ)/639 dated 20th June, 2019 after conducting site visit was 10th April, 2019. The Committee the compliances status of the earlier EC and found in order. No Litigation is pending against the proposal.

Existing land area is 4.05 Hectares (10 acre). No additional land will be required as proposed expansion will be done within the existing plant premises.Industry has already developed greenbelt in an area of 25% i.e. 1.01 Hectares (2.5 Acre) and the same will be maintained and made dense in future. Approx. 1000 trees have been planted outside plant premises. The estimated project cost is Rs. 10 Crores for expansion project. Total capital cost earmarked towards environmental pollution control measures is Rs. 0.25 Crores and the Recurring cost (operation and maintenance) will be about Rs. 0.55 Crores per annum.Total Employment during operation phase is 133 persons (80 Regular and 53 contract). Industry initially proposed to allocate Rs. 10 Lakhs, 1% of total project cost as per Office Memorandum dated 1st May, 2018 towards Corporate Environment Responsibility, which was now proposed to increase to Rs.50 lakhs.

There are no National parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the plant site. Application for clearance from wildlife angle has been submitted.Pong Dam Lake Wildlife Sanctuary area lies at a distance of 4.85 kms from plant site. There are 5 Reserved Forests i.e. Sansarpur RF at a distance of 0.5 km in ENE direction, Karanpur RF at a distance of 3.0 km in West direction, Sambalian RF at a distance of 5.0 km in North direction, Lojang RF at a distance of 7.5 km in NNE direction, Panjal RF is at a distance of 9.2 km in SE direction and 5 protected forests i.e. Dadhoa PF at a distance of 4.7 km in ESE direction, Rajeli PF at a distance of 5.8 km in ENE direction, Upper Kalot PF at a distance of 7.3 km in East direction, Lower Kalot PF at a distance of 7.5 km in ENE direction.There are four major water bodies i.e. Soan Nadi at a distance of 100 m in South direction, Beas River at a distance of 2.0 km in NNW direction, Pong Dam Lake at a distance of 4.85 Km in NNE direction and Kamahi Devi Khad at a distance of 9.0 km in WSW direction.

Ambient air quality monitoring was carried out at 8 locations during Winter Season (December, 2018 to February, 2019) and the baseline data indicates the ranges of concentrations as: PM_{10} (48.3 to 90.41 $\mu g/m^3$), $PM_{2.5}$ (17.31 to 54.87 $\mu g/m^3$), SO_2 (5.1 to 12.16 $\mu g/m^3$) and NO_2 (8.3 to 24.32 $\mu g/m^3$). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.32 $\mu g/m^3$, 0.16 $\mu g/m^3$, 0.69 $\mu g/m^3$, 1.28 $\mu g/m^3$ with respect to PM_{10}, $PM_{2.5,}$ SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Existing water requirement is 674 KLPD (594 KLPD for distillery & co-gen + 60 KLPD for bottling unit +20 KLPD for domestic & others). After expansion, total fresh water requirement will be 577 KLPD (497 KLPD for distillery & co-gen + 60 KLPD bottling unit + 20 KLPD for domestic & others) which will be met from ground water. Total fresh water requirement will be reduced by 97 KLPD.

Effluent of 226 KLPD quantity will be treated through Effluent Treatment Plant (Based on Anaerobic, aerobic digestion (MBBR), Ultrafiltration and Reverse Osmosis) of capacity 250 m^3. The plant is being/will be based on Zero Liquid discharge system. Total Power

requirement after expansion will be 1458 KWh including existing power requirement of 1000 KWh and will be met from 1.5 MW co-generation power plant & State grid. There are no DG sets in the plant premises.

Existing unit has 14 TPH biomass fired boiler. Additionally, no boiler is proposed. Mechanical Dust Collectors with bag filter with a stack height of 52 meters is already installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm3 for the existing boiler.

Details of Process emissions generation and its management.

Source	Emissions	Management
Boiler	Particulate matter, SO_2, NOx	• Mechanical Dust Collectors with bag filter is already installed for controlling particulate matter emissions. • Adequate stack height (52 m) is already provided. • Necessary temperature profile is being/will be maintained.
Fermentation	Carbon dioxide	Carbon dioxide generated is being/ will be collected by utilizing CO_2 scrubbers and sold to authorized vendors.

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

- DDGS (34 TPD) is being/will be generated as a by-product from process which will be ideally used as a feed for Cattle/Poultry/ Fisheries etc.
- Fly Ash (13.65 TPD) from the boiler is being / will be supplied for soil amendment/contact with authorized vendors for land filling/brick manufacturing. It was suggested by the EAC that the Project Proponent will install fly ash Briquet Plant inside the Plant premises and no fly ash shall be disposed as such
- ETP sludge is being/will be sent to filter press and used as manure.
- Used oil & grease generated from plant machinery/gear boxes as hazardous waste is being / will be sold to the authorized recyclers.

The details of products and capacity as under:

Units	**Existing capacity**	**Additional capacity**	**Total capacity after expansion**	**Products & by products**
Grain Based Distillery	45 KLPD	40 KLPD	85 KLPD	**Products**: - Extra Neutral Alcohol (ENA)/ Rectified Spirit (RS)/ Ethanol /Absolute Alcohol (AA), Ethyl Alcohol, Special Denatured Spirit (SDS), Malt Spirit **By Product**: - DDGS & CO2
Co-Generation	1.3 MW	0.2 MW	1.5 MW	Power

Power Plant				
IMFL/CL Bottling Plant	9000 cases/day	NIL	9000 cases/day	IMFL/CL Bottles

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 certified compliance report on the existing EC conditions found to be satisfactory. 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) The environmental clearance is subject to obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, as applicable, as per the Ministry's OM dated 8th August, 2019. Grant of environmental clearance does not necessarily imply that Wildlife Clearance shall be granted to the project and that their proposal for Wildlife Clearance will be considered by the respective authorities on its merit and decision taken.

(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 as required.

(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) 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.

(vi) Grain unfit for human consumption shall only be used for distillery operations.

(vii) Total fresh water requirement shall not exceed 577 cum/day proposed to be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.

(viii) 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.

(ix) 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.

(x) 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.

(xi) 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.

(xii) 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.

(xiii) All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.

(xiv) As proposed, Rs. 50 lakhs shall be allocated for Corporate Environment Responsibility (CER). The CER plan shall be implemented and completed within two years with

proposed activities (viz. medical &health, infrastructure to hospitals, education & skill development, social welfare activities, etc).

(xv) 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.

(xvi) The fly ash Briquet Plant shall be installed inside the Plant premises and no fly ash shall be disposed as such

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

(xviii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

(xix) 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.

(xx) Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(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) Grain shall be tested for microtoxins in Government laboratory and awareness provided to workers related to grain dust. Regular medical checkup campaign shall be carried out for the same. Mask and gloves shall be provided to the workers.

Agenda No.17.10

Expansion of Pesticide Intermediates, Pesticide Technicals & Specialty Chemicals manufacturing unit by M/s Hemani Industries Limited (Unit-III) at Plot No. Ch-5 & E-362, G.I.D.C. Estate, Dahej-I, Taluka Vagra, District Bharuch (Gujarat)- Consideration of Environmental Clearance.

[IA/GJ/IND2/129203/2018, J-11011/583/2010-IA-II(I)]

The project proponent and their consultant M/s Aqua-Air Environmental Engineers Pvt. Ltd. (with stay order from Hon'ble High Court of Gujarat) made a detailed presentation 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 Pesticide Intermediates, Pesticide Technicals & Specialty Chemicals manufacturing unit from 2762 to 8720 TPM by M/s Hemani Industries Limited (Unit-III) in an area of 62,137.22 sqm located at Plot No.Ch-5 & E-362, G.I.D.C. Estate, Dahej-I, Taluka Vagra, District Bharuch (Gujarat).

Details of existing and proposed products are as under:

S. NO.	NAME OF PRODUCTS	CAS No.	TYPE OF PRODUCT	EXISTING CAPACITY	ADDITIONAL CAPACITY	TOTAL
				(MT/MONTH)		
1	m-PhenoxyBenzaldehyde (MPBAD)	67-36-7	Intermediate	300	400	700
2	m-Bromo Nitrobenzene	586-78-7	Intermediate	100	-	100
3	m-Bromo Anisole	2398-37-0	Intermediate	100	-	100
4	Lambda-Cyhalothrin	91465-08-6	Pesticides	50	-	50
5	Deltamethrin (T)	52918-63-5	Pesticides	12	38	50
6	DV-Acid Chloride/ CMAC	52314-67-7	Intermediate	200	450	650
7	Cypermethrin (T)	52315-07-8	Pesticides	150	850	1000
8	AlphaCypermethrin/ Permethrin (T) OR	67375-30-8/ 52645-53-1	Pesticides	100	300	400
	Acephate (T)	30560-19-1	Pesticide	100	-	100
9	Metamitron (T) / Glyphosate (T)	41394-05-2/ 1071-83-6	Pesticides	100	300	400
10	Thionyl Chloride	7719-09-7	Specialty Chemicals	450	-	450
11	Sulphur chloride	7719-09-6	Specialty Chemicals	100	-	100
12	Acid chloride (Valeroyl chloride, (Phenyl acetyl chloride)	--	Specialty Chemicals	100	-	100

13. Fungicide						
a.	Hexaconozole (T)	79983-71-4	Fungicide	300	250	550
b.	Tebuconozole (T)	107534-96-3	Fungicide			
C.	Propioconzole (T)	60207-90-1	Fungicide			
14. Herbicide						
a.	Dicamba (T)	40487421	Herbicide	300	700	1000
b.	Metribuzine (T)	21087-64-9	Herbicide			
c.	Pendimethalin(T)	1918-00-9	Herbicide			
15. Insecticide						
a.	Transfluthrin (T)	118712-89-3	Insecticide	300	100	400
b.	Cyfluthrin& Beta isomer (T)	68359-37-5	Insecticide			
c.	Bifenthrin (T)	82657-04-3	Insecticide			
d.	Cypermethrin (T) & Beta / Zeta/ Theta Isomer (T)	52315-07-8 86753-92-6 52315-07-08	Insecticide			
e.	Imidacloprid	138261-41-3	Insecticide			
f.	Acetamaprid	160430-64-8	Insecticide			
16.	Chlorantraniliprole	500008-45-7	Insecticide	-	50	50
17.	Fipronil	120068-37-3	Insecticide	-	50	50
18.	2,5 Dichloro Phenol	583-78-8	Intermediates	-	800	800
19.	2,4 Di chlorophenoxy Acetic Acid	94-75-7	Herbicide	-	500	500
20.	Pyraclostrobin	175013-18-0	Organic Intermediate	-	50	50
21.	1R Hightrans CMA	52314-67-7	Intermediate	-	20	20
22.	High Trans CMA and CMAC High Cis CMA and CMAC	52314-67-7 52314-67-7	Intermediates	-	50	50
23.	Diclobenil(T)	1194-65-6	Herbicides	--	100	100

24.	Diflubenzoron (T)	35367-38-5	Herbicides	--	50	50
25.	Methyl Chloride	74-87-3	Intermediate	--	600	600
26.	Quizalofop Methyl(T)	100646-51-3	Insecticide	--	100	100
27.	Teflubenzuron (T)	83121-18-0	Insecticide	--	100	100
28.	CPP	--	Power generation	1.5 MW	--	1.5 MW
	Total			**2,762**	**5958**	**8720**

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.

The Terms of References (TORs) for the Project has been issued by the Ministry vide letter dated 10th August, 2018.

Existing land area is 62,137.22 m^2. No additional land will be required for the proposed expansion. Industry has already developed greenbelt in an area of 33 % i.e., 20550 m^2 out of total area of the project. The estimated project cost is Rs. 150 Crores including existing investment of Rs. 75 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.19 Crores and the recurring cost (operation and maintenance) will be about Rs. 36.0 Crores per annum. Total Employment will be 386 persons and 216 as direct & 170 persons indirect after expansion.

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, 2018 to December, 2018 and submitted baseline data indicates that ranges of concentrations of PM10 (74.39-81.20 µg/m3), PM2.5 (42.50-47.12 µg/m3), SO2 (15.03-18.34 µg/m3) and NOx (18.89 – 23.76 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.004 µg/m3, 0.015 µg/m3 and 0.001 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 3665 m^3/day of which fresh water requirement of 2411 m^3/day and will be met from GIDC Water Supply.

Existing effluent of 709 m^3/day is treated through ETP consisting of primary, secondary and Tertiary treatment facility and then it is discharged into deep sea through GIDC Drain after achieving norms. Additional 654 m^3/day will be treated through ETP consisting of primary, secondary and Tertiary treatment facility and then it will pass through RO and RO Permeate -440 m^3/day will be reused in plant premises. High COD - 20 m^3/day is incinerated in captive Incinerator. High TDS effluent of 455 m^3/day will be evaporated in own MEE and MEE condensate is recycled in plant premises. Other effluent of 20 m^3/day will be reused in

plant premises. Domestic wastewater of 150 m^3/day will be treated in STP and treated sewage wastewater will be reused in plant premises.

Power requirement after expansion will be 8000 KVA (Existing – 5000 KVA + Proposed – 3000 KVA) and will be met from DGVCL. Existing unit has 5 Nos. DG sets of 5270 KVA capacities, additionally 3 Nos. DG Sets of Capacity 1010 KVA*3, DG sets are used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG Sets.

Existing unit has 2 Nos. of Steam Boiler & 2 Nos. of Thermic Fluid Heater, 1 No. of Incinerator and 5 Nos. of D G Set as flue gas emission. In Additionally flue gas emission, 1 Nos. of Steam Boiler (8 TPH), 1 Nos. of Steam Boiler (10 TPH), 1 Nos. of Thermic Fluid Heater (12 Lac KCal/Hr.), 3 Nos. DG Sets will be installed. ESP and adequate stack height – 30 meter will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boiler.

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 details of existing environmental clearances are as under:-

(i) EC Letter of M/s. Hemani Industries Ltd. (Unit-III) vide J-11011/442/2008 – IA II (I) dated Oct. 25, 2008.

(ii) EC Letter of M/s. Hemani Industries Ltd. (Unit-III) vide J-11011/583/2010 – IA II (I) dated Aug. 30, 2012.

(iii) EC Letter ofM/s. Hemani Industries Ltd. (Unit-IV) vide J-11011/378/2013 – IA II (I) dated Jan. 10, 2018.

(iv) EC Merger letter of M/s. Hemani Industries Ltd. (Unit-III) &(Unit-IV) vide J-11011/583/2010 – IA II (I) dated Oct. 25, 2019.

The Certified report dated 30th April, 2019 on the compliance status of the EC conditions has been forwarded by the Ministry's Regional Office. The Committee deliberated the compliance repot and found in order.The project proponent has proposed to allocate 2.5% of the total project cost towards CER activities.

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) 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) Treated effluent of 709 cum/day shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, for discharge to the NCT pipelinefor deep sea disposal via Final Effluent Treatment Plant (FETP)/CETP.

(iii) Zero Liquid Discharge shall be ensured including existing facility and the proposed expansion facility and no waste/treated water shall be discharged outside the premises. Existing facility shall achieve Zero Liquid Discharge within 3 years period.

(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 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 99.98%), 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) 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 2411 cum/day and will be met from GIDC 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 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. 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, 1.5% of total project cost shall be allocated towards Corporate Environment Responsibility (CER). Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.

(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 accordingly.

Agenda No.17.11

Expansion 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) - Reconsideration of 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 on the salient features of the project.

Earlier proposal was considered by the EAC in its meeting held on 21-23 January, 2020 wherein the deferred the proposal as their EIA coordinator and laboratory person was not present due to some reason.

During deliberations, the EAC noted the following:

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

The EAC, during deliberations noted that proposal has been submitted under expansion category and as per the record earlier EC was granted for manufacturing of bulk drugs and drugs intermediates of capacity 5000 kg/month. However, under this expansion project the capacity is decreasing from 5000 kg/month to 1697.32 kg/Month. As per the Ministry's Notification dated 23rd November, 2016, product mix change can be done if pollution load is not increasing. The project proponent need to submit justification in this regard.The EAC, after detailed deliberations decided to **defer**and PP needs to submit the following clarification/inputs, in respect of the following: -

(i) Latest Certified Compliance report duly forwarded from Ministry's Regional office to be submitted.
(ii) Conservation plan for schedule-I species needs to be submitted.
(iii) Submit the copy of latest Consent to operate.
(iv) Submit action plan as per the Ministry's office memorandum 31st October, 2019 regarding projects located in Critically Polluted Area.
(v) Onsite emergency plan as per MSIHC Rules and occupational health plan.
(vi) Justification for high PM 10 values recorded during and its mitigation plan to control/reduce.
(vii) Alternate source for fresh water.

Agenda No.17.12

Setting up Dyes & Dye Intermediates manufacturing unit by M/s Metachem Industries located at Survey No.391 & 393, Village Neja, Taluka Khambhat, District Anand (Gujarat) - Reconsideration of Environment Clearance.

[IA/GJ/IND2/100131/2019, J-11011/109/2019-IA-II(I)]

The project proponent and their accredited consultant M/s San EnvirotechPvt. Ltd made a detailed presentation on the salient features of the project.

Earlier proposal was considered by the EAC in its meeting held on 21-23 January, 2020 wherein the deferred the proposal as their EIA coordinator and laboratory person was not present due to some reason.

During deliberations the EAC noted the following:

The proposal is for environmental clearance to the project for setting up Dyes & Dye Intermediates manufacturing unit of capacity 715 TPM by M/s Metachem Industries located in an area of 12428 sqm at Survey No.391 & 393, Village Neja, Taluka Khambhat, District Anand (Gujarat).

The details of products and capacity are as under:

S. No.	Name of the Product	Qty. (MT/Month)
(A)	**Reactive Dyes**	
1	Reactive Blue 198	50
2	Reactive Blue FNG	50
3	Reactive Blue 19	40
4	Reactive Blue 49	50
5	Reactive Blue 220	50
6	Reactive Blue 221	50
7	Reactive Blue 222	50
	Total (A)	**340**
(B)	**Dyes Intermediates**	
8	PNCBOSA	30
9	Chloranil Condense	30
10	Blue HEGN (198) Base	25
11	Aniline 2:4 DSA	30
12	Aniline 2:5 DSA	30
13	Oxy-Sulphone	30
14	M. Acid	20
15	Blue - 49 BASE	20
16	MetanillicAcid	20
17	4-Sulpho Anthranilic Acid	50
18	4-Sulpho Hydrazone	50
19	Sulpho O.A.V.S./Sulpho V.S./Sulpho J-Acid/ Sulpho Gamma Acid	30
20	3,5 DABA	10
	Total (B)	**375**
	Total (A + B)	**715**

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 References (TORs) for the Project has been issued by the Ministry vide letter dated 13th September, 2019.

Proposed land area of the project is 12428 m^2. Greenbelt will be develop in an area of 33% i.e. 4200 m^2 out of total area of the project. The estimated project cost of proposed unit is Rs. 17.0Crore.Total capital cost earmarked towards environmental pollution control measures is Rs. 2.25Croreand the recurring cost (operation and maintenance) will be about Rs. 4.07Croreper annum. Total employment including direct and indirect will be50persons.

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 March, 2019 to May, 2019and the baseline data indicates the ranges of concentrations as: PM10 (66.1–75.9µg/m3), PM2.5 (39.3–46.3 µg/m3), SO2 (13.4 –16.6 µg/m3) and NOx (15.7–18.8 µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.584 µg/m3, 0.684 µg/m3, and 0.562 µg/m3with respect to PM10, SO2andNOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 233 m3/day of which fresh water requirement of 123 m3/day will be met from Bore well. 110 m3/day will be recycled/treated water. Process effluent from dye intermediate plant (77 KLD) will be taken into ETP after segregation of spent Sulphuric acid stream (55 KLD) along with effluent from dyes plant, scrubber, washing & utilities. Then it will be passed through RO. RO permeate (85 KLD) will be reused; RO reject (56 KLD) will be Spray Dried in in-house spray Dryer. The plant will be based on Zero Liquid Discharge system.

Power requirement will be 1500 kVA and will be met from Madhya Gujarat Vij Company Ltd. (MGVCL). Unit will install one D.G. Set of 500 kVA capacity and will be used as standby during power failure. Stack (height 11 meters) will be provided as per CPCB norms to the proposed D.G.Set.

In proposed unit, Two steam boilers (2 TPH each), 6 nos. of Hot Air Generator (4.5Lakhs Kcal/hr.x 4 nos. and 25 Lakhs Kcal/hr. x 2 nos.) will be installed. Bio Coal will be used as fuel in proposed utilities. Cyclone and bag filter with a stack height of 30m for 2 nos. of Boilers, 4 nos. of HAG and 2 nos. of HAG will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3for the proposed utilities.

Public Hearing for the expansion project has been conducted by State Pollution Control Board on 11th December, 2019 under the Chairmanship of Additional District Magistrate. The main issues raised during the public hearing are related to Green belt development in 33% area, rain water harvesting, control of air pollution. The Committee deliberated the action

plan on the issues raised during PH and found in order. The project proponent has proposed to allocate 3% of the total project cost towards CER activities.

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. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. 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 Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21stJuly, 2010 and amended from time to time shall be followed. Fugitive emissions shall be controlled at 99.98% with effective chillers.

(v) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.

(vi) 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.

(vii) 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.

(viii) Total fresh water requirement shall not exceed 123 cum/day, proposed to be met from bore well. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(ix) 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.

(x) 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.

(xi) 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.

(xii) 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.

(xiii) 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.

(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 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) As committed, 3% of total project cost shall be allocated towards Corporate Environment Responsibility (CER). Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.

(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) 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.17.13

Development Drilling (4 Wells) under NELP-V Offshore BlockCB-OSN-2003/1, Ankleshwar Asset, Gujaratby M/s ONGC Ltd - Reconsideration of Environmental Clearance and CRZ Clerance.

[IA/GJ/IND2/60507/2016, F.No. J-11011/339/2016-IA.II (I)]

The project proponent and their accredited consultant M/s Global Management And Engineering Consultant International made a detailed presentation on the salient features of the project.

The proposal was earlier considered by the sectoral EAC in its meeting held during July 29-31 July, 2019 and 26-27 September, 2019, wherein the Committee **recommended** the project for grant of environmental clearance. Subsequent to recommendation of EAC, the file was sent to the CRZ section in the Ministry, wherein the CRZ section confirmed that the project falls under the permissible activities as per 3(x) (b) & 4(ii) (e) of the CRZ Notification, 2011. The CRZ section has also given comment on the complaint received. In the compliant

it is mentioned that the project site is located in CRZ I A ecologically sensitive area and would mudflats, creek network etc. In this regard based on report of NCSCM, the CRZ section found that the proposed 4 wells points falls within intertidal zone (CRZ IB) and the existing 2 well location are located within CRZ III area on the creek side. The NCSCM report has also clarified that the proposed and existing well locations are falling outside CRZ IA such as mangrove, mudflats etc. The Committee deliberated the issues.

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 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 the proposal.

The Committee noted that the present proposal involves CRZ and environmental clearance and the Committee considered the recommendations of GCZMA forwarded to this Ministry vide letter dated 24th April, 2019. The Committee found the EIA/EMP report and marine environment studies 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, after deliberations, reiterated its earlier **recommendations** for grant of environmental clearance and CRZ clearance to the project during its meeting held on 29-31 July, 2019 and 26-27 September, 2019, subject to compliance of same set of conditions with minor changes therein as under:-

- Conditions stipulated by the GCZMA shall be satisfactorily implemented.

Amendment/Extension in Environmental Clearance

Agenda No. 17.14

Carbon Black Plant at Patalganga District Raigadh, Maharashtra by M/s SKI Carbon Black India Pvt. Ltd.- Amendment in Environment Clearance

[IA/MH/IND2/27746/2006, J-11011/35/2007-IA II (I)]

The proposal is for extension of the validity of the environmental clearance granted to the project vide MoEF&CC Letter No. J-11011/35/2007-IA II (I)] dated 22nd March 2013 for manufacture of Carbon Black at VillageLohop, Talwali, Taluka Khalapur, District Raigad, Maharashtraby M/s Birla Carbon India Pvt Ltd(Formerly known as SKI Carbon Black (I) Pvt. Ltd. (Unit: Hi-Tech Carbon, Patalganga).

The project proponent has requested for extension of the validity of the EC with the following grounds;

Birla Carbon India, Patalganga (Formerly known as SKI Carbon Black India Pvt. Ltd.,Unit:- Hi-Tech Carbon, Patalganga) was established in 2010 with a capacity of 84,000 TPA. It was planned to proceed with expansion in a phase manner in line with market demand. In phase I, capacity of Carbon Black plant was expanded up to 84000 TPA after obtaining EC & CTO. As there is growth in the Carbon Black market, the phase II expansion is in progress. With phase II, Carbon Black production will reach to 120000 TPA as per the Environment Clearance approval.

Since the completion of project will be beyond the validity period of E.C. (i.e. March 2020), it is requested for extension of the validity period of the environment clearance for next three years so that phase II expansion can be completed as envisaged.

The Committee has made a detailed deliberation on the progress of the project and also the implementation status of the public hearing action plan and compliance status of the EC conditions, and found to be satisfactory. The Committee has noted that transfer of existing environmental clearance in favour of the present applicant is under consideration in the Ministry.

The Committee, after detailed deliberations, has **recommended** for extension of validity of the environmental clearance till 22nd March 2023, to complete the work as per the scope of the project, **subject to transfer of existing environmental clearance** in favour of M/s Birla Carbon India Pvt Ltd, with all other terms and conditions remain unchanged.

Agenda No. 17.15

Expansion of Barauni Refinery from 6 MMTPA to 9 MMTPA along with Polymer units at Barauni Refinary, Barauni (Bihar) by M/s IOCL- Extension of validity of Environment Clearance

[IA/BR/IND2/116589/2019, J-11011/15/2015 IA II (I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated 15th February 2019 (F. No. J-11011/15/2015-IA-II (I)) for the project for Expansion of Barauni Refinery from 6 MMTPA to 9 MMTPA along with polymer units located at Barauni, District Begusarai (Bihar) in favour of M/s Indian Oil Corporation Limited.

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

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/read as	Justification/reasons
1	11 (page no.3)	Based on the proposal submitted by the project proponent and recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to project for Expansion of Barauni Refinery from 6 MMTPA to 9 MMTPA along with polymer units by M/s Indian Oil Corporation Limited in a total area of 3592921 sqm at Barauni, District Begusarai (Bihar), **for a period of one year**, under the provisions of the EIA notification, 2006, and the amendments therein, subject to compliance of the terms and conditions as under:-	Based on the proposal submitted by the project proponent and recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to project for Expansion of Barauni Refinery from 6 MMTPA to 9 MMTPA along with polymer units by M/s Indian Oil Corporation Limited in a total area of 3592921 sqm at Barauni, District Begusarai (Bihar), under the provisions of the EIA notification, 2006, and the amendments therein, subject to compliance of the terms and conditions as under:-	The EC was granted for one year, expiring 14.02.2020 subject to compliance of the terms and conditions mentioned under clause 11 of the EC. As per Clause 11(a) of the EC, Third party assessment for the environmental damage, if any, and differential impacts on environmental parameters due to excess crude processing (during the periods 2009-10, 2010-11, 2012-13, 2013-14, 2015-16 & 2016-17) shall be carried out by NEERI or by any other agency of repute, in a fixed time frame and the report shall be submitted to the Ministry. The said study has been carried out by M/s NEERI and report has been submitted to the ministry. As per the report, there is no impact on environment due to excess crude processing. The

				executive summary of the report is deliberated by the EAC. The compliance to other conditions is also being taken up in a phase-wise manner and will be complied before project completion.

The EAC during deliberations noted that, as per the conditions stipulated in the EC dated 15th February 2019 granted for one year, the project proponent has conducted third party assessment for the environmental damage and differential impacts on environmental parameters due to the reported excess crude processing. The study has been carried out by M/s NEERI, CSIR and as per the report, there is no impact on environment due to excess crude processing. The Committee found the study to be satisfactory and observed that no further action is required on the matter related to excess production. The project proponent has also submitted an undertaking that production shall not exceed the approved limit without taking prior clearance from the concerned authorities.

The Committee after deliberations has **recommended** for extension of validity of environmental clearance till 15th February 2026 for completion of the project as per scope of the project, as per the provisions of the EIA Notification, 2006, with all other terms and conditions remain unchanged.

Agenda No. 17.16

Setting up of food preservatives manufacturing unit for production at Plot No.E-73, Additional Patalganga MIDC district Raigadh (Maharashtra) by M/s Fine Organic Industries Limited – Amendment in Environment Clearance.

[IA/MH/IND2/111341/2019, J-110111/47/2018-IA-II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated20.05.2019 for the project, Setting up Food Preservatives manufacturing Unit located at Plot No.E-73 Additional Patalganga MIDC, Dist. Raigad, Maharashtra in favour of M/s Fine Organic Industries Ltd.

The project proponent has requested for amendment in the EC with the details are as under, for amendment

Sr. NO.	Para of EC issued by MoEF&CC	Details as per EC	To be revised/ read as	Justification/reason

1	Para 9(a)	'Prior Clearance shall be subject to prior clearance from 'National Board for Wildlife'	Waiving the Condition of 9(a)'Prior Clearance shall be subject to prior clearance from National Board for Wildlife'	As per OM dated 8th August, 2019 Proposals involving developmental activity/project located outside the stipulated boundary limit of notified ESZ and located within 10 km of National Park/ Wildlife Sanctuary, **prior clearance from Standing Committee of the National Board for Wildlife (SCNBWL) may not be applicable**. However, such proposals from environmental angle including impact of developmental activity/project on the wildlife habitat, if any, would be examined by the sector specific Expert Appraisal Committee and appropriate conservation measures in the form of recommendations shall be made'.

The EAC during deliberations noted that the Ministry vide OM dated 8th August, 2019 inter-alia has already clarified that the projects located outside the notified ESZ of the National Park/Wildlife Sanctuary need not require prior clearance from Standing Committee of the NBWL for operations. Accordingly, the Committee noted that the present proposal does not require any amendment in this regard and desired to **return** the proposal, as there is no rationale in considering the same.

Agenda No. 17.17

Modernization of Mumbai Refinery by M/s Bharat Petroleum Corporation Limited at Village Mahul, tehsil Kurla, Mumbai Suburban district (Maharashtra) – Amendment in Environment Clearance.

[IA/MH/IND2/130402/2019 , IA-J-11011/145/2018-IA-II(I)

The proposal is for amendment in the Environmental Clearance granted by the Ministry, vide letter no. J-11011/145/2018-IA II(I) dated August 5, 2019 for Modernisation of Mumbai Refinery by M/s Bharat Petroleum Corporation Limited at village Mahul, tehsil Kurla, Mumbai Suburban (Maharashtra).

The project proponent has requested for amendment in the Environmental Clearance with the details as under:

S. No.	Para of EC issued by MoEFCC	Details as per the EC	To be revised/ read as	Justification/ Reasons
1	EC letter no. J-11011/145/ 2018-IA II(I) dated August 5, 2019	Environmental Clearance has been granted to Mumbai Refinery for installation of Petro-Residue Fluidized Catalytic Cracking unit with associated facilities	Environmental Clearance need to be amended for inclusion of CRZ clearance for the associated facilities of PRFCC unit.	Proper Justification/reason is given below.

M/s BPCL intends to diversify into Petrochemicals products with major focus on Ethylene/Propylene based products. A Petro-Residue Fluidized Catalytic Cracking (PRFCC) unit is proposed to be set up inside Mumbai refinery complex. Setting up of PRFCC project is modernization of Mumbai Refinery by replacing vintage Catalytic Cracking Unit (CCU) commissioned in 1955 and Fluidized Catalytic Cracking Unit (FCCU) commissioned in 1985. The major features of proposed PRFCC unit are as follows:

- The unit will incorporating state of art technology, energy efficient and better yield.
- There will not be any increase in pollution load and total refinery throughput post PRFCC.
- DeNox facility to reduce NOx emission using a combination of latest technology along with Low NOx burners to meet environmental norms.
- Main unit of PRFCCU is located outside CRZ area and EC has been obtained for the same. vide F NO: J-11011/145/2018-IAII (I) dated 5th August 2019.
- Few of the offsite facilities are proposed to be located in CRZ II area and MCZMA has recommended the same to MoEF&CC from CRZ point of view vide letter No. CRZ 2019/ CR 184 / TC 4 dt. 19/11/2019.

As per the latest CZMP approved by MCZMA, main unit of PRFCCU is located outside CRZ area. However, following few facilities of PRFCCU are coming in CRZ II area. Due to various reasons, it is required to locate these minimum facilities in the CRZ II area. Brief justifications/compulsions for this requirement are listed as follows:

(1) Justification for locating associated facilities of PRFCC in CRZ II area

As per latest Coastal Zone Management Plan (CZMP) issued from Maharashtra Coastal Zone Management Authority (MCZMA), amendment is required for EC granted to Mumbai Refinery for inclusion of CRZ clearance. The main unit of PRFCC is located outside CRZ area however some of the associated facilities such as Cooling Tower, Control room, Electrical substation & Part of SRU are required to be located under CRZ II area. The justification of each facility is given as below.

a. Cooling Tower

All the existing Cooling towers are located in one location at the southern corner of the Refinery since sea water is being used. Make up water is coming from sea and blow down water goes back to sea through Main Oil Catcher. Being sea water, all facilities of Cooling Towers are required to be located in close proximity to each other for optimizing space and energy requirements and also to improve operational flexibility. The proposed location of cooling tower falls under CRZ II area.

b. Control Room and Sub Station Buildings

These buildings are required to be located at close proximity to each other and also to the unit for operational and safety requirements. The proposed unit is surrounded by other existing units. The location identified for these buildings is the closest to the unit considering the site constraints. These buildings are a part of the unit and hence location identified is falling under CRZ II area.

c. Part of Sulphur Recovery Unit

All the existing SRUs are located in a single area for operational flexibility, safety reasons, optimizing space, energy requirements etc. New SRU coming under PRFCC project is required to be installed near existing SRUs because molten Sulphur loading arms and Sulphur storage area have to be nearby. Only a corner of the proposed SRU plot comes under CRZ II area.

Details of various facilities of PRFCCU proposed in CRZ II area

Sl. No	Project Facility	Size	Area (M^2) falling under CRZ II
1	Cooling Tower	158 M X 45 M	7110.00
2	Electrical Sub-Station building	25 M X 30 M	750.00
3	Satellite Rack Room (Control Room) Building	120 M X 30 M	3600.00
4	Part of Sulphur Recovery Unit of PRFCC	100 M X 40 M	1000.00
	Total		**12,460.00 (3.07Acres)**

The EAC during deliberations noted that the environmental clearance dated 5thAugust, 2019 was granted in favour of M/s Bharat Petroleum Corporation Limited for modernization of Mumbai Refinery by replacing old Catalytic Cracking Unit (CCU) and Fluidized Catalytic Cracking Unit (FCCU) with the new state of the art Petro Resid Fluidized Catalytic Cracking Unit (PRFCC) and associated facilities in the existing refinery complex of total area 454 acres at Village Mahul, Tehsil Kurla, Mumbai Suburban (Maharashtra). The said EC was granted based on the recommendations of the EAC in its meeting held during 6-8 May, 2019. The Committee noted that the project was considered in totality at that time, considering all the projects/ECs of the complex together. However, the project proponent has neither mentioned anything regarding CRZ clearance nor presented before the Committee. The Committee noted that the present proposal for amendment is for regularization of the EC and CRZ clearance. The Committee has desired that the Ministry

may examine the issues on CRZ and seek the comments of CRZ for further necessary action on the matter.

The Committee also noted that the proposed facilities are coming in the CRZ-II area and comments of the CRZ division may be obtained as per the CRZ Notification, 2019 for further appraisal by the EAC, if so required. The Committee has also noted that the project proponent has submitted another proposal for CRZ clearance for the project 'Upgradation of Kerosene Hydro Treating Unit (KHIT) integrated with Diesel Hydrotreter (DHT) and associated facilities' at BPCLs Mumbai Refinery. The proposal has not been considered by the EAC (CRZ) mentioning that setting up of new industries and expansion of existing industries is prohibited activity in the CRZ area as per the extant provisions of the CRZ Notification, 2011.

The Committee showed its dissatisfaction on the piece meal approach of the project proponent for getting the CRZ clearance and desired that the EC/CRZ proposals needs to appraised considering the projects as integrated for better monitoring and compliance.

The Committee after detailed deliberations desired that the Ministry may examine the matter as appropriate first and seek the comments of CRZ division, and in the meantime project proponent shall submit complete documents/information (Marine EIA/EMP report, CRZ maps, recommendation from SCZMA, etc.) as per the CRZ Notification, 2019.

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

Agenda No. 17.18

Expansion of Agrochemical & Intermediates Manufacturing Plant in UPSIDC Industrial Area, Village Mahfona, Tahsil Sandila, District- Hardoi (Uttar Pradesh) by M/s India Pesticides Limited- Amendment in Environment Clearance.

[IA/UP/IND2/113976/2019, J-11011/331/2016-IA-II(I)]

The project proponent did not attend the EAC meeting. Theproposalwas accordingly **deferred** by the Committee.

DAY 2: 26th February, 2020 (Wednesday)

Agenda No.17.19

Expansion of Refinery from 20 MMTPA to 46 MMTPA and Petro-chemical Complex at Vadinar, Dist. Devbhumi Dwarka, Gujarat by M/s Nayara Energy Ltd. - Consideration of Environmental Clearance.

[IA/GJ/IND2/119511/2018, J-11011/320/2006-IA-II(I)]

The proposal is for environmental clearance to the project for expansion of Refinery Capacity from 20 MMTPA to 46 MMTPA with Petrochemical Complex by M/s Nayara Energy Limited located at Vadinar, District Devbhumi Dwarka (Gujarat).

The Ministry has informed the EAC before initiating the presentation and discussion that a court case has been filed at Hon'ble High Court of Gujarat vide Civil Application No. 15322 of 2019 Dilipsinh Bhikabhai Jadeja Vs State of Gujarat. The case was listed on 26.02.2020.

The project proponent and their accredited consultant M/s. CSIR- National Environmental Engineering Research Institute attended the meeting and briefed about the salient features of the project.

The EAC, during deliberations noted that the project proponent has not carried out the public consultation as per the provisions contained in EIA Notification, 2006. The project proponent was advised to carry out first public consultation as per the EIA Notification, 2006 and accordingly revise the EIA/EMP Report. The EAC, after detailed deliberations decided to **return**the proposal in present form**.**

Agenda No.17.20

Setting up Pigments & Dyes manufacturing unit of capacity 1200 TPM by M/s Cosmic Pigments & Intermidiates (Unit-I) located at Survey No. 202/6/Paiky, Village Sokhada, Taluka Khambhat, District Anand (Gujarat) –Re-Consideration of Environmental Clearance.

[IA/GJ/IND2/91048/2019, IA-J-11011/24/2019-IA-II(I)]

The project proponent and their consultant M/s Aqua-Air Environmental Engineers Pvt. Ltd. made a detailed presentation on the salient features of the project.

The proposal was earlier considered by the EAC (Industry-2) in its meeting held during 20-22 November, 2019. Additional information desired by the Committee and reply submitted by the project proponent is as under:

S. No.	Information desired by the EAC	Reply submitted by the PP& discussion by the EAC
1.	EAC noted that PP has not submitted adequately TOR compliance and PP needs to be resubmit the TOR Compliance adequately	EIA Report is revised with complying of all TOR points as per the terms of reference granted for the project, and conforms to the Appendix III of the EIA Notification, 2006. Revised EIA Report with Form-2 is uploaded & attached with Additional Information file. The Committee deliberated on the information.
2.	The Committee noted that there are various deficiencies in Form 2 (viz. S. no. 13, 15 etc.) uploaded by the PP and	Form-2 & EIA Report is revised and TOR compliance is adequately prepared. Revised Form-2 & EIA Report with adequate TOR Compliance is uploaded and is attached with Additional

<table>
<tr><td></td><td>accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.</td><td>Information file. The Committee deliberated on the information.</td></tr>
<tr><td>3.</td><td>The Committee noted that there are 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</td><td>There are 3 Schedule I species found in the study area. Indian Peafowl, White Rumped Vulture & Common Pierrot Butterfly and its budgetary allocation is Rs. 202500, Rs. 302500, Rs. 202500, so total budgetary allocation for conservation of Schedule-I Species comes to Rs. 707500. Approval for the Wildlife Conservation and Management Plan from CWLW State Government is submitted on January 24, 2020. Species specific conservation plan for schedule-I species along with budgetary allocation has been submitted. The Committee deliberated the plan.</td></tr>
<tr><td>4.</td><td>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</td><td>Issues raised during Public Consultation by 3 People:
1. Local Employment to get increased due to proposed project
2. PP helped the nearby villages for each and every activity required and that led to the development of nearby villages
3. PP is actively involved to improve environment quality of the area
Details of Public Hearing along with Action Plan has been submitted. The Committee deliberated the action plan and found in order.</td></tr>
<tr><td>5.</td><td>Onsite emergency plan as per MSIHC Rules.</td><td>Company shall develop the emergency management system to tackle the emergency situation, apart from the EMS. Onsite emergency plan as per MSIHC Rules has been submitted</td></tr>
<tr><td>6.</td><td>Revised water balance with details of total water and fresh water requirement</td><td>Revised water balance with details of total water and fresh water requirement, and permission from concerned regulatory authority has been submitted</td></tr>
<tr><td>7.</td><td>Effluent treatment mechanism with plan for Zero Liquid Discharge</td><td>Wastewater generated will be treated by giving Primary Treatment followed by RO & MEE to achieve ZLD. Effluent treatment mechanism with plan for Zero Liquid Discharge has been submitted</td></tr>
<tr><td>8.</td><td>Plan for Corporate Environmental Responsibility</td><td><table><tr><th>CER ACTIVITIES</th><th>FUND (RS.)</th></tr><tr><td></td><td>TOTAL</td></tr><tr><td>Provision of Raw Material like Cement & Concrete, SS Roads, Briquettes, etc. for Water Tank for water distribution.</td><td>13,00,000/-</td></tr></table></td></tr>
</table>

		Land Filling at Lunej School	5,00,000/-
		Contribution in the laying of water pipeline in the Lunej Village.	3,50,000/-
		Contribution in the development of Green belt in Nagra Village	3,50,000/-
		TOTAL	**25,00,000/-**
9.	QCI/NABET Accreditation details of consultants prepared the EIA/EMP report	M/s. Aqua Air Environmental Engineers Pvt. Ltd. has stay order in Hon'ble High Court against Notification of MoEFCC, New Delhi dated March 3, 2016.	
10.	Copy of stay order of Hon'ble High Court permitting experts who prepared the EIA/EMP report.	Copy of Stay Oder is attached	
11	PP/Consultant was unable to show the video of PH	DVD of the video of Public Hearing has been submitted	
12	PP/Consultant has submitted the undertaking for owning the draft EIA Report. The consultant has not applied his mind during uploading the information on portal. The Committee was very disappointed by this act of consultant	Undertaking for owning the EIA Report has been submitted	

During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for setting up Pigments & Dyes manufacturing unit of capacity 1200 TPM by M/s Cosmic Pigments & Intermediates (Unit-I) at Survey No. 202/6, Paiky, Village Sokhda, Taluka Khambhat, District Anand, Gujarat.

The details of products are as under:

Sr. No. of Total Products	Category wise Sr. No. of Products	Group wise Sr. No. of Products	Name of the Products	CAS no. / CI no.	Quantity MT/Month	LD50 /LC50
1.Total No. of Products : Category : A+B = 147; Total Production capacity of All Products : 1200 MT/Month						
Category-A: Pigments (Group 1+2+3+4+5 = 106)						
Group-1: Pigment Red = 49						
1	1	1	Pigment Red 2	6041-94-7	200	LD50 Oral, Rat 8110 mg/kg

2	2	2	Pigment Red 3	2425-85-6		LD50 Oral, Rat 8180 mg/kg
3	3	3	Pigment Red 4	2814-77-9		LD50 Oral, Rat 8140 mg/kg
4	4	4	Pigment Red 5	6410-41-9		LD50 Oral, Rat 8190 mg/kg
5	5	5	Pigment Red 12	6410-32-8		LD50 Oral, Rat 8160 mg/kg
6	6	6	Pigment Red 14	6471-50-7		NA
7	7	7	Pigment Red 38	6358-87-8		dermal route (LD50 > 2000 mg/kg bw)
8	8	8	Pigment Red 48:1	7585-41-3		LD50 Oral, Rat 8160 mg/kg
9	9	9	Pigment Red 48:2	7023-61-2		LD50 Oral, Rat 8190 mg/kg
10	10	10	Pigment Red 48:3	15782-05-5		LD50 Oral, Rat 8130 mg/kg
11	11	11	Pigment Red 48:4	5280-66-0		LD50 Oral, Rat 8160 mg/kg
12	12	12	Pigment Red 48:5	N.A.		NA
13	13	13	Pigment Red 49	1248-18-6		NA
14	14	14	Pigment Red 49:1	1103-38-4		NA
15	15	15	Pigment Red 49:2	1103-39-5		NA
16	16	16	Pigment Red 49:3	6371-67-1		NA
17	17	17	Pigment Red 52:1	17852-99-2		NA
18	18	18	Pigment Red 52:2	12238-31-2		NA
19	19	19	Pigment Red 53	2092-56-0		NA
20	20	20	Pigment Red 53:1	5160-02-1.		LD50 Oral, Rat 8190 mg/kg
21	21	21	Pigment Red 53:3	73263-40-8		L.D.50 ACUTE ORAL(RATS) : ABOUT 5,000mg/KG
22	22	22	Pigment Red 57:1	5281-04-9.		LD50 Oral, Rat 8140 mg/kg
23	23	23	Pigment Red 63:1	6417-83-0		NA
24	24	24	Pigment Red 63:2	35355-77-2		LD50 rat (oral): > 2.000 mg/kg

25	25	25	Pigment Red 81	12224-98-5		LD50 rat : 8260 mg/kg
26	26	26	Pigment Red 81:1	80083-40-5		LD50 rat (oral): > 2.000 mg/kg
27	27	27	Pigment Red 81:x	63022-06-0		LD50 rat (oral): > 2.000 mg/kg
28	28	28	Pigment Red 81:y	N.A.		LD50 rat (oral): > 2.000 mg/kg
29	29	29	Pigment Red 81:2	75627-12-2		LD50 rat (oral): > 2.000 mg/kg
30	30	30	Pigment Red 81:3	68310-07-6		LD50 rat (oral): > 2.000 mg/kg
31	31	31	Pigment Red 81:4	85959-61-1		LD50 rat (oral): > 2.000 mg/kg
32	32	32	Pigment Red 112	6535-46-2		LD50 Oral, Rat 8290 mg/kg
33	33	33	Pigment Red 122	980-26-7		LD50 Oral, Rat 8290 mg/kg
34	34	34	Pigment Red 123	24108-89-2		LD50 rat (oral): > 2.000 mg/kg
35	35	35	Pigment Red 144	5280-78-4		LD50 Oral, Rat 8380 mg/kg
36	36	36	Pigment Red 146	5280-68-2		LD50 Oral, Rat 8360 mg/kg
37	37	37	Pigment Red 168	4378-61-4		NA
38	38	38	Pigment Red 169	12237-63-7		LD50 Oral, Rat 5000 mg/kg
39	39	39	Pigment Red 170	2786-76-7		LD50 Oral, Rat 8270 mg/kg
40	40	40	Pigment Red 175	6985-92-8		LD50 Oral, Rat 8350 mg/kg
41	41	41	Pigment Red 176	12225-06-8		LD50 Oral, Rat 8380 mg/kg
42	42	42	Pigment Red 177	4051-63-2		LD50 Oral, Rat 8340 mg/kg
43	43	43	Pigment Red 178	3049-71-6		LD50 Species: rat Value: > 5,000 mg/kg
44	44	44	Pigment Red 179	5521-31-3		LD50 Oral, Rat 8290 mg/kg
45	45	45	Pigment Red 188	61847-48-1		LD50 rat (oral): > 2.000 mg/kg
46	46	46	Pigment Red 202	3089-17-6		LD50 Oral, Rat 8360 mg/kg
47	47	47	Pigment Red 254	122390-98-1		LD50 Oral, Rat 8380 mg/kg

48	48	48	Pigment Red 256	79102-65-1		Oral LD50: >10 g/kg (rats) practically non-toxic
49	49	49	Pigment Red 264	122390-98-1		LD50 Oral, Rat 8320 mg/kg
Group-2: Pigment Yellow = 32						
50	50	1	Pigment Yellow 1	2512-29-0	200	LD50 Oral, Rat. >10000mg/kg
51	51	2	Pigment Yellow 3	6486-23-3		LD50 Oral, Rat 8252mg/kg
52	52	3	Pigment Yellow 12	6358-85-6		LD50 Oral, Rat .>5000mg/kg
53	53	4	Pigment Yellow 13	5102-83-0		LD50 Oral, Rat .>5000mg/kg
54	54	5	Pigment Yellow 14	5468-75-7		LD50 Oral, Rat .>5000mg/kg
55	55	6	Pigment Yellow 16	5979-28-2		Not Listed
56	56	7	Pigment Yellow 17	4531-49-1		LD50 Oral, Rat 8230 mg/kg
57	57	8	Pigment Yellow 61	12286-65-6		LD50 Oral, Rat 8160 mg/kg
58	58	9	Pigment Yellow 62	12286-66-7		LD50 rat (oral): > 5,000 mg/kg
59	59	10	Pigment Yellow 63	14569-54-1		Not Listed
60	60	11	Pigment Yellow 65	6528-34-3		LD50 Oral, Rat 8230 mg/kg
61	61	12	Pigment Yellow 73	13515-40-7		LD50 Oral, Rat 8190 mg/kg
62	62	13	Pigment Yellow 74	6358-31-2		LD50 Oral, Rat 8260 mg/kg
63	63	14	Pigment Yellow 83	5567-15-7		LD50 Oral, Rat 8390 mg/kg
64	64	15	Pigment Yellow 93	5580-57-4		LD50 Oral, Rat 14000 mg/kg
65	65	16	Pigment Yellow 97	12225-18-2		LD50 Oral, Rat 8250 mg/kg
66	66	17	Pigment Yellow 101	2387-03-3.		LD50 rat (oral): > 2.000 mg/kg
67	67	18	Pigment Yellow 120	29920-31-8		oral route (LD50 > 15 000 mg/kg bw)
68	68	19	Pigment Yellow 121	61968-85-2		NA
69	69	20	Pigment Yellow 138	30125-47-4		LD50 rat (oral): > 5.000 mg/kg

70	70	21	Pigment Yellow 139	36888-99-0		LD50 Oral, Rat 2000 mg/kg
71	71	22	Pigment Yellow 151`	31837-42-0		LD50 Oral, Rat 8330 mg/kg
72	72	23	Pigment Yellow 153	68859-51-8		NA
73	73	24	Pigment Yellow 154	68134-22-5		LD50 Oral, Rat 8250 mg/kg
74	74	25	Pigment Yellow 155	68516-73-4		NA
75	75	26	Pigment Yellow 174	78952-72-4		LD50 Oral, Rat =980mg/kg
76	76	27	Pigment Yellow 180	77804-81-0		LD50 Oral, Rat 5000mg/kg
77	77	28	Pigment Yellow 181	74441-05-7		oral route (LD50 > 5000 mg/kg bw)
78	78	29	Pigment Yellow 182	67906-31-4		NA
79	79	30	Pigment Yellow 183	23792-68-9		LD50 Species: rat (male/female) Value: > 5,000 mg/kg
80	80	31	Pigment Yellow 191	129423-54-7		Oral LD50 value of 5 mg/kg or greater in rats.
81	81	32	Pigment Yellow 191:1	154946-66-4		LD50 Oral, Rat 2000mg/kg
Group-3: Pigment Orange = 8						
82	82	1	Pigment Orange 5	3468-63-1	200	LD50 Oral, Rat 8120 mg/kg
83	83	2	Pigment Orange 13	3520-72-7		LD50 Oral, Rat 8190 mg/kg
84	84	3	Pigment Orange 16	6505-28-8		LD50 Oral, Rat 8120 mg/kg
85	85	4	Pigment Orange 34	15793-73-4		LD50 Oral, Rat 8250 mg/kg
86	86	5	Pigment Orange 36	12236-62-3		LD50 Oral, Rat 8210 mg/kg
87	87	6	Pigment Orange 43	4424-06-0		LD50 Oral, Rat 2000 mg/kg
88	88	7	Pigment Orange 62	52846-56-7		LD50 Oral, Rat 8370 mg/kg
89	89	8	Pigment Orange 64	72102-84-2		LD50 Oral, Rat 8270 mg/kg
Group-4: Pigment Blue = 10						
90	90	1	Pigment Blue 1	1325-87-7	200	NA

91	91	2	Pigment Blue 15	147-14-8		LD50 Oral, Rat. >3200mg/kg
92	92	3	Pigment Blue 15:1	147-14-8		LD50 Oral, Rat. >3200mg/kg
93	93	4	Pigment Blue 15:2	147-14-8		LD50 Oral, Rat. >3200mg/kg
94	94	5	Pigment Blue 15:3	147-14-8		LD50 Oral, Rat 2000mg/kg
95	95	6	Pigment Blue 15:4	147-14-8		LD50 Oral, Rat 2000mg/kg
96	96	7	Pigment Blue 15:6	147-14-8		LD50 Oral, Rat 2000mg/kg
97	97	8	Pigment Blue 16	574-93-6		LD50 Oral, Rat 2000mg/kg
98	98	9	Pigment Blue 60	81-77-6		LD50 Oral, Rat > 980 mg/kg
99	99	10	Pigment Blue 62	57485-98-0		LD50 Oral, Rat 2000mg/kg
Group-5: Pigment Violet = 7						
100	100	1	Pigment Violet 1	1326-03-0		LD50 Oral, Rat 2000mg/kg
101	101	2	Pigment Violet 1x	N.A.		LD50 Oral, Rat 2000mg/kg
102	102	3	Pigment Violet 3	1325-82-2		LD50 Oral, Rat 2000mg/kg
103	103	4	Pigment Violet 19	1047-16-1	200	LD50 Oral, Rat 8420 mg/kg
104	104	5	Pigment Violet 23	6358-30-1		LD50 Oral, Rat 2000mg/kg
105	105	6	Pigment Violet 27	12237-62-6		LD50 Oral, Rat. >3200mg/kg
106	106	7	Pigment Violet 29	81-33-4		LD50 Oral, Rat 2000mg/kg
Total of Category-A (Group 1 + 2 + 3 + 4 + 5)					**1000**	
Category-B: Solvent Dyes						
Group-1: Red Solvent Dyes = 13						
107	1	1	Solvent Red 19E	6368-72-5		NA
108	2	2	Solvent Red 23	85-86-9		NA
109	3	3	Solvent Red 24	85-83-6	200	Acute oral toxicity: LD50(Rat): 8110mg/kg
110	4	4	Solvent Red 52	81-39-0		Acute oral toxicity: LD50(Rat): 8160mg/kg

111	5	5	Solvent Red 111	82-38-2		Acute Toxicity: Oral-dog LD 50:>8 g/kg
112	6	6	Solvent Red 135	20749-68-2		Acute oral toxicity: LD50(Rat): 8260mg/kg
113	7	7	Solvent Red 151	144013-41-1		NA
114	8	8	Solvent Red 168	71832-19-4		Acute oral toxicity: LD50(Rat): 8220mg/kg
115	9	9	Solvent Red 169	27354-18-3		Acute oral toxicity: LD50(Rat): 8230mg/kg
116	10	10	Solvent Red 179	479-27-6		Acute oral toxicity: LD50(Rat): 8260mg/kg
117	11	11	Solvent Red 197	52372-39-1		Acute oral toxicity: LD50(Rat): 8190mg/kg
118	12	12	Solvent Red 207	15958--69-6		NA
119	13	13	Solvent Red 227	2944-28-7		NA
Group-2: Yellow Solvent Dyes = 12						
120	14	1	Solvent Yellow 2	6370-43-0		NA
121	15	2	Solvent Yellow 14	842-07-9		NA
122	16	3	Solvent Yellow 18	6407-78-9		NA
123	17	4	Solvent Yellow 33	8003-22-3		Skin, rabbit: LD50 = >2 gm/kg.
124	18	5	Solvent Yellow 43	19125-99-6		NA
125	19	6	Solvent Yellow 44	2478-20-8		NA
126	20	7	Solvent Yellow 72	61813-98-7		NA
127	21	8	Solvent Yellow 114	7576-65-0		NA
128	22	9	Solvent Yellow 131	71819-82-4		NA
129	23	10	Solvent Yellow 157	27908-75-4		Acute oral toxicity: LD50(Rat): 8200mg/kg

130	24	11	Solvent Yellow 163	106768-99-4		LD50 rat (oral): > 2,000 mg/kg (OECD Guideline 423)
131	25	12	Solvent Yellow 167	N.A.		NA
Group-3: Orange Solvent Dyes = 3						
132	26	1	Solvent Orange 60	61969-47-9		Acute oral toxicity: LD50(Rat): 8090mg/kg
133	27	2	Solvent Orange 63	16294-75-0		Acute oral toxicity: LD50(Rat): 8190mg/kg
134	28	3	Solvent Orange 105	31482-56-1		LD50 Intraperitoneal Rat=3060 MG/KG
Group-4: Blue Solvent Dyes = 6						
135	29	1	Solvent Blue 35	17354-14-2		NA
136	30	2	Solvent Blue 36	14233-37-5		Acute oral toxicity: LD50(Rat): 8080mg/kg
137	31	3	Solvent Blue 97	61969-44-6		Acute oral toxicity: LD50(Rat): 8200mg/kg
138	32	4	Solvent Blue 101	6737-68-8		NA
139	33	5	Solvent Blue 102	15403-56-2		NA
140	34	6	Solvent Blue 104	116-75-6		Not acutely toxic via the oral route (LD50 > 5000 mg/kg bw)
Group-5: Violet Solvent Dyes = 4						
141	35	1	Solvent Violet 13	81-88-1		LD50 Oral, Rat. >500mg/kg
142	36	2	Solvent Violet 14	67577-84-8		Acute oral toxicity: LD50(Rat): 8110mg/kg
143	37	3	Solvent Violet 38	63512-14-1		NA
144	38	4	Solvent Violet 59	6408-72-6		Acute oral toxicity: LD50(Rat): 8220mg/kg
Group-6: Green Solvent Dyes = 3						
145	39	1	Solvent Green 3	128-80-3		LD50 = 3660 mg/kg (Rat)
146	40	2	Solvent Green 28	71839-01-5		LD50 = 3660 mg/kg (Rat)

147	41	3	Solvent Green 33	10671-57-8		NA
Total of Category-B (Group 1 + 2 + 3 + 4 + 5 + 6)					**200**	
Total All Products Category - A(106) + Category-B (41) = 147					**1200**	

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 ToR for the project was granted on 26th February, 2019. Public hearing for the project was conducted by the State Pollution Control Board on 9th August, 2019.

Total land area is estimated to be 12,000 sqm. Green belt will be developed in 33% i.e. 3,960 sqm out of total project area. The estimated project cost of proposed unit is Rs.10 crore. 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. 2.5 Crores per annum. Total Employment will be 65 persons as direct & indirect for project.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Standard Terms of References (ToR) for the project was issued by the Ministry vide letter dated on 26th February, 2019.

Ambient air quality monitoring was carried out at 10 locations during October, 2017 to December, 2017 and submitted baseline data indicates that ranges of concentrations of PM10 (78.83 – 69.35 µg/m3), PM2.5 (47.28 – 40.35 µg/m3), SO2 (12.92 – 8.57 µg/m3) and NO2 (17.09 – 11.94 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.0594 µg/m3, 0.0888 µg/m3, and 0.0312 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 393 m3/day of which fresh water requirement of 124 m3/day proposed to be met from ground water. Total wastewater generation will be 281 KL/day (Industrial: 275 KL/day + Domestic: 6 KL/day). 121 KLD of dilute stream of effluent will be sent to RO and RO permeate @ 83 KLD will be reused in process. 190 KLD of Concentrated stream of effluent (Process: 152 KLD + RO Reject: 38 KLD) will be treated in ETP and sent to own MEE, 184 KLD MEE condensate will recycled. 2 KLD wastewater from cooling will be directly reuse. Domestic wastewater will be disposed through Septic Tank/Soak Pit.

Power requirement for proposed project will be 1200 KWA and will be met from MGVCL. 2 Nos. DG set of 250 KVA capacity shall be used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets of 250 KVA which will be used as standby during power failure. Unit shall have 1 Nos. of 5 TPH Briquette/Coal = 2000 Kg/Hr fired boiler, 4 Nos. of 2 Lakh Kcal/Hr PNG = 320 Cum/Hr fired HAG, 1 Nos. of 2 Lakh Kcal/Hr Briquette = 2000 Kg/Hr fired Thermo pack Boiler will be installed. Multi cyclone separator, Dust Collector & Bag filter + Water Scrubber with a stack of height of 32 m will be

installed for controlling the Particulate emissions (within statutory limit of 150 mg/Nm3) respectively.

Public hearing for the project has been conducted by the Gujarat Pollution Control Board on 9th August, 2019 under the Chairmanship of Additional District Magistrate. The Committee deliberated the action plan on the issues raised during PH and found in order. The expenditure towards CER for the project would be 2.5% of the project cost as committed by the project proponent.

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 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. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. 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. Containment plan shall be developed to arrest all the spillage along the working area and storage in the collection tank of ETP.

(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. Fugitive emissions shall be controlled at 99.98% with effective chillers.

(v) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.

(vi) 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.

(vii) 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.

(i) Total fresh water requirement shall not exceed 124 m3/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(ii) 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.

(iii) 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 leakproof containers. Spent acid to be stored over the ground tank and to be sent to TSDF.

(iv) 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.

(v) 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.

(vi) 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.

(vii) 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.

(viii) 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.

(ix) Based on the commitment made by PP at least 2.5% 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.

(x) 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.

(xi) 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.

(xii) 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.

(xiii) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For 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.17.21

Setting up of Technical Grade Pesticides and Intermediates manufacturing unit by M/s Shreeji Pesticides Pvt. Ltd at Plot No. D-3/5/3 GIDC Dahej Phase III Tal Vagara, District Bharuch (Gujarat) –Re-Consideration of Environmental Clearance

[IA/GJ/IND2/119328/2019, IA-J-11011/153/2019-IA-II(I)]

The project proponent and their accredited consultant M/s Eco Chem Sales and Services made a detailed presentation on the salient features of the project.

The proposal was earlier considered by the EAC (Industry-2) in its meeting held during 20-22 November, 2019. Additional information desired by the Committee and reply submitted by the project proponent is as under:

S. No.	Information desired by the EAC	Reply submitted by the PP& discussion by the EAC
1.	Alternate site analysis needs to be conducted	Three location were evaluated and Gujarat being the most feasible location we had suggested the same and was agreed by the committee
2.	Study report on acute poisoning in Gujarat	The products manufactured at the facility falls under Moderate to Slightly Toxic Category. Report from Neutral GLP lab has been submitted
3.	Onsite emergency planas per MSIHC Rules	The project proponent has submitted the detailed Onsite emergency plan. Details of detectors/sensors in the plant and list of emergency contact numbers to address any emergency has been incorporated.
4.	Details of other pesticide manufacturing unit located in the vicinity and Comment of SPCB on carrying capacity of the area needs to be submitted	The project proponent has submitted the list of pesticide manufacturing unit located in the vicinity and the projct proponent has submitted the copy of CTE issued by the GPCB
5.	Plan for Corporate Environmental Responsibility	Agreed as suggested by committee, the entire CER fund of Rs. 340 Lakhs will be used for drinking water purpose in the villages of study area.
6.	Effluent treatment mechanism with plan for Zero Liquid Discharge	As suggested by committee PP agreed for ZLD and submitted the plan for ZLD.
7.	Revised water balance with details of total water and fresh water requirement. PP unloaded payment receipt in place of water approval.	Total Water required for proposed project is 1787 KLD. Fresh water will be 1370 KLD. Total waste water generation from industrial process will be 631 cum/day out of which 261 cum/day will be sent to MEE & ATFD & 370 KLD to ETP followed by RO. Treated water of 417

	Kindly submit the correct documents as per Form 2.	cum/day will be recycled to meet the process requirements. The unit will be based on Zero Liquid Discharge system.

During deliberations the EAC noted the following:

The proposal is for environmental clearance to the project for setting up of pesticides and intermediates manufacturing unit by M/s Shreeji Pesticides Pvt. Ltd. in an area of 95939.418 sqm. located at Plot No. D-3/5/3, GIDC Dahej, Phase III Taluka Vagara, 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.

The details of proposed products are as under:-

S. No.	Product Details	Existing Quantity	Proposed Quantity MTPA	Total Quantity	End Use
A	FUNGICIDES				
1	AZOXYSTROBIN TECHNICAL	-	11400	11400	Fungicide
2	BOSCALID TECHNICAL				
3	CARBOXIN TECHNICAL				
4	CHLOROTHALONIL TECHNICAL				
5	DIFENOCONAZOLE TECHNICAL				
6	EPOXICONAZOLE TECHNICAL				
7	HEXACONAZOLE TECHNICAL				
8	KRESOXIM-METHYL TECHNICAL				
9	PENCONAZOLE TECHNICAL				
10	PICOXYSTROBIN TECHNICAL				
11	PROPICONAZOLE TECHNICAL				
12	PROTHIOCONAZOLE TECHNICAL				
13	PYRACLOSTROBIN TECHNICAL				

14	TEBUCONAZOLE TECHNICAL				
15	THIFLUZAMIDE TECHNICAL				
16	TRIFLOXYSTROBIN TECHNICAL				
B	INSECTICIDE				
1	CHLORANTRANILIPROLE TECHNICAL	-	3300	3300	Insecticide
2	CYANTRANILIPROLE TECHNICAL				
3	FLUBENDIAMIDE TECHNICAL				
4	NITENPYRAM				
5	PYMETROZINE TECHNICAL				
6	SPIRODICLOFEN				
7	SPIROTETRAMET				
8	THIAMETHOXAM TECHNCIAL				
C	HERBICIDES				
1	CARFENTRAZONE-ETHYL TECHNICAL	-	12000	12000	Herbicide
2	CLETHODIM TECHNICAL				
3	CLODINAFOP-PROPARGYL TECHNICAL				
4	CLOMAZONE TECHNICAL				
5	CHLORANSULAM TECHNICAL				
6	DICLOSULAM TECHNICAL				
7	FENOXAPROP-P-ETHYL TECHNICAL				
8	FLUFENACET TECHNICAL				
9	FOMESAFEN TECHNICAL				
10	GLUFOSINATE-AMMONIUM TECHNICAL				
11	GLYPHOSATE				
12	MESOTRIONE TECHNICAL				
13	PENOXSULAM TECHNICAL				
14	PRETILACHLOR				

	TECHNICAL				
15	PROPANIL TECHNICAL				
16	PROPAQUIZAFOP TECHNICAL				
17	SULFENTRAZONE TECHNICAL				
D	Total (A+B+C)		26700	26700	
E	INTERMEDIATE				
1	1,2,4-TRIAZOLE	-	4400	4400	Internal/Pesticide manufacturing units
2	2-CHLORO-5-CHLOROMETHYLTHIAZOLE				
3	3-Methyl-N-Nitroimino-Perhydro-l, 3, 5-Oxadiazine				

Standard ToR for the project was granted on 13th May, 2019. Public hearing is exempted as the project is located in the notified Industrial area.

Total land area is 95939.418 m^2. Industry will develop greenbelt in an area of 33 % i.e., 31976 m^2 out of total area of the project. The estimated project cost is Rs.170 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs.14 Crore and the Recurring cost (operation and maintenance) will be about Rs 16.99 Crore per annum. Total Employment will be 550 persons as direct & 430 persons indirect due to proposed project.

There are no National parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife corridors, rivers etc. within 10 km from the project site.

Ambient air quality monitoring was carried out at 8 locations during 1stDec 2018 to 28thFeb 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (59.3 – 85.6 µg/m3), $PM_{2.5}$ (31.4 – 46.7 µg/m3), SO_2 (8.7 – 15.4 µg/m3) and NO_2 (13.1- 20.4 µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.84µg/m3, 1.75 µg/m3 and 5.67 µg/m3 with respect to PM_{10}, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 1787 m3/day of which fresh water requirement will be 1370 m3/day proposed to be met from Gujarat Industrial Development Corporation. Total waste water generation from industrial process will be 631 cum/day out of which 261 cum/day will be sent to MEE & ATFD & 370 KLD to ETP followed by RO. Treated water of 417 cum/day will be recycled to meet the process requirements. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement for proposed project will be 7550 KWH proposed to be met from Dakshin Gujarat Vij Company Limited (DGVCL). 4 X 750 KWH of DG sets will be provided to be used as standby during power failure. Stack (height 20 m)will be provided as per CPCB norms to the proposed DG sets. Three NG/Coal/FO fired boiler of 15 TPH capacity each will be installed. ESP+Water Scrubber + Bag Filter with a stack height of 45 m will be provided for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the proposed boilers.

Public hearing is exempted in accordance with the Ministry's OM dated 27th April 2018, as the project site is located inside the notified industrial area.

The project proponent has proposed an amount of Rs. 3 crore 40 lacs towards CER activities i.e. Providing drinking water to nearby villages.

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. 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) Zero Liquid Discharge shall be ensured including existing facility and the proposed expansion facility and no waste/treated water shall be discharged outside the premises.

(iii) VOC losses shall be less than 0.5 % and controlled by installing primary condenser, secondary condenser, VOC trap condenser, reducing temperature from -10 ^{o}C to -35 ^{o}C and also adopting LDAR 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 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 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 99.98%), 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:

(h) Reactor shall be connected to chilled brine condenser system.
(i) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
(j) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
(k) Solvents shall be stored in a separate space specified with all safety measures.
(l) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
(m) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
(n) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(ix) Total fresh water requirement shall not exceed 1370 cum/day proposed to be met from Gujarat Industrial Development Corporation 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:-

(g) Metering and control of quantities of active ingredients to minimize waste.
(h) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
(i) Use of automated filling to minimize spillage.
(j) Use of Close Feed system into batch reactors.
(k) Venting equipment through vapour recovery system.
(l) 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) As committed, fund allocation for the Corporate Environment Responsibility (CER) shall be Rs. 3 crore 40 lacs. 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.

Agenda No.17.22

Proposed expansion as an addition of new products at Plot No: 702/2, GIDC Estate, Ankleshwar Dist: Bharuch, (Gujarat) by M/s Pooja Chemical Industries- Consideration of Environmental Clearance.

[IA/GJ/IND2/130649/2018, IA-J11011/427/2019-IA-II(I)]

PP did not attend the meeting. The EAC decided to defer the proposal. The proposal is therefore **deferre**d.

Agenda No.17.23

Setting up synthetic resin adhesive manufacturing unit by M/s Shri Sairaj Enterprise at Survey No. 82, P2, Plot no. 13, 14, 15, 16, Bhunava, Taluka Gondal, District Rajkot (Gujarat) - Consideration of Environmental Clearance.

[IA/GJ/IND2/130276/2019, IA-J-11011/27/2019-IA-II(I)]

The project proponent and their accredited consultant M/s. Green Circle Inc, made a detailed presentation 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 resin adhesive manufacturing unit of capacity 710 TPM by M/s Shri Sairaj Enterprise in an area of 2730.13 sqm at Survey No. 82, P2, Plot no. 13, 14, 15, 16, Bhunava, Taluka Gondal, District Rajkot (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 EAC, during deliberations noted that the EIA/EMP report contains only 11 chaptersproject details mentioned in the EIA report and the EIA report were not consistent with that presented during the meeting. The EAC also observed that the quality of EIA report is very poor. The Committee under rated the performance of the consultant (M/s Green Circle Inc). The Committee desired that the Ministry/QCI shall take action as appropriate on the matter against the consultant for providing wrong and inconsistent information the EIA/EMP and presentation.

The Consultant has requested the EAC that they will withdraw the project and revise the EIA/EMP report accordingly. The Consultant agreed that they will revise the EIA/EMP as

per Appendix III of the EIA Notification, 2006. The EAC, after detailed deliberations decided to **return the proposal in its present form** and has asked for clarification/inputs, in respect of the following:-

(i) EAC noted that PP has not submitted adequately TOR compliance and PP needs to be resubmit the TOR Compliance adequately.

(ii) Onsite emergency plan as per MSIHC Rules and occupational health plan.

(iii) Revised water balance with details of total water and fresh water requirement and reduction in fresh water demand at least 20%. Also plan to construct RCC tank to collect rain water from the roof top.

(iv) One month additional baseline data to be submitted in this regard.

(v) Revised prediction of GLC due to the proposed project.

(vi) The project proponent has not carried out Traffic study as mentioned in the ToR, the same need to be carried out.

(vii) The public hearing report should be forwarded by the Head office of State Pollution Control Board. Proper action plan on the issues raised during PH alongwith the time line and budget needs to be submitted.

(viii) Details of VOC recovery techniques needs to be submitted so as to achieve 99.7% recovery.

Agenda No.17.24

Setting up synthetic resin adhesive manufacturing unit by M/s Maruti Mica at Survey No.88, Plot No. 7, Hadamtala Industrial Zone, Gondal Highway, B/h Santosh Petrol Pump, Taluka Kotda Sangani, District Rajkot (Gujarat) by - Consideration of Environmental Clearance.

[IA/GJ/IND2/130363/2019, IA-J-11011/38/2019-IA-II(I)]

The project proponent and their accredited consultant M/s. Green Circle Inc, made a detailed presentation on the salient features of the project.

The EAC, during deliberations noted that the EIA report and the EIA report were not consistent with that presented during the meeting. The EAC also noted that categorization of the project need to be checked. The project proponent/Consultant has informed that they want to withdraw their proposal and they will submit the revise the EIA/EMP as per Appendix III of the EIA Notification, 2006.The EAC, after detailed deliberations decided to **return the proposal in its present form.**

Agenda No. 17.25

Setting up Synthetic Resin Adhesive manufacturing plant by M/s Dell Laminate at Survey no. 22, plot no. 1, B/h. Pentagon Forgings, National Highway-27 (8B), Bharudi, Taluka Gondal, District Rajkot, (Gujarat) - Consideration of Environmental Clearance.

[IA/GJ/IND2/130629/2019, IA-J-11011/26/2019-IA-II(I)]

The project proponent and their accredited consultant M/s. Green Circle Inc, made a detailed presentation on the salient features of the project.

The EAC, during deliberations noted that the EIA report and the EIA report were not consistent with that presented during the meeting. The EAC also noted that categorization of the project need to be checked. The project proponent/Consultant has informed that they want to withdraw their proposal and they will submit the revise the EIA/EMP as per Appendix III of the EIA Notification, 2006.The EAC, after detailed deliberations decided to **return the proposal in its present form.**

Agenda No.17.26

Setting up bulk drug & bulk drug intermediates manufacturing unit by M/s Ambition Remedies at Plot No.-1719/4, GIDC-Panoli Estate, Taluka Ankleshwar, District Bharuch (Gujarat) - Consideration of Environmental Clearance.

[IA/GJ/IND2/123295/2019, IA-J-11011/321/2019-IA-II(I)]

The Project Proponent and their consultant M/s. Greenleaf Envirotech Pvt. Ltd made a detailed presentation on the salient features of the project and informed that;

During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for setting up bulk drug & bulk drug intermediates manufacturing unit of capacity 35 TPM by M/s Ambition Remedies in an area of 1977.78 sqm at Plot No.-1719/4, GIDC-Panoli Estate, Taluka Ankleshwar, District Bharuch (Gujarat).

The details of products and capacity as under:

S. NO.	Name of Products	CAS no. /CI no	Capacity (TPM)
1	Ketoconazole and its intermediates	65277-42-1	**35**
1A	Cis-Tosylate	154003-23-3	
1B	Cis-Bromobenzoate	16887-76-6	
1C	N, N, Bis (2-chloroethyl) amine Hydrochloride	821-48-7	
1D	1-Acetyl-4-(4-Hydroxy Phenyl) Piperazine	67915-02-0	

2	2-Chloro Ethylamine Hydrochloride	870-24-6	
3	Meloxicam and its intermediates	71125-38-7	
3A	2-Amino-5-methyl Thiozol	7305-71-7	
3B	Methyl Benzothiazine Isopropyl Ester	35511-15-0	
4	Chloroxazone	95-25-0	
5	1-(2, 3 DichloroPhenyl) Piperazine HCL	119532-26-2	
6	1-(4-Methoxy-Phenyl)-4-(4-Nitro-Phenyl)-Piperazine	74852-61-2	
7	N-Methyl-1-Naptheline Methyl Amine Hydrochloride	65473-13-4	
8	AmbroxolHCl	23828-92-4	
9	1-[2-(2-Hydroxyethoxy) ethyl] piperazine (HEEP)	13349-82-1	
10	2,4-Dichloroacetophenone	2234-16-4	
11	2,4-Dichlorovelrophenone	2234-16-4	
12	1-(3-Chlorophenyl)Piperazine	65369-76-8	
13	1-[2-(2-Hydroxyethyl)Ethoxy]Piperazine	13349-82-1	
14	1-(3-Chloropropyl)-4-(3-Chlorophenyl)Piperazine Hydrochloride	52605-52-4	
15	1-(2-Methoxyphenyl) Piperazine Hydrochloride	5464-78-8	
	R & D		10 Kg/Month
TOTAL			**35 MT/Month**

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**)**arelisted 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.

Total land area is 1977.78 m^2. Industry will develop greenbelt in an area of 40 % i.e., 786.8 sqmout of total area of the project. The estimated proposed project cost is Rs. 4.0 crore. Total capital cost earmarked towards environmental pollution controlmeasures is Rs. 39.0 Lacs. and the Recurring cost (operation and maintenance) will beabout Rs 117.25 Lacs per annum. Total Employment will be 8 persons as direct &12 persons indirect for proposed project.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc within 10 km distance from the project site. Khadi (Ambla) is flowing at a distance of 3.95 Km in NE direction & Tapi Canal is flowing at a distance of 0.24 Km in NW direction.

Ambient air quality monitoring was carried out at 8 locations during October, 2018 toDecember, 2018and the baseline data indicates the ranges of concentrations as: PM10 (95.70 –75.20 µg/m3), PM2.5 (57.40 – 44.80 µg/m3), SO2 (26.90 - 10.90 µg/m3) and NO2

(25.50 – 14.40 µg/m3). AAQmodeling study for point source emissions indicates that the maximum incrementalGLCs after the proposed project would be 0.07155µg/m3, 0.18993µg/m3 and 0.06474µg/m3with respect to PM10, Sox and NOx. The resultant concentrations are within theNational Ambient Air Quality Standards (NAAQS).

The EAC, during deliberations noted that the project details mentioned in the EIA report were not consistent with that presented during the meeting. The EAC, after detailed deliberations decided to **defer the proposal** for clarification/inputs, in respect of the following: -

(i) 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.
(ii) EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
(iii) EAC noted that PP has not submitted adequately TOR compliance and PP needs to be resubmit the TOR Compliance adequately.
(iv) Revised water balance with details of total water and fresh water requirement and reduction in fresh water demand at least 20%. Also plan to construct RCC tank to collect rain water from the roof top.
(v) PP shall ensure complete ZLD
(vi) One month additional baseline data to be submitted in this regard.
(vii) The person who has taken the stay on court case need to be present during meeting.
(viii) Onsite emergency plan as per MSIHC Rules and occupational health plan.
(ix) Revised water balance with details of total water and fresh water requirement.

The proposal was accordingly **deferred** for the needful on the above lines.

Agenda No.17.27

Expansion of Agrochemicals and their Intermediates manufacturing unit by M/s Bharat Rasayan Limited (Unit-II) at existing manufacturing site Unit-II (Dahej), Plot No. 42/4, Amod Road, Dahej-I GIDC Industrial Estate, Dahej, District Bharuch, (Gujarat) – Site visit report -reg.

[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 has submitted the site visit report as under:

The following officials were present during the site visit:

1. Shri Ajay Gupta, Directors operations, M/s Bharat Rasayan Limited

2. Shri Chetan Trivedi, Head EHS, M/s Bharat Rasayan Limited

3. Shri Ajay Bhavsar, Head (Production), M/s Bharat Rasayan Limited

4. Shri Vijay Parmar, Manager, (Process Safety)

5. Dr. H.V.C. Chary Guntupalli, Scientist D, MoEF&CC, RO Bhopal

6. Shri Falgun Modi, Regional officer, Gujarat Pollution Control Board, Regional office, Bharuch (Gujarat)

At the outset, Shri Ajay Gupta briefed the Sub-Committee about the production facilities at M/s Bharat Rasayan Limited (Unit-II) at Dahej. After presentation the Sub-Committee along with the representative of Ministry's Regional office and Gujarat Pollution Control Board visited the following plant area.

(i) Brief meeting at Conference Hall

(ii) Effluent treatment plant

(iii) Explosive & Non explosive Tank Farm and plant-A, B, C & D

(iv) Greenbelt area in plant

(v) Area for expansion

After visit to these areas, following observations are accordingly made:

(i) Brief meeting at Conference Hall

Meeting room was with full of pungent smell. It was difficult to breathe. Sub-Committee discussed about their environment department and their organization structure. Employee's had no knowledge on environmental issues and could not reply on emissions and also on water quality. Resume of employees in the environment department could not be produced to the subcommittee;

(ii) Effluent treatment plant:

The project proponent informed that low COD effluent is being treated in the ETP followed by RO and MEE. No effluent will be discharged outside the plant premises. The plant is based on ZLD. The subcommittee visited the ETP and found the same in order. The subcommittee was also shown the MEE and RO plants.

(ii) Explosive & Non explosive Tank Farm and plant-A, B, C & D

The Sub-Committee visited the explosive & Non explosive Tank Farm and plant-A, B, C & D and observed that the factory was with full of extremely pungent smell. It was virtually impossible, to visit the factory. Level of emissions, seemed to be extremely high. The factory was with full of extremely pungent smell. It was virtually impossible, to visit the factory. Level of emissions, seemed to be extremely high. Production facilities are extremely poorly designed with process safety totally neglected. Layout of plant facilities are extremely tight in case of emergency, there could be catastrophe. Boiler area seemed to be cleaned before our visit. It appeared coal storage was in open area, which was removed. Corrosion observed on the upper covering layer of the reactors. Housekeeping is not found good. PP should work on this. The sub committee also observed that detectors should be installed in processing area and explosive storage area.

(iii) Greenbelt area in plant:

The sub committee has observed that there was hardly any green belt as well as green area due to high TDS in subsoil water; The committee suggested the PP to not cut any tree during expansion activity and develop green belt in 33% of the total project area.

(iv) Area for expansion:

The subcommittee noted that the premise is having enough space for proposed expansion.

The subcommittee also suggested the project proponent to install roof top rain water harvesting system and store the collected rain water in underground tank and reduce the fresh water demand accordingly.

Action suggested;

- Immediate installation of volatile recovery systems, up to 99.997%. This is being followed by other pesticides companies in India;
- 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;
- Expansion should be designed and engineered by a competent and reputed company;
- Forensic environment audit and energy audit, needed to be carried out;
- Environment department has to be restructured. Environment Scientists/ Environment Engineers should be employed. This department should directly report to CMD of the company;
- 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.
- 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:

- Cutting of trees shall be avoided during construction activity.
- Underground tank shall be constructed to store the collected rain water from the roof tops and reduce the fresh water demand accordingly.
- A ETP efficiency study shall be carried out & its recommendations shall be implemented.
- The green belt shall be enhanced with proper development plan.
- Adequate Scrubbers shall be used to control the process emission and installation of volatile recovery systems, up to 99.997%.
- Automatic charged system shall be used for hazardous raw material feeding.
- Noise monitoring shall be carried out on a weekly basis all around the periphery of the unit & records maintained.
- 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;
- Gas Detectors should be installed in processing area.
- Forensic environment audit and energy audit shall be carried out.
- 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 Committee noted that the project proponent **did not attend the meeting**. The committee also noted that the project proponent has not submitted the action taken report duly certified from the Regional office of the Ministry. The EAC therefore **deferred** the proposal.

Agenda No.17.28

Expansion of distillery unit from 320 KLPD to 400 KLPD by M/s Godavari Biorefineries Ltd (Distillery Division) at Sy. No. 16 & 17 of Saidapur Village, Sy. No.

45, 46, of Handigund Village, Sy. No. 74 & 75 of Madbhavi Village Sameerwadi Village, Tehsil Mudhol, District Bagalkot (Karnataka) - Consideration of Environmental Clearance.

[IA/KA/IND2/127285/2019, J-11011/191/2007-IA-II(I)]

The proposal was earlier considered by the EAC (Industry-2) in its meeting held on 21-23 January, 2020 in the Ministry, and has recommended the project for grant of environmental clearance.

The project proponent has requested for correction in certain conditions as under:

S. No.	Condition	To be revised as
1	Concentrated spent wash shall be incinerated and not to be related in open space.	MoEF vide Letter dated 25th April, 2017 (file No. J-11011/191/2007/-IA-II(I) amended the 2008 Environmental Clearance (EC) (a) The spent wash after biomethnation in the anorobic digester shall compost with press mud. An area of 26 Acres shall be emarked for compost yard. The compost shall be lined with HDPE sheets and construction of compost yard shall be as per the CPCB guidelines. (b) The unit shall be using biocomposting method of spent wash treatment technology along with multiple effect evaporaper (MEE) followed by incineration in the boiler to achieve zero liquid discharge. (c) The total operating days of the plant will be 330 days.
2.	CO2 generated from the process shall be bottled/ made solid ice and sold to authorized vendors.	This seems to be a general condition occurred in the said Minutes which does not apply to this Project since as per previous Environmental clearance CO2 recovery from the process is not applicable. The Committee deliberated the same.

The Committee, after detailed deliberations, has agreed for remove the condition for 'CO_2 capturing', and also correction sought for spent wash treatment as proposed. The EAC accordingly **recommended** for amendment in the minutes of meeting held on 21-23 January, 2020, with all other terms and conditions remain unchanged.

Amendment in Environmental Clearance

Agenda No.17.29

Bulk Drugs Manufacturing Unit (2684.4 MTPA) at Village Ranu, Tehsil Padra, District Vadodara, Gujarat by M/s IPCA Laboratories Limited - Amendment in Environmental Clearance

[IA/GJ/IND2/119029/2019, J-11011/353/2010-IA II (I)]

Earlier the proposal was considered by the EAC in its meeting held on 23-25 October, 2019, wherein the EAC unanimously suggested for undertaking site visit by the Sub-committee of the EAC of comprising Dr. J. P. Gupta (Chairman), Dr. Uma Kapoor (Member, CGWA) and Dr. Tudi Indrasen Reddy (Member) and one officer from Ministry.

Based on recommendation of EAC and subsequent approval of 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 11th January, 2020. The sub-committee has submitted the site visit report as under:

1. Shri Chayan Kapruan, Vice President-operations, M/s IPCA Laboratories Ltd
2. Shri Manoj Kumar Mittal, Vice President-EHS Corporate, M/s IPCA Laboratories Ltd
3. Dr. Ashok Prasad, Associate Vice President, API R&D, M/s IPCA Laboratories Ltd
4. Dr. H.V.C. Chary Guntupalli, Scientist D, MoEF&CC, RO Bhopal
5. Ms. Margi Patel, Deputy Engineer, Gujarat Pollution Control Board, Regional office, Vadodara
6. Dr. C.B. Upasani, EIA Consultant, M/s Jyoti Om Chemical Research Centre Pvt. Ltd.

At the outset, Shri Manoj Kumar Mittal briefed the Sub-Committee about the production facilities at M/s IPCA Laboratories Ltd Ranu Complex. After presentation the Sub-Committee along with the representative of Ministry's Regional office and Gujarat Pollution Control Board visited the following plant area.

(i) Effluent treatment plant
(ii) Greenbelt area in plant
(iii) Construction Area

After visit to these areas, following observations are accordingly made:

(i) Effluent treatment plant:

The project proponent informed that low COD effluent is being treated in the ETP followed by RO and MEE. No effluent will be discharged outside the plant premises. The plant is based on ZLD. The subcommittee visited the ETP and found the same in order. The subcommittee was also shown the MEE and RO plants.

(ii) Greenbelt area in plant:

During visit PP informed that inside the plant premises green belt has been developed in 85448.38 sqm area i.e. 35% of the total project area. The sub committee has observed that green belt inside the plant is in good condition. The sub-committee observed that trees inside the plant are found quite healthy as not much deposition of dust upon leaves. The committee suggested the PP to not cut any tree during expansion activity.

(iii) Construction Area:

The subcommittee noted that the premise is having enough space for construction. The project proponent has informed that the existing building area is 17220.29 sqm and proposed building area is 26600.27 sqm**.** The project proponent also informed that they will complete the construction with in validity of EC.During the visit the project proponent has submitted the copy of Renewal of NOC for ground water withdrawal issued by Central Ground Water Authority on 16th July, 2019. The CGWA has given permission for abstraction of 1,01,400 cum/year.

The subcommittee also inspected the rain water harvesting structures constructed by the PP. The structures were found to be properly maintained. The PP has also constructed piezometers for water level monitoring as per the conditions of NOC issued by Central Ground Water Authority.

Recommendations of Sub-Committee

The Sub-committee was of the opinion that as the unit is presently in operation and producing @ 600 TPA for which Consent to operate has been granted on 29th January, 2018 by the Gujarat State Pollution Control Board, the remaining construction/ production capacity is reported to be achieved in time if extension of validity of EC is received from the Ministry. Accordingly, the Sub-committee is hereby recommending for extension of validity of environmental clearance for a period of three years i.e. up to 18th January, 2023 with the additional condition as under:

- Cutting of trees shall be avoided during construction activity.
- Conditions mentioned in NOC issued by CGWA shall be satisfactorily implemented.
- Underground tank of capacity 5 lac litre shall be constructed to store the collected rain water from the roof tops and reduce the fresh water demand accordingly.
- One Lac trees shall be planted inside the plant/vicinity.

The EAC, after detailed deliberations, accepts the recommendations of sub-committee and **recommended** for extension of validity of environmental clearance for a period of three years i.e. up to 18th January, 2023, to complete the work as per scope of the project, with the additional condition as under:

- Cutting of trees shall be avoided during construction activity.
- Conditions mentioned in NOC issued by CGWA shall be satisfactorily implemented.
- Underground tank of capacity 5 lac litre shall be constructed to store the collected rain water from the roof tops and reduce the fresh water demand accordingly.
- One Lac trees shall be planted inside the plant/vicinity.

Agenda No.17.30

Pesticides specific intermediates & specialty chemicals manufacturing unit by M/s Pragna Pharma Pvt. Ltd (Unit-2) at Plot No. D2/CH/224, GIDC Industrial Estate, Dahej-2, Taluka Vagra, Dist Bharuch, Gujarat- Amendment in Environment Clearance.

[IA/GJ/IND2/65008/2017, IA-J-11011/299/2017-IA-II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated 22nd February, 2018 in favour of M/s Pragna Pharma Pvt. Ltd for Pesticides specific intermediates & specialty chemicals manufacturing unit at Plot No. D2/CH/224, GIDC Industrial Estate, Dahej-2, Taluka Vagra, Dist Bharuch (Gujarat).

The project proponent has now requested for amendment in the EC to increase the fresh water requirement from 221 cum/day to 251 cum/day, change in condition related to disposal method of hazardous waste and to merge the adjoining plot No. D2/CH/224/1.

The EAC, after detailed deliberations, not found the proposal in order, accordingly, the EAC **return the proposal in present form**.

Agenda No.17.31

Expansion in Existing Plant Facility for Production of Ammonium Sulphate (AS-I) – 1,46,000 TPA at Vadodara Gujarat by M/s Gujarat State Fertilizers & Chemicals Ltd – Amendment in Environment Clearance

[IA/GJ/IND2/135966/2020, J-11011/901/2007-IA II(I)]

The proposal is for amendment in the Environmental Clearance letter granted by the Ministry vide letter No.J-11011/901/2007-IA-II(I) dated 6th March, 2019 for the project expansion of Fertilizer Plant at Fertilizer nagar, District Vadodara (Gujarat) in favor of M/s Gujarat State Fertilizers & Chemicals Ltd.

The project proponent has requested for amendment in the EC with the details are as under;

S. No.	Para of EC	Details as per the EC	To be revised/ read as	Justification/ reasons
1	9(iv)	Total fresh water requirement for the fertilizer plant, including that for the proposed expansion, shall not	Total fresh water requirement for the fertilizer plant, including that for the proposed expansion, shall not exceed 32090 (Existing: 32051 + Proposed: 39)	• Proposed water requirement is 439 cum/day (Fresh:39 cum/day+ Recycled 400 cum/day) • Total after expansion water requirement will be 32090 cum/day (Existing:32051

		exceed 30368 cum/day, proposed to be met through existing water supply from Mahi River. Prior permission in this regard shall be obtained from the concerned regulatory authority.	cum/day, proposed to be met through existing water supply from Mahi River. Prior permission in this regard shall be obtained from the concerned regulatory authority.	cum/day+ Proposed 39 cum/day) • In EC letter total fresh water considered is 30368 cum/day which comprises of Existing: 32051 cum/day+ Proposed:39 cum/day subtracted by Other Industries:1722 cum/day. • This is to inform you that 1722 cum/day, is requirement of other industries. It was simply shown in water balance diagram. Hence 32051 cum/day is actual existing requirement of GSFC and 39 cum/day is proposed. Thus 32090 cum/day (32051 cum/day+39 cum/day) is required in amended EC.

The EAC, after deliberations, **recommended** the amendment in EC as proposed by the project proponent. All other conditions mentioned in EC dated 6th March, 2019 shall remain unchanged.

Agenda No.17.32

Drilling of exploratory cum additional development 35 wells in Bakrol oil and gas block, Cambay Basin (Onshore) by M/s Selan Exploration Technology Limited- Amendment in Environment Clearance

[IA/GJ/IND2/136915/2020,J-11011/26/2011-IA II(I)

The proposal is for extension of validity of environmental clearance granted vide letter dated 15th January, 2013 for the project 'Drilling of Exploratory cum additional 35 development wells in Bakrol oil and gas block cambay (Onshore) Ahmedabad (Gujarat) in favour of M/s Selan Exploration Technology Limited.

The project proponent has now requested for extension of the validity of the said project for a period of three years. The project proponent has informed that the project could not complete the project due to following reasons :

(i) The subsurface locations were identified based on the 3D seismic data acquired in the field which was processed and interpreted based on available processing and interpretation technology at that time.

(ii) On the basis of this effort, the static subsurface modeling for Bakrol oilfield was carried out and prospective locations were populated.

(iii) The locations were accordingly taken up for drilling in a phased manner in Bakrol field. However the drilled locations did not come up to the anticipated production levels owing to the rapid facies variation in the subsurface.

(iv) It was observed that the prospective pay zones constituted of discontinuous and lensoidal sand bodies with low porosities and permeability leading to poor connectivity and tight formation sands. Further there is a drop in reservoir pressure observed mainly in the south- south western area wherein most of the wells drilled by ONGC as well as by SELAN are located. The location productivity prospects were further complicated due to the low sand thicknesses which were masked by coal zones above and below the prospective pay zones.

(v) Due to the aforementioned reasons, the Company got the subsurface data reprocessed and reinterpreted in Canada to redevelop the sub-surface model. This necessitates that the identified locations be taken up in a phased manner to acquire the new sub-surface data with new drilling campaign(s)& to incorporate the same in the sub surface model for updating& fine tuning the identified locations.

(vi) Further the Company is now envisaging to target relatively unexplored eastern sector wherein based onthe current interpretation, two prospects have been identified to be taken up for drilling. Based on the anticipated results, a new area for development in Bakrol block may open up wherein more locations would be finalized for drilling subsequently during the EC validity period.

The EAC, after detailed deliberations, suggested to submit the certified compliance report. Accordingly, the EAC **deferred** the proposal.

Agenda No.17.33

Setting up Specialty Chemicals (16500 MT/Month) and Pesticide Technical (31200 MT/Month) manufacturing unit at Plot No.T-35, GIDC Saykha, Taluka Vagra District Bharuch (Gujarat) by M/s Hemani Intermediates Pvt Ltd (Unit-VI)- Amendment in Environment Clearance

[IA/GJ/IND2/139307/2020, J-11011/231/2018-IA.II (I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter No. J-11011/231/2018-IA II (I) dated: 16th October, 2019 for setting up Pesticide Technical and Synthetic Organic Chemicals manufacturing Plant at Plot No. T-35,36,37,45,46,47, GIDC Saykha, Taluka: Vagra, Dist: Bharuch (Gujarat) in favour of M/s. Hemani Industries Limited (Unit-6).

The project proponent has requested for amendment in the EC with the details are as under;

S. No.	Point of EC issued by SEIAA	Details as per the EC	To be revised	Justification/Reasons
1	**Point-6**	Total water requirement is estimated to be 9,235 cum/day including fresh water requirement of 1,540 cum/day proposed to be met from GIDC supply. Effluent generated shall be segregated in to high COD and low COD stream. Company proposes a new ETP consisting of primary, secondary and tertiary treatment & RO facility for Low COD/Low TDS stream (7,120 m3/day). The low COD stream effluent (7,120 m3/day) will be sent to proposed ETP. Treated effluent shall be sent to RO and RO permeate will be reused in	Total water requirement is estimated to be 9,235 cum/day including fresh water requirement of 3061 cum/day proposed to be met from GIDC supply. Company proposes a new ETP consisting of primary, secondary and tertiary treatment & RO facility for Low COD/Low TDS stream (7,120 m^3/day). The low COD stream effluent (7,120 m^3/day) will be sent to proposed ETP. 1,600 KL/Day treated effluent will be sent to CETP, Saykha for further treatment and remaining effluent will be passed through RO and treated effluent from RO shall be reused in plant premises. Treated effluent shall be sent to RO and RO permeate will be reused in	When we applied for EC to MoEFCC, New Delhi, CETP, Saykha did not exist & it did not give the membership. Now, CETP, Saykha is completed & it gives membership to discharge the treated effluent into CETP/GIDC and company has obtained the membership from CETP/GIDC, Saykha to discharge the treated effluent of 1600 KL/Day into CETP/GIDC, saykha. There is no space available for maintaining total ZLD in company. Total wastewater generation is 8,136 m^3/day. Company wants to discharge treated effluent only 1,600 m^3/day out of 8,136 m^3/day. Total ZLD is not possible because of the capital investment of ZLD is very huge. Company will not reuse the total treated wastewater due to cross contamination of different type wastewater

		plant premises and RO Reject will be treated in MEE. The high COD stream and High TDS effluent (1,000 m3/day) will be treated in primary ETP and then treated effluent will be sent to MEE and MEE Condensate will be treated in ETP. Final Treated effluent shall be reused in plant premises. Domestic Waste water will be treated in secondary treatment or disposed by septic tank & soak pit.	plant premises and RO Reject will be treated in MEE	generated from different products like fungicides, herbicides and insecticides as EU & USA do not allow any impurity in products. More than 90% of our production is exported. If cross contamination will occur, then exported products will be rejected and it may result in huge financial loss to the company and we & our country shall not earn foreign currency. Company has taken the loan of Rs. 200 Crores from Bank for the Plant and financial condition of company is poor due to present slow down in the market. Therefore, we shall explore possibility of ZLD after 5 years, if space will be available within premises and financial condition of the company becomes strong. Company cannot survive in international Market with ZLD condition due to high competition from global players. Due to ZLD condition, company may lose export orders and foreign currency. Change in "Mode of Disposal" from "Zero Discharge" to "Discharge to CETP (which has deep sea Marine Discharge) & our final treated
2	**Point No. 10:** **Specific Condition (b):**	Zero Liquid Discharge shall be ensured and no waste/ treated water shall be discharged outside the premises.	Company proposes a new ETP consisting of primary, secondary and tertiary treatment & RO facility for Low COD/Low TDS stream (7,120 m3/day). The low COD stream effluent (7,120 m3/day) will be sent to propose ETP. 1600 KL/Day treated effluent will be sent to CETP, Saykha for further treatment and remaining effluent will be passed through RO and	

			treated effluent from RO shall be reused in plant premises. Treated effluent shall be sent to RO and RO permeate will be reused in plant premises and RO Reject will be treated in MEE.	wastewater from Factory Premises will be disposed of to this CETP facility, GIDC is Gujarat Government's undertaking Project worth Rs. 250 Crores & we have already contributed membership fee for the CETP. CETP was also constructed using subsidy from state & central governments. GIDC has also laid pipeline from CETP to deep sea (project cost = Rs. 180 crores) for disposal of treated wastewater discharge having marine norms. We have also contributed membership fee for the pipeline project. Due to this, Company will discharge the treated effluent 1600 KL/Day into CETP, Saykha, So that total fresh water requirement will increase from 1,540 m^3/Day to 3061 m^3/Day.
3	**Point No. 10:** **Specific Condition (h):**	Total fresh water requirement shall not exceed 1,540 cum/day to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.	Total fresh water requirement shall not exceed 3061 cum/day to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.	
4	--	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.	Generation Quantity of evaporation salt will be reduced from 12,150 MT/Month to 6,350 MT/Month and evaporation salt shall be disposed off to the TSDF.	1,600 KL/Day treated effluent will send to CETP for further treatment. Due to this, capacity of RO and MEE will be reduced and Generation Quantity of evaporation salt will be reduced.

The EAC, after detailed deliberations, **not found the proposal in order**, accordingly, the EAC **return the proposal in present form**.

Agenda No.17.34

Setting up of Specialty Chemicals, Pigments and Pesticide Manufacturing Plant (22000 MT/Month) at Plot No.73, 74 GIDC Saykha, Taluka Vagra District Bharuch (Gujarat) by M/s Hemani Intermediates Pvt. Ltd (Unit-V)-Amendment in Environment Clearance

[IA/GJ/IND2/139467/2020, J-11011/04/2016-IA II (I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter No. J-11011/04/2016-IA II (I) dated: 15/06/2017 for Setting up of Specialty Chemicals, Pigments & Pesticide Plant (22000 MT/Month) at Plot No. DP -73, 74, GIDC Saykha, Taluka: Vagra, Dist: Bharuch (Gujarat) in favour of M/s. Hemani Intermediates Pvt Ltd. (Unit-V).

The project proponent has requested for amendment in the EC with the details are as under;

S. No.	Point of EC issued by SEIAA	Details as per the EC	To be revised	Justification/Reasons
1	**Point-8**	Total water requirement will be 972 m^3/day of which fresh water requirement of 363 m^3/day and will be met from GIDC Water Supply. Treated Effluent (434 KL/Day) will be sent to GIDC drain for deep sea disposal. Condensate (175 m^3/day) from MEE shall be reuse.	Total water requirement will be 972 m^3/day of which fresh water requirement of 797 m^3/day. and will be met from GIDC Water Supply. Treated Effluent (434 KL/Day) will be sent to GIDC drain for deep sea disposal. Condensate (175 m^3/day) from MEE shall be reuse.	When we applied for EC to MoEFCC, New Delhi, CETP/GIDC Pipeline, Saykha did not exist & it did not give the membership. Now, CETP/GIDC Pipeline, Saykha is completed & it gives membership to discharge the treated effluent into CETP/GIDC and company has obtained the membership from CETP/GIDC Pipeline, Saykha to discharge the treated effluent of 434 KL/Day into CETP/GIDC Pipeline, saykha **.**

2	**Point No. A. Specific Condition No. i**	Zero Liquid Discharge shall be ensured by the project proponent.	Total water requirement will be 972 m^3/day of which fresh water requirement of 797 m^3/day and will be met from GIDC Water Supply. Treated Effluent (434 KL/Day) will be sent to GIDC drain for deep sea disposal. Condensate (175 m^3/day) from MEE shall be reuse.	There is no space available for maintaining total ZLD in company. Total wastewater generation is 634 m^3/day. Company wants to discharge treated effluent only 434 m^3/day out of 634 m^3/day. Total ZLD is not possible because of amount of ZLD is very huge. Company will not reuse the total treated wastewater due to cross contamination of different type wastewater generated from different products like fungicides, herbicides and insecticides as EU & USA do not allow any impurity in products. More than 90% of our production is exported. If cross contamination will occur, then exported products will be rejected and it may result in huge financial loss to the company and we & our country shall not earn foreign currency. Company has taken the loan of Rs. 200 Crores from Bank for the Plant and financial condition of company is poor due to present slow down in the market. Therefore, we shall explore possibility of ZLD after 5 years, if space will be available within premises and financial condition of the company becomes strong.

				Company cannot survive in international Market with ZLD condition due to high competition from global players. Due to ZLD condition, company may lose export orders and foreign currency. Change in "Mode of Disposal" from "Zero Discharge" to "Discharge to CETP (which has deep sea Marine Discharge) & our final treated wastewater from Factory Premises will be disposed of to this CETP facility, GIDC is Gujarat Government's undertaking Project worth Rs. 250 Crores & we have already contributed membership fee for the CETP. CETP was also constructed using subsidy from state & central governments. GIDC has also laid pipeline from CETP to deep sea (project cost = Rs. 180 crores) for disposal of treated wastewater discharge having marine norms. We have also contributed membership fee for the pipeline project. Due to this, Company will discharge the treated effluent 434 KL/Day into CETP, Saykha, So that total fresh water requirement will increase from 363 m^3/Day to 797 m^3/Day.

The EAC, after detailed deliberations, not found the proposal in order, accordingly, the EAC **return the proposal in present form**.

Agenda No.17.35

Energy improvement project of Ammonia and Urea plants Panambur, Mangalore by M/s Mangalore Chemicals and Fertilizers Limited - Extension of validity of Environment Clearance.

[IA/KA/IND2/55197/2010, J-11011/34/2010- IA II (I)]

The proposal is for extension of validity of environmental clearance granted vide letter dated 6th February, 2013 in favour of M/s Mangalore Chemicals and Fertilizers Limited for the project 'Conversion of Feed Stock from Naphtha to NG in the Fertilizer Plant and Fuel from Furnace Oil to NG in theSteam Generating Boilers and Captive Power Plant andEnhancement in the Production of Ammonia and Urea atPanambur, Mangalore (Karnataka).

The project proponent has requested for extension of the validity of the said project for a period of three years. It was informed that the proponent can able to execute the project within the extended period.

The EAC, after detailed deliberations, **recommended** for extension of validity of the EC dated 6th February, 2013 for a period of three years, i.e. till 6th February, 2023, to complete the work as per scope of the project.

DAY 3: 27th February, 2020 (Thursday)

Consideration of Environmental Clearance

Agenda No. 17.36

Expansion of pigments manufacturing unit from 10.25 TPM to 530 TPM by M/s Supreme Dyechem Private Limited at No.A-6/3, SIPCOT Industrial Complex, Village Pachayakuppam, District Cuddalore (Tamilnadu) - Consideration of Environmental Clearance.

[IA/TN/IND2/127712/2017, F.NO. J-11011/172/2017-IA.II(I)]

The project proponent and their accredited consultant M/s ABC Techno Labs India Private Limitedmade a detailed presentation 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 pigments manufacturing unit from 10.25 TPM to 530 TPM by M/s Supreme Dyechem Private Limited at

No.A-6/3, SIPCOT Industrial Complex, Village Pachayakuppam, District Cuddalore (Tamilnadu).

The EAC, during deliberations noted that baseline data and GLC values seems not correct. Also, the project proponent has not submitted the letter from SPCB regarding in-principle permission for expansion. The project proponent has informed that they have also applied at SEIAA. Also, the proposal is not in line with the Ministry's OM dated 31st October, 2019 i.e. related to projects located inside the critically polluted area. The EAC, after detailed deliberations decided to **return in present form** and PP needs to revise the EIA/EMP Report and submit the clarification/inputs, in respect of the following:-

(i) 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.
(ii) Submit the letter from SPCB regarding in-principle permission for expansion.
(iii) 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.
(iv) Onsite emergency plan as per MSIHC Rules and occupational health plan.
(v) Revised water balanced to be submitted.

Agenda No.17.37

Expansion and Change in Product Mix of Existing Herbal Extracts and Their Purified Derivatives for Manufacturing of Herbal Extracts and Active Pharmaceuticals Ingredients of Lepro Herbals Pvt. Ltd.Village - Jattipur, GT Road, Tehsil –Samalkha, District – Panipat, Haryana by M/s LEPRO Herbals Pvt. Ltd.- Consideration of Environmental Clearance.

[IA/HR/IND2/74345/2018, IA-J-11011/138/2018-IA-II(I)]

The project proponent and their accredited consultant M/s Enkay Enviro Services Pvt Ltd made a detailed presentation 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 and Change in product mix of existing herbal extracts and their purified derivatives for manufacturing of Herbal Extracts and Active Pharmaceuticals Ingredients by M/s Lepro Herbals Pvt. Ltd at Village Jattipur, GT Road, Tehsil Samalkha, District Panipat (Haryana).

The EAC, during deliberations noted that the existing unit is manufacturing pure herbal product of capacity 120 kg/day. However, the detailed product list has not mentioned in the EIA/EMP report. Also, in the proposed product list it is mentioned that semi synthetic products will be manufactured however, the project proponent has not submitted the detailed product list. The EAC, after detailed deliberations decided to **return in present form** and PP needs to revise the EIA/EMP Report and submit the clarification/inputs, in respect of the following:-

(i) Confirm with documentary evidence that whether the existing products require prior environmental clearance or not. Also confirm whether any product mix change has been done after the implementation of EIA Notification, 2006.

(ii) PP has to submit all the CTE/CTO with product list and capacity to verify, violation, if any.

(iii) Revised CER plan has been submitted.

(iv) The Committee also noted that there is space constraint in the project area and accordingly the PP to explore the alternate site for this expansion project.

Agenda No. 17.38

Expansion of Insecticide Active Ingredients on plot area of 2995.00 m2 with Total production of 20 TPM at Brahmanpara, P.O & P.S Haripal, Dist. Hooghly, West Bengal by M/s Solex Chemicals Pvt. Ltd.- Consideration of Environmental Clearance.

[IA/WB/IND2/137286/2017, No.IA-J-11011/511/2017-IA-II(I)]

The project proponent and their consultant made a detailed presentation 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 Insecticide Active Ingredients manufacturing from 10 TPM to 20 TPM by M/s Solex Chemicals Pvt Ltd in an area of 2995 sqm located at Brahmanpara, Haripal, District Hooghly, West Bengal.

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.

Standard terms of reference (ToR) has been issued by the Ministry vide letter dated 16.11.2017. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 25/09/2019. The main issues raised during the public hearing are related to local employment and CSR activities.

The details of products and capacity as under:

S.No.	Product Details	Existing (TPM)	Proposed (TPM)	Total (TPM)
1.	d-trans Allethrin (75/25) OR	10	10	**20**
2.	Prallethrin OR	10	10	
3.	d-Allethrin (New) OR	0	20	

4.	Transfluthrin (New) OR	0	20	
	Total	**10**	**20**	**20**

The Committee during deliberations noted that the existing project attracts the provisions of the EIA Notification, 2006, however is in operation without obtaining prior environmental clearance, amounting to violation.

The Committee has also noted that subsequent to direction of Hon'ble NGT, Principal Bench, New Delhi vide order dated 27th July, 2017 in OA No.116 of 2017 in the matter of 'Karukampally Vijayan Biju vs Union of India & Ors, the Ministry has issued Show Cause Notice vide letter dated 29th November, 2017 to the project proponent with the direction to apply for environmental clearance. Based on the proposal submitted by the project proponent ToR was granted on 16th November, 2017 and proposal has been now submitted for consideration for EC.

The Committee after detailed deliberations noted that such proposals requires appraisal by the EAC (violation) and suggested for action as appropriate by the Ministry for onward **transfer of the proposal to violation sector**.

Agenda No. 17.39

Development Drilling wells and Testing of Hydrocarbons in Dipling, Sarojini and Saekhati Block in Sivasagar and Dibrugarh District, Assam by M/s Ramayana Ispat Pvt. Ltd- Consideration of Environmental Clearance.

[IA/AS/IND2/71519/2017, IA-J-11011/564/2017-IA-II(I)]

The Project Proponent and their accredited consultant M/s ABC Technolabs India Pvt Ltd, made a detailed presentation on the salient features of the project.

The proposal was earlier considered by the EAC in its meeting held during 26-27 September, 2019. The EAC observed that the project involves diversion of Forest land in dipling block. Out of 4 wells, the forest land was involved in 3 wells. The project proponent has informed that the Stage -1 Forest clearance has not obtained yet. The committee also noted that there is no integration of public hearing in the EIA report; no compliance of ToR issued by the Ministry; and the report is generic in nature. The committee desired that the EIA report should be prepared addressing the impact and mitigation measures specific to the project. Further, the committee observed that the performance of the Consultant M/s ABC Techno labs India Pvt. Ltd. was not satisfactory. The EAC, after deliberations recommended to return the proposal in present form.

In response, the project proponent has revised the documents/information and requested the EAC for consideration of the same.

During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for Development Drilling of wells and Testing of Hydrocarbons by M/s Ramayana Ispat Pvt Ltd in an area of 28.3 sqkm located at Dipling, Sarojini and Sapekhati Block in Sivasagar (now Charaideo) and Dibrugarh Districts, Assam.

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.

Standard terms of reference (ToR) for the project has been issued by Ministry vide letter dated 25th January 2018. Public Hearing for the proposed project has been conducted by the Assam State Pollution Control Board on 8th August 2018 at Sapekhati, District Charaideo, Assam which was presided over by Additional Deputy Commissioner. The State Pollution Control Board vide letter No. RO/SBR/T-2751/18-19/21 dated 1st August, 2019 has issued a letter to the project proponent stating that the public hearing was conducted for complete PML area AA/ONDSF/DIPLING/2016 which is comprising three blocks Dipling, sarojini & Sapekhati located under Sivasagar (Charaideo) & Dibrugarh district. The Committee desired that similar letter needs to be addressed to the Ministry by the concerned authorities. The main issues raised during the public hearing are related to indirect/direct employment, water supply. It is informed that no litigation pending is against the project.

Block area allotted for the project is 28.3 sqkm (Dipling -10.14 sqkm {Forest area-3.06 ha}, Sarojini-8.72 sqkm, Sapekhati-9.44 sqkm). The proposal for forest conversion for no forestry purpose has been submitted. The estimated project cost is Rs 225 Crore. Total capital cost earmarked towards environmental pollution control measures is 480 lakhs and the Recurring cost (operation and maintenance) will be about 150 lakhs per annum. Total Employment will be 45 persons as Direct &50 persons indirect. Industry proposes to allocate Rs 3.37 Crore @ of 1.5% towards Corporate Environmental Responsibility.

There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the block area. Diroi nadi, Buri dihing are flowing through the block area.

Ambient air quality monitoring was carried out at 13 locations during 18th December 2017 to 9th March 2018 and the baseline data indicates the ranges of concentrations as: PM10 (23.6-50.1 µg/m3), PM2.5 (13.5-24.8 µg/m3), SO2 (<5.0- 6.8 µg/m3) and NO2 (6.5-13.6 µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.03 µg/m3, 0.058 µg/m3 and 0.117 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 25 m3/day of which fresh water requirement of 25 m3/day will be met from Tanker Supply. Effluent of 5 m3/day quantity will be treated through mobile ETP system. The plant will be based on Zero Liquid discharge system.

Power requirement will be 4540 KVA and will be met from DG sets. Proposed 4 X 1430 KVA (3W+1SB) DG sets DG sets are used as standby during developmental drilling activities.
No Process emissions generation during developmental drilling process.

Drill Cuttingswill be about 250 Tons/well (Approx.) and Waste Drilling mud generated from Water based Mud, not contaminated with oil will be about 1500 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.

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 deliberations, **recommended** the project for grant of environmental clearance, **subject to submission of letter from the SPCB/State Govt. regarding conduct of public hearing for complete blocks mentioned in the present proposal**, and **Stage-1 forest clearance** andcompliance of terms and conditions as under:-

(i) Stage-1 forest clearance shall be submitted for the forest area involved under the project as per the provisions of the Forest (Conservation) Act, 1980. No drilling/installation of associated facilities shall be carried out in forest areas without prior permission from the concerned regulatory authority.

(ii) No drilling shall be carried out in Protected Areas. Drilling in the National Park/Wildlife Sanctuaries, if any, are subject to the recommendations of orders of Hon'ble Supreme Court, recommendations of Standing Committee of NBWL, recommendations of the State Chief Wildlife Warden and strict compliance of the conditions imposed therein.

(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 proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land. Mobile ETP along with RO plant shall be installed to treat the waste water.

(v) 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.

(vi) 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.

(vii) 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 16thNovember, 2009 for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, CH_4, HC, Non-methane HC etc.

(viii) During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.

(ix) The project proponent also to ensure trapping/storing of the CO_2 generated, if any, during the process and handling.

(x) Approach road shall be made pucca to minimize generation of suspended dust.

(xi) 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.

(xii) Total fresh water requirement shall not exceed 25 cum/day. 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.

(xiii) 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.

(xiv) 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.

(xv) 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.

(xvi) 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.

(xvii) The company shall develop a contingency plan for H_2S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H_2S detectors in locations of high risk of exposure along with self containing breathing apparatus.

(xviii) 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.

(xix) 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.

(xx) Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.

(xxi) 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.

(xxii) All the issues raised during public hearing shall be satisfactorily implemented. Action plan proposed shall be implemented in a timely manner.

(xxiii) At least 2% 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.

(xxiv) No lead acid batteries shall be utilized in the project/site.

(xxv) Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.

(xxvi) Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office.

(xxvii) 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. 17.40

Expansion of Synthetic Organic Chemicals Manufacturing from 4 TPM to 200 TPM at Sy.No.371 (Part), 372 (Part), 373 (Part) 378(part), 429 (part) & 430 (part) Gundla Machnoor Village, Hatnoora Mandal, Medak District, Telangana by M/s Cirex Pharmaceuticals Limited -Consideration of Environmental Clearance.

[IA/TG/IND2/26722/2015, J-11011/120/2015-IA-II(I)]

The project proponent and their accredited Consultant M/s Team Labs and Consultants, made a detailed presentation on salient features of the project.

During deliberations, the EAC noted the following

The proposal is for environmental clearance to the project for expansion of Bulk Drug and Intermediates manufacturing unit from 4 TPM to 200 TPM by M/s Cirex Pharmaceuticals Limited in an area of 14 acres located at Sy Nos. 371(Part), 372(Part), 373(Part), 378(Part), 429(Part) & 430 (Part), Village Gundlamachanoor, Mandal Hatnoora, District Sangareddy, Telangana.

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 project proposal was considered by the Expert Appraisal Committee (Industry) in its 40th Reconstituted EAC meeting held on 18th-19th May, 2015 and recommended Terms of References (TORs) for the Project. The TOR was issued by Ministry vide letter dated 30th June,

2015. Public Hearing for the proposed project has been conducted by the Telangana State Pollution Control Board on 16.02.2017 near existing industry site under the Chairmanship of Joint Collector and Additional District Magistrate. The main issues raised during the public hearing are related to employment, CSR funds for village development, water pollution, implementation of pollution control measures, odour nuisance and air pollution.

The proposal for environmental clearance was earlier submitted by the project proponent in the Ministry's portal. Thereafter essential details has been sought on 11th June, 2018, 21st July, 2018 and 4th November, 2019.

Ministry has issued environmental clearance earlier vide letter no F. No. J-11011/272/2003-IA. II (I), dated 21.06.2005 for existing project in favour of M/s Cirex Pharmaceuticals Limited. The Regional office of MoEFCC, Chennai has forwarded the certified compliance report vide letter no. F. No. EP /12.1/328/AP/0535 dated 10.04.2018, which was found to be satisfactory.

Existing land area of 14 acres will cater to the need for proposed expansion. Industry developed Greenbelt in an area of 4.65 acres covering 33.2 % of project area. The estimated project cost is Rs 45 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 11.5 crores and the recurring cost (operation and maintenance) will be about Rs 10.8 crores per annum. The proposed project will lead to employment for 180 persons directly and 70 persons indirectly. Industry proposes to allocate Rs. 1.5 crores towards Corporate Environment Responsibility.

There are no Reserve forests, National Parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Reserve forests within 10 Km distance from the project site. Seasonal stream Nakka Vagu is flowing from northeast to southwest direction at a distance of 1.2 km from the site in west direction.

Ambient air quality monitoring was carried out at ninelocations during March – June 2016 and baseline data indicate the ranges of concentrations as: PM10 (34-58 µg/m3), PM2.5 (14-26 µg/m3), SO_2 (9-14 µg/m3) and NO_2 (10-16 µg/m3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLC_S after the proposed expansion would be 0.31 µg/m^3, 0.87 µg/m^3, and 0.92 µg/m^3 with respect to $PM_{10,}$ SO_X and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards.

The total water requirement after expansion is 493.8 KLD, out of which 288.8 KLD will be fresh water and 205 KLD is recycled water. The required water is drawn from Mission Bhagiratha (Industrial supply), Government of Telangana. The unit obtained permission from Mission Bhagiratha (Industrial supply) for supply of 350 KLD water.

Total effluent of 210.1 m3/day will be treated through "Zero Liquid Discharge" based effluent treatment system. The high COD/TDS stream of 132.1 m^3/day is segregated and sent to stripper followed by multiple effect evaporators (MEE), and agitated thin film dryer (ATFD). The condensate from stripper is sent to cement plants for co-incineration, while condensate from MEE and ATFD is mixed with low TDS/COD from utility blow downs of 38 KLD in biological treatment plant followed by Reverse Osmosis. The treated wastewater is reused for cooling

towers make-up and scrubber. Domestic wastewater of 40 KLD is treated in sewage treatment plant and treated wastewater is reused greenbelt development

Power requirement will be met by Transco. Existing unit has 1 no. DG set of capacity 1 x 380 kVA, additionally 3 x 1000 kVA DG sets are proposed as standby during power failure. Stack (height 10 m) will be provided as per CPCB norms to the proposed DG set of 3 x 1000 kVA in addition to existing DG sets stack (height 4 m for 380 kVA) which will be used as standby during power failure.

Existing unit has 1 x 5 TPH and 1 x 3 TPH coal fired boilers and 1 x 20 TPH, 1 x 8 TPH and 1 x 5 TPH coal fired boilers are proposed as part of expansion. Existing boilers and proposed 1 x 5 TPH coal fired boiler will be kept as standby after expansion. Bag filters and a stack with height of 40 m, 30m and 30m will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm3) for proposed 1 x 20 TPH, 1 x 8 TPH and 1 x 5 TPH and Bag filters and a stack with height of 30 m is provided for existing 1 x 5 TPH and 1 x 3 TPH coal fired boiler respectively for controlling the Particulate emissions within statutory limit of 115 mg/Nm3.

Process emissions contain carbon dioxide, sulfur dioxide, hydrogen chloride, hydrogen fluoride, hydrogen sulfide and hydrogen. Hydrogen chloride, hydrogen fluoride, hydrogen sulfide and sulfur dioxide are sent to scrubber in series and resultant scrubbing effluent sent to effluent treatment plant. Carbon dioxide is let out into atmosphere following a standard operating procedure, while Hydrogen gas is let out into atmosphere through a water column.

Solid wastes are generated from process, solvent distillation, wastewater treatment and utilities. The effluent treatment system generates stripper distillate, ATFD salts and ETP sludge. The process operations generate process residue and recycling operation of distillation generates solvent residue and spent mixed solvents. The utilities i.e., coal fired boiler generates ash while DG sets generate waste oil and used batteries. The stripper distillate, process residue and solvent residue are sent to cement plants for co-incineration based on acceptability. If these wastes are not suitable for co-incineration, the same is sent to TSDF facility. The evaporation salts and ETP sludge are sent to TSDF. Waste oil and used batteries from the DG sets are sent to authorized recyclers. The other solid wastes expected from the unit are containers, empty drums which are returned to the product seller or sold to authorize buyers after detoxification.

M/s Cirex Pharmaceuticals Limited obtained Environment Clearance Vide file no. F. No. J-11011/272/2003-IA. II (I), dt. 21.06.2005. for manufacturing following products

S.No	**Name of Product**	**Capacity**	
		TPM	**Kg/day**
1	Nalidixic Acid	2	66.66
2	Norfloxacin	2	66.66
	Total	**4**	**133.33**

The unit obtained CTE for change in product mix vide order no. APPCB/PTN/BLM/142/CFE/ HO /2009-2074 dated 07.12.2009 and APPCB/PTN/BLM/142/CFE/ HO /2012-3434 dated

30.10.2012. Subsequently the unit obtained CFO vide order no. APPCB/RCP/SR-I/10303 /CFO&HWM/ HO/2013-3767 dated 20.09.2013.

The unit had renewed the consent to operate dated 20.09.2013 vide letter no. TSPCB/RCP/SRD/CFO&HWM/ HO/2016-2695 dated 24.02.2016 valid till 31.12.2020 for manufacturing of following products;

S.No	Name of Product	Capacity	
		TPM	Kg/day
	GROUP A		
1	Arbidol	0.29	9.5
2	Balofloxacin	0.50	16.67
3	Etoricoxib	0.35	11.83
4	Gemifloxacin	0.65	21.67
5	Lornoxicam	0.55	18.33
6	Losartan Potassium	0.46	15.33
7	Pantoprazole	0.47	15.67
8	Prulifloxacin	0.48	16
9	Telmisartan	0.25	8.33
	TOTAL	**4.00**	**133.3**
	GROUP B		
1	Eperisone HCl	0.10	3.33
2	Hydroxy Ethoxy Piperazine	0.10	3.33
3	Itraconazole	0.10	3.33
4	Lansoprazole	0.55	18.33
5	Olmisartan	0.19	6.17
6	Omeprazole	0.10	3.33
7	Orlistat	2.66	88.83
8	Pazufloxacin Mesylate	0.10	3.33
9	Torsemide	0.10	3.33
	TOTAL	**4.00**	**133.3**
	GROUP C		
1	Azilsartan	0.10	3.33
2	Citalopram HBr	0.70	23.33
3	Garenoxacin	0.05	1.67
4	Ilaprazole	0.25	8.17
5	Leflunamide	0.27	9
6	Oxaprozin	0.49	16.33
7	Tadalafil	0.35	11.6
8	Tilorone	0.68	22.67
9	Tribenoside	1.12	37.17
	TOTAL	**4.00**	**133.3**
Note: Only one group will be manufactured at any given time			

Details of products and capacity after expansion is as under:

Manufacturing Capacity – After Expansion

S.No.	Product Name	CAS No.	Capacity

			TPM	Kg/day
1	Arbidol	131707-23-8	2	66.67
2	Azilsartan	147403-03-0	0.5	16.67
3	Balofloxacin	127294-70-6	6	200
4	Citalopram (Cyanodial HBr)	59729-33-8	20	666.67
5	Etoricoxib	202409-33-4	15	500
6	Gemifloxacin	175463-14-6	10	333.33
7	Garenoxacin	194804-75-6	1.5	50
8	Hydroxy ethoxy piperazine	13349-82-1	27	900
9	Ilaprazole	172152-36-2	0.5	16.67
10	Lansoprazole	103577-45-3	5	166.67
11	Leflunamide	75706-12-6	23	766.67
12	Lornoxicam	70374-39-9	1.3	43.33
13	Losartan Potassium	124750-99-8	33	1100
14	Olmesartan	144689-63-4	1	33.33
15	Omeprazole	73590-58-6	1.3	43.33
16	Omeprazole salts (Omeprazole Sodium)	95510-70-6	29	966.67
17	Pazufloxacin Mesylate	163680-77-1	1.2	40
18	Prulifloxacin	123447-62-1	0.1	3.33
19	Tadalafil	171596-29-5	15	500
20	Telmisartan	144701-48-4	1	33.33
21	Tilorone	27591-97-5	1.2	40
22	Torsemide	56211-40-6	1.5	50
23	Tribenoside	10310-32-4	3.9	130
Total			**200**	
Worst Case: Maximum 12 products on Campaign basis.				**6297**

List of By-Products

S.No	Name of Product	Stage	Name of By-Product	Capacity	
				Kg/day	TPM
1	Garenoxacin	I	t-Butanol	304.52	9.13

List of Utilities

S. No	Utility	Permitted	Proposed	After Expansion
1	Coal Fired Boilers (TPH)**	1 x 5 1 x 3	1 x 20 1 x 8 1 x 5	1 x 20 1 x 8 2 x 5* & 1 x 3*
2	DG Sets (kVA)**	2 x 500 1 x 1010	2 x 500 2 x 720 & 4 x 1010	5 x 1010 2 x 720 & 4 x 500
* Boilers shall be kept as standby. **DG sets will be used during load shut down by TSPDCL				

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 has found the certified compliance report 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 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 99.99% 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 288.8 cum/day, proposed to be met from Mission Bhagiratha (Industrial 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. 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. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

(xvii) At least Rs.1.5 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 (social, employment, infrastructure, skill development) raised during public consultation/hearing.

(xviii) As proposed, out of the total employment, 75% of the vacancy shall be filled with local villagers.

(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. 17.41

Establishment of 10,000 TCD Sugar Factory (scrapping of existing 800 TCD plant), 60 MW Co-gen Plant (50 MW from Co-gen plant & 10 MW from distillery) and 200 KLPD molasses based Distillery at Ganesh Tekadi, Nabhi (Bk.), Kopergaon, Satara, Maharashtra by M/s Shivneri Sugars Ltd - Reconsideration of Environmental Clearance.

[IA/MH/IND2/78167/2018, IA-J-11011/277/2018-IA-II(I)]

The project proponent and their accredited consultant M/s Equinox Environments (I) Pvt Ltd made a detailed presentation on the salient features of the project.

The proposal is for environmental clearance to the project for Establishment of Molasses based Distillery of 200 KLPD, Sugar Factory of 10,000 TCD (by scrapping existing 800 TCD) and Co-gen Plant of 60 MW by M/s Shivneri Sugars Limited in an area of 20.64 ha located at Sy. Nos. 164, 166, 173-178, 180, 181, Village Ganesh Tekadi, Nhavi, Taluka Koregaon, District Satara, Maharashtra.

The project/activity is covered under category A of item 5(g) 'Distilleries', 5(j) 'Sugar Industry' & 1(d) 'Thermal power plants' 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 dated 12th October 2018 has been issued by the Ministry. Public hearing for the project was conducted by the SPCB on 03.05.2019 under the Chairmanship of Additional District Magistrate. Issues were raised mainly w.r.t effluent generation its disposal, benefits to farmers from proposed project, employment generation, Air pollution aspects and its mitigation etc.

Existing land area is 20.64 Ha. Total built-up area would be 6.79 Ha. Industry will developed greenbelt in an area of 33% i.e.,68796 Sq.M out of total area of the project. The estimated cost for establishment project is Rs.620 Crores. Total capital cost earmarked towards environmental pollution control measures under establishment is Rs. 79.20 Crores and the Recurring cost (operation and maintenance) will be about Rs. 7.33 Crores per annum. Total Employment would be 640 persons as direct as well as indirect after establishment of projects. Industry proposes to allocate Rs.6.20 Crores @ of 1 % towards Corporate Environmental Responsibility.

There are no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc within 10 Km study area. River Krishna is flowing at a distance of 9.36 Km in West to South direction.

Ambient air quality monitoring was carried out at 8locations during October 2018 – December 2018 and baseline data indicates that ranges of concentrations of PM_{10} (51.06 – 64.95µg/m^3), $PM_{2.5}$ (19.76 – 28.78µg/m^3), SO_2 (18.39 – 30.54µg/m^3) and NO_x (25.57 – 34.33µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the establishment of proposed projects would be 5.13 µg/$m^3$$PM_{10}$(towards South-East side), 1.28 µg/$m^3$$PM_{2.5}$(towards South-East side), 9.86µg/$m^3$$SO_2$(towards South-East side) and3.95µg/$m^3$$NO_x$(towards South-East side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement in proposed Sugar Factory & Co-gen plant will be5119 CMD. This water will be used for industrial purpose -5011 CMD, 50 CMD for domestic purpose and 58 CMD for gardening. Out of total water requirement of 5119 CMD, 4693CMD will be cane

condensate to be recycled,40 CMD will be recycled treated water from STP and remaining 328 CMD will fresh water from Krishna river.

Total water requirement in Proposed Distillery will be 2353 CMD. For industrial purpose 2326 CMD water will be used and 27 CMD water will be used for domestic purpose. Out of total water requirement of 2353 CMD, 1600 will be recycled water from proposed distillery CPU,733 CMD will be fresh water from river krishna and 20 CMD will be treated water from STP.

The application for lifting of fresh water from Krishna River is submitted to Irrigation Department; Govt. of Maharashtra.

Effluent of 565 CMD quantity will be treated through proposed ETP in the SSL premises. ETP units comprises of Screen chamber & Oil & Grease trap, Equalization Tank, Reaction Tank, Primary Clarifier, Collection Tank, Anaerobic Tank, Aeration Tank, Secondary Clarifier, Treated Water Tank, PSF& ACF. The treated effluent shall be used for gardening and for irrigation on shareholders farmland. As per CREP norms, 15 days storage capacity tank for treated water shall be provided on site.

Effluent generated from 200 KLPD distillery would be in the form of Raw Spent wash to the tune of 1560 M^3/Day. Here, raw spent wash shall be treated through concentration in Multiple (Five) Effect Evaporator (MEE). Concentrated spent wash to the tune of 320 M^3/Day (1.6 KL/KL of alcohol against norm of 8 KL/KL of alcohol) shall be incinerated in boiler.

Power requirement to the tune of 23 MW will be procured from own Co-gen Plant and MSEB Grid. TwoDG sets of capacity 1000 KVA each will be installed under proposed project. DG sets will be used as standby during turbine tripping. Stack of height 7 M ARL would be provided as per CPCB norms to the DG sets.

Under proposed project two boilers of capacity 200 TPH and 75 TPH will be installed. Bagasse to the tune of 2400 MT/D will be used as fuel for 200 TPH whereas for 75 TPH spent wash to the tune of 320 MT/D and coal 216 MT/D would be used as fuel. Electrostatic Precipitator (ESP) to both boilers along with stack of 90 M&82 M respectively will be installed for controlling the particulate emissions.

The CO_2 generation shall take place in fermenters of the distillery. CO_2 to the tune of 150 MT/Day shall be released from 200 KLPD distillery plant. CO_2 shall be bottled and supplied to manufacturers of beverages.

Details of Solid waste generated & its management

No.	Unit	Type	Quantity (MT/M)	Disposal
1	Sugar Factory & Co-gen Plant	ETP sludge	17	Burnt in Incineration boiler
		Boiler Ash (Bagasse)	1800	Used as manure

2	Distillery	Boiler Ash (Sp. Wash + Coal)	3270	Forwarded to brick manufacturer/ Cement Industry
		CPU Sludge	48	Burnt in Incineration boiler
		Yeast Sludge	570	

Details of Hazardous waste generated & its management

No.	Description	Quantity	Mode of Disposal
1	Cat. No. 5.1 Spent Oil	0.5 MT/M	Burnt in incineration boiler

Following are the list of products:

Details of Products

Sr.No.	Product & By-product	Quantity (MT/ M)
	Sugar Factory (10,000 TCD)	
1	Sugar (12%)*	36,000
	By-product	
2	Molasses (4%)*	12,000
3	Bagasse (30%)*	90,000
4	Press Mud (4%)*	12,000
	Co-Gen (60 MW)	
5	Electricity (MW)	60
	Distillery (200 KLPD)	
6	Rectified Spirit (RS) **/** Extra Neutral Alcohol (ENA)/ Ethanol	6,000
7	By-product	
8	CO_2 Gas (MT/M)	4,500

The EAC during deliberations noted that the public hearing, though reported to be concluded has mentioned that, as per the opinion of the Chairman, public hearing is not valid. Further, the water balance and effluent management scheme proposed by the project shall require revision. The Committee after detailed deliberations desired for the following additional information/documents:

(i) Clarification from the SPCB/ADM regarding sanctity and conclusion of the public hearing already conducted. If the public hearing is not concluded/valid, the same shall be conducted following the procedure mentioned in the EIA Notification, 2006.

(ii) Site visit report from the Regional Office of the Ministry regarding the status of existing project, details of activities started in the complex, etc.

(iii) Water balance and effluent management scheme shall be revised reducing the fresh water requirement (viz. zero fresh water requirement utilizing the water from sugar crushing) and with ZLD scheme (treatment system, incineration, etc).

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

Agenda No. 17.42

Manufacturing of API & API intermediates at Survey No.165-A-1, Ambhora Village, Tal. - Ashti, Dist. Beed (Maharashtra) by M/s Canpex Lifescience LLP- Consideration of Environmental Clearance.

[IA/MH/IND2/83281/2018, IA-J-11011/355/2018-IA-II(I)]

The project proponent and their accredited consultant M/s Goldfinch Engineering Systems Private Limited made a detailed presentation on the salient features of the project.

During deliberations, the EAC noted the following:

The proposal is for environmental clearance to theproject of manufacturing of API & API Intermediates at Survey No. 165 A-1, Ambhora Village, Tal- Ashti, Dist- Beed , Maharashtra by M/s Canpex Life Science LLP.

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.J-11011/355/2018-IA-II(I); dated 14 Dec 2018.

The details of products and capacity asunder:

S.No	Product Details	Quantity
1	Anastrozole	6
2	Aripiprazole	72
3	Benfotiamine	360
4	Bisacodyl	180
5	Bupropion Hydrochloride	60
6	Capecitabine	36
7	Clomifene Citrate	120
8	Dimethyl fumarate	60
9	Fluconazole	36
10	Gemcitabine hydrochloride	18
11	Imatinib Mesylat	180
12	Letrozole	36
13	Pioglitazone Hydrochloride	72
14	Sildenafil Citrate	72

15	Sodium picosulfate	72
16	Tamoxifen Citrate	120
17	Tranexamic acid	72
18	Valsartan	120
19	Zoledronic acid	18
20	Tramadol HCL	84
21	4-(Aminomethyl) benzoic acid	84
22	Thiamine monophosphate	120
23	1-[4-(2-(Dimethylamino)ethoxy)phenyl]-1,2-diphenylbutan-1-ol	24
24	4-Hydroxybenzophenone	60
25	7-Hydroxy-3,4-dihydro-2(1H)-quinolinone	24
26	1-[4-(2-(diethylamino)ethoxy)phenyl)-1,2-diphenylethanol	24
27	4-[(4-Methylpiperazin-1-yl)methyl]benzoic acid dihydrochloride	60
28	1-(2,3-dichlorophenyl) piperazine hydrochloride	24
29	N-(5-Amino-2-methylphenyl)-4-(3-pyridyl)-2-pyrimidineamine	60
30	5-Fluorocytosine	36
31	Imidazole-1-acetic acid	24
32	Imatinib Base	60
Total		**2394**

The EAC, during deliberations noted that the project details mentioned in the Form-2 are not in conformity with the EIA report and with that presented during the meeting. The Committee noted that the Consultant has not applied mind while uploading and submission of the information in the Ministry. Even the product details and unit capacity has not been provided appropriately. The EAC, after detailed deliberations decided to **return the proposal in its present form** and have asked for clarification/inputs, in respect of the following:-

(i) The Committee noted that Consultant has not followed the generic structure of the EIA Notification, 2006. EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
(ii) Incremental GLC values in the EIA/Form 2 were reported to be much higher side, and needs to be confirmed. One month additional baseline data (air & water) shall be collected and GLC shall be recalibrated.
(iii) If the baseline/GLC found to be same, justification for the same and proposed control measures in the project.
(iv) PH proceeding forwarded through SPCB needs to be uploaded on Form 2 along with all the annexures and action plan with budgetary provisions on the issues raised during PH.
(v) Onsite emergency plan as per MSIHC Rules.
(vi) Revised water balance with details of total water and fresh water requirement.

(vii) Effluent treatment mechanism with plan for Zero Liquid Discharge.
(viii) Details of land available with the project proponent for the project and permission for its Industrial use.
(ix) Plan for Corporate Environmental Responsibility @ 5%.
(x) Commitment for employment to local people with details.
(xi) Revised Occupation health plan.

The proposal was accordingly **returned in its present form.**

Agenda No.17.43

Expansion of existing project for manufacture of mining explosives and proposed high energy defence products at Village- Mouza, Talegaon (S.P), Tal- Ashti District-Wardha (Maharashtra) by M/s CDET Explosive Industries Pvt Ltd- Consideration of Environmental Clearance.

[IA/MH/IND2/74917/2018, IA-J-11011/166/2018-IA-II(I)]

The project proponent and their accredited consultant M/s Anacon Laboratories Pvt. Ltd, made a detailed presentation 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 mining explosives manufacturing and high energy defence products by M/s CDET Explosive Industries Pvt in an area of 520322.79 sqm located at Village Mouza-Talegaon (S.P), Taluka Ashti, District Wardha, Maharashtra.

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 Ministry vide letter dated 21st June, 2018. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 6th August, 2019 which was presided over by the Additional District Magistrate and Resident Deputy 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, etc.

Existing land area is 520322.79 sqm. No additional land will be required for the proposed expansion. Industry will develop greenbelt in an area of 171706.52 sqm covering 33% of total project area. The estimated proposed project cost is Rs. 98.36 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.232 lakhs and the recurring cost (operation and maintenance) will be about Rs. 60.75 lakhs per annum. The project will provide employment for 562 persons directly & 100 persons indirectly after expansion.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. AR Nadi is flowing at a distance of 6.08 km in SSE direction.

Ambient air quality monitoring was carried out at Eight locations during March 2018 to May 2018 and the baseline data indicates the ranges of concentrations as: PM10 (48.5-91.1µg/m^3), PM2.5 (16.9-35.1µg/m^3), SO_2 (9.8-24.5µg/m^3) and NO_2 (17.8-35.1µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM10: 2.1 µg/m^3, SOx: 0.65 µg/m^3, and NOx: 15.5 µg/m^3 with respect to PM10, Sox and NOx. The resultant concentrations are within the National Ambient Air Quality Standards.

Total water requirement is 839 m^3/day of which fresh water requirement of 799 m^3/day will be met from ground water. Effluent of 262 m^3/day (Existing 125 m^3/day proposed 137 m^3/day) quantity will be treated through ETP. The plant will be based on Zero Liquid discharge system. It was informed that NOC has been obtained for existing fresh water use. It was informed that making suitable rainwater harvesting system in the project area, fresh water requirement shall be brought down to zero and thus there is no fresh water requirement in the project.

Power requirement after expansion will be 1500 KVA including existing 750 KVA and will be met from Maharashtra State Electricity distribution corporation limited (MSEDCL). Existing unit has 200 KVA, 200 KVA, 125 KVA DG sets of 525 KVA capacity, additionally 500 KVA, 500 KVA DG sets are used as standby during power failure. Stack (height 10m) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 2X3TPH (one standby) fired Coal/agro-waste base boiler and Boiler (2x0.4TPH) FO based-one standby. Additionally 1x6 TPH agro + coal based fired boiler will be installed. Multi cyclone separator/ bag filter with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers. Existing boilers 2X0.4 TPH – FO based fuel. These two boilers will be decommissioned after the installation of 1 x 6 TPH boilers agro + coal based

Details of Process emissions generation and its management.

1. PETN Plant

There will be emissions of nitrous fumes generated during proposed manufacturing of PETN. The gases will be scrubbed though wet scrubbers and discharged to the atmosphere. The outlet of scrubbing system will be connected with vent of suitable diameter and the point of discharge will be at a height which would be adequate to ensure effective dispersion.

2. HMX/RDX

In the proposed manufacturing process of HMX nitration and nitrolysis in acidic medium is envisaged.During the filtration of product, the emissions involved will be CO_2, N_2 and NO_2 gases. At every stage the outgoing gases are scrubbed with alkaline solution as also passed through absorption towers so as to covert the NO_2 gas into nitrite/nitrates which are collected in tanks neutralised, filtered and reused after treatment in the ETP. The exiting gases consists

mostly of Nitrogen are vented at sufficient height to ensure proper dissipation. Monitoring instruments are provided for measurement.
The proposed proposal for manufacturing of RDX involves the separate absorption towers for acetic and nitric acid vapors emanating from spent acids. The spent acids will be collected and concentrated in multi - effect evaporator. The recovered acids will be either used as raw material for manufacture of explosives or will be sold.

3. TNT Plant

The proposed TNT manufacturing plant will involve vent emissions of NOx from de-nitrification system, the vapours will be fed to the scrubber. In first stage metered quantity of air is added where NO reacts with O_2 and gets converted in NO_2. Further metered quantity of Sodium hydroxide solution will be circulated from top of the scrubber where NO_2 gets converted to the $NaNO_2$ and $NaNO_3$. The gases will further be taken in series of two more scrubbers and cooled before discharged through a vent of suitable diameter and located at adequate height to ensure proper dissipation. The weak acid generated will be again used as raw material in the explosives manufacturing

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

- Boiler Ash (Solid Waste Non-Hazardous)
  Boiler Ash generated from boiler is collected from the bag filters. The ash from coal will be collected and sold to brick manufacturers. The bio fuel ash from briquettes will be utilized for levelling low lying areas within factory premises.
- Biological Sludge from STP (Non-hazardous)
  The sludge is collected on drying bed and allowed to sun dry. This is used as manure for green belt development within the factory premises.
  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.
- 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.
- 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.

S. No.	Type of Waste	Quantity (Kg/Day)			Schedule – I	Disposal Facility
		Existing	Proposed	Total		
1	ETP Sludge	300	500	800	34.3	Collection, Storage, Transportation, Disposal at CHWTSDF site for secured landfill

S. No.	Type of Waste	Quantity (Kg/Day)			Schedule – I	Disposal Facility
		Existing	Proposed	Total		
2	Explosive Waste	50	30	80		After burning in burning pit and incineration, ash sent to CHWTSDF
3	Non-explosive waste such as packing cartons, cotton waste etc.	120	50	170	33.3	After burning in burning pit and incineration, ash sent to CHWTSDF
4	Waste Metals	101	5	106		After cleaning sale as scrap to Authorised Dealer
5	Waste Oil	0	5	5	5.1	Collection, Storage, Transportation, Disposal by selling to Registered Rerefiners approved by MPCB
6	Distillation residue from contaminated organic solvents	0	30	30	36.4	CHWTSDF

- Waste generated during the construction will be properly handled, stored and disposed off in accordance with relevant Waste Management Rules (Municipal Waste Management Rules, Hazardous Waste Management & Handling Rules etc.) enacted by the government of India.
- Non-Explosive material Such as packing material card board boxes and used papers are recycled
- Explosive Waste materials, such as PETN, De-sensitized Lead Azide and Lead Styphnate, pyrotechnic and explosive compositions of delay elements, fuse head and shock tube are incinerated to destroy the explosive content in line with the rules regulating the manufacture of explosives
- Other Hazardous waste such as used oil will be generated from machinery & DG sets during change of oil and it will be given to authorized dealers.
- The unused construction materials and construction equipment will be removed from the site after the construction.
- Used plastics, LDPE, HDPE, gunny bags/cement bags will be collected, stored and disposed of properly.
- Plastics and similar material will not be disposed outside the plant boundary

The details of products and capacity as under:

A: EXISTING PRODUCTS NOT COVERED IN EIA NOTIFICATION			
Product Name	**Existing (CTO)**	**Proposed**	**Total**
Shock tube (Mtrs/A)	16,000,000	184,000,000	200,000,000

Delay Elements (Nos./A)	12,000,000	28,000,000	40,000,000
Detonators (Nos./A)	60,000,000	140,000,000	200,000,000

B: PROPOSED PRODUCTS NOT COVERED IN EIA NOTIFICATION	
Product Name	**Proposed**
Cast Booster (MT/A)	300
Cartridge Explosives (MT/A)	60,000
Bulk Explosives (MT/A)	60,000
Detonating Fuse (Mtrs/A)	60,000,000

C: PROPOSED PRODUCTS REQUIRING EC (MINING EXPLOSIVES AND HIGH ENERGY DEFENCE PRODUCTS)

Sl. No.	**Product**	**Quantity**	Storage	
1	PETN	1,500 MTPA	-	
2	Styphnic acid	6.0 MTPA	-	
3	Lead Styphnate	7.2 MTPA	-	
4	Lead Azide	-	0.4 MT(at any given time)	Max. Annual qty handled 30 MTPA
5	Emulsifier	6,000 MTPA	-	
6	SMO	10,000 MTPA	-	
7	HMX	100 MTPA	-	
8	RDX	500 MTPA	-	
9	DNT/TNT	1,500 MTPA	-	
10	Ammonium nitrate	-	2,000 MT (at any given time)	Max. Annual qty handled 100,000 MTPA
11	CL 20	10 MTPA	-	
12	HNS	12 MTPA	-	
13	Bonding agent/Binder/Plasticizer for explosive	10 MTPA	-	
14	Taggants for explosives	10 MTPA	-	

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) 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 lightening 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 99.99% with effective chillers/modern technology.

(xii) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.

(xiii) As proposed, Rs. 5 lakhs shall be earmarked for conservation of Schedule 1 species and plan shall be submitted to District Forest/Wildlife Department.

(xiv) 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.

(xv) 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.

(xvi) As proposed, fresh water requirement shall be met through rain water harvesting. No water shall be drawn from the tube well/ground water for Industrial purpose.

(xvii) 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.

(xviii) Storage of explosive materials should be in specified and approved storage places (store houses and magazines) only.

(xix) 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.

(xx) 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.

(xxi) 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.

(xxii) 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.

(xxiii) 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.

(xxiv) 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.

(xxv) At least Rs.2.5 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 (social, employment, infrastructure, skill development) raised during public consultation/hearing.

(xxvi) As proposed, out of the total employment, 85% of the vacancy shall be filled with local villagers.

(xxvii) As committed, proper road network shall be made available for the use of villages ouside the unit.

(xxviii) 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.

(xxix) 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.

(xxx) 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.

(xxxi) 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.

(xxxii) Safety and risk assessment shall be carried out and necessary management shall be carriedout.

(xxxiii) Risks and Hazards should be displayed at each Building in local language.

(xxxiv) All rules 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. 17.44

Expansion of synthetic organic chemicals manufacturing from 5.25 TPM to 150 TPM at SY.No. 289, 290, 291 and 292, Veliminedu Village, Chityal Mandal, Nalgonda District, Telangana by M/s Hindys Lab Pvt. Ltd-Reconsideration of Environmental Clearance

[IA/TG/IND2/94648/2017, J-11011/114/2017-IA II (I)]

The project proponent and their accredited consultant M/s Team Labs and Consultants, made a detailed presentation on salient features of the project.

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

1. Cross verification of AAQ data of NO2 and SO2, and its incremental GLC due to the proposed project

The revised ambient air quality monitoring was carried out at nine locations during 01.12.2019 to 31.12.2019 and submitted baseline data indicates that ranges of concentrations of PM10 (34-64 µg/m3), PM2.5 (13-31 µg/m3), SO2 (6-6.3 µg/m3) and NO2

(9-28 µg/m3) respectively. AAQ modelling study for point source emissions considering proposed expansion projects of this group, indicates that the maximum incremental GLCS after the proposed expansion would be 0.2 µg/m3, 0.59 µg/m3, and 0.75 µg/m3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards

2. Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation. Video coverage of the public hearing along with complete public hearing/consultation documents

Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation is submitted in details in parivesh portal and presented before the Committee.

Video coverage of the public hearing and complete set of public consultation documentation are presented.

3. Product details from the year 2006 along with copy of CTO's

Hindys Lab Pvt. Ltd., was established in 2006 in the name of H**ychem Laboratories"** and obtained Consent letter no. NAL-224/PCB/ZO/RCP/CFE/2006-65 dt. 28.04.2006 for manufacturing Bulk drug intermediates. The chronology of consents and product list is submitted and uploaded.

4. Plan for raw material storage for 3 days

The products proposed in expansion will be manufactured on campaign basis. The maximum inventory of raw materials stored shall be restricted to 3 working days by following measures;

- Inventory maintained for 3 days
- Optimizing the bulk storage tank capacity.
- Day tanks provision at production blocks
- Reducing consumption coefficient of raw materials by process optimization

Reuse of recovered solvents

5. Commitment/Plan for using coal with Sulphur content < 0.5%

S. No	Utility	Permitted	Proposed	After Expansion	Fuels Used
1	Boilers	1 x 2 TPH	2 x 8 TPH	2 x 8 TPH 1 x 2 TPH	Imported Coal: 2.8 TPH @ GCV: 5000 k.cal
2	DG Sets*	1x 250 kVA	1 x 1500 kVA 2 x 1000 kVA 3 x 500 kVA	1 x 1500 kVA 2 x 1000 kVA 3 x 500 kVA 1 x 250 kVA	Low Diesel Oil: 0.8 Kl/hr

We here with undertake that Imported coal will be used with less than 0.5% sulfur content.

6. Occupational health and management plan and details of workers rotation

- Pre - employment medical check-up at the time of employment
- Periodic medical check-up for all employees.
- Occupational Health Centre, Provision of antidotes in health centre
- Occupational health surveillance - health records
- Monitoring of work area for noise levels and VOC's at frequent intervals.
- Periodic training on occupational safety practices to employees.
- Personnel Protective Equipment to employees
- Annual fund allocated Rs. 10.6 lakhs and Health Check-up Rs. 13.5 Lakhs/annum
- No workers will be rotated in the work room area, the following practices will be ensuring that there will not be any impact on workers' health
- Identification and elimination of hazards w.r.t process and chemicals handled
- Substitution or replacement of hazard chemicals
- Implementation of engineering controls
- Administrative controls (Permits to work, consigned space entry, PPE and operational discipline)

7. Plan for emission control at 99.95%

- Vent condensers in series with cooling water and chilled water circulation followed by vacuum pumps to reactors, distillation columns, driers etc. to condense and reuse all volatile solvents. Vent of dry vacuum pump connected to condenser followed by common scrubber.
- Two stage scrubbing systems for process emissions.
- Vents of all process equipment's are connected to common headers and the same is connected to scrubbers.
- Filtration and drying are conducted in Agitated Nutche Filters and dryers, with vents connected to minimize solvent losses.
- Use of double mechanical seal fitted transfer pumps for solvents and low boiling liquid raw material transfer.
- Raw materials stored in drums are transferred by using air operated diaphragm pumps in closed hoods. Forced ventilation system to hoods followed by vent connected to scrubbers.
- Low boiling solvent tanks are connected with reflux condensers to minimize the loss

8. Revised water balance with 20% reduction in fresh water requirement, and permission from concern regulatory authority.

The total fresh water requirement is reduced from 205.3 KLD to 163.3 KLD by increasing boiler condensate recovery efficiency and reducing heat load on cooling towers, thereby the total water requirement is reduced from 302.3 KLD to 255.3 KLD. Thereby fresh water consumption is recued to **20.46**%. The unit obtained permission from Mission Bhagiratha (Industrial supply) for supply of 210 KLD water vide letter no. T1/DEE2/MB Grid/Bulk Water Connections/2017-18 dated 09.02.2019.

9. Effluent treatment mechanism with plan for Zero Liquid Discharge

Total effluent of 97.6 m3/day will be treated through "Zero Liquid Discharge" based effluent treatment system. The high COD/TDS stream of 61.1 m^3/day is segregated and sent to stripper followed by multiple effect evaporators (MEE), and agitated thin film dryer (ATFD). The condensate from stripper is sent to cement plants for co-incineration, while condensate from MEE and ATFD is mixed with low TDS/COD from utility blow downs and domestic wastewater of 36.5 KLD in biological treatment plant followed by Reverse Osmosis. The treated wastewater is reused for cooling towers and boilers make-up.

10. Onsite emergency plan as per MSIHC Rules

Onsite emergency plan as per MSIHC Rules is submitted in EDS response submitted on 27.01.2020.

11. Detail plan for Corporate Environmental Responsibility @ 5% of the total project cost

The capital cost of the project for proposed expansion is Rs. 45 crores, 5 % of the capital cost is Rs. 2.25 crores, is spent towards corporate environment responsibility. The development programs shall be finalized in consultation with public representatives and revenue authorities and the tentative programs are as follows;

Name of Village	**Activity**					**Total Rs. Lakhs**
	Health Camps	**School Infrastructure**	**Portable RO Plant**	**Dental Camp**	**Plantation**	
	Cost (in Rs. Lakhs)					
Veliminedu	10	10	15	10	8	53
Pittampalli	8	5	10	8	8	39
Gundrampalli	6	10	15	8	5	44
Yepuru	8	5	15	8	10	46
Peripalli	8	5	15	10	5	43
Total	**40**	**35**	**70**	**44**	**36**	**225**

During deliberations, the EAC noted the following:

The proposal is for environmental clearance (EC) to the project for expansion of Bulk Drug and Intermediates manufacturing unit from 5.25 TPM to 150 TPM by M/s Hindys Lab Pvt Ltd in an area of 11 acres located at Sy. Nos. 289-292, Village Veliminedu, Mandal Chityal, District Nalgonda, Telangana**.**

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 project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 21st EAC meeting held on 27th -29th March, 2017 and the TOR was issued by Ministry vide letter no. F.No. J-11011/114/2017-IA II (I); dated 26.05.2017. Public Hearing for the

proposed project has been conducted by the Telangana State Pollution Control Board on 18.09.2018 near existing industry site which was presided over by Additional District Magistrate. The main issues raised during the public hearing are related to employment, ground water contamination, pollution control measures, odour nuisance, impact on human health, milch animals and village development.

Existing land area is 3.47 acres., additional 7.53 acres land was acquired for proposed expansion (Total 11 acres). Industry will develop greenbelt in an area of 34% i.e., 3.7 acres out of 11 acres of area of the project site. The estimated project cost for proposed expansion is Rs 45 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 6.57 crores and the recurring cost (operation and maintenance) will be about Rs.6.97 crores Per annum. Total Employment from proposed expansion will be 150 persons directly and 60 persons indirectly. Industry proposes to allocate 2.5 % i.e., Rs. 1.11 crores capital cost towards Corporate Environment Responsibility.

There are No National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Reserve forests etc. lies within 10 Km distance. Seasonal nala Chinna Vagu is flowing from northwest to southeast direction at a distance of 5.5 km in southwest direction. There is one reserve forest in the impact area of 10 km radius of the study area. Chityal RF is at a distance of 7.0 km in east direction

The revised ambient air quality monitoring was carried out at nine locations during 01.12.2019 to 31.12.2019 and baseline data indicates the ranges of concentrations as: PM10 (34-64 µg/m3), PM2.5 (13-31 µg/m3), SO2 (6-6.3 µg/m3) and NO2 (9-28 µg/m3) respectively. AAQ modelling study for point source emissions considering proposed expansion projects of this group, indicates that the maximum incremental GLCS after the proposed expansion would be 0.2 µg/m3, 0.59 µg/m3, and 0.75 µg/m3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards.

The total water requirement after expansion is 255.3 KLD out of which 163.3 KLD will be fresh water and 92 KLD is recycled water. The required water is drawn from Mission Bhagiratha (Industrial supply), Government of Telangana. The unit obtained permission from Mission Bhagiratha (Industrial supply) for supply of 210 KLD water.

Total effluent of 97.6 m3/day will be treated through "Zero Liquid Discharge" based effluent treatment system. The high COD/TDS stream of 61.1 m^3/day is segregated and sent to stripper followed by multiple effect evaporators (MEE), and agitated thin film dryer (ATFD). The condensate from stripper is sent to cement plants for co-incineration, while condensate from MEE and ATFD is mixed with low TDS/COD from utility blow downs and domestic wastewater of 36.5 KLD in biological treatment plant followed by Reverse Osmosis. The treated wastewater is reused for cooling towers and boiler make-up.

Power requirement will be met by Transco. Existing unit has 1 no. DG set of capacity 1 x 250 kVA, additionally 1 x 1500, 2 x 1000, 3 x 500 kVA DG sets are proposed as standby during power failure. Stack with height of 12, 7, and 5 m will be provided as per CPCB norms to the proposed DG sets of 1 x 1500, 2 x 1000, 3x500 kVA respectively, in addition to existing DG sets stack (height 3 m for 250 kVA) which will be used as standby during power failure.

Existing unit has 1 x 2 TPH coal fired boiler and 2 x 8 TPH coal fired boilers are proposed as part of expansion. Bag filters and a stack with height of 30 m will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm3) for proposed 2 x 8 TPH and Bag filters and a stack with height of 15 m is provided for existing 1 x 2 TPH coal fired boiler respectively for controlling the Particulate emissions (within statutory limit of 115 mg/Nm3).

Process emissions contain Ammonia, Carbon dioxide, Hydrogen, Hydrogen chloride and Sulfur dioxide. Ammonia, Hydrogen chloride and Sulphur dioxide are sent to scrubber in series. Scrubbing liquids containing Sodium chloride from Hydrogen chloride, ammonium chloride from ammonia, sodium fluoride from hydrogen fluoride, sodium bisulfate from sulfur dioxide scrubbing are sent to ETP. Carbon dioxide is let out into atmosphere following a standard operating procedure, while Hydrogen gas is let out into atmosphere through a water column

Solid wastes are generated from the process, solvent distillation, wastewater treatment and utilities. The effluent treatment system generates stripper distillate, ATFD salts and ETP sludge. The process operations generate process residue, filter media, used catalysts, activated carbon and inorganic residue. The recycling operation of distillation generates solvent residue and spent mixed solvents. The utilities i.e., coal fired boiler generates ash while DG sets generate waste oil and used batteries. All the wastes except coal ash are considered hazardous. The other non-hazardous wastes are containers, packing material, empty drums etc. The containers and drums are detoxified before disposing to authorized buyers. The hazardous wastes of process residue, stripper distillate, solvent residue, and activated carbon are sent to cement plants for co-incineration, thereby reducing the load on TSDF facility and reducing consumption of non-renewable resource of coal in cement plant kilns. Mixed solvents shall be sent to authorized recyclers/cement plant for co-incineration while spent solvents are recovered within plant premises. The inorganic wastes, filter media, used catalysts, salts from ATFD, and ETP sludge are sent to TSDF facility. The waste oil and used batteries are sold to authorized recyclers. Coal ash is sold to brick manufacturers.

Hindys Lab Pvt. Ltd., was established in 2006 and obtained Consent letter no. NAL-224/PCB/ZO/RCP/CFE/2006-65 dt. 28.04.2006 for manufacturing Bulk drug intermediates. The unit was involved in Bulk drug intermediate manufacturing which did not attract prior environment clearance as the EIA notification was issued in 1994. The unit has a valid Consent to operate vide letter no. TSPCB/ RCP/ NLG/ CFO & HWM / HO/ 2019 dated 13.03.2019 valid till 31.07.2020. The unit was established in 2006 in the name of Hychem Laboratories for manufacturing of drug intermediates. The products are bulk drug intermediates and do not require environment clearance at that time (based on S.O. 60(E) dated 27.01.1994 EIA notification).

Hychem Laboratories was taken over by Hind Life Science Private Limited in 2014, subsequently the name of industry was changed from Hind Life Science Private Limited to Hind Life Sciences Private Limited and Hindys Lab Pvt. Ltd., in 2015.

The unit obtained consent to establishment and consent to operate for change in product mix for manufacturing of Drug intermediates vide CTE order no. 04/TSPCB/CFE/RO-NLG/HO/2018-1754 dated 30.07.2018 and CTO order no. TSPCB/RCP/NLG/CFO&HWM/HO/2019 dated 13.03.2019 valid till 31.07.2020.

Details of existing and proposed manufacturing capacities are as under:

Manufacturing Capacity – Permitted

S.No	Name of Product	Capacity	
		Kg/day	TPM
	GROUP - A		
1	N-[4-(3,4-dichlorophenyl)-3,4-dihydro-1-naphth alenylidene]-methanamine (DDN)	116.7	3.5
2	5-Methoxy-2-[[(4-methoxy-3,5-dimethylpyridin-2-yl) methyl] thio]-1H-benzimidazole (Omeprazole intermediate)	58.3	1.75
	Total - Group A	**175**	**5.25**
	GROUP - B		
1	(s)-N, N-Dimethyl-3-hydroxy-3-(2-thienyl) propanamine (DMP)	66.7	2
2	Camphor sulfonyl Chloride (CSC)	108.3	3.25
	Total - Group B	**175**	**5.25**
	GROUP - C		
1	CBZ L Valine	100	3
2	Tert-butyl 2-((4R,6S)-6-((E)-2-(4-(4-flurophenyl)-6-isopropyl-2-(N- methyl methane sulfonamido) Pyrimidin - 5-yl) vinyl)-2,2-dimethyl-1,3-dioxane-4-yl-) acetate (TPA)	75	2.25
	Total - Group C	**175**	**5.25**
	GROUP - D		
1	3-(Carbamyl Methyl)-5-Methyl hexanoic Acid (CMH)	86.7	2.6
2	5-Cyano phthalide (Citalopram HBr Intermediate) (FCP)	88.3	2.65
	Total - Group D	**175**	**5.25**
*** Worst case one group will be manufactured on campaign basis**		**175**	**5.25**

Manufacturing Capacity – After Expansion

S.No	Product Name	Capacity	
		TPM	Kg/day
1	Amlodipine Besylate	**1**	**33.3**
2	Clopidogrel Hydrogen Sulfate	**5**	**166.7**
3	Dex Lansoprazole	**1**	**33.3**
4	Divolproex sodium	**3.5**	**116.7**
5	Dulaxetine	**5**	**166.7**
6	Glimepiride	**0.6**	**20**
7	Mesalamine	**1**	**33.3**
8	Metaprolol	**7**	**233.3**
9	Nebivolol HCL	**9**	**300**
10	Pragabalin	**1**	**33.3**
11	Rosuvastatin	**3**	**100**
12	Sertraline HCl	**4**	**133.3**
13	Valaciclovir	**1**	**33.3**

14	2- Acetyl Ethoxy acetyl methoxy ether (AEA) (Acyclovir Intermediate)	**12.4**	**413.3**
15	Trans-4-(4-chlorophenyl)-cyclohexane carboxylic acid (Atovaquone Intermediate)	0.5	16.7
16	5-Cyano phthalide (Citalopram Intermediate)	**8**	**266.7**
17	Ethyl 3-{[3-Amino-4-(Methylamino) Benzoyl](Pyridine-2-Yl) Amino} Propanoate (EMP) (Dabigatran Etixilate Mesylate Intermediate)	**1**	**33.3**
18	(S)-3-(Dimethylamino)-1-(2-thienyl)-1-propanol (DMTP) (Duloxetine Intermediate)	0.5	16.7
19	(Cis-Exo)-2,3-norbornane dicarboximide [BDX] (Lurosidone HCl Intermediate)	**9**	**300**
20	(1R,2R)-cyclohexane-1,2-diyl-bis (methylene) dimethane sulfonate [MOC] (Lurosidone HCl Intermediate)	**1.5**	**50**
21	2-[2-[3(S)-[3-[2-(7-Chloro-2-Quinolinyl)-ethenyl]phenyl]-3-hydroxypropyl]phenyl-2-propanol (CQHP) (Montelucast Sodium Intermediate)	0.5	16.7
22	2,8-Diazo bicyclo Nonane (Moxifloxacin Intermediate)	0.5	16.7
23	Carbamyl Methyl-5-Methyl hexanoic Acid (CMM) (Pragabalin Intermediate)	**4**	**133.3**
24	(2S,3S,5S)-2-Amino-3-Hydroxy-5-Tert-Butylcarbonyl Amino 1,6-Diphenyl (BDH pure) (Ritonavir Intermediate)	0.5	16.7
25	Tert-butyl 2-((4R,6S)-6-((E)-2-(4-(4-flurophenyl)-6-isopropyl-2-(N- methylmethane sulfonamido)Pyrimidin - 5-yl)vinyl)-2,2-dimethyl-1,3-dioxane-4-yl-) acetate (TIN) (Rosuvastatin Intermediate)	**3**	**100**
26	Poly allyl amine HCl (Sevelamir Intermediate)	**5**	**166.7**
27	Dibenzimidazole (Telmisartan Intermediate)	**6**	**200**
28	Diacetyl acyclovir (Valaciclovir Intermediate)	**16**	**533.3**
29	Camphor sulfonyl dichloride (Intermediate of Esomeprazole Mg)	**7**	**233.3**
30	D- Mandalic acid (Intermediate of Sertraline HCl)	**5**	**166.7**
31	4-(3,4-Dichlorophenyl)-3,4-dihydro-N-methyl-1-(2H)-Napthaleneimine (Intermediate of Sertraline Hcl)	**26**	**866.7**
32	N2-(1-(S)-ethoxy carbonyl-3-phenyl propyl-N6-trifluoro acetyl-L-lyline (Intermediate of Lisinopril)	**4**	**133.3**
	Total Worst Case: 27 Products on Campaign Basis	**150**	**5000**

List of By-Products

S. No	Name of Product	Stage	Name of By Product	Quantity (Kg/day)
1	Clopidogrel hydrogen sulfate	I	p-toluene sulfonic acid	90

2	Di acetyl acyclovir	I	Acetic acid	207

List of Utilities

S. No	Utility	Permitted	Proposed	After Expansion
1	Coal Fired Boilers (TPH)	1 x 2	2 x 8	2 x 8 1 x 2
2	DG Sets (kVA)*	1 x 250	1 x 1500 2 x 1000 3 x 500	1 x 1500 2 x 1000 3 x 500 and 1x 250

*DG sets will be used during load shut down by TRANSCO

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 99.95% with effective chillers/modern technology.

(vi) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.

(vii) As proposed, storage of raw material shall be restricted to 3 days.

(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 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.

(x) Total fresh water requirement shall not exceed 163.3 cum/day, proposed to be met from Mission Bhagiratha (Industrial 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 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.

(xviii) As proposed Rs. 2.25 crores 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. 17.45

Establishment of Synthetic Organic Chemicals (Bulk Drug and Intermediates) manufacturing unit at Sy.No. 7/2, 7/3, 7/4, 138/3, 139, 216, 217, 218, 219/1 (PART), 219/2(PART), 221 (PART), Ramannapalem Village, Tiruvuru Mandal, Krishna District (Andhra Pradesh) by M/s Nifty Labs Pvt Ltd Unit II-Reconsideration of Environmental Clearance.

[IA/AP/IND2/73247/2018, IA-J-11011/76/2018-IA-II(I)]

The project proponent and their accredited Consultant M/s Team Labs and Consultants, made a detailed presentation on salient features of the project.

The proposal was earlier considered by the EAC in its meeting held during 23-25 October, 2019. The additional details sought by the Committee and response of the project proponent is as under:

1. Detailed effluent treatment plan with Zero Liquid Discharge System

Total effluent of 463.9 m3/day will be treated through "Zero Liquid Discharge" based effluent treatment system. The high COD/TDS stream of 330 m^3/day is segregated and sent to stripper followed by multiple effect evaporators (MEE), and agitated thin film dryer (ATFD). The condensate from stripper is sent to cement plants for co-incineration, while condensate from MEE and ATFD is mixed with low TDS/COD from utility blow downs and wastewater from R&D of 104 KLD in biological treatment plant followed by Reverse Osmosis. The treated wastewater is reused for cooling towers make-up and scrubbers. Domestic wastewater of 30 KLD sent to sewage treatment plant and treated wastewater is reused for on land irrigation to develop green belt.

2. Plan for rain water harvesting system and revised water balance

The roof water shall be collected in 2 x 200 KL capacity sump connected to down spouts of the roofs, and the collected water shall be reused for process and green belt development. It is proposed to have a storm water storage pond of capacity 4500 m^3. These measures shall ensure reuse of stored storm water for about 37 days of plant operation. The total fresh water requirement is reduced from 737.3 KLD to 642.3 KLD by increasing boiler condensate recovery efficiency, reducing washings, heat load on cooling towers, thereby the total water requirement is reduced from 1209.3 KLD to 1102.3 KLD

3. Speaker wise and Point-wise, response on the issues raised issues raised during the public consultation, along with detailed time bound action plan and budgetary provision

Speaker wise and Point-wise, response on the issues raised issues raised during the public consultation, along with detailed time bound action plan and budgetary provision is submitted and presented.

4. Plan for emission control at 99.95%

- Vent condensers in series with cooling water and chilled water circulation followed by vacuum pumps to reactors, distillation columns, driers etc. to condense and reuse all volatile solvents. Vent of dry vacuum pump connected to condenser followed by common scrubber.
- Two stage scrubbing systems for process emissions.
- Vents of all process equipment's are connected to common headers and the same is connected to scrubbers.
- Filtration and drying are conducted in Agitated Nutche Filters and dryers, with vents connected to minimize solvent losses.
- Use of double mechanical seal fitted transfer pumps for solvents and low boiling liquid raw material transfer.
- Raw materials stored in drums are transferred by using air operated diaphragm pumps in closed hoods. Forced ventilation system to hoods followed by vent connected to scrubbers.

Low boiling solvent tanks will be connected with reflux condensers to minimize the loss

5. Occupational health and management plan

- Pre - employment medical check-up at the time of employment
- Periodic medical check-up for all employees.
- Occupational Health Centre, Provision of antidotes in health centre
- Occupational health surveillance - health records
- Monitoring of work area for noise levels and VOC's at frequent intervals.
- Periodic training on occupational safety practices to employees.
- Personnel Protective Equipment to employees

Annual fund allocated Rs. 25 lakhs and Health Check-up Rs. 16 Lakhs/annum

6. CER plan with activities proposed based on public consultation/hearing issues; and need based assessment

The capital cost of the project for proposed expansion is Rs. 72 crores. The office memorandum dated 01.05.2018 prescribed a CER expenditure of 2 % for green field projects of less than Rs. 100 crores programs, hence Rs. 1.44 crores allocated towards corporate environment responsibility. The development programs shall be finalized in consultation with public representatives and revenue authorities, and the tentative program list is as follows;

Name of Village	**Activity**						**Total Rs. Lakhs**
	Health Camps	**School Infras-tructure**	**Portable RO Plant**	**Solar Street Lights**	**Veterinary Camps**	**Plant-ation**	
	Cost (in Rs. Lakhs)						

Anjaneyapuram	3.5	2.5	4	2.5	0.5	2	15
Chautapalli	3.5	3.5	4	2	0.5	2	15.5
Lakshmipuram	3.5	1.5	4	2	0.5	2	13.5
Kakarla	3.0	2.0	3	1.5			9.5
Kotturu	3.0	1	3	1.5	0.5	1.5	10.5
Chittela	3	1	3		0.5		7.5
Tekulapalli	2	2	3.5	1.5			9
Polisettipadu	1.8	1	3	1.5		1.5	8.8
Murepalli	2	1.2	4	1.2	0.5		8.9
KottaKokilampadu	1.2		3			2	6.2
Suravaram	2	1.8	4	1.5	0.5	2	11.8
Mallela	2.0		3	1	0.5	2	8.5
Gollagudem	2.5	1.0	3.5	1	0.5		8.5
Shambhunigudem	2.0	2	3	1.8	0.5	1.5	10.8
Total	**35**	**20.5**	**48**	**19**	**5**	**16.5**	**144**

During deliberations, the EAC noted the following:

The proposal is for environmental clearance (EC) to the project for Setting up Bulk Drug and Intermediates manufacturing unit of capacity 360 TPM by M/s Nifty Labs Pvt Ltd (Unit II) in an area of 50 acres located at Sy. Nos. 7/2, 7/3, 7/4, 138/3, 139, 216, 217, 218, 219/1(Part), 219/2(Part), 221(Part), Village Ramannapalem, Mandal Tiruvuru, District Krishna, Andhra Pradesh.

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 Ministry vide letter dated 05.04.2018. Public Hearing for the proposed project has been conducted by the Andhra Pradesh Pollution Control Board on 12.06.2018 at 3.00 PM at project site which was presided over by District Magistrate. The main issues raised during the public hearing are related to employment, pollution control measures, ground water contamination, rain water harvesting, safety measures, plantation and village development

The unit acquired 50 acres of land for proposed project. Industry will develop Greenbelt in an area of 34.7% i.e., 17.36 acres out of 50 acres of area of the project site. The estimated project cost is Rs 72 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 18.5 crores and the Recurring cost (operation and maintenance) will be about Rs 21.3 crores Per annum. Total Employment will be 800 persons as direct and 250 persons indirect. Industry proposes to allocate 2 % i.e., Rs. 144 lakhs capital cost towards Corporate Environment Responsibility.

There are No National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 Km distance. Edullavagu stream is flowing from northeast to southwest at a distance of 2 km in southeast direction and Kattaleru stream is at a distance of 3.7 km in northwest direction. Kakarla reserve forest at a distance of 0.05

km in west direction and Atlapragada and Konduru reserve forests at a distance of 7.5 km in south direction

Ambient air quality monitoring was carried out at eight locations during March 2018 to May 2018 and submitted baseline data indicates that ranges of concentrations of PM10 (39-51 µg/m3), PM2.5 (13-20 µg/m3), SO_2 (4-6µg/m3) and NO_2 (9-13 µg/m3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLC_S after the proposed project would be 0.29 µg/m3, 1.75 µg/m3, and 2.04 µg/m3 with respect to $PM_{10,}$ SO_X and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards.

The total water requirement is 1102.3 KLD out of which 642.3 KLD will be fresh water and 460 KLD is recycled. Water requirement will be met from ground water. The unit obtained permission to abstract ground water of 805 KLD from State Ground water department.

Total effluent of 463.9 m3/day will be treated through "Zero Liquid Discharge" based effluent treatment system. The high COD/TDS stream of 330 m^3/day is segregated and sent to stripper followed by multiple effect evaporators (MEE), and agitated thin film dryer (ATFD). The condensate from stripper is sent to cement plants for co-incineration, while condensate from MEE and ATFD is mixed with low TDS/COD from utility blow downs and wastewater from R&D of 104 KLD in biological treatment plant followed by Reverse Osmosis. The treated wastewater is reused for cooling towers make-up and scrubbers. Domestic wastewater of 30 KLD sent to sewage treatment plant and treated wastewater is reused for on land irrigation to develop green belt

Power requirement will be met by Transco. DG sets of capacity 6 x 1010 kVA and 3 x 500 kVA proposed to cater to the energy requirement during load shut down by Transco. Stack (height 10 m for 6 x 1010 kVA and 10 m for 3 x 500 kVA) will be provided as per CPCB norms to the proposed DG sets which will be used as standby during power failure

It is proposed to establish 1 x 20 TPH and 2 x 12 TPH coal fired boilers, 4 x 2 Lac. k.cal/hr coal fired thermic fluid heaters. It is proposed to keep 1 x 12 TPH boiler as standby. Bag filters with a stack height of 40 m for 1 x 20 TPH, 2 x 12 TPH coal fired boilers and 30 m for 4 x 2 Lac. K.cal thermic fluid heaters will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm3).

The process emissions contain ammonia, hydrogen, hydrogen chloride, hydrogen bromide, sulfur dioxide, carbon dioxide, oxygen and nitrogen. Ammonia, hydrogen chloride, hydrogen bromide and sulphur dioxide are sent to scrubber in series. Sodium chloride from hydrogen chloride, sodium bromide from hydrogen bromide, ammonium chloride from ammonia, sodium bisulfite from sulfur dioxide scrubbing sent to ETP. Carbon dioxide, oxygen and nitrogen gases are let out into atmosphere following a standard operating procedure, while hydrogen gas is let out into atmosphere through a water column.

Solid wastes are generated from process, solvent distillation, wastewater treatment and utilities. The effluent treatment system generates stripper distillate, ATFD salts and ETP sludge. The process operations generate process residue and recycling operation of distillation generates solvent residue and spent mixed solvents. The utilities i.e., coal fired

boiler generates ash while DG sets generate waste oil and used batteries. The stripper distillate, process residue and solvent residue are sent to cement plants for co-incineration based on acceptability. If these wastes are not suitable for co-incineration, the same is sent to TSDF facility. The evaporation salts and ETP sludge are sent to TSDF. Waste oil and used batteries from the DG sets are sent to authorized recyclers. The other solid wastes expected from the unit are containers, empty drums which are returned to the product seller or sold to authorize buyers after detoxification.

Details of products and capacity is as under:

Manufacturing Capacity

S.No.	Name of the Product	Cas No	Capacity	
			Kg/Day	TPM
1	Abacavir Sulphate	188062-50-2	25	0.8
2	Abiraterone acetate	154229-18-2	25	0.8
3	Alfuzosin Hydrochloride	81403-68-1	10	0.3
4	Aliskiren	173334-58-2	25	0.8
5	Almotriptan	154323-57-6	25	0.8
6	Alogliptin	850649-61-5	25	0.8
7	Amisulpride	71675-85-9	50	1.5
8	Apixaban	503612-47-3	25	0.8
9	Aripiprazole	129722-12-9	25	0.8
10	Bevacizumab	216974-75-3	25	0.8
11	Bortezomib	179324-69-7	25	0.8
12	Brexpiprazole	913611-97-9	25	0.8
13	Brivaracetam	357336-20-0	50	1.5
14	Canagliflozin	842133-18-0	25	0.8
15	Capecitabine	154361-50-9	50	1.5
16	Cariprazine Hydrochloride	1083076-69-0	40	1.2
17	Cetuximab	205923-56-4	25	0.8
18	Cilostazole	73963-72-1	50	1.5
19	Dabigatran EtexilateMesilate	872728-81-9	100	3
20	DaclatasvirDihydrochloride	1009119-65-6	25	0.8
21	Dalfampridine	504-24-5	15	0.5
22	Dapagliflozin	461432-26-8	25	0.8
23	Darunavir	206361-99-1	20	0.6
24	Denosumab	615258-40-7	25	0.8
25	Dex Rabeprazole Sodium	171440-18-9	20	0.6
26	Dex-Lansoprazole	138530-94-6	25	0.8
27	**Diltiazem Hydrochloride**	**33286-22-5**	**250**	**7.5**
28	Dolutegravir Sodium	1051375-19-9	25	0.8
29	Domperidone	57808-66-9	50	1.5
30	Dorzalamide Hydrochloride	130693-82-2	25	0.8
31	Doxazosin Mesylate	77883-43-3	10	0.3
32	Duloxetine Hydrochloride	136434-34-9	25	0.8
33	Efinaconazole	164650-44-6	25	0.8

34	EletriptanHydrobromide	177834-92-3	25	0.8
35	Empagliflozin	864070-44-0	25	0.8
36	Enalapril Maleate	76095-16-4	25	0.8
37	Erlotinib	183321-74-6	15	0.5
38	Esomeprazole Magnesium Dihydrate	217087-10-0	25	0.8
39	**Esomeprazole Magnesium Trihydrate**	**217087-09-7**	**200**	**6**
40	Esomeprazole Sodium	161796-78-7	25	0.8
41	Febuxostat	144060-53-7	50	1.5
42	Frovatriptan	158930-17-7	25	0.8
43	Glimepride	93479-97-1	25	0.8
44	Goserelin acetate	145781-92-6	25	0.8
45	Ibrutinib	936563-96-1	25	0.8
46	Ilaprazole	172152-36-2	25	0.8
47	Iloperidone	133454-47-4	25	0.8
48	Imatinib Mesylate	220127-57-1	25	0.8
49	Ipilimumab	477202-00-9	25	0.8
50	Itraconazole	84625-61-6	100	3
51	Ivabradone Hydrochloride	148849-67-6	25	0.8
52	Ketoconazole	65277-42-1	100	3
53	Lamivudine	134678-17-4	100	3
54	**Lansoprazole**	**103577-45-3**	**300**	**9**
55	Ledipasvir	1256388-51-8	50	1.5
56	Lenalidomide	191732-72-6	25	0.8
57	Lesinuard	878672-00-5	25	0.8
58	**Levetiracetam**	**102767-28-2**	**250**	**7.5**
59	Levosulpride	23672-07-3	100	3
60	Linagliptin	668270-12-0	25	0.8
61	Linezolid	165800-03-3	25	0.8
62	Lurasidone Hydrochloride	367514-87-2	25	0.8
63	Milnacipran Hydrochloride	92623-85-3	25	0.8
64	Moxifloxacin Hydrochloride	354812-41-2	50	1.5
65	Naratriptan	121679-13-8	25	0.8
66	**Nevirapine**	**129618-40-2**	**150**	**4.5**
67	Nilotinib	641571-10-0	25	0.8
68	Olanzapine	132539-06-1	25	0.8
69	**Omeprazole**	**73590-58-6**	**250**	**7.5**
70	Omeprazole Magnesium	95382-33-5	25	0.8
71	Omeprazole Sodium	95510-70-6	25	0.8
72	Oxiracetam	62613-82-5	50	1.5
73	Paliperidone	144598-75-4	30	0.9
74	**Pantoprazole Sodium Sesquihydrate**	**102625-70-7**	**300**	**9**
75	Pemetrexed Disodium	137281-23-3	25	0.8
76	**Quetiapine Hemifumarate**	**111974-72-2**	**300**	**9**
77	**Rabeprazole Sodium**	**117976-90-6**	**300**	**9**
78	Ravidasvir Hydrochloride	1303533-81-4	25	0.8

79	Rituximab	174722-31-7	25	0.8
80	Rivaroxaban	366789-02-8	50	1.5
81	Rizatriptan	145202-66-0	25	0.8
82	Rosuvastatin Calcium	147098-20-2	50	1.5
83	Safinamide Methane Sulphonate	202825-46-5	50	1.5
84	Saxagliptin	361442-04-8	25	0.8
85	**Sertraline Hydrochloride**	**79559-97-0**	**250**	**7.5**
86	Sibutramine Hydrochloride Monohydrate	125494-59-9	50	1.5
87	Sitagliptin Phosphate	654671-78-0	50	1.5
88	Sofosbuvir	1190307-88-0	100	3
89	Sorafenib	284461-73-0	25	0.8
90	Sunitinib Malate	341031-54-7	25	0.8
91	Tamsulosin Hydrochloride	106463-17-6	10	0.3
92	**Telmisartan**	**144701-48-4**	**250**	**7.5**
93	Tenatoprazole	113712-98-4	25	0.8
94	Terconazole	67915-31-5	25	0.8
95	Tioconazole	65899-73-2	25	0.8
96	**Topiramate**	**97240-79-4**	**200**	**6**
97	Tranilast	53902-12-8	50	1.5
98	Trastuzumab	180288-69-1	25	0.8
99	Trazadone Hydrochloride	25332-39-2	25	0.8
100	Velpatasvir	1377049-84-7	50	1.5
101	Vilazodone Hydrochloride	163521-08-2	50	1.5
102	Vildagliptin	274901-16-5	25	0.8
103	Zolmitriptan	139264-17-8	25	0.8
104	**Dibenzo [b, f] [1, 4] thiazepin-11(10H)-one**	**7-7-3159**	**750**	**22.5**
105	**11-Piperazino Dibenzo [b, f] [1, 4] Thiazepine. Hydrochloride**	**111974-74-4**	**250**	**7.5**
106	**1-[2-(2-Hydroxy ethoxy)Ethyl]Piperazine**	**13349-82-1**	**400**	**12**
107	**2-Hydroxy methyl-3-methyl-4-(3-methoxy propoxy) pyridine.Hydrochloride**	**675198-19-3**	**400**	**12**
108	**2-Chloromethyl-3-methyl-4-(3-methoxy propoxy)Pyridine Hydrochloride**	**153259-31-5**	**250**	**7.5**
109	**2-[[[4-(3-methoxy propoxy)-3-methyl-2-pyridinyl] methyl] thio]-1H-benzimidazole**	**117977-21-6**	**500**	**15**
110	**2-(Hydroxy methyl)-3-methyl-4-(2,2,2-trifluoroethoxy)Pyridine. Hydrochloride**	**253345-80-1**	**500**	**15**
111	**2-(Chloro methyl)-3-methyl-4-(2,2,2-trifluoroethoxy) pyridine Hydrochloride**	**127337-60-4**	**400**	**12**

112	**2-[[[3-methyl-4-(2,2,2-trifluoro ethoxy)-2-pyridinyl]methyl] sulfanyl]-1H-benzimidazole**	**103577-40-8**	**400**	**12.0**
113	2[[[3-Methyl-4-(nitro)-2-pyridinyl]methyl]sulfanyl]-1H-benzimidazole	152402-98-7	25	0.8
114	**4-[4-[4-(4-Hydroxy phenyl) -1-piperazinyl]phenyl] 2,4-dihydro- 2-(1-methyl propyl)-3H-1,2,4-Triazol-3-One**	**89848-21-5**	**250**	**7.5**
115	**Cis-[[2-(2,4-Dichloro phenyl)-2-(1H-1,2,4-triazol-1-yl-methyl)-1,3-dioxolan-4-yl] methyl] methane sulfonate**	**67914-86-7**	**300**	**9**
116	1-(2,3-Dichlorophenyl)Piperazine. Hydrochloride	119532-26-2	100	3
117	7-Hydroxy-3,4-Di hydro carbostyril (OR) 7-Hydroxy-3,4-dihydro-1H-quinolin-2-one	22246-18-0	50	1.5
118	1-[(2,3-Dihydro-1,4-benzodioxan-2-yl) carbonyl] piperazine	70918-00-2	50	1.5
119	**Diethyl D(-) Tartrate**	**13811-71-7**	**500**	**15.0**
120	(+) Diethyl-L-Tartrate	87-91-2	100	3.0
121	(S)-(-)N,N-Dimethyl-3-hydroxy 3-(2-thieyl) propanamine	132335-44-5	50	1.5
122	4-Amino-2-methyl-10H-Thieno[2,3-b] [1,5] benzodiazepine hydrochloride	138564-60-0	50	1.5
123	**2-Chloromethyl-3-methyl-4-methoxy pyridine Hydrochloride**	**124473-12-7**	**400**	**12**
124	**2-((4-methoxy-3-methylpyridin-2-yl) methylthio)-5-(1H-pyrrol-1-yl)-1H-benzo[d] imidazole**	**NA**	**500**	**15**
125	2-(Chloromethyl)-4-methoxy-3,5-dimethyl pyridine hydrochloride	86604-75-3	100	3
126	2-{[(3,5-Dimethyl-4-methoxy-2-pyridinyl)-methyl]thio}-5-methoxy-1H-benzimidazole	73590-85-9	100	3
127	5-Methoxy2-[[(4-methoxy-3,5-dimethyl)-2-pyridinyl methyl] thio] 1H imidazo [4,5-b] pyridine	113713-24-9	100	3
128	**Dibenzo [b, f] [1, 4] thiazepin-11(10H)-one**	**07/07/3159**	**500**	**15**
129	**Ethyl-2-(3-Formyl-4-Hydroxy phenyl)-4-Methyl-1,3-thiazole-5-carboxylate**	**161798-01-2**	**150**	**4.5**
130	**Ethyl 2-(3-Cyno-4-isobutoxyphenyl)-4-Methyl-1,3-thiazole-5-carboxylate**	**160844-75-7**	**150**	**4.5**
131	3-(2-Chloroethyl)-6,7,8,9-tetrahydro-9-hydroxy-2-methyl-4H-pyrido[1,2-a] Pyrimidin-4-one	130049-82-0	100	3
132	4-(4-aminophenyl) morpholin-3-one	438056-69-0	100	3
133	4-(4-((5s)-5-(aminomethyl)-2-oxo-1,3-oxazolidin-3-yl)phenyl)morpholin-3-one/HCl	898543-06-1	100	3

134	3-Morpholino-1-(4-(2-oxopiperdine-1-yl)phenyl)-5,6-dihydro pyridine-2(1H)-one	545445-44-1	100	3
135	(z)-Ethyl 2-Chloro-2-(2-(4-methoxy phenyl) hydrazono) acetate	27143-07-3	100	3
136	(S)-1-(2-chloroacetyl)pyrrolidine-2-carbonitrile	207557-35-5	100	3
137	2-(3-methoxy propoxy)-4-((r)-2-(iodomethyl)-3-methylbutyl)-1-methoxy benzene	900811-38-3	100	3
138	(s)-1-benzyl-2-isopropyl succinic acid diisopropyl amine salt	NA	100	3
139	**2-(4-Cyanophenylamino) acetic acid**	**42288-26-6**	**200**	**6**
140	**Ethyl 3-{[{2-amino-1(methylamino)phen-4-yl}carbonyl](pyridin-2-yl)amino}propanoate**	**212322-56-0**	**200**	**6**
141	7-Hydroxy Quinolin-2(1H)-one	70500-72-0	50	1.5
142	1-(benzo[b]thiophen-4-yl) piperazine hydrochloride	913614-18-3	50	1.5
143	Trans-4- amino cyclohexyl acetic acid ethyl ester hydrochloride	76308-26-4	50	1.5
144	1-(((2R,3S)-2-(2,4-difluorophenyl)-3-methyloxiran-2-yl)methyl)-1H-1,2,4-triazole	127000-90-2	50	1.5
145	5-amino-4-(1-cyclopropylnaphthalen-4-yl)-4H-1,2,4-triazole-3-thiol	878671-96-6	50	1.5
146	**2,3-Dimethyl-4-Nitro pyridine -1-oxide**	**37699-43-7**	**500**	**15**
147	2-sec-butyl - 4-[4-[4-(4-methoxy phenyl) piperazinyl] phenyl]- 2H-1,2,4-Triazol-3 (4H) -One	252964-68-4	100	3
148	2,3-Dibromo propionic acid ethyl ester	3674-13-3	100	3
149	7-(4-Chloro-butoxy)-3,4-dihydro-1H-quinolin-2-one	120004-79-7	50	1.5
150	**3,5-Dimethyl-4-Nitro pyridine -1-oxide**	**14248-66-9**	**500**	**15**
151	**2-Hydroxy methyl-4-methoxy-3,5-dimethyl pyridine**	**86604-78-6**	**500**	**15**
152	1-(4-Chloro phenyl)-alpha-(2-methyl propyl) cyclobutene methanamine. Hydrochloride	84484-78-6	50	1.5
153	**2- Chloro methyl-3,4-dimethoxy pyridine. Hydrochloride**	**72830-09-2**	**250**	**7.5**
154	**5-Difluoromethoxy-2-(3, 4-di methoxy-pyridin-2-ylmethyl sulfanyl) -1H-benzoimidazole (Sulphide)**	**102625-64-9**	**250**	**7.5**
155	4-Chloro-2,3,5-Trimethyl Pyridine 1-Oxide OR	109371-20-2	50	1.5
156	6-Hydroxy-3,5-dihydro-1H-Quinolin-2-One	54197-66-9	50	1.5
157	5-(4-Chlorobutyl)-1-Cyclohexyl-1H-tetrazole	73963-42-5	50	1.5

158	alpha-(2,4-Dichlorophenyl)-1H-imidazole-1-ethanol (or) 1-(2,4-Dichlorophenyl)-2-(imidazol-1-yl)ethanol	24155-42-8	50	1.5
159	(2S,2'S)-2,2'-([1,1'-Biphenyl]-4,4'-diyldi-1H-imidazole-5,2-diyl)bis-1-pyrrolidinecarboxylic acid 1,1'-bis(1,1-dimethylethyl) ester	1007882-23-6	50	1.5
160	Iso butyl Glutaric acid	75143-89-4	25	0.8
161	Decahydroisoquinoline	6329-61-9	50	1.5
Total (Worst Case 36 Products on Campaign basis)			**12000**	**360**

List of By-Products

S. No	Name of Product	Stage	Name of By Product	Quantity (Kg/Day)
1	Esomeprazole Magnesium Trihydrate	I	Ammonium persulphate Dimethyl sulphate salt	413
2	Esomeprazole Sodium	I	Ammonium persulphate Dimethyl sulphate salt	53.9
3	Ilaprazole	II	Sodium Acetate	13.7
			Spent Acetic Acid (20%)	50.2
4	Omeprazole	II	Dimethyl sulfide ammonium persulfate	150.0
		III	Dimethyl sulfide ammonium persulfate	277.8
5	Pantoprazole Na Sesquihydrate	II	Phosphoric acid	125.3
6	11-Piperazino Dibenzo [b, f] [1, 4] Thiazepine. Hydrochloride	IV	Piperazine HCl	92.4
		III	Polyphosphoric acid (20%)	5372.9
7	Cis-[[2-(2,4-Dichloro phenyl)-2-(1H-1,2,4-triazol-1-yl-methyl)-1,3-dioxolan-4-yl] methyl] methane sulfonate	II	Triethyl amine HCl	101.1
8	2-Hydroxy methyl-4-methoxy-3,5-dimethyl pyridine	I	Ammonium persulphate Dimethyl sulphate salt	325
9	2-(Chloromethyl)-4-methoxy-3,5-dimethyl pyridine hydrochloride	I	Ammonium persulphate Dimethyl sulphate salt	165.6
10	2-{[(3,5-Dimethyl-4-methoxy-2-pyridinyl)-methyl] thio}-5-methoxy-1H-benzimidazole	I	Ammonium persulphate Dimethyl sulphate salt	113.9

11	1-{2-2Hydoxy ethoxy ethyl] piperazine	I	Piperazine HCl	281.5
12	Dibenzo-[b, f] [1, 4]-thiazepin-11(10H)-one	III	Polyphosphoric acid (20%)	14500
13	Oxiracetam	I	Imidazole HCl	45.3
14	Sofosobuvir	I	Triethyl amine HCl	108.2
15	Dabigatran Etexilate Mesilate	IV	Triethyl amine HCl	76
16	Ketoconazole	II	Triethyl amine HCl	37
17	4-(4-((5s)-5-(amino methyl)-2-oxo-1,3-oxazolidin-3-yl) phenyl) morpholin-3-one/HCl	III	Triethyl amine HCl	42
18	2-(3-methoxypropoxy)-4-((R)-2-(iodomethyl)-3-methyl butyl)-1-methoxy benzene	III	Triethyl amine HCl	37.6
19	(S)-1-benzyl-2-isopropyl succinic acid diisopropylamine salt	I	Triethyl amine HCl	90.5
20	Ethyl 3-[3-amino-4-(methyl amino)-N-(2-pyridyl) benzamido] propanoate	I	Sodium acetate	118.2
		III	Triethyl amine HCl	100
21	Quetiapine Hemifumarate	III	Polyphosphoric acid (20%)	7839
22	Dibenzo [b, f] [1, 4] thiazepin-11(10H)-one	III	Polyphosphoric acid (20%)	21750
23	Rabeprazole Sodium	II	Sodium Acetate	95.2
			Spent Acetic acid (20%)	348.2
24	Dex -Rabeprazole Sodium	II	Sodium Acetate	8.8
			Spent Acetic acid (20%)	32.1
25	2- [[[4-(3-methoxy propoxy)-3-methyl-2-pyridinyl] methyl] thio]-1H-benzimidazole	II	Sodium Acetate	142.9
			Spent Acetic acid (20%)	522.8
26	2-Chloromethyl-3-methyl-4-(3-methoxypropoxy) pyridine HCl	II	Sodium Acetate	82.9
			Spent Acetic acid (20%)	303.2
27	2-Hydroxy methyl-3-methyl-4-(3-methoxy propoxy) pyridine	II	Sodium Acetate	132.5
			Spent Acetic acid (20%)	484.8
28	Lansoprazole	II	Sodium Acetate	100.3
			Spent Acetic Acid	100
29	Dex-Lansoprazole	II	Sodium Acetate	11.8
			Spent Acetic Acid	50
30	2, 3-Di Methyl-4-Nitro pyridine-1-Oxide	I	Dilute Acetic Acid (20%)	775
			Ammonium Sulfate	1279.6
31	2-(Hydroxy methyl)-3-methyl-4-(2,2,2-trifluoroethoxy) Pyridine HCl	I	Spent Acetic Acid	481.5
			Sodium Acetate	159.2

32	2-(Chloro methyl)-3-methyl-4-(2,2,2-trifluoroethoxy) pyridine HCl	I	Spent Acetic Acid	320
			Sodium Acetate	127.8
33	2-[[[3-methyl-4-(2,2,2-trifluoro ethoxy)-2-pyridinyl]methyl] sulfanyl]-1H-benzimidazole	I	Spent Acetic Acid	300
			Sodium Acetate	121
34	3, 5-Di Methyl-4-Nitro pyridine-1-Oxide	I	Dilute Acetic Acid (20%)	775
			Ammonium Sulfate	1279.6
35	2-Chloromethyl-3-methyl-4-methoxy pyridine HCl	II	Acetic Acid (20%)	535.7
			Sodium Acetate	146.4
36	Tenatoprazole	I	Dimethyl sulfide ammonium persulfate	10
		II	Dimethyl sulfide ammonium persulfate	31.8

List of Utilities

S.No	Utility	Unit	Capacity
1	Coal Fired Boilers	TPH	1 x 20 and 2 x 12*
2	Thermic Fluid Heaters	k.cal/hr	4 x 2 Lac
3	DG Sets #	kVA	6 x 1010 and 3 x 500

#DG sets will be used during load shut down by Transco.
*1 x 12 TPH fired boiler shall be kept as standby

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 acquired land has been converted for Industrial use and necessary permission in this regard has been obtained.

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 99.95% 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 642.3 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. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

(xvii) As proposed Rs. 2.88 crores shall be allocated towards Corporate Environment Responsibility (CER). As proposed, and the CER allocation shall be spent mainly for addressing the issues (health, infrastructure, Drinking water facility, skill development, plantation, solar lights, 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. 17.46

Establishment of Synthetic Organic Chemicals (Bulk Drug and Intermediates) manufacturing unit at SY.NO. 221(PART), Ramannapalem Village, Tiruvuru Mandal, Krishna District (Andhra Pradesh) by M/s DESI'S LABS- Reconsideration of Environmental Clearance

[IA/AP/IND2/73245/2018, IA-J-11011/77/2018-IA-II(I)]

The project proponent and their accredited Consultant M/s Team Labs and Consultants, made a detailed presentation on salient features of the project.

The proposal was earlier considered by the EAC in its meeting held during 23-25 October, 2019. The additional details sought by the Committee and response of the project proponent is as under:

1. Speaker wise and Point-wise, response on the issues raised issues raised during the public consultation, along with detailed time bound action plan and budgetary provision

Speaker wise and Point-wise, response on the issues raised issues raised during the public consultation, along with detailed time bound action plan and budgetary provision is submitted and presented.

2. CER plan with activities proposed based on public consultation/hearing issues; and need based assessment

The capital cost of the project for proposed expansion is Rs. 25 crores. The office memorandum dated 01.05.2018 prescribed a CER expenditure of 2 % for green field projects of less than Rs. 100 crores programs, hence must spend Rs. 0.5 crores towards corporate environment responsibility. The development programs shall be finalized in consultation with public representatives and revenue authorities and the tentative programs are as follows;

Name of Village	Activity	Total

	Health Camps	School Infras-tructure	Portable RO Plant	Solar Street Lights	Veterinary Camps	Plant-ation	Rs. Lakhs
	Cost (in Rs. Lakhs)						
Mallela	2	2	2	1.5	0.5	1	9
Chautapalli	1.5		1	0.5		1	4
Suravaram	2	1	1.5	0.5	0.6	1	6.6
Kakarla	1		2	0.5	0.4		3.9
Kotturu	0.5	0.5	1.5	0.6		0.4	3.5
Chittela		0.6	1				1.6
Gollagudem	1.5	0.4	2	1	0.5		5.4
Shambhunigudem	0.5	0.6	2	1	0.5	1.5	6.1
Murepalli	1	1	1.5	0.5	0.4		4.4
Shambhunigudem	1	0.5	2	1	0.5	0.5	5.5
Total	**11**	**6.6**	**16.5**	**7.1**	**3.4**	**5.4**	**50**

3. Calculations and detailed inputs/assumption given for Incremental Concentration for NOx and SO2 shall be submitted in original with justification

ISCST3 Model of ISC-AERMOD was used for the prediction of ground level concentrations of pollutants PM10, PM2.5, SO2 and NOX considering air emissions of 3 co-located units namely; (i) Desi's Labs (ii) Nifty Labs Pvt. Ltd. Unit II (iii) Lakshmi Pharmachem, after one month validation study of Ambient air quality during December 2019

Inputs Considered – Point Sources

S.No	Name of Industry	Boilers	Thermic Fluid Heaters
1	Desi's Labs	2 x 8 TPH**	2 x 2 Lakh Kcal
2	Nifty Labs Pvt. Ltd. Unit II	1 x 20 TPH 2 x 12 TPH *	4 x 2 Lakh Kcal
3	Lakshmi Pharmachem	2 x 8 TPH **	2 x 2 Lakh Kcal

* 1 x 12 TPH fired boiler shall be kept as standby; ** 1 x 8 TPH fired boiler shall be kept as standby

Cumulative Concentrations at Various Villages and Reserved Forests

Station	Distance, km	Baseline Concentration, μg/m³				Predicted GLC, μg/m³				Cumulative Concentration, μg/m³			
		PM_{10}	$PM_{2.5}$	SO_2	NO_x	PM_{10}	$PM_{2.5}$	SO_2	NO_x	PM_{10}	$PM_{2.5}$	SO_2	NO_x
Kakarla	1.3	42	14	5	11	0.02	0.01	0.13	0.15	42.02	14.01	5.13	11.15
Lakshmipuram	2.1	40	14	4	13	0.07	0.03	0.44	0.52	40.07	14.03	4.44	13.52
Polisettipadu	2.3	45	13	4	10	0.02	0.01	0.13	0.15	45.02	13.01	4.13	10.15

Chitala	2.2	39	14	5	9	0.29	0.13	1.75	2.04	39.29	14.13	6.75	11.04
Tekulapalli	3.1	48	16	6	12	0.01	0.00	0.04	0.05	48.01	16.00	6.04	12.05
Chautapalli	2.4	51	20	6	10	0.01	0.00	0.05	0.05	51.01	20.00	6.05	10.05
Gollagudem	5.8	47	16	6	13	0.04	0.02	0.27	0.31	47.04	16.02	6.27	13.31

During deliberations, the EAC noted the following:

The proposal is for environmental clearance (EC) to the project for setting up Bulk Drug and Intermediates manufacturing unit of capacity 150 TPM by M/s Desi's Labs in an area of 10 acres located at Sy. No. 221(Part), Village Ramannapalam, Mandal Tiruvuru, District Krishna, Andhra Pradesh.

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 Ministry vide letter no. IA-J-11011/77/2018-IA II (I); dated 05.04.2018. Public Hearing for the proposed project has been conducted by the Andhra Pradesh Pollution Control Board on 12.06.2018 at 11.00 AM at project site which was presided over by District Collector and Magistrate. The main issues raised during the public hearing are related to employment, pollution control measures, ground water contamination, rain water harvesting, safety measures, plantation and village development.

The unit acquired 10 acres of land for proposed project. Industry will develop Greenbelt in an area of 34% i.e., 3.4 acres out of 10 acres of area of the project site. The estimated project cost is Rs 25 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 8.83 crores and the Recurring cost (operation and maintenance) will be about Rs 7.25 crores Per annum. Total Employment will be 200 persons as direct and 80 persons indirect. Industry proposes to allocate Rs. 1 crores towards Corporate Environment Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 Km distance. Edullavagu stream is flowing from northeast to southwest at a distance of 2.6 km in southeast direction and Kattaleru stream is at a distance of 3.2 km in northwest direction. Kakarla reserve forest at a distance of 0.05 km in west direction and Atlapragada and Konduru reserve forests at a distance of 8.2 km in south direction.

Ambient air quality monitoring was carried out at eight locations during March 2018 to May 2018 and submitted baseline data indicates that ranges of concentrations of PM10 (39-51 µg/m3), PM2.5 (13-20 µg/m3), SO_2 (4-6µg/m3) and NO_2 (9-13 µg/m3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLC_S after the proposed project would be 0.29 µg/m3, 1.75 µg/m3, and 2.04 µg/m3 with respect

to $PM_{10,}$ SO_X and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards.

The total water requirement is 352.1 KLD out of which 205.1 KLD will be fresh water and 147 KLD is recycled. Water requirement will be met from ground water. The unit obtained permission to abstract ground water of 335 KLD from State Ground water department.

Total effluent of 154.1 m3/day will be treated through "Zero Liquid Discharge" based effluent treatment system. The high COD/TDS stream of 121.1 m^3/day is segregated and sent to stripper followed by multiple effect evaporators (MEE), and agitated thin film dryer (ATFD). The condensate from stripper is sent to cement plants for co-incineration, while condensate from MEE and ATFD is mixed with low TDS/COD from utility blow downs and wastewater from R&D of 25 KLD in biological treatment plant followed by Reverse Osmosis. The treated wastewater is reused for cooling towers make-up and scrubbers. Domestic wastewater of 8 KLD sent to sewage treatment plant and treated wastewater is reused for on land irrigation to develop green belt.

Power requirement will be met by Transco. DG sets of capacity 2 x 1010 kVA and 2 x 500 kVA proposed to cater to the energy requirement during load shut down by Transco. Stack (height 10 m for 2 x 1010 kVA and 10 m for 2 x 500 kVA) will be provided as per CPCB norms to the proposed DG sets which will be used as standby during power failure.

It is proposed to establish 2 x 8 TPH coal fired boilers and 2 x 2 Lac. k.cal/hr coal fired thermic fluid heaters. It is proposed to keep 1 x 8 TPH boiler as standby. Stack height of 40 m for 2 x 8 TPH coal fired boilers and 30 m for 2 x 2 Lac. K.cal thermic fluid heaters will be installed along with bag filters for controlling the Particulate emissions (within statutory limit of 115 mg/Nm3).

The process emissions contain ammonia, hydrogen, hydrogen chloride, hydrogen bromide, sulfur dioxide, carbon dioxide and nitrogen. Ammonia, hydrogen chloride, hydrogen bromide and sulphur dioxide are sent to scrubber in series. Sodium chloride from hydrogen chloride, sodium bromide from hydrogen bromide, ammonium chloride from ammonia, sodium bisulfite from sulfur dioxide scrubbing are sent to ETP. Carbon dioxide and nitrogen gases are let out into atmosphere following a standard operating procedure, while hydrogen gas is let out into atmosphere through a water column

Solid wastes are generated from process, solvent distillation, wastewater treatment and utilities. The effluent treatment system generates stripper distillate, ATFD salts and ETP sludge. The process operations generate process residue and recycling operation of distillation generates solvent residue and spent mixed solvents. The utilities i.e., coal fired boiler generates ash while DG sets generate waste oil and used batteries. The stripper distillate, process residue and solvent residue are sent to cement plants for co-incineration based on acceptability. If these wastes are not suitable for co-incineration, the same is sent to TSDF facility. The evaporation salts and ETP sludge are sent to TSDF. Waste oil and used batteries from the DG sets are sent to authorized recyclers. The other solid wastes expected from the unit are containers, empty drums which are returned to the product seller or sold to authorize buyers after detoxification.

Details of products are as under:

Manufacturing Capacity

S.No.	Name of Product	CAS No	Capacity	
			Kg/Day	TPM
1	Alogliptin	850649-61-5	25	0.8
2	Apixaban	503612-47-3	25	0.8
3	Aripiprazole	129722-12-9	25	0.8
4	Brexpiprazole	913611-97-9	25	0.8
5	Brivaracetam	357336-20-0	50	1.5
6	Cariprazine Hydrochloride	1083076-69-0	40	1.2
7	Cilostazole	73963-72-1	50	1.5
8	Dabigatran Etexilate Mesilate	872728-81-9	100	3
9	Dex Rabeprazole Sodium	171440-18-9	20	0.6
10	Dex-Lansoprazole	138530-94-6	25	0.8
11	Diltiazem Hydrochloride	33286-22-5	100	3
12	Doxazosin Mesylate	77883-43-3	10	0.3
13	Duloxetine Hydrochloride	136434-34-9	25	0.8
14	Efinaconazole	164650-44-6	25	0.8
15	Eletriptan Hydrobromide	177834-92-3	25	0.8
16	Erlotinib	183321-74-6	15	0.5
17	Esomeprazole	217087-09-7	100	3
18	Febuxostat	144060-53-7	50	1.5
19	Ilaprazole	172152-36-2	25	0.8
20	Itraconazole	84625-61-6	100	3
21	Ivabradone Hydrochloride	148849-67-6	25	0.8
22	Lansoprazole	103577-45-3	200	6
23	Lesinuard	878672-00-5	25	0.8
24	Levetiracetam	102767-28-2	250	7.5
25	Lurasidone Hydrochloride	367514-87-2	25	0.8
26	Olanzapine	132539-06-1	25	0.8
27	Omeprazole	73590-58-6	25	0.8
28	Oxiracetam	62613-82-5	50	1.5
29	Paliperidone	144598-75-4	30	0.9
30	**Pantoprazole Sodium Sesquihydrate**	**102625-70-7**	**300**	**9**
31	**Quetiapine Hemifumarate**	**111974-72-2**	**300**	**9**
32	**Rabeprazole Sodium**	**117976-90-6**	**300**	**9**
33	Rivaroxaban	366789-02-8	50	1.5
34	Rosuvastatin Calcium	147098-20-2	50	1.5
35	Safinamide Methane Sulphonate	202825-46-5	50	1.5
36	**Sertraline Hydrochloride**	**79559-97-0**	**250**	**7.5**
37	Sitagliptin Phosphate	654671-78-0	50	1.5
38	Sorafenib	284461-73-0	25	0.8
39	Tamsulosin Hydrochloride	106463-17-6	10	0.3
40	Telmisartan	144701-48-4	25	0.8

41	Tenatoprazole	113712-98-4	25	0.8
42	Topiramate	97240-79-4	200	6
43	Trazadone Hydrochloride	25332-39-2	25	0.8
44	Vilazodone Hydrochloride	163521-08-2	50	1.5
45	Vildagliptin	274901-16-5	25	0.8
46	**Dibenzo [b, f] [1, 4] thiazepin-11(10H)-one**	**111974-74-4**	**750**	**22.5**
47	**11-Piperazino Dibenzo [b, f] [1, 4] Thiazepine. Hydrochloride**	**13349-82-1**	**250**	**7.5**
48	**1-[2-(2-Hydroxy ethoxy)Ethyl]Piperazine**	**675198-19-3**	**400**	**12**
49	**2-Hydroxy methyl-3-methyl-4-(3-methoxy propoxy) Pyridine Hydrochloride**	**153259-31-5**	**400**	**12**
50	**2-Chloromethyl-3-methyl-4-(3-methoxy propoxy) Pyridine Hydrochloride**	**117977-21-6**	**250**	**7.5**
51	2-[[[4-(3-methoxy propoxy)-3-methyl-2-pyridinyl] methyl] thio]-1H-benzimidazole	253345-80-1	200	6
52	**2-(Hydroxy methyl)-3-methyl-4-(2,2,2-trifluoroethoxy) Pyridine. Hydrochloride**	**127337-60-4**	**500**	**15**
53	**2-(Chloro methyl)-3-methyl-4-(2,2,2-trifluoroethoxy) pyridine Hydrochloride**	**103577-40-8**	**400**	**12**
54	**2-[[[3-methyl-4-(2,2,2-trifluoro ethoxy)-2-pyridinyl]methyl] sulfanyl]-1H-benzimidazole**	**152402-98-7**	**400**	**12**
55	2[[[3-Methyl-4-(nitro)-2-pyridinyl] methyl] sulfanyl]-1H-benzimidazole	89848-21-5	25	0.8
56	**4-[4-[4-(4-Hydroxy phenyl) -1-piperazinyl] phenyl] 2,4-dihydro- 2-(1-methyl propyl)-3H-1,2,4-Triazol-3-One**	**67914-86-7**	**250**	**7.5**
57	**Cis-[[2-(2,4-Dichloro phenyl)-2-(1H-1,2,4-triazol-1-yl-methyl)-1,3-dioxolan-4-yl] methyl] methane sulfonate**	**119532-26-2**	**250**	**7.5**

Total (Worst Case 14 Product on Campaign Product)		**5000**	**150**

List of By-Products

S. No	Name of Product	Stage	Name of By Product	Quantity (Kg/Day)
1	Pantoprazole Sodium Sesquihydrate	II	Phosphoric acid	125.3
2	11-Piperazino Dibenzo [b, f] [1, 4] Thiazepine. Hydrochloride	IV	Piperazine HCl	92.4
		III	Polyphosphoric acid (20%)	5372.9
3	Cis-[[2-(2,4-Dichloro phenyl)-2-(1H-1,2,4-triazol-1-yl-methyl)-1,3-dioxolan-4-yl] methyl] methane sulfonate	II	Triethylamine HCl	84.3
4	1-{2-2Hydoxy ethoxy ethyl] piperazine	I	Piperazine HCl	281.5
5	Oxiracetam	I	Imidazole HCl	45.3
6	Quetiapine Hemifumarate	III	Polyphosphoric acid (20%)	2610
7	Dibenzo [b, f] [1, 4] thiazepin-11(10H)-one	III	Polyphosphoric acid (20%)	2465
8	Ilaprazole	II	Sodium Acetate	13.7
			Spent Acetic Acid (20%)	50.2
9	Omeprazole	II	Dimethyl sulfide ammonium persulfate	15
		III	Dimethyl sulfide ammonium persulfate	27.8
10	Rabeprazole Sodium	II	Sodium Acetate	95.2
			Spent Acetic acid (20%)	348.2
11	Dex -Rabeprazole Sodium	II	Sodium Acetate	8.8
			Spent Acetic acid (20%)	32.1
12	2- [[[4-(3-methoxy propoxy)-3-methyl-2-pyridinyl] methyl] thio]-1H-benzimidazole	II	Sodium Acetate	57.2
			Spent Acetic acid (20%)	209.1
13	2-Chloromethyl-3-methyl-4-(3-methoxypropoxy) pyridine HCl	II	Sodium Acetate	82.9
			Spent Acetic acid (20%)	303.2
14	2-Hydroxy methyl-3-methyl-4-(3-methoxy propoxy) pyridine	II	Sodium Acetate	132.5
			Spent Acetic acid (20%)	484.8
15	Lansoprazole	II	Sodium Acetate	66.8
			Spent Acetic Acid	65
16	Dex-Lansoprazole	II	Sodium Acetate	11.8
			Spent Acetic Acid	50
17	2-(Hydroxy methyl)-3-methyl-4-(2,2,2-trifluoroethoxy) Pyridine HCl	I	Spent Acetic Acid	481.5
			Sodium Acetate	159.2
18		I	Spent Acetic Acid	320

	2-(Chloro methyl)-3-methyl-4-(2,2,2-trifluoroethoxy) pyridine HCl		Sodium Acetate	127.8
19	2-[[[3-methyl-4-(2,2,2-trifluoro ethoxy)-2-pyridinyl]methyl] sulfanyl]-1H-benzimidazole	I	Spent Acetic Acid	300
			Sodium Acetate	121

List of Utilities

S.No	Utility	Unit	Capacity
1	Coal Fired Boilers	TPH	2 x 8*
2	Thermic Fluid Heaters	k.cal/hr	2 x 2 Lac
3	DG Sets #	kVA	2 x 1010 and 2 x 500

#DG sets will be used during load shut down by Transco.
*1 x 8 TPH fired boiler shall be kept as standby

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 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 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 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. In principal recommendation for environmental clearance does not necessarily imply that land conversion shall be granted to the project and that their proposal for land conversion will be considered by the respective authorities on its merit and decision taken. The Committee desired that the final recommendation shall be made on receipt of the land conversion documents, and presence of the project proponent is not mandatory in the EAC meeting.

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

Agenda No. 17.47

Establishment of Synthetic Organic Chemicals (Bulk Drug and Intermediates) manufacturing unit at SY.NO. 219/1(PART), 219/2(PART), 221(PART), Ramannapalem Village, Tiruvuru Mandal, Krishna District (Andhra Pradesh) by M/s LAKSHMI PHARMACHEM- Reconsideration of Environmental Clearance

[IA/AP/IND2/73243/2018, IA-J-11011/75/2018-IA-II(I)]

The project proponent and their accredited Consultant M/s Team Labs and Consultants, made a detailed presentation on salient features of the project.

The proposal was earlier considered by the EAC in its meeting held during 23-25 October, 2019. The additional details sought by the Committee and response of the project proponent is as under:

1. Speaker wise and Point-wise, response on the issues raised issues raised during the public consultation, along with detailed time bound action plan and budgetary provision

Speaker wise and Point-wise, response on the issues raised issues raised during the public consultation, along with detailed time bound action plan and budgetary provision is submitted and presented.

2. CER plan with activities proposed based on public consultation/hearing issues; and need based assessment

The capital cost of the project for proposed expansion is Rs. 25 crores. The office memorandum dated 01.05.2018 prescribed a CER expenditure of 2 % for green field projects of less than Rs. 100 crores programs, hence must spend Rs. 0.5 crores towards corporate environment responsibility. The development programs shall be finalized in consultation with public representatives and revenue authorities and the tentative programs are as follows;

Name of Village	Activity						Total Rs. Lakhs
	Health Camps	School Infras-tructure	Portable RO Plant	Solar Street Lights	Veterinary Camps	Plant-ation	
	Cost (in Rs. Lakhs)						
Anjaneyapuram	2	2	2.5	1.3		0.3	8.1

Chautapalli	2	1	1	0.5	0.3	0.3	5
Lakshmipuram	2	1	2.5		0.4	0.4	6.3
Kakarla	2		2	0.5	0.4		4.9
Kotturu	1	0.5	2	0.6		0.4	4.8
Chittela		0.6	1.5				2.1
Tekulapalli	2.2	1	1	0.6		0.8	5.6
Polisettipadu	1.5	0.8	2	0.5	0.2	0.3	5.3
Murepalli	1	1.2	1.5	0.5	0.4		4.6
KottaKokilampadu	1		1.2	0.5		0.5	3.2
Total	**15**	**8.1**	**17.2**	**5**	**1.7**	**3**	**50**

During deliberations, the EAC noted the following:

The Proposal is for environmental clearance (EC) to the project for Setting Bulk Drug and Intermediates manufacturing unit of capacity 142.5 TPM by M/s Lakshmi Pharmachem in an area of 10 acres located at Sy. No. 219/1(Part), 219/2(Part) and 221(Part), Village Ramannapalam, Mandal Tiruvuru, District Krishna, Andhra Pradesh.

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 Ministry vide letter no. IA-J-11011/75/2018-IA II (I); dated 05.04.2018. Public Hearing for the proposed project has been conducted by the Andhra Pradesh Pollution Control Board on 13.06.2018 at 11.00 AM at project site under the Chairmanship of District Magistrate. The main issues raised during the public hearing are related to employment, pollution control measures, ground water contamination, plant safety measures and village development, etc.

The unit acquired 10 acres of land for proposed project. Industry will develop Greenbelt in an area of 34% i.e., 3.4 acres out of 10 acres of area of the project site. The estimated project cost is Rs 25 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 7.25 crores and the Recurring cost (operation and maintenance) will be about Rs 6.16 crores Per annum. Total Employment will be 200 persons as direct and 80 persons indirect. Industry proposes to allocate Rs 1 crore towards Corporate Environment Responsibility

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 Km distance. Edullavagu stream is flowing from northeast to southwest at a distance of 2.4 km in southeast direction and Kattaleru stream is at a distance of 3.2 km in northwest direction. Kakarla reserve forest at a distance of 0.05 km in west direction and Atlapragada and Konduru reserve forests at a distance of 8 km in south direction.

Ambient air quality monitoring was carried out at eight locations during March 2018 to May 2018 and submitted baseline data indicates that ranges of concentrations of PM10 (39-51 µg/m3), PM2.5 (13-20 µg/m3), SO_2 (4-6µg/m3) and NO_2 (9-13 µg/m3) respectively. AAQ

modelling study for point source emissions indicates that the maximum incremental GLC_S after the proposed project would be 0.29 µg/m3, 1.75 µg/m3, and 2.04 µg/m3 with respect to $PM_{10,}$ SO_X and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards.

The total water requirement is 326.6 KLD out of which 207.6 KLD will be fresh water and 119 KLD is recycled. Water requirement will be met from ground water. The unit obtained permission to abstract ground water of 210 KLD from State Ground water department.

Total effluent of 128.9 m3/day will be treated through "Zero Liquid Discharge" based effluent treatment system. The high COD/TDS stream of 93.9 m^3/day is segregated and sent to stripper followed by multiple effect evaporators (MEE), and agitated thin film dryer (ATFD). The condensate from stripper is sent to cement plants for co-incineration, while condensate from MEE and ATFD is mixed with low TDS/COD from utility blow downs and wastewater from R&D of 27 KLD in biological treatment plant followed by Reverse Osmosis. The treated wastewater is reused for cooling towers make-up and scrubbers. Domestic wastewater of 8 KLD sent to sewage treatment plant and treated wastewater is reused for on land irrigation to develop green belt.

Power requirement will be met by Transco. DG sets of capacity 2 x 1010 kVA and 2 x 500 kVA proposed to cater to the energy requirement during load shut down by Transco. Stack (height 10 m for 2 x 1010 kVA and 10 m for 2 x 500 kVA) will be provided as per CPCB norms to the proposed DG sets which will be used as standby during power failure.

It is proposed to establish 2 x 8 TPH coal fired boilers and 2 x 2 Lac. k.cal/hr coal fired thermic fluid heaters. It is proposed to keep 1 x 8 TPH boiler as standby. Stack height of 40 m for 2 x 8 TPH coal fired boilers and 30 m for 2 x 2 Lac. K.cal thermic fluid heaters will be provided and bag filters will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm3).

The process emissions contain ammonia, hydrogen, hydrogen chloride, hydrogen bromide, sulfur dioxide, carbon dioxide, oxygen and nitrogen. Ammonia, hydrogen chloride, hydrogen bromide and sulphur dioxide are sent to scrubber in series. Sodium chloride from hydrogen chloride, sodium bromide from hydrogen bromide, ammonium chloride from ammonia, sodium bisulfite from sulfur dioxide scrubbing sent to ETP. Carbon dioxide, oxygen and nitrogen gases are let out into atmosphere following a standard operating procedure, while hydrogen gas is let out into atmosphere through a water column.

Solid wastes are generated from process, solvent distillation, wastewater treatment and utilities. The effluent treatment system generates stripper distillate, ATFD salts and ETP sludge. The process operations generate process residue and recycling operation of distillation generates solvent residue and spent mixed solvents. The utilities i.e., coal fired boiler generates ash while DG sets generate waste oil and used batteries. The stripper distillate, process residue and solvent residue are sent to cement plants for co-incineration based on acceptability. If these wastes are not suitable for co-incineration, the same is sent to TSDF facility. The evaporation salts and ETP sludge are sent to TSDF. Waste oil and used batteries from the DG sets are sent to authorized recyclers. The other solid wastes expected

from the unit are containers, empty drums which are returned to the product seller or sold to authorize buyers after detoxification.

Details of products are as under:

Manufacturing Capacity

S. No	Name of Product	Cas No	Capacity	
			Kg/Day	TPM
1	**Cis-Bromo Benzoate**	**61397-56-6**	**1000**	**30**
2	**2,3-Dimethyl-4--nitropyridine-N-oxide**	**37699-43-7**	**750**	**22.5**
3	Lansoprazole	103577-45-3	300	9
4	Rabeprazole Sodium	117976-90-6	300	9
5	Omeprazole	73590-58-6	300	9
6	**3,5-Dimethyl-4-nitropyridine-N-oxide**	**14248-66-9**	**500**	**15**
7	**Cis-[[2-(2-(2,4-Dichlorophenyl)-2-(1H-1,2,4-triazol-1-yl-methyl)-1,3-dioxolan-4-yl] methyl] methane sulfonate**	**67914-86-7**	**500**	**15**
8	**Cis-Tosylate**	**154003-23-3**	**500**	**15**
9	Pantoprazole Sodium Sesquihydrate	138786-67-1	300	9
10	Itraconazole	84625-61-6	200	6
11	Esomeprazole Magnesium Trihydrate	217087-09-7	200	6
12	Ketoconazole	65277-42-1	200	6
13	1- [2-(2-Hydroxy ethoxy) Ethyl] Piperazine	13349-82-1	200	6
14	2-Hydroxy methyl-3-methyl-4-(3-mothoxy propoxy) pyridine. Hydrochloride	118175-10-3	300	9
15	**2-Chloromethyl-3-methyl-4-(3-methoxy propoxy) Pyridine. Hydrochloride**	**153259-31-5**	**600**	**18**
16	**2- [[[4-(3-methoxy propoxy)-3-methyl-2-pyridinyl] methyl] thio]-1H-benzimidazole**	**117977-21-6**	**450**	**13.5**
17	**2-(Hydroxy methyl)-3-methyl-4-(2,2,2-triflouroethoxy) Pyridine. Hydrochloride**	**103577-66-8**	**450**	**13.5**
18	2-(Chloro methyl)-3-methyl-4-(2,2,2-triflouroethoxy) pyridine Hydrochloride	127337-60-4	400	12
19	2- [[[3-methyl-4-(2,2,2-triflouro ethoxy)-2-pyrdinyl] methyl] sulfonyl]-1H-benzimidazole	103577-40-8	400	12
20	2-[[[3-methyl-4-(nitro)-2-pyridinyl] methyl] sulfonyl]-1H-benzimidazole	152402-98-7	400	12
21	4-[4-[4-(4-Hydroxy Phenyl) -1-Piperazinyl] Phenyl] 2,4-dihydro-2-(1-Methyl Propyl)-3H-1,2,4-Triazole-3-One		400	12
Total (Worst Case 8 Product on Campaign Product)			**4750**	**142.5**

List of By-Products

S.No	Name of Product	Stage	Name of By Product	Quantity (Kg/Day)

1	Cis - Bromo Benzoate	II	Hydrobromic Acid (28%)	951.5
2	2, 3-Di Methyl-4-Nitro pyridine-1-Oxide	I	Dilute Acetic Acid (20%)	1275
			Ammonium Sulfate	1919.4
3	Lansoprazole	I	Sodium Acetate	100.3
			Spent Acetic Acid	100
4	Rabeprazole Sodium	II	Sodium Acetate	95.2
			Spent Acetic acid (20%)	348.2
5	3, 5-Di Methyl-4-Nitro pyridine-1-Oxide	I	Dilute Acetic Acid (20%)	775
			Ammonium Sulfate	1279.6
6	Omeprazole	I	Ammonium persulphate Dimethyl sulphate salt	132
		II	Ammonium persulphate Dimethyl sulphate salt	262.3
7	Cis-[[2-(2,4-Dichloro phenyl)-2-(1H-1,2,4-triazol-1-yl-methyl)-1,3-dioxolan-4-yl] methyl] methane sulfonate	II	Triethylamine HCl	168.5
8	Pantoprazole Sodium Sesquihydrate	II	Phosphoric acid	125.3
9	Esomeprazole Magnesium Trihydrate	I	Ammonium persulphate Dimethyl sulphate salt	413
10	Ketoconazole	II	Triethylamine HCl	74
11	1-{2-2Hydoxy ethoxy ethyl] piperazine	I	Piperazine HCl	140.7
12	2-Hydroxy methyl-3-methyl-4-(3-methoxy propoxy) pyridine. HCl	II	Sodium Acetate	99.4
			Spent Acetic acid (20%)	363.6
13	2-Chloromethyl-3-methyl-4-(3-methoxypropoxy) pyridine HCl	II	Sodium Acetate	198.9
			Spent Acetic acid (20%)	145.5
14	2- [[[4-(3-methoxy propoxy)-3-methyl-2-pyridinyl] methyl] thio]-1H-benzimidazole	II	Sodium Acetate	119.6
			Spent Acetic acid (20%)	437.6
15	2-(Chloro methyl)-3-methyl-4-(2,2,2-trifluoroethoxy) pyridine HCl	I	Sodium Acetate	127.8
			Spent Acetic Acid	120
16		I	Sodium Acetate	120.9

	2-[[[3-methyl-4-(2,2,2-trifluoro ethoxy)-2-pyridinyl]methyl] sulfanyl]-1H-benzimidazole		Spent Acetic Acid	300

List of Utilities

S.No	Utility	Unit	Capacity
1	Coal Fired Boilers	TPH	2 x 8*
2	Thermic Fluid Heaters	k.cal/hr	2 x 2 Lac
3	DG Sets #	kVA	2 x 1010 and 2 x 500

#DG sets will be used during load shut down by Transco.
*1 x 8 TPH fired boiler shall be kept as standby

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 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 Committee noted that the acquired land has not been converted for Industrial use and necessary permission in this regard has not been obtained by the project proponent from the concerned regulatory authority.

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**. In principal recommendation for environmental clearance does not necessarily imply that land conversion shall be granted to the project and that their proposal for land conversion will be considered by the respective authorities on its merit and decision taken. The Committee desired that the final

recommendation shall be made on receipt of the land conversion documents, and presence of the project proponent is not mandatory in the EAC meeting.

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

Agenda No. 17.48

Expansion of Bulk drug and Intermediates manufacturing unit at SY.NO. 404, 405, 407, 408, 409 AND 410, Veliminedu Village, Chityal Mandal, Nalgonda District, Telangana by M/s Dasami Lab Pvt Ltd - Reconsideration of Environmental Clearance

[IA/TG/IND2/115224/2016, J-11011/57/2016-IA.II(I)]

The project proponent and their accredited Consultant M/s Team Labs and Consultants, made a detailed presentation on salient features of the project.

The proposal was earlier considered by the EAC in its meeting held during 23-25 October, 2019. The additional details sought by the Committee and response of the project proponent is as under:

1. Prior transfer of EC in favour of the present applicant i.e., M/s Dasami Lab Pvt

Application submitted in PARIVESH portal for transfer of EC on 06.12.2019 with Proposal No. IA/TG/IND2/129898/2019.

2. Detailed effluent treatment plan to achieve the Zero Liquid Discharge

Total effluent of 225.1 m3/day will be treated through "Zero Liquid Discharge" based effluent treatment system. The high COD/TDS stream of 167.1 m^3/day is segregated and sent to stripper followed by multiple effect evaporators (MEE), and agitated thin film dryer (ATFD). The condensate from stripper is sent to cement plants for co-incineration, while condensate from MEE and ATFD is mixed with low TDS/COD from utility blow downs and domestic wastewater of 58 KLD in biological treatment plant followed by Reverse Osmosis. The treated wastewater is reused for cooling towers and boilers make-up.

3. Plan for rain water harvesting system and revised water balance

The roof water shall be collected in 2 x 200 KL capacity sump connected to down spouts of the roofs, and the collected water shall be reused for process and green belt development. It is proposed to have a storm water storage pond of capacity 3000 m^3. These measures shall ensure reuse of stored storm water for about 96 days of plant operation.
The total fresh water requirement is reduced from 272.73 KLD to 233.73 KLD by increasing boiler condensate recovery efficiency, reducing heat load on cooling towers, thereby the total water requirement is reduced from 487.73 KLD to 448.73 KLD.

4. Details of fuels and commitment for using less Sulphur content fuels

S. No	Utility	Permitted	Proposed	After Expansion	Fuels Used

1	Boilers	1 x 5 TPH	2 x 10 TPH	1 x 5 TPH 2 x 10 TPH	Imported Coal: 3.9 TPH @ GCV: 5000 k.cal
2	DG Sets*	1 x 380 kVA	3 x 1000 kVA	1 x 380 kVA 3 x 1000 kVA	Low Diesel Oil: 0.8 Kl/hr

We here with undertake that Imported coal will be used with less than 0.5% sulfur content

5. Plan for emission control at 99.95% & Plan for odour management in the plant

Vent condensers in series with cooling water and chilled water circulation followed by vacuum pumps to reactors, distillation columns, driers etc. to condense and reuse all volatile solvents. Vent of dry vacuum pump connected to condenser followed by common scrubber

- Two stage scrubbing systems for process emissions.
- Vents of all process equipment's are connected to common headers and the same is connected to scrubbers.
- Filtration and drying are conducted in Agitated Nutche Filters and dryers, with vents connected to minimize solvent losses.
- Use of double mechanical seal fitted transfer pumps for solvents and low boiling liquid raw material transfer.
- Raw materials stored in drums are transferred by using air operated diaphragm pumps in closed hoods. Forced ventilation system to hoods followed by vent connected to scrubbers.
- Low boiling solvent tanks are connected with reflux condensers to minimize the loss

6. Occupational health and management plan and details of workers rotation

- Pre - employment medical check-up at the time of employment
- Periodic medical check-up for all employees.
- Occupational Health Centre, Provision of antidotes in health centre
- Occupational health surveillance - health records
- Monitoring of work area for noise levels and VOC's at frequent intervals.
- Periodic training on occupational safety practices to employees.
- Personnel Protective Equipment to employees
- Annual fund allocated Rs. 13.7 lakhs and Health Check-up Rs. 18.4 Lakhs/annum.
- No workers will be rotated in the work room area, the following practices will be ensuring that there will not be any impact on workers' health
- Identification and elimination of hazards w.r.t process and chemicals handled
- Substitution or replacement of hazard chemicals
- Implementation of engineering controls
- Administrative controls (Permits to work, consigned space entry, PPE and operational discipline)

7. Speaker wise and Point-wise, response on the issues raised issues raised during the public consultation, along with detailed time bound action plan and budgetary provision

Speaker wise and Point-wise, response on the issues raised issues raised during the public consultation, along with detailed time bound action plan and budgetary provision is submitted and presented.

During deliberations, the EAC noted the following:

The Proposal is for environmental clearance (EC) to the project for expansion of Bulk Drug and Intermediates manufacturing unit 15 TPM to 421 TPM by M/s Dasami Lab Pvt Ltd in an area of 51 acres located at Sy.Nos. 404, 405, 407, 408, 409 and 410, Village Veliminedu, Mandal Chityal, District Nalgonda, Telangana.

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 project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 6th EAC meeting held on 27th-28th February, 2017 and recommended Standard Terms of References (TORs) for the Project. The TOR was issued by Ministry vide letter no. F.No. J-11011/57/2016-IA II (I); dated 08.06.2017. Public Hearing for the proposed project has been conducted by the Telangana State Pollution Control Board on 14.09.2018 at 10.00 AM near existing industry site under the Chairmanship of Joint Collector and Additional District Magistrate. The main issues raised during the public hearing are related to employment, ground water contamination, pollution control measures, odour nuisance, impact on human health, milch animals and village development.

Ministry has issued environmental clearance earlier vide letter no F. No. J-1011/533/2007-IA II (I) dated 21.02.2008 for existing project in favour of M/s. SVAKRM Laboratories (P) Ltd. The proponent sought transfer of EC in his name. The certified compliance letter from the regional office of MoEFCC, Chennai is obtained vide letter no. F. No. EP /12.1/2017-18/1/TE/1131 dated 16.07.2019 which is found to be satisfactory.

Existing land area was 7.125 acres., additional 43.875 acres land was acquired for proposed expansion (Total 51 acres). Industry will develop greenbelt in an area of 35.3% i.e., 18 acres out of 51 acres of area of the project site. The estimated project cost for proposed expansion is Rs 45 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 13.5 crores and the Recurring cost (operation and maintenance) will be about Rs 12 crores Per annum. Total Employment from proposed expansion will be 400 persons as direct and 200 persons indirect. Industry proposes to allocate 2.5 % i.e., Rs. 1.25 crores capital cost towards Corporate Environment Responsibility.

There are No National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Reserve forests etc. lies within 10 Km distance. Seasonal nala Chinna Vagu is flowing from northwest to southeast direction at a distance of 6.5 km in southwest direction. There are two reserve forests in the impact area of 10 km radius of the study area. Chityal RF is at a distance of 6.0 km in east direction, Shivanenigudem RF at a distance of 9.0 km in northeast direction.

Ambient air quality monitoring was carried out at ninelocations during March – June 2017 and submitted baseline data indicates that ranges of concentrations of PM10 (32-56 µg/m3), PM2.5 (11-24 µg/m3), SO_2 (9-12 µg/m3) and NO_2 (9-12 µg/m3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLC_S after the proposed expansion would be 1.74 µg/m3, 8.38 µg/m3, and 9.26 µg/m3 with respect to PM_{10}, SO_X and NO_X. The project proponent needs to recalibrate the incremental GLC values and data to be submitted to the Ministry.

The total water requirement after expansion is 448.73 KLD out of which 233.73 KLD will be fresh water and 215 KLD is recycled water. The required water is drawn from Mission Bhagiratha (Industrial supply), Government of Telangana. The unit obtained permission from Mission Bhagiratha (Industrial supply) for supply of 300 KLD water.

Total effluent of 225.1 m3/day will be treated through "Zero Liquid Discharge" based effluent treatment system. The high COD/TDS stream of 167.1 m^3/day is segregated and sent to stripper followed by multiple effect evaporators (MEE), and agitated thin film dryer (ATFD). The condensate from stripper is sent to cement plants for co-incineration, while condensate from MEE and ATFD is mixed with low TDS/COD from utility blow downs and domestic wastewater of 58 KLD in biological treatment plant followed by Reverse Osmosis. The treated wastewater is reused for cooling towers and boilers make-up.

Power requirement will be met by Transco. Existing unit has 1 no. DG set of capacity 1 x 380 kVA, additionally 3 x 1000 kVA DG sets are proposed as standby during power failure. Stack (height 10 m) will be provided as per CPCB norms to the proposed DG set of 3 x 1000 kVA in addition to existing DG sets stack (height 4 m for 380 kVA) which will be used as standby during power failure.

Existing unit has 1 x 5 TPH coal fired boiler and 2 x 10 TPH coal fired boilers are proposed as part of expansion. Bag filters and a stack with height of 35 m will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm3) for proposed 2 x 10 TPH and Bag filters and a stack with height of 30 m is provided for existing 1 x 5 TPH coal fired boiler respectively for controlling the Particulate emissions (within statutory limit of 115 mg/Nm3).

Process emissions contain ammonia, sulfur dioxide, carbon dioxide, oxygen, nitrogen, hydrogen chloride. Ammonia, sulfur dioxide and hydrogen chloride are sent to scrubber in series and resultant scrubbing effluent sent to effluent treatment plant. Carbon dioxide, oxygen and nitrogen is let out into atmosphere following a standard operating procedure, while Hydrogen gas is let out into atmosphere through a water column.

Solid wastes are generated from process, solvent distillation, wastewater treatment and utilities. The effluent treatment system generates stripper distillate, ATFD salts and ETP sludge. The process operations generate process residue and recycling operation of distillation generates solvent residue and spent mixed solvents. The utilities i.e., coal fired boiler generates ash while DG sets generate waste oil and used batteries. The stripper distillate, process residue and solvent residue are sent to cement plants for co-incineration based on acceptability. If these wastes are not suitable for co-incineration, the same is sent to TSDF facility. The evaporation salts and ETP sludge are sent to TSDF. Waste oil and used

batteries from the DG sets are sent to authorized recyclers. The other solid wastes expected from the unit are containers, empty drums which are returned to the product seller or sold to authorize buyers after detoxification.

SVAKRM Laboratories Pvt. Ltd., obtained Environmental Clearance vide letter no. F. No. J-11011/533/2007-IA. II (I), dt. 21.02.2008 for manufacturing following products.

List of Products as per EC dated 21.02.2008

S.No	Name of the Product	Capacity	
		TPM	TPA
1	Tramadol HCl	5	60
2	Ramipril	5	60
3	Omeprazole	5	60
4	Carvedilol	5	60
5	Setraline HCl	5	60
6	Duloxetine HCl	3	36
7	Sparfloxacin	4	48
8	Drotaverine HCl	2.5	30
9	Clopidogrel Hydrogen Bisulfate	5	60
	Total (Worst Case-3 Products at a time on campaign basis)	**15***	**180**

The unit has been taken over by Dasami Lab Pvt. Ltd., and renewed CFO vide letter no. TSPCB/ RCP/NLG/HO/CFO/HO/2015 - 02 dated 29.03.2016. The unit obtained CTE for change in product mix vide order no. 5/TSPCB/CFE/RO-NLG/HO/2017-3797 dated 08.02.2018 and consent to operate (CTO) vide order no. TSPCB/RCP/NLG/HO/CFO/2018-2017 dated 29.08.2018 valid till 30.04.2020 for manufacturing of following products;

List of Products as per valid CFO dated 29.08.2018

S.No	Name of Product	Capacity	
		Kg/day	TPM
1	Aprimilast	33.33	1
2	Canagliflozin	33.33	1
3	Droxidopa	33.33	1
4	Emtricitabine	83.33	2.5
5	Eslicarbazepine Acetate	83.33	2.5
6	Oxcarbazepine	16.67	0.5
7	Ranolazine	16.67	0.5
8	Armodafinil	33.33	1.0
9	Clomipramine hydrochloride	6.67	0.2
10	Diacerein	66.67	2.0
11	Dofetilide	0.33	0.01
12	Eluxadoline	8.33	0.25
13	Indigocarmine	0.17	0.01
14	Iohexol	83.33	2.50
15	Iopamidol	83.33	2.50
16	Isosulfan blue	0.17	0.01

17	Metolazone	6.67	0.20
18	Methylene blue	0.17	0.01
19	Metyrosine	6.67	0.20
20	Mycophenolate mofetil	83.33	2.50
21	Mycophenolate Sodium	83.33	2.5
22	Nadolol	6.67	0.2
23	Permethrin	33.33	1
24	Prochlorperazine Edisylate	0.83	0.025
25	Prochlorperazine	0.67	0.020
26	Prochlorperazine Maleate	0.83	0.025
27	Sodium Nitroprusside	0.17	0.005
28	Succinyl Choline Chloride	0.17	0.005
29	Sugammadex Sodium	33.33	1
30	Trientine Dihydrochloride	33.33	1
31	Verdenafil HCl Trihydrate	16.67	0.5
32	Nimodipine (Pure)	33.33	1
33	R & D Products	50	1.5
34	Carbamazepine (Pure)	33.33	1.0
35	6-Amino Caproic acid	33.33	1.0
36	Suvorexant	33.33	1.0
37	Nitazoxanide	33.33	1.0
38	Valacyclovir HCl. Monohydrate	70	2.1
Total (Worst Case 6 Products)		**500**	**15**

M/s Dasami Lab Pvt. Ltd., proposed to expand the manufacturing capacity to 15 TPM to 421 TPM.

List of products after expansion

S.No	Name of Product	CAS No.	Capacity
			TPM
1	Amlodipine Besylate	111470-99-6	20
2	Aprimilast	608141-41-9	3
3	Bocepravir	394730-60-0	6
4	Bupropion HCl	31677-93-7	20
5	Carvedilol	72956-09-3	30
6	Clopidogrel Hydrogen Bisulfate	135046-48-9	10
7	Colisevelam	182815-44-7	6
8	Dalfampridine	45498-20-2	17
9	Dex lansoprazole	138530-94-6	5
10	Divalproex Sodium	76584-70-8	15
11	Drotaverine HCl	985-12-6	3
12	Duloxetine HCl	136434-34-9	15
13	Esli Carbazapine	236395-14-5	2
14	Fexofenadine HCl	153439-40-8	10
15	Glimepride	93479-97-1	3
16	Lansoprazole	103577-45-3	8
17	Lomitapide	202914-84-9	2

18	Mesalamine	89-57-6	7
19	Nebumitone	42924-53-8	10
20	Omeprazole	73590-58-6	5
21	Piperquine Phosphate	4085-31-8	5
22	posacanazole	171228-49-2	7
23	Ramipril	87333-19-5	7
24	Ranolazine	95635-55-5	10
25	Sevelamir HCl	152751-57-0	29
26	Sparfloxacin	110871-86-8	20
27	Telapravir	402957-28-2	5
28	Ticagrelor	274693-27-5	1
29	Tramadol HCl	27203-92-5	12
30	Valacyclovir	124832-27-5	6
31	Valagancyclovir HCl	175865-59-5	2
32	Abiraterone Acetate	154229-18-2	1
33	Anastrozole	120511-73-1	2
34	Bendamustine Hydochloride	3543-75-7	2.5
35	Bexarotene	153559-49-0	3
36	Bicalutamide	90357-06-5	5
37	Bortezomib	179324-69-7	0.5
38	Carboplatin	41575-94-4	5
39	Capecitabine	154361-50-9	2
40	Cisplatin	15663-27-1	2
41	Cyclophosphamide	50-18-0	2
42	Dasatinib	302962-49-8	2
43	Emtricitabine	143491-57-0	30
44	Erlotinib HCl	183319-69-9	4
45	Gefitinib	184475-35-2	2
46	Gemcitabine HCl	122111-03-9	1
47	Imatinib Mesylate	220127-57-1	16
48	Irinotecan HCl	136572-09-3	14
49	Lapatinib Ditosylate Monohydrate	388082-78-8	2
50	Letrozole	112809-51-5	2.5
51	Nilotinib HCl	923288-90-8	2
52	Oxaliplatin	63121-00-6	4
53	Pazopanib Hydrchloride	635702-64-6	2
54	Pemetrexed Disodium	150399-23-8	0.5
55	Sorafenib Tosylate	475207-59-1	6
56	Temozolomide	85622-93-1	1
57	Sunitinib Malate	341031-54-7	6
	Total		**421**

List of By-Products

S. No	Name of Product	Stage	Name of By Product	Quantity (Kg/day)

1	Amlodipine Besylate	I	Phthalic acid	195.2
2	Clopidogrel Hydrogen Sulphate	I	p-Toluene sulfonic acid	170.8
			Tartaric acid	149
3	Duloxetine HCl	I	Sodium Phenyl Carbonate	239.9
			Ethyl Acetate	131.9
4	Emtricitabine	I	Triethyl amine HCl	409.7

List of Utilities

S.No	Utility	Permitted	Proposed	After Expansion
1	Coal Fired Boiler	1 x 5 TPH	2 x 10 TPH	1 x 5 TPH 2 x 10 TPH
2	DG Sets*	1 x 380 kVA	3 x 1000 kVA	1 x 380 kVA 3 x 1000 kVA

*DG sets will be used during load shut down by TRANSCO

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 within NAAQ standards and incremental GLC due to the proposed project needs to recalibrated and submitted. 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 report on the compliance status of the existing EC conditions found to be satisfactory. However, the existing environmental clearance is yet to be transferred in the name of the present applicant.

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, gave its in principal recommendation for grant of environmental clearance to the project, however, desired that the project proponent **shall first transfer the existing environmental clearance in their favour and recalibrated**

incremental GLC values to be submitted. The Ministry may consider transfer of the environmental clearance as per the provisions of the EIA Notification, 2006. The Committee desired that the final recommendation shall be made on completion of the EC transfer and submission of the date, and presence of the project proponent is not mandatory in the EAC meeting.

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

Agenda No.17.49

Setting up Bulk Drug manufacturing unit of capacity 30.254 TPM by M/s Concord Biotech Limited (Unit-III) at Survey No.84, 94/A, 94/B, 119, 120, 126, 135, 136 of Village Ranasar and Survey No. 772, 773, 774, 774-01, 774-02 of Village Malawada, Taluka Matar, District Kheda (Gujarat) -Consideration of EC

[IA/GJ/IND2/126740/2018, IA-J-11011/164/2018-IA-II(I)]

The project proponent and their accredited consultant M/s. San EnvirotechPvt. Ltd., made a detailed presentation on the salient features of the project.

Earlier proposal was considered by the EAC in its meeting held on 21-23 January, 2020 wherein the deferred the proposal as their EIA coordinator and laboratory person was not present due to some reason.

During deliberations the EAC noted the following:

The proposal is for environmental clearance to the project for Setting up Bulk Drug manufacturing unit of capacity 30.254 TPM by M/s Concord Biotech Limited (Unit-III) in an area of 568588 sqm at Survey No.84, 94/A, 94/B, 119, 120, 126, 135, 136 of Village Ranasar and Survey No. 772, 773, 774, 774-01, 774-02 of Village Malawada, Taluka Matar, District Kheda (Gujarat).

The details of products and capacity are as under:

S. No.	Products	Capacity (MTPM)	Capacity (MTPA)
(A)	**Antibiotic**		
1	Vancomycin	0.835	10
2	Teicoplanin	0.170	2
3	Daptomycin	0.170	2
4	Fidaxomycin	0.085	1
5	Mupirocin&Salts	1.250	15

6	Fosfomycin	0.420	5
7	Dalbavancin	0.045	0.5
8	Telavancin	0.045	0.5
9	Capreomycin	0.010	0.1
10	Tobramycin Sulphate	0.210	2.5
11	Oritavancin	0.045	0.5
12	Polymyxin Salts	0.420	5
13	Bacitracin	0.420	5
14	Fusidic Acid	6.670	80
15	Colistin Salts	0.085	1
	Sub Total	**10.880**	**130.1**
(B)	**Antibiotic, Antiparasitic**		
16	MilbemycinOxime	1.670	20
	Sub Total	**1.670**	**20**
(C)	**Antifungal**		
17	Caspofungin	0.020	0.2
18	Micafungin	0.080	0.93
19	Anidulafungin	0.055	0.65
	Sub Total	**0.155**	**1.78**
(D)	**Immunosuppressant**		
20	Tacrolimus	0.085	1
21	Cyclosporine	4.170	50
22	Rapamycin	0.045	0.5
23	MycophenolateMofetill&MycophenolateSodium	12.500	150
24	Zotarolimus	0.010	0.1
25	Fingolimod	0.005	0.05
	Sub Total	**16.815**	**201.65**
(E)	**Oncology**		

26	Everolimus	0.085	1
27	Pimecrolimus	0.250	3
28	Ixabepilone	0.010	0.1
29	Romidepsin	0.010	0.1
30	Temsirolimus	0.0045	0.05
31	Ridaforolimus	0.0045	0.05
32	Doxorubicin	0.075	0.85
33	Epirubicin	0.020	0.2
34	Idarubicin	0.010	0.1
35	Bleomycin	0.010	0.1
36	Geldanamycin	0.010	0.1
37	Mitomycin	0.010	0.1
38	Dactinomycin	0.010	0.1
39	Trabectedin	0.010	0.1
	Sub Total	**0.519**	**5.95**
(F)	**Statins**		
40	Pravastatin	0.045	0.5
	Sub Total	0.045	**0.5**
(G)	**R & D Products**	**0.170**	**2.0**
	Total(A+B+C+D+E+F+G)	**30.254**	**361.98**

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

The standard terms of references (ToRs) for the project was granted by the Ministry vide letter dated 15th June, 2018.

Total land area of the project is 568588 sqm. Greenbelt will be develop in an area of 35% i.e. 198682 sqmout of total area of the project. The estimated project cost of proposed unit is Rs.150 crore. Total capital cost earmarked towards environmental pollution control measures is Rs.10 croreand the recurring cost (operation and maintenance) will be about Rs.6.5 crore per annum. Total employment including direct and indirect will be 500 persons.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. River Vatrak and Pariyej Lake are at a distance of 8.45 km and 3.65 km in NW direction and SSW direction respectively.

Ambient air quality monitoring was carried out at 8 locations during March, 2019 to May, 2019and the baseline data indicates the ranges of concentrations as: PM_{10} (61.2–66.5µg/m^3), $PM_{2.5}$ (33.1–41.1 µg/m^3), SO_2 (9.1 –12.2 µg/m^3) and NOx (14.5–18.8 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.559µg/m^3, 0.588 µg/m^3, and 0.623µg/$m^3$with respect to PM_{10}, SO_2, andNOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 1477 m^3/day of which fresh water requirement of 820 m^3/day will be met from Bore well. Total effluent generation will be 505 KLD. Reject from first stage RO will be sent to second stage RO. Reject from second stage RO will be sent to MVR/MEE. Condensate of MVR/MEE & permeate of second stage RO will be used in Cooling. Cooling bleed off will be taken to ETP. Entire quantity of treated water will be passed through RO followed by MVR/MEE. RO permeate and condensate from MEE will be utilized for greenbelt development. Treated water of 657 m^3/day will be recycled for process requirements. The plant will be based on Zero Liquid discharge system.

Power requirement will be 4500 kVA proposed to be met from Madhya Gujarat Vij Company Ltd. (MGVCL). Unit will install three D.G. Sets of capacity 1500 kVA each and will be used as standby during power failure. Stack (height 11 meters) will be provided as per CPCB norms to the proposed D.G.Set.

Two steam boilers (10 TPH each) will be installed. Natural Gas/Diesel will be used as fuel in proposed utilities. Due to use of gaseous/liquid fuel, no need of APCM except appropriate stack height as per CPCB guideline.There will be no process emission envisage from the unit.

Public Hearing for the project has been conducted by the Gujarat Pollution Control Board on 18th October, 2019. The main issues raised during the public hearing are related to priority to local employment, proper management of generated waste and effluent. The Committee deliberated the action plan on the issues raised during PH and found in order. The project proponent has proposed to allocate Rs. 3 crore of the total project cost towards CER activities.

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. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. 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 Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21stJuly, 2010 and amended from time to time shall be followed. Fugitive emissions shall be controlled at 99.98% with effective chillers.

(v) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.

(vi) 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.

(vii) 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.

(viii) Total fresh water requirement shall not exceed 820 cum/day, proposed to be met from bore well. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(ix) 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.

(x) 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.

(xi) 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.

(xii) 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.

(xiii) 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.

(xiv) 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.

(xv) As committed, Rs. 3 crore shall be allocated towards Corporate Environment Responsibility (CER). Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.

(xvi) 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.

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

(xviii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

(xix) 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. 17.50

Technical Grade Pesticide Manufacturing Unit at B-16, 17 UPSIDC Industrial Area Village Salempur, Hathras, Uttar Pradesh by M/s EXCEL PHOSPHATES PVT LTD- Consideration of Environmental Clearance

[IA/UP/IND2/106127/2019, IA-J-11011/199/2019-IA-II(I)]

The project Proponent and their accredited consultant M/s Shivalik Solid Waste Management Ltd, made a detailed presentation 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 of capacity 1150 TPM by M/s Excel Phosphates Pvt Ltd in an area of 6080 sqm located atPlot no: B-16, 17, UPSIDC Industrial Area, Salempur, District Hathras, Uttar Pradesh.

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' and item 5(f) 'Synthetic organic chemicals industry' 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.

Standard Terms of Reference (ToR) was issued by the Ministry vide letter dated 28.09.2019. Public hearing is exempted 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 of 6080 sqm will be used for the proposed project. Industry proposed to develop greenbelt in an area of 1438.14 m^2 i.e. 23.65% out of the total area of the project along with vertical green of 10%. The estimated project cost is Rs 7 crores. Total capital cost

earmarked towards environmental pollution control measures is Rs 135 lakhs and the Recurring cost (operation and maintenance) will be about Rs 20 per annum. Total Employment will be 25 nos. of persons as direct (construction phase) & 47 nos. of persons indirect (operation phase). Industry proposes to allocate Rs. 14 lakhs of 2% towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, etc lies within 10 km distance. River/waterbody within 10 km area are given below:

Name/ Identity	**Aerial distance (within 10 km.), Proposed project location boundary**
Water Bodies	**Distance & Direction**
Siktara Distributary	Adjacent N
Pond Near Nagla Kanch	1.29 km SE
Harduaganj Distributary	1.33 km SWW
Siktra Minor	1.44 km SW
Todh Minor	1.45 km SW
Sengar Nadi	3.75 km SW
Sidhamai Drain	3.85 km SW
Etawah Branch (upper Ganga Canal)	4.09 km NE
Pond Near Jauinayatpur	4.13 km E
Pond Near Chhitupur	4.52 km SE
Sohawali Distributary	4.88 km NE
Nagla Adhu Drain	5.29 km SWW
Pond Near Barhad	6.13 km NW
Pond Near Haidaipur	6.36 km SE
Band Abdullahapur Minor	6.85 km SSW
Komri Distributary	7.42 km NWW
Maho Distributary	7.47 km SW
Baghraya Minor	7.47 km SSW
Arind Nadi	7.89 km NEE
Ginauli Minor	8.69 km E
Pond Near Vijaigarh Dehat	8.83 km NNW

Ambient air quality monitoring was carried out at 8 locations (2- Core Zone and 6- Buffer Zone) during March-2019 to May- 2019 season. The range of construction as: PM_{10} (102.2-185 µg/m^3), $PM_{2.5}$ (35.9-71.9 µg/m^3), NO_2 (14.8-35 µg/m^3) and SO_2 (6.4-13.2 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.09 µg/m^3, 0.679 µg/m^3 and 1.36 µg/m^3 with respect to PM_{10}, SO_2 and NO_2. The resulting concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement will be 30.5 m^3/ day of which fresh water requirement of 16 m^3/ day and will be met after permission from UPSIDC. Effluent of 16 KLD will be treated through Advanced Oxidation Process (AOP) based ETP followed by RO/ MEE. The plant will be based on Zero liquid discharge system.

Power requirement will be 125 KVA will be met from Uttar Pradesh Power Corporation Limited (UPPCL) Project has one DG set of 125 KVA capacity used as standby during power failure. Stack height (25m) will be provided as per CPCB norms to the proposed DG sets.

1 no. of 2 TPH boiler of Coal based will be installed with Air Pollution Control System 'Multi cyclone bag/ bag filter with a stack height of 30.5 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.
Details of Process emissions generation and its management given below:

Sr. No	Source	Pollution Control Measure	Stack Height (in m)	Fuel used and Quantity	Probable Emission
Flue Gas Stack					
1	DG sets (125 kVA)	Adequate Stack Height as per CPCB norms	25	HSD	PM< 150 mg/Nm^3 SO< 100 ppm NOx < 50 ppm
2	Boiler (2 TPH steam generation)	Cyclone + Bag-Filter	30.5	Coal – 0.3 TPH	PM< 150 mg/Nm^3 SO< 100 ppm NOx < 50 ppm
3	Mini Incinerator	Alkali scrubber	30	Natural Gas	PM < 50 mg/Nm^3 HCl< 50 mg/Nm^3 SO2< 200 mg/Nm^3 CO < 100 mg/Nm^3
Process Gas stack					
4	MPBAD	Wet scrubber followed by alkali scrubber mainly soda ash	15	--	HCl < 20 mg/Nm^3 HBr < 5 mg/Nm^3 SO2 < 40 mg/Nm^3
5	Clodinafop-propargyl	Wet scrubber followed by NaOH scrubber	15	--	CO2
6	Other Process Reactor	Vents, process reactors shall be connected to common wet scrubber via duct	15	--	--

Details of Solid waste/Hazardous waste generation and its management given below:

Solid Waste:

Waste Type	Disposal Method	Waste (in kg/day)
Biodegradable	will be given to approved vendor	3

Non-Biodegradable	will be given to approved recycler	4
Total		**7 kg/day**

Hazardous Waste:

S. No.	Waste	Category of Hazardous waste as per rules notified in 2016	Quantity of generation	Disposal method
1	ETP Sludge	35.3	5 MT/year	Collection, Storage, Transportation & Disposal at TSDF site approved by UPPCB.
2	MEE salt	37.2	10 MT/year	Collection, Storage, Transportation & Disposal at TSDF site approved by UPPCB.
3	Process Residue	35.3	40 MT/year	Collection, Storage, incineration in our own incinerator.
4	Spent Catalyst	28.1	10 MT/year	Collection, Storage, Transportation & Disposal at TSDF site approved by UPPCB.
5	Incineration Ash	28.6	-	Collection, Storage, Transportation & Disposal at TSDF site approved by UPPCB.
6	Discarded containers/ liners	33.1	Drum: 300/month	Will be used for packing of ETP sludge & in case of excess it will be sold after cleaning to approved recycler or traders.

7	Used Lubricating Oil	5.1	0.5 MT/ year	Collection, Storage, Transportation & disposal by selling to Registered Recyclers

The details of product and capacity as under:

S. No.	Products	Quantity (TPD)	Quantity (TPM)	Quantity (TPA)
A	**Herbicides**			
1	Clodinafop-propargyl	0.28	8.33	100
2	Atrazine	0.28	8.33	100
3	Glyphosate	0.28	8.33	100
4	Butachlor	0.14	4.17	50
5	2,4- D Sodium Salt Tech	0.28	8.33	100
6	Sulfosulfuron	0.28	8.33	100
7	Pretilachlor	0.28	8.33	100
	Total	**1.81**	**54.17**	**650**
B	**Fungicides**			
8	Hexaconozol	0.28	8.33	100
9	Thiaram	0.28	8.33	100
	Total	**0.56**	**16.66**	**200**
C	**Insecticides**			
10	Lambda cyhalothrin	0.28	8.33	100
11	Fipronil	0.14	4.17	50
12	Imidacloprid	0.14	4.17	50
13	Thiomethoxam	0.14	4.17	50
14	Cartap hydrochloride	0.14	4.17	50
	Total	**0.97**	**29.17**	**300**
	Total(A+B+C)	**3.34**	**100**	**1150**

It was informed that The CER has been revised for Rs. 50 Lakhs. Under CER welfare activities will be taken up focusing on Waste Management, Solar, Infrastructure and Water Conservation

S. No.	Activities	Provisions	1st Year	2nd Year	3rd year	4th Year	5th Year	Total (Rs. Lakhs)

1	Solar power	Providing standalone solar light for street lighting in nearby village Salempur, Thulai and Behta village and their maintenance.	8	4	4	4	4	24
2	Waste managem ent	Providing coloured dustbins in first year for waste collections in village Salempur, Thulai & Behta village.	1.5	1.5	1.5	1.5	1	7
3	Infrastruct ure	Infrastructure(Com puters, School Library) in High School at Salempur Village and Primary School in Thuali Village	5	3.5	3.5	3.5	3.5	19
TOTAL			**14.5**	**9**	**9**	**9**	**8.5**	**50**

The Committee noted that the PM_{10} is reported to be exceeding in the study area. Justification for exceeding PM_{10} with specific mitigation measures as under:

The project is located on vacant land where no construction work has been started. Hence the increased PM_{10} level is due to the existing structures/roads.

1. Dust is generated due to the transportation of vehicles on the approach road of the industries located nearby the site which contributes to the increase in PM_{10} level.
2. The baseline data was collected in the summer season 2019 which is normally dry season due to less vegetation in the surrounding surface winds also creates an increase in PM.
3. SH-33 is at about 0.14 km S from the project site, hence regular vehicular movement on the road contributes to the PM_{10} level.

Proposed Mitigation Measures

1. Regular water sprinkling will be done in and nearby project sites so that the dust may be suppressed.
2. Only PUC certified vehicles will be deployed for transportation.
3. Plantation of trees with big foliage will be done all around the periphery of the project site and total 33% of the plant site will be developed into the green area.
4. Also plantation will be carried out near by area which will help in mitigating the dust.
5. Definitely nearby plantation improvement and dust suppression with treated water will be undertaken at least nearby project area.
6. Air pollution control devices Wet scrubber, Cyclone etc are proposed to control the emissions from the plant.

Natural Gas will be used as fuel for the incinerator which shall be sourced based on availability through pipelines/ cylinders.

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 noted that the baseline data and incremental GLC are within the NAAQ standards and the justification submitted by the project proponent regarding increase in PM_{10} to be satisfactory. The CER plan submitted by the project proponent is addressing the concerns raised during the socio-economic study and as per the demand of the study area. 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) 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 stipulate additional safeguards for improvement of environmental quality in the area.

(ii) Zero Liquid Discharge shall be ensured including existing facility and the proposed expansion facility and no waste/treated water shall be discharged outside the premises.

(iii) VOC losses shall be controlled by installing primary condenser, secondary condenser, VOC trap condenser, reducing temperature from -10 ^{o}C to -35 ^{o}C and also adopting LDAR system.

(iv) Natural gas shall be used as fuel in the unit. Air pollution control devices Wet scrubber, Cyclone etc are proposed to control the emissions from the plant.

(v) Regular water sprinkling will be done in and nearby project sites so that the dust may be suppressed. Only PUC certified vehicles will be deployed for transportation.

(vi) 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.

(vii) 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.

(viii) 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.

(ix) 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.

(x) 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.

(xi) Total fresh water requirement shall not exceed 16 cum/day and will be met from UPSIDC Water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(xii) 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

(xiii) 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.

(xiv) 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.

(xv) 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.

(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 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. In addition, the project proponent shall develop greenbelt outside the plant premises also such as avenue plantation, plantation in vacant areas, social forestry etc.

(xviii) As committed, fund allocation for the Corporate Environment Responsibility (CER) shall be Rs. 50 lakhs. The CER plan shall be completed within five years and activities as proposed year wise, like infrastructure for schools, solar power, waste management, drinking water, plantation etc shall be implemented and report shall be submitted to Regional Office of Ministry.

(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.

(xxiv) Mitigating measures suggested during process safety and risk assessment studies shall be undertaken accordingly.

Agenda No.17.51

Petroleum and petrochemical complex by M/s Reliance Sibur Elastomers Private Limited in multi products special Economic Zone in District in Jamnagar in Gujarat – Amendment/bifurcation in Environmental Clearance - reg.

[IA/GJ/IND2/110022/2019, J 11011/149/2007 IA II(I)]

It was informed to the Committee that the proposal was earlier considered by the EAC in its meeting held on 28-29 August, 2019, wherein the EAC, after deliberations, was agreed in-principle to the proposal for separation of Elastomers (Butyl and Halo Butyl Rubbers) unit from the ECs dated 30th March, 2010 in the name of M/s Reliance Sibur Elastomers Private Limited for production of Butyl Rubber @ 120 KTA and Halo butyl Rubber @ 60 KTA. The committee also suggested to submit the project details including total plot area, utilities, water consumption, waste water management, storage for products and raw materials) and other environmental parameters. The Committee desired that the Ministry may ensure other administrative requirements (like Certificate of Incorporation) for separation of any product from the EC.

Based on recommendation and subsequent approval in the Ministry, it was asked to the project proponent vide letter dated 8th November, 2019 to submit the information as desired by the EAC. Further, in response to the Ministry's letter dated the project proponent vide letter dated 14th November, 2019 has submitted the said information.

Thereafter, the Ministry referred the proposal back to the EAC as in similar case, the devolutions of conditions needs to be deliberated by the committee. Also, the project proponent need to spilt the facilities/ utilities/activities/ ancillary unit in between M/s Reliance Industries Ltd and M/s Reliance Sibur Elastomers Private Limited.

The project proponent has again submitted the following information as sought by the Ministry and EAC in its meeting held on 28-29 August, 2019:

Split of facilities/utilities/activities/ancillary unit in between RIL and RSEPL is as follows:

S. No.	Description	RIL (Post amendment of EC)	New Company RSEPL
A.	Project Details		
	Title	Petroleum and petrochemical complex in multi-products special economic zone in Dist. Jamnagar,	Proposed Butyl, Helo-butyl rubber plant at Dist. Jamnagar, Gujarat by M/s. Reliance Sibur Elastomers Pvt. Ltd.

		Gujarat by M/s. Reliance Industries Ltd.	
	Capacity	C4/C5 based units will not have butyl, halo-butyl rubber and balance elastomer capacity of 0.29 MMTPA. (as per Annexure)	Butyl/Halo-butyl rubber production capacity 120/60 KTA. Total 0.18 MMTPA.
	Land	4498.73 Ha.	46.27 Ha.
	Fresh Water Requirement (Desalinated)	14,37 5 m^3/Hr.	625 m^3/Hr. (supplied by RIL)
	Power	2070 MW	30 MW
B.	**Specific Conditions:**		
(i)	The centralized ETP and standalone ETP shall be designed based on the raw water and wastewater quality. Design details of ETP shall be submitted to the Ministry. The effluent shall be segregated into low TDS and High TDS stream which shall after primary, secondary and tertiary treatment shall be used and recycled for green belt development, cooling tower make up etc. The treated effluent shall comply with the prescribed standards. The return sea water shall be discharged into the sea through a multi-port diffuser at a point identified by NIO.	Applicable	IIR plant effluent to be treated in ETP of C2 complex of RIL and HIIR effluent will be treated in designated ETP in HIIR plant so as to meet treated effluent standards notified by the Ministry. The treated effluent from HIIR ETP will be sent for tertiary treatment in C2 complex. The treated effluent will be reused in cooling tower make up, horticulture etc. to the maximum extent. Fresh water for usage will be supplied by RIL from its desalination plant.
(ii)	The Company shall provide details of the model used for the diffuser for discharge of saline water into sea and the efficacy of the existing diffuser which is based on the HYDRODYN model and also	Applicable	Not applicable as this applies to RIL's desalination facility.

	compare with CORMIX model. The depth of discharge of diffuser shall be determined as per the above model.		
(iii)	The hot water effluent and outfall shall be discharged as per the prescribed standards.	Applicable	Not applicable as this applies to RIL's desalination facility
(iv)	The company shall comply with effluent and emission standards for Petrochemical Plants of CPCB/MoEF.	Applicable	Applicable as the plant is for manufacture of synthetic rubbers.
(v)	Ambient air quality data for one season other than monsoon within 10km radius of the complex particularly one station shall be established where maximum GLC is anticipated with respect to SO_2, NO_x, PM_{10}, Ozone, CO, Benzene and Benzo (a) pyrene and data submitted to MoEF/CPCB/SPCB.	Applicable	Applicable. The AAQ will be monitored as per CPCB guidelines.
(vi)	Action plan for reduction of SO_2 and NO_x emissions from the present level shall be submitted to the Ministry.	Applicable	Not applicable as the unit is a new unit to be stablished and will meet the emission norms notified for petrochemical complex
(vii)	The company shall install low NOx burner to mitigate the NOx emission and cyclone, venturi scrubbers, sulphur recovery unit and tail gas treatment for mitigating SO_2 emission.	Applicable	Not applicable as these APCM are not envisaged in the project.
(viii)	The company shall install detectors for phosgene and specific steps shall be taken for phosgene management.	Applicable	Not applicable as the unit is not for Phosgene manufacturing.
(ix)	The gaseous emissions (SO_2, PM_{10}, NO_x, CO and NMHC) from the various process units shall conform to the standards prescribed under Environment	Applicable	Applicable so as to meet the emission norms notified for petrochemical complexes.

	(Protection) Rules, 1986 or norms stipulated by the SPCB, whichever is more stringent. At no time, the emission level shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the respective units should not be restarted until the control measures are rectified to achieve the desired efficiency.		
(x)	The proponent shall upload the status of compliance of the stipulated EC conditions, including monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal office of CPCB and the SPCB. The criteria pollutant namely; Particulate matter (PM_{10}, SO_2, NOx, VOC and HC (Ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at the convenient location near the main gate of the company in the public domain.	Applicable	Not Applicable. This requirement is also prescribed in the General Conditions at # (vii)
(xi)	Process emissions shall be controlled by scrubbers. Flue gas emissions from the various stacks attached to the boilers, furnace/heaters shall conform to the prescribed standards.	Applicable	Not Applicable as these sources of emission are not a part of this process.
(xii)	The gaseous emissions from the DG sets shall be dispersed through stack of adequate height as per CPCB/State	Applicable	Applicable and to be complied as per CPCB notified guidelines.

	Pollution Control Board standards. Acoustic enclosures shall be provided to mitigate the noise.		
(xiii)	The company shall use low sulphur fuel to minimize SO_2 emission. Stacks which are contributing to more SO_2 emissions shall be identified and SO_2 emissions shall be reduced by changing the fuel or by increasing the height of major stacks to bring GLC within the prescribed limits.	Applicable	Applicable
(xiv)	To control the fugitive emissions, the unit shall have provision for internal floating roof tanks with flexible double seal for MS and intermediate products; mechanical seals in pumps; regular inspection of floating roof seals and proper maintenance of floating roof seals for storage tanks; preventive maintenance of valves and other equipment; regular skimming of oil from separators/equalization basin in ETP. The units shall assess and minimize the fugitive VOC emission wherever possible.	Applicable	Applicable as per Petrochemical Standards 2012
(xv)	Fugitive emissions of HC from product storage tank yards etc must be regularly monitored. Sensors for detecting HC leakage shall also be provided at strategic locations.	Applicable	Applicable
(xvi)	M/s RIL shall implement Leak Detection and Repair (LDAR) programme using a portable VOC detection instrument shall be done on distribution lines and tanks.	Applicable	Not Applicable as this is not specified in Petrochemical Standard 2012.

(xvii)	Measures shall be undertaken for odour control and inventory of odours compounds shall be maintained.	Applicable	Not Applicable as there are no odorous raw materials or products.
(xviii)	The product loading gantry shall be connected to the product sphere in closed circuit through the vapour arm connected to the tanker. Data on fugitive emissions shall be regularly monitored and records maintained.	Applicable	Not Applicable. There is no liquid product.
(xix)	The company shall ensure that no halogenated organic is sent to the flares. If any of the halogenated organic are present then the respective streams may be incinerated, if there are no technically feasible or economically viable reduction/recovery options. Any stream containing organic carbon, other than halogenated shall be connected to proper flaring system, if not to a recovery device or an incinerator.	Applicable	Applicable
(xx)	The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008 for management of Hazardous wastes and prior permission from GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Details of regarding type of catalyst to be used and plan for disposal of spent catalyst shall be submitted. The company shall incinerate the oil cotton ragas only. The design of the incinerator and secured landfill	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. Details of regarding type of catalyst to be used and plan	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. Details of regarding type of catalyst to be used and plan for disposal of spent catalyst shall be submitted. The company shall incinerate the oil cotton ragas only. The design of the

	facility shall be as per the CPCB guidelines.	for disposal of spent catalyst shall be submitted. The company shall incinerate the oil cotton ragas only. The design of the incinerator and secured landfill facility shall be as per the CPCB guidelines.	incinerator and secured landfill facility shall be as per the CPCB guidelines.
(xxi)	M/s RJIL shall undertake measures for fire fighting facilities in case of emergency	Applicable	Applicable
(xxii)	The company shall submit time bound action plan for brine management. Further, possibility of setting up of salt manufacturing facility for management of huge volume of brine shall be explored or tie up with the salt manufacturing units in the area for brine disposal.	Applicable	Not Applicable, as unit does not have desalination facility.
(xxiii)	The company shall prepare integrated risk assessment report considering domino effect which shall be done after freezing overall layout of the Petrochemical Complex with precise location of all individual plants as well as all offsite and battery limit storage areas of the Petrochemical Complex and after all storage capacities and tank sizes are decided.	Applicable	Not Applicable. This is an independent facility and unit specific RA will be carried out.
(xxiv)	The Quantitative Risk Assessment (QRA) shall be done in comprehensive manner by taking into all consideration listed below but not limited to, a) Report to consider two mega size refineries in the same industrial area	Applicable	Not Applicable.

	and shall deal with the risk arising out of major incident (VCE, Flash fire) in either the existing refineries or proposed petrochemical complex and its domino effect on the each other b) Report to consider precise layout of particular units, bulk storages and storage quantities determined, details of safety system, safeguard provided against domino effect		
(xxv)	All pressure vessels shall be of SIL-3 level product at par with existing refineries.	Applicable	Applicable.
(xxvi)	Any relief system for major hazardous releases shall have at least double or triple backup system against the possibility of human error.	Applicable	Applicable.
(xxvii)	Risk assessment shall include BLEVE for propane and shall be considered in the lay out plan.	Applicable	Not Applicable.
(xxviii)	The company shall submit reports of last 2-3 years regarding external safety audit.	Applicable	Applicable.
(xxix)	Since some of the design parameters have not been frozen at this stage of project, once the Front End Engineering Design Document (FEED) is firmed up, necessary details for integrated QRA study are available particularly with respect to lay out including, the bulk storages with storage quantities determined, details of safety system, safeguard provided against domino effect and other details as prescribed in the specific conditions	Applicable	Not Applicable as this is applicable to the proposed project in its entirety.

	stipulated above regarding catalyst and the mode of their disposal, steps for mitigation of SO_2 and NOx releases details of phosgene management and model used for diffuser for discharged of saline water into the sea shall be submitted to the Ministry. The information provided shall be place before the Committee so that the Committee suggests mid-course correction, and if considered necessary additional environmental safeguards are stipulated for compliance by M/s RIL.		
(xxx)	M/s RIL shall undertake rainwater harvesting measures, to recharge the ground water and also to minimize the water drawl from the weir.	Applicable	Applicable.
(xxxi)	Green belt in 33% of the plant area shall be provided to mitigate the effects of fugitive emissions all around the plant as per CPCB guidelines in consultation with local DFO.	Applicable	Applicable.
(xxxii)	Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the medical records of each employees shall be maintained separately.	Applicable	Applicable
(xxxiii)	Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile	Applicable	Applicable.

	sewage treatment plant, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.		
(xxxiv)	The Company shall comply with all the conditions stipulated vide ministry's clearance letter no. J-111011/232/2005-IA.II(I) dated 3rd August,2005 for expansion and modernization of petrochemical refinery complex.	Applicable	Not Applicable as the unit is not a part of the refinery and projects approved vide this EC.
B	**General Condition: All general conditions are applicable as per annexure I to RIL and RSEPL**		

The EAC, after deliberations, **recommended** the proposal for bifurcation of EC dated 30th March, 2010 in the name of M/s RIL and M/s Reliance Sibur Elastomers Private Limited

The meeting ended with thanks to the Chair.

*****

Annexure-I

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.

****

Annexure-II

List of the Expert Appraisal Committee (Industry-2) members attended the meeting

S. No.	Name and Address	Designation
1.	Dr. J. P. Gupta	Chairman
2.	Dr. Y.V. Rami Reddy	Member
3.	Dr. J S Sharma	Member
4.	Shri Dinabandhu Gouda	Member
5.	Dr. T. K. Joshi	Member
6.	Dr. Saloni Goel	Member
7.	Shri S.C. Mann	Member
8.	Dr. Uma Kapoor	Member
9.	Shri Ashok Agarwal	Member
10.	Dr. Sanjay Bist	Member
11.	Dr. R. B. Lal, Scientist 'E', MoEFCC	Member Secretary
MoEFCC		
12.	Dr Saurabh Upadhyay	Scientist 'C'
13.	Dr. E.P. Nobi	Research Officer

*****

Annexure-III

Minutes approval email

---------- Forwarded message ----------
From: JEEWAN PRAKASH GUPTA <jpglobalconsultinggroup@gmail.com>
Date: Mar 9, 2020 1:46 PM
Subject: Re: Draft Minutes of the EAC (Industry 2 Sector) meeting held during February 25-27, 2020
To: Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>
Cc: Ashok Agrawal <ashok_bdk@yahoo.com>

Dear Dr. R.B. Lal

Draft minutes stand approved with the following changes;

1. Item no -17.9
   The expansion was permitted in the committee with the production of Bio Fuel only, not for the portable liquor industry.

2. The comments of Mr. Ashok Aggarwal should be incorporated in the final minutes.

With Regards,

Dr. J.P. Gupta
Chairman – EAC (Industry-II)
MoEF, Govt. of India
New Delhi
Mob: +91-9810141635