

MINUTES OF THE 40th EXPERT APPRAISAL COMMITTEE (INDUSTRY-2) MEETING
held during 27-29 August, 2018

Venue: Indus Hall, Ground Floor, Jal Wing, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, JorBagh Road, New Delhi - 3

Day One - 27th August 2018

40.1 Opening remarks by the Chairman

40.2 Confirmation of the Minutes of the 39th Meeting of the EAC (Industry-2) held during 25-27 July 2018 at Indira Paryavaran Bhawan, New Delhi.

While confirmation of minutes of the last meeting, the EAC was informed about its recommendations on some of the proposals for amendment in ToR/EC (Agenda No.39.4.2 & 39.6.4) to be revisited, and to make appropriate corrections therein. Accordingly, the said agenda items were taken up for deliberations as below:-

Agenda No.39.4.2

Expansion of Soda Ash from 2,800 TPD to 4,300 TPD, Caustic Soda from 750 TPD to 1,000 TPD and Captive Power Plant from 197.18 MW to 350 MW at Kalatalav, Bhavnagar (Gujarat) by M/s Nirma Ltd - Amendment in ToR

The EAC agreed for correction in minutes of the meeting at para 39.4.2.3 as under:-

39.4.2.3 *The EAC, after deliberations, recommended for amendment in the ToR dated 5th April, 2018 as proposed by the project proponent. Accordingly, the Captive thermal power plant (mentioned in para 2&4 of the ToR) shall be revised to 'Co-generation Plant' and the condition stipulated in para 7(i) of the said ToR to be read as under:-*

'All the industrial effluent shall be treated to the prescribed standards and discharged to Gulf of Khmabhat through diffuser system at an identified location. Sea water intake and the effluent discharge facilities being in CRZ areas, recommendations from the State Coastal Zone Management Authority shall be obtained and submitted.'

Agenda No.39.6.4

Setting up Molasses based Distillery (45 KLPD) at Gat No. 74 and 79 Village Mangrul, Tehsil Tuljapur, District Osmanabad (Maharashtra) by M/s Kancheshwar Sugar Ltd.

The EAC agreed for correction in minutes of the meeting at para 39.6.4.4 as under:-

39.6.4.4 *The EAC, after deliberations, recommended for amendment in EC in the following manner:*

- *Cost of the distillery project will be Rs.60 Crore.*
- *The number of working/operating days for the proposed 45 KLPD distillery shall be 330 days in place of 240 days.*
- *Total water requirement for Distillery will be 497 cum/day.*
- *The quantity of CO₂ (by-product) shall be corrected as 35 MT/Day*

- *New incineration boiler of 20 TPH capacity shall be installed for treatment of spent wash. The concentrated spent wash of 200 cum/day shall be blended with bagasse (105 TPD) for burning in the incineration boiler.*

The EAC also noted no comments on other proposals deliberated during 39th meeting held on 25-27 July, 2018, and accordingly confirmed the same.

40.3 Environmental Clearance

Agenda No.40.3.1

Bulk Drug, Bulk Drug Intermediates and speciality chemicals manufacturing unit at plot No.2423, 2425 GIDC Estate Sachin, Taluka Choryasi, District Surat (Gujarat) by M/s Anupam Rasayan India Ltd (Unit-VI) - For Environmental Clearance

[IA/GJ/IND2/75078/2017, IA-J-11011/272/2017-IA-II(I)]

40.3.1.1 *The project proponent vide email dated 21st August, 2018 has communicated their inability to attend the meeting. The proposal was, therefore, was not considered and deferred.*

Agenda No.40.3.2

Expansion of Synthetic Organic Chemicals at Survey No. 32/2 & 33/2 (a)/ Plot No.A4/2, Part B, Thervoykandigai SIPCOT Industrial Park, Village Thervoykandigai, Tehsil Gummidipoondi, District Thiruvallur (Tamil Nadu) by M/s. Jesons Industries Limited - For Environmental Clearance Reg

[IA/TN/IND2/67591/2017, IA-J-11011/431/2017-IA-II(I)]

40.3.2.1 The Project Proponent and the accredited Consultant M/s Hubert Enviro Care Systems (P) Ltd made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project for proposed expansion & change in product mix at SF No. 32/2 & 33/2 (a), Plot no: A4/2 (Part B), SIPCOT Industrial Complex, Thervoy Kandigai Village, Gummidipoondi Taluk, Thiruvallur District, Tamil Nadu by M/s. Jesons Industries Ltd.

(ii) The standard ToR has been issued by Ministry on dated 16th November, 2017 followed by amendment in ToR vide letter dated 16th April, 2018 providing exemption from public hearing as project site is located inside the notified industrial estate.

(iii) All Synthetic organic chemicals manufacturing unit listed at S.N 5(f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'B'. However, due to applicability of general conditions the appraisal is required at central level under category 'A'.

(iv) Ministry had issued EC earlier vide letter no. J-11011/409/2014-IA-II(I) dated 17th February, 2016 for manufacturing of synthetic organic chemical in favor of M/s Jesons Industries Limited.

(v) Existing land area is 31363.087 sqm. No additional land will be required for proposed expansion. Industry has already developed greenbelt in an area of 34.79 % i.e. 10911.317 sqm out of total area of the project.

(vi) The estimated project cost is Rs.15 crores including existing investment of Rs.14 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.50.7 Lakhs and the Recurring cost (operation and maintenance) will be about Rs.5.9 Lakhs per annum.

(vii) Total Employment will be 100 Persons as direct & 100 persons indirect after expansion. Industry proposes to allocate Rs.15 Lacs @ 1% towards Corporate Social responsibility.

(viii) There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves and Wildlife Corridors etc within 10 km distance from the project site. List of water bodies around the project site are as under:

S. No	Water bodies	Distance (~km)	Direction
1	Senkarai Ammaneri Lake	0.86	N
2	Thervoykandigai Lake	0.87	E
3	Poovilambedu Pond	5.6	NE
4	Kakkavakkam Lake	6.5	S
5	Arani River	8.2	S
6	TG canal	6.4	W

(ix) Ambient air quality monitoring was carried out at 8nos locations during 01.01.2018 to 23.03.2018 and the baseline data indicates the ranges of concentrations as PM₁₀ (36.9-66.5 µg/m³), PM_{2.5} (17.5 - 29.5 µg/m³), SO₂ (7.2-17.3 µg/m³), NO₂ (19.2-30.4 µg/m³), CO (0.121-0.350 mg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM, SO₂ and NO_x are 0.56 µg/m³, 0.45 µg/m³ and 0.82 µg/m³ with respect. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(x) Total water requirement is 374 cum/ day of which fresh water requirement of 327.1 cum/day will be met from SIPCOT. Effluent of 21.8 (say 22 KLD) quantity will be treated through ETP with Zero Liquid Discharge. The plant will be based on Zero Liquid discharge system.

(xi) Power requirement after expansion will be 750kVA including existing 250 KVA and will be met from Tamil Nadu Electricity Board (TNEB). Existing unit has 1 x 250 kVA DG set, additionally 1 x 500 KVA DG sets are used as standby during power failure. Stack (height 11 from above Ground level) will be provided as per CPCB norms to the proposed DG sets.

(xii) Existing unit has 1 No of 0.85 TPH Thermax Boiler. Additionally 2 Nos 0.85 TPH (1-stand by) fired boiler will be installed. A stack of height of 15m above ground level will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.

(xiii) Details of Process emissions generation and its management through Condensers are attached to each reactor with stack height 3meter above ground level.

(xiv) Details of Solid waste/hazardous waste generation and its management are as under:

(a) **Solid waste:**

S. No	Details of Waste	Quantity(kg/ Month)	Method of Disposal
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		Existing	Proposed	Total	
1	Used Paper Waste	50	100	150	Sell as a scrap to authorized buyer
2	Food Waste	50	50	100	Municipal Bins

(b) Hazardous waste:

S. No	Type of waste	Quantity (TPA)			Storage/ disposal
		Existing	Proposed	Total	
1	Used or spent oil	0.6	0.6	1.2	Being and will be sent to Authorized Pre-processors.
2	Chemical sludge from waste water treatment	4.8	7.2	12	Stored within the Premises and disposed as Per the Guideline CPCB and TNPCB which will be send to TSDF Facility.
3	Waste or residues (not made with vegetable or animal materials)	18	22	40	Stored within the Premises and disposed as Per the Guideline CPCB and TNPCB which will be sent to TSDF Facility.
4	Wastes or residues containing oil	1.2	1.2	2.4	Collection, storage, transportation, disposal to Incineration, TSDF.
5	Concentration or evaporation residues	0	27.75	27.75	Stored within the Premises and disposed as Per the Guideline CPCB and TNPCB which will be send to TSDF Facility.

(xv) The proposed expansion project is located in Notified SIPCOT Industrial Area. Public hearing is exempted under the provisions as per Para 7 III Stage (3) (b) of the EIA Notification, 2006.

(xvi) Details of Certified compliance report submitted by RO, MoEF&CC vide letter No. F.No. EP/12.1/2015-16/7/TN/2025 dated 18.12.2017

(xvii) No litigation is pending against the proposal.

(xviii) The details of products and capacity as under:

S. No	Products	Quantity (TPA)		
		Existing	Proposed	Total
1	Synthetic Acrylic Polymer Emulsions	18000	33000	51000
2	Industrial Synthetic adhesives and Glues	2400	600	3000
3	Thermosetting Acrylic Resins	9000	0	9000
4	Polymer of Vinyl Acetate	3600	8400	12000
5	Vinyl Copolymers	2400	6600	9000

6	Water Proofing compounds and Construction Emulsions	6000	0	6000
7	Styrene Acrylic Copolymer	-	60000	60000
8	Synthetic Organic coloring matters	-	12000	12000
9	Paper Chemical Emulsions	-	9000	9000
10	solvent based Adhesives	-	12000	12000
Total		41400	141600	183000

40.3.2.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of synthetic organic chemicals (mainly Acrylic Polymer Emulsions, Styrene Acrylic Copolymer, Organic colouring matters, Paper Chemical Emulsions, Solvent based Adhesives) from 41400 TPA to 183000 TPA at survey No.32/2 & 33/2 (a)/ Plot No.A4/2, Part B in a total land area of 7.75 acres at SIPCOT Industrial Park, Village Thervoykandigai, Tehsil Gummidipoondi, District Thiruvallur (Tamil Nadu) by M/s Jesons Industries Limited.

The project/activity is covered under category B of item 5(f) 'Synthetic organic chemicals industry'. However, due to applicability of general condition (4.05 km from inter-state boundary), project requires appraisal at central level by sectoral Expert Appraisal Committee (EAC).

The standard ToR for the project was granted on 16th November, 2017. Public hearing is exempted as project site is located inside the notified industrial area.

Total water requirement is estimated to be 374 cum/day, of which fresh water requirement would be 327.1 cum/day proposed to be met from SIPCOT water supply. Effluent of 21.8 cum/day will be treated through ETP. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

The expenditure towards CER during last three years has been 2.5% of the total project cost. The project proponent is committed to continue with the same even for the proposed expansion.

Earlier, Ministry issued EC earlier vide letter dated 17th February, 2016 for manufacturing of synthetic organic chemicals. The monitoring report on compliance status of EC conditions forwarded by the Ministry's Regional office at Chennai vide letter dated 15th December, 2017 was found satisfactory.

Consent to Operate for the present capacity of 41400 TPA has been obtained from the State PCB vide letter dated 27th October, 2016, which is presently valid up to 31st March, 2020.

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

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

As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.

- *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.*

- *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.*
- *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.*
- *Solvent management shall be carried out as follows:*
 - (i) Reactor shall be connected to chilled brine condenser system.*
 - (ii) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
 - (iii) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
 - (iv) Solvents shall be stored in a separate space specified with all safety measures.*
 - (v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
 - (vi) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
 - (vii) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 327.1 cum/day to be met from SIPCOT water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.*
- *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*
- *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.*
- *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.*
- *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.*
- *Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.*
- *The company shall undertake waste minimization measures as below:-*
 - (i) Metering and control of quantities of active ingredients to minimize waste.*
 - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
 - (iii) Use of automated filling to minimize spillage.*
 - (iv) Use of Close Feed system into batch reactors.*
 - (v) Venting equipment through vapour recovery system.*
 - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *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.*

- *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.*
- *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.*
- *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.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *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.40.3.3

Additional Development Drilling of 72 wells in East Godavari, West Godavari and Krishna district, Andhra Pradesh by M/s Oil And natural Gas Corporation Ltd - For Environmental Clearance

[IA/AP/IND2/27956/2015, J-11011/173/2015-IA-II(I)]

40.3.3.1 The project proponent and the accredited consultant M/s Ramky Enviro Services Private Limited, made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project additional Development Drilling of 72 wells in East Godavari, West Godavari and Krishna districts, Andhra Pradesh by M/s ONGC Ltd.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 2nd meeting held during 17.12.2015 and recommended Terms of References (ToRs) for the Project. The Standard ToR has been issued by Ministry vide letter No.J-11011/173/2015-IA-II(I); dated 29.01.2016.

(iii) All Offshore and onshore oil and gas exploration, development & production projects are listed at S.N. 1 (b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Total land area will be required for each well will be 4.5 acres. The estimated project cost is Rs.792 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.103 Lakhs per well and the Recurring cost (operation and maintenance) will be about Rs. 10 Lakhs per well per annum.

(vi) Total Employment will be 50 persons as direct & indirect. Industry proposes to allocate Rs. 8 Crores @ 1 % of project cost towards Corporate Environmental Responsibility.

(vii) There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc within 10 km distance from the project site. River Godavari is flowing at a distance of 0.5 km in west direction.

(viii) Ambient air quality monitoring was carried out at 56 locations during March to May and the baseline data indicates the ranges of concentrations (98th percentile) as: PM10 (44.7 to 60.9 µg/m³), PM2.5 (19.5 to 38.3 µg/m³), SO₂ (5.8 to 16.3 µg/m³) and NO_x (13.4 to 25.6 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 61.22 µg/m³, 16.55 µg/m³ and 32.0 µg/m³ with respect to PM10, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(xi) Total fresh water requirement will be 25 cum/day for each well proposed to be met from local contractors through tankers. Effluent of 8 KLD will be reused for cutting washing. The plant will be based on Zero Liquid discharge system.

(xiii) Power requirement will be 3000 kVA and will be met from 3 DG sets of 1000 kVA. Stack (30 m) will be provided as per CPCB norms to the proposed DG sets.

(xvii) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 20.01.2018 - West Godavari District, 07.04.2018 – Krishna District and 03.05.2018 - East Godavari District. The main issues raised during the public hearing are related to CSR activities, Impact on fisheries, Pollution by drilling activities, etc.

40.3.3.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for onshore development and production of oil and gas from 72 wells in two onland PML Blocks (Godavari Onland and West Godavari) in KG Basin covering Districts of East Godavari, West Godavari and Krishna (AP) by M/s ONGC Ltd.

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

The standard ToR for the project was granted on 29th January, 2016 and public hearing was conducted by SPCB at West Godavari District, Krishna District and East Godavari District on 20th January, 2018, 7th April, 2018 & 3rd May, 2018 respectively.

Total water requirement is estimated to be 25 cum/day proposed to be met from authorized water tanker vehicles/surface water. All effluents will be confined within the impermeable waste pit and allowed for solar evaporation. In case of excess effluent mobile ETP will be utilized for treatment. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

The project proponent has confirmed the expenditure towards CER @ 1.5% of the total project cost.

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 have been duly addressed by the project proponent.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *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.*
- *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.*
- *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.*
- *Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 for PM₁₀, PM_{2.5}, SO₂, NO_x, CO, CH₄, HC, Non-methane HC etc.*
- *During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.*
- *The project proponent also to ensure trapping/storing of the CO₂ generated, if any, during the process and handling.*
- *Approach road shall be made pucca to minimize generation of suspended dust.*
- *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.*
- *Total fresh water requirement shall not exceed the proposed quantum of 25 cum/day proposed to be met from water tankers, and prior permission shall be obtained from the concerned regulatory authority.*
- *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.*
- *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.*
- *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.*
- *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.*
- *The company shall develop a contingency plan for H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S detectors in locations of high risk of exposure along with self containing breathing apparatus.*
- *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.*

- *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.*
- *Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.*
- *The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored the area in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.*
- *All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.*
- *At least 1.5% 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.*
- *Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.*
- *Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office.*
- *Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office.*
- *An audit shall be done to ensure that the Environment Management Plan is implemented in totality and report shall be submitted to the Ministry's Regional Office.*
- *Company shall have own Environment Management Cell having qualified persons with proper background.*
- *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.*
- *On completion of drilling, the company has to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.*

Agenda No.40.3.4

Setting up petrochemical complex for manufacturing Polyols (2,50,000 TPA), Propylene Glycol (1,00,000 TPA) and Mono Ethylene Glycol (110,000 TPA) at Kochi Refinery Complex, Village Puthencruz, District Ernakulam (Kerala) by M/s BPCL - For Environmental Clearance

[IA/KL/IND2/71215/2017, IA-J-11011/552/2017-IA-II(I)]

40.3.4.1 The project proponent M/s Bharat Petroleum Corporation Limited and the accredited Consultant M/s Engineers India Limited made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance for expansion of Petrochemical complex at Kochi Refinery by M/s Bharat Petroleum Corporation Limited.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 33rd EAC meeting held during 22-24 January 2018 and recommended Terms of Reference

(TOR) for the Project. The TOR has been issued by Ministry vide letter No.IA-J-11011/552/2017-IA-II(I) dated 13th March, 2018.

(iii) All Petrochemical Projects are listed at S.N 5 (c) of Schedule of Environmental Impact Assessment (EIA) Notification, 2006 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) The total land area available is 1550 acres out of which proposed project will be implemented in 193.60 acres.

(v) Industry has already developed greenbelt in an area of 112 acres. For the proposed project, industry will develop greenbelt in 34 acres of land.

(vi) The estimated project cost is Rs. 11,128 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs.30 Crore and the Recurring cost (operation and maintenance) will be about Rs. 1.0 Crore per annum.

(vii) Total Employment will be 265 persons as direct during operation phase & temporary requirement of 2000-4000 during the construction phase. Industry proposes to allocate Rs. 44.8 Crore for the next 5 years, as part of Corporate Environment Responsibility.

(viii) There are no National parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. Chitrapuzha river is flowing at a distance of 1 km in the N-W direction.

(ix) Ambient air quality monitoring was carried out at 12 locations during February to April 2018 and the baseline data indicates the ranges of concentrations as: PM₁₀ (39 to 76 ug/m³), PM_{2.5} (20 to 49 ug/m³), SO_x (6 to 15.2 ug/m³) and NO₂ (8 to 17.2 ug/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLC for the proposed project would be 13.7µg/m³ and 20.3 µg/m³ with respect to SO₂ and NO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(x) Total water requirement is approximately 32 million litres per day which will be met from Muvattupuzha (30 km from the project site). Approval has been obtained from Government of Kerala for additional water for the project.

(xi) Additionally generated effluent of 182 m³/hr quantity due to the proposed expansion will be treated in the new ETP. 60 m³/hr of treated effluent conforming to the prescribed norms will be discharged to the nearby water body, and thus total discharge of treated effluent from the Refinery Complex not exceeding 470 cum/hr.

(xii) Power requirement will be approximately 102.5 MW and is proposed to be met from state grid/ Back pressure turbines. DG sets will be used as standby during power failure. Adequate stack height to the proposed DG sets will be provided as per CPCB norms.

(xiii) Fuel fired boiler of 400 TPH capacity will be installed. Adequate stack height will be provided to control the particulate emissions within statutory limit of 115 mg/Nm³ for the proposed boilers.

(xiv) Incinerators & Boilers are proposed to be installed. LNG, HSD, fuel oil/gas/effluent gas will be used as fuel. Expected increase in SO_x will be approximately 240 Kg/hr for the proposed project and total emission will be 1819 Kg/hr. The industrial liquid effluent expected from the proposed project will be treated to comply with MoEF & CC /CPCB norms. Treated effluent will

be recycled, reused wherever possible for green belt development, fire-water make-up of the complex etc. and the balance effluent of approximately 60 m³/hr is proposed to be discharged to the nearest water body.

(xv) Spent catalyst will be sent for precious metal recovery wherever applicable. Non-hazardous solid waste will be disposed to landfill / authorized TSDF facilities as per norms.

(xvi) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on June 4th, 2018. The main issues raised during the public hearing are related to health insurance, Job opportunities, disaster management, traffic congestion and environmental concerns.

(xvii) Certified compliance report from the Regional Office, MoEF&CC, Bengaluru was submitted.

(xviii) No Litigation is pending against the proposal.

(xix) The list of existing and proposed products is as under:

Sl. No	Product	Existing (TPA)	Proposed (TPA)	Total (TPA)
1	Ester Grade Acrylic Acid	47,000	-	47,000
2	Butyl Acrylate	180,000	-	180,000
3	2 Ethyl Hexyl Acrylate	10,000	-	10,000
4	2 Ethyl Hexanol	47,000	-	47,000
5	Normal Butanol	38,000	-	38,000
6	Iso Butanol	7,000	-	7,000
7	Polyols	-	250,000	250,000
8	Propylene Glycol	-	100,000	100,000
9	Mono Ethylene Glycol	-	140,000	140,000

By Products	Production (TPA)
Di-propylene Glycol	10232
Tri-propylene Glycol	1280
Heavier Propylene Glycol	1280
Di-ethylene Glycol	12624
Tri-ethylene Glycol	664

40.3.4.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of petrochemical complex for manufacturing Polyols (2,50,000 TPA), Propylene Glycol (1,00,000 TPA) and Mono Ethylene Glycol (140,000 TPA) in a total area of 1550 acre (includes 193.6 acres for the proposed expansion) at Kochi Refinery Complex, Village Puthencruz, District Ernakulam (Kerala) by M/s Bharat Petroleum Corporation Ltd.

The project/activity is covered under category A of item 5(c) 'Petro-chemical complexes' of schedule to the Environment Impact Assessment (EIA) Notification under category 'A' and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC).

The ToR for the project was granted by the Ministry vide letter dated on 13th March, 2018 and public hearing was conducted by SPCB at Ernakulam on 4th June, 2018.

Total fresh water requirement is estimated to be 32000 cum/day proposed to be met from Muvattupuzha River (takeoff point at 30 km from the project site). Approval has been obtained from the State Government of Kerala to meet the water demand for the proposed expansion.

Additionally generated effluent of 182 m³/hr quantity due to the proposed expansion will be treated in the new ETP. 60 m³/hr of treated effluent conforming to the prescribed norms will be discharged to the nearby water body, and thus total discharge of treated effluent from the Refinery Complex not exceeding 470 cum/hr. The same has been committed to be reduced to 440 cum/hr.

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 have been duly addressed by the project proponent.

The expenditure towards CER for the proposed expansion would be 1% of the project cost as committed by the project proponent.

The details of earlier ECs granted by the Ministry for the refinery and petro-chemical complex are as under:-

Capacity Expansion from 4.5 to 7.5 MMTPA	20 th August, 1991
Diesel Hydro De-Sulphurisation project	5 th March, 1997
Development of Crude Receipt facilities including SPM	2 nd August, 2004
Expansion cum modernization of Refinery unit at Ambalamugal, Ernakulam (Kerala)	2 nd February, 2006
Bottoms upgradation project	18 th February, 2009
Expansion of Kochi Refinery from 9.5 MMTPA to 15.5 MMTPA	22 nd November, 2012
Propylene Derivatives Petrochemical Project (PDPP)	12 th May, 2015
BS VI quality upgradation & MS Block project	20 th October, 2016

Monitoring report on compliance status of the conditions stipulated in the above ECs, forwarded by the concerned Regional Office of this Ministry forwarded vide letter dated 24th May, 2018 was found to be satisfactory.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *Discharge of treated effluent after conforming to the prescribed norms to the nearby water body shall not exceed 30 cum/hr.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *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.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed with different stacks to meet the prescribed norms and/or the NAAQS. The*

gaseous emissions shall be dispersed through stacks of adequate height as per CPCB/SPCB guidelines.

- *Total fresh water requirement shall not exceed 32000 cum/day to be met from Muvattupuzha River. Necessary permission in this regard shall be obtained from the concerned regulatory authority.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.*
- *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. The ash from boiler shall be sold to brick manufacturers/cement industry.*
- *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.*
- *Regular VOC monitoring to be done at vulnerable points.*
- *The oily sludge shall be subjected to melting pit for oil recovery and the residue shall be bio-remediated. The sludge shall be stored in HDPE lined pit with proper leachate collection system.*
- *Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme.*
- *Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.*
- *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.*
- *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.*
- *At least 1% 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.*
- *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.*
- *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.*
- *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. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*

- *The National Emission Standards for Petroleum Oil Refinery issued by the Ministry vide G.S.R. 186(E) dated 18th March, 2008 and G.S.R. 595(E) dated 21st August, 2009 as amended from time to time shall be followed.*
- *The National Emission Standards for Petrochemical (Basic & Intermediates) issued by the Ministry vide G.S.R. 820 (E) dated 9th November, 2012 as amended time to time shall be followed.*

Agenda No.40.3.5

Expansion of liquid storage terminal at Plot No.A1, A2, A3, South End, Willingdon Island, Kochi (Kerala) by M/s M/S Ganesh Benzoplast Limited - For Environmental Clearance

[IA/KL/IND2/75387/2017, 1169/EC/SEIAA/KL/2017]

40.3.5.1 The project proponent and the accredited Consultant M/s ULTRA-TECH Environmental Consultancy and Laboratory made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project expansion of isolated storage terminal with additional 4 Aboveground storage tanks of combined capacity 18000 m³ for Petroleum Products of Class A, B and C, Petrochemicals, and other non-classified liquids' at Plot no. A1, A2, A3, South End, Willingdon Island, Kochi, Kerala by M/s. Ganesh Benzoplast Limited.

(ii) The project proposal was considered by the State Expert Appraisal Committee (Kerala) in its 84th meeting held on 23rd January 2018 and recommended Terms of Reference (ToRs) (Standard Terms of Reference) for the Project. The ToR has been issued by SEAC Kerala vide minutes of 84th meeting, as item No. 84.15 dated 23rd January 2018.

(iii) All projects involving the "Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000) are listed at S.N. 6 (b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'In absence of State Expert Appraisal Committee, Kerala, case will be appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) It has been reported that the Consent to Operate from the Kerala State Pollution Control Board obtained (No R17ERRCTO6133429) dated 4/7/2018 and consent is valid up to 30/06/2023 for the existing facility. For the proposed expansion, Consent to establish from the Kerala State Pollution Control Board obtained (NoR17ERRCVO6133429) dated 20/03/2018 and consent is valid up to 29.10.2020.

(v) The existing liquid storage terminal was established in the period 1999-2000 prior to EIA notification 2006. Existing land area is 14000 m². No additional land will be acquired for proposed expansion as the proposed expansion will be within the existing land area.

(vi) Industry has already developed a green belt of 974 m² (7% of the total plot area) at the project site. The project site is in Cochin Port Trust area. Cochin Port has already developed and is maintaining 33% of its total area as greenbelt.

(vii) The estimated project cost is Rs.1.5 Crores including existing investment of Rs.2.95 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.9.2

lakhs and the Recurring cost (operation and maintenance) will be about Rs 1.8 Lakhs per annum.

(viii) Total Employment will be 15 persons as direct & depending on the work load additional persons may be deployed by the Contractor after expansion. Industry proposes to allocate Rs 3.75 Lakhs @ of 2.5 % towards Corporate Social Responsibility.

(ix) There is one bird sanctuary (Mangalavanam Bird Sanctuary) at a distance of 5.8 km in North East direction and no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves and Wildlife Corridors etc within 10 km distance from the project site. Water body (Vembanad Lake) is at a distance of 75 m in South-West direction.

(x) Ambient air quality monitoring was carried out at 10 locations during 11th February 2017 to 29th April 2017 and the baseline data indicates the ranges of concentrations as: PM₁₀ (47-75 µg/m³), PM_{2.5} (11-27 µg/m³), SO₂ (6-15 µg/m³) and NO_x (9-16 µg/m³). There is no manufacturing process at the project site as it is a liquid storage terminal. The proposed expansion involves additional 4 A/G tanks. There will not be any addition of stack. So, there will not be any addition of pollutants in air hence, modeling is not essential.

(xi) Total water requirement is 0.5 m³/day (after the proposed expansion) of which fresh water requirement of 0.5 m³/day will be met from Cochin Port Trust.

(xii) No industrial effluent will be generated at the project site. Sewage generated from domestic sources is treated in septic tank followed by soak pit. The rainwater collected from the tank farms flows through the Oil Water Separator (OWS) of total capacity 20 m³ and the OWS treated rainwater will be used for feeding the firewater storage tank. The plant will be based on Zero Liquid discharge system.

(xiii) Power requirement after expansion will be 90 kW including existing 60 kW and will be met from Cochin Port Trust (Kerala State Electricity Board). Existing unit has one DG set of 160 kVA capacity, to be used as standby during power failure. Additional DG Set will not be proposed. Stack (height 3.0 m above roof level) is provided as per CPCB norms to the existing DG set.

(xiv) As the terminal is providing only storage and handling services, there is no generation of process emission.

(xv) Details of Solid waste/ Hazardous waste generation and its management:

Waste	Quantity	Method of Disposal
Oil Water Sludge – generated from cleaning of storage tanks once in 5 years	50 kg	Authorized hazardous waste dealers approved by KPCB

(xvi) Public Hearing for the proposed project has been conducted by the Kerala State Pollution Control Board on 30th April 2018. No major issues were raised during the public hearing.

(xvii) Status of Litigation Pending against the proposal, if any: No litigation is pending against the project.

(xviii) The details of products and capacity as under:

(a) Existing storage tanks and capacities are as under:

Tank No	Tank Dimensions (diameter in m x height in m)	Safe Storage Filling Capacity in m ³	Petroleum Product	Petroleum Product Class
T-101	11 x 10.7	1000	Furnace Oil	C
T-102	10 x 10	750	Furnace Oil	C
T-103	20 x 16.5	5000	Furnace Oil	C
T-104	20 x 16.5	5000	Furnace Oil	C
T-105	20 x 16.5	5000	Furnace Oil	C
T-201	18 x 18	4500	Methanol	A
T-202	18 x 18	4500	Methanol	A
T-203	18 x 18	4500	Methanol	A
Total		30250		

(b) Proposed storage tanks and capacities are as under:

Tank No	Safe Storage Filling Capacity in m ³	Tank Dimensions (diameter in m x height in m)
T-204	5000	18 x 20
T-205	5000	18 x 20
T-206	4000	16 x 20
T-207	4000	16 x 20
Total	18000	

40.3.5.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of liquid storage terminal at Plot No.A1, A2, A3, South End, Willingdon Island, Kochi (Kerala) by M/s Ganesh Benzoplast Limited.

The project/activity is covered under category A of item 6(b) 'Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000)' of schedule to the Environment Impact Assessment (EIA) Notification, 2006 under category B. However, due to absence of SEAC in the State, the project requires appraisal at central level by sectoral Expert Appraisal Committee (EAC).

The State Expert Appraisal Committee (Kerala) in its 84th meeting held during 23rd January 2018 and recommended Terms of References (ToRs) (Standard Terms of Reference) for the Project. The ToR has been issued by SEAC Kerala vide minutes of 84th meeting, as item No. 84.15 dated 23rd January, 2018. Public Hearing has been conducted by the Kerala State Pollution Control Board on 30th April 2018.

Total fresh water requirement is estimated to be 0.5 cum/day to be met from the Cochin Port Trust.

No industrial effluent will be generated at the project site. Sewage generated from domestic sources will be sent to septic tank followed by soak pit. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Consent to Operate for the present storage has been obtained from the State PCB vide letter dated 4th July, 2018, which is presently valid up to 30th June, 2023

40.3.5.3 *The EAC, after deliberations, desired for more inputs and clarifications in respect of the following:*

- *Confirmation from the State CZMA regarding non applicability of the CRZ Notification, 2011.*
- *Project site being located at 5.8 km from Mangalavanam Bird sanctuary i.e. within 10 km, clearance from the Standing Committee of NBWL under the Wildlife (Protection) Act, 1972.*
- *Confirmation from the State Wetland Authority regarding the project site not in the command area of Vembanad lake, and the proposed activities not in violation of the Wetland Rules, 2010.*

The proposal was deferred for the needful on the above lines

Agenda No.40.3.6

Proposed plant of pesticide technicals & pesticide intermediates products at Plot No.43/1, GIDC Dahej, Taluka Vagra, District Bharuch (Gujarat) by M/s Tagros Chemical India Ltd - For Environmental Clearance Reg

[IA/GJ/IND2/70565/2017, IA-J-11011/521/2017-IA-II(I)]

40.3.6.1 *The project proponent vide email dated 22nd August, 2018 has communicated their inability to attend the meeting. The proposal was, therefore, not considered and deferred.*

Agenda No.40.3.7

Manufacturing of Bulk Drugs, Intermediates & Allied Products in District Solapur (Maharashtra) of M/s Tetrahedron Laboratories Pvt Ltd - For reconsideration of Environmental Clearance

[IA/MH/IND2/64545/2017, IA-J-11011/218/2017-IA-II(I)]

40.3.7.1 The project proponent and their Consultant M/s Green Circle Inc made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the project for manufacturing Bulk Drugs, Intermediates & Allied Products at Plot No.F-25, MIDC Chincholi, Taluka Mohol, District Solapur (Maharashtra) by M/s Tetrahedron Laboratories Pvt. Ltd.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 25th meeting held during 5th July, 2017 and recommended Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide letter No.J- 11011/218/2017-IAII(I) dated 11th August, 2017.

(iii) All Synthetic organic chemicals industry (bulk drugs and intermediates are listed at S.N. 5(f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

- (iv) Total land area is 6000 sqm. Green belt will be developed in an area of 33% i.e.2040 sqm out of total area of the project.
- (v) The estimated project cost is Rs.4.75 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.50.0 Lakhs and the recurring cost (operation and maintenance) will be about Rs.9.5 Lakhs per annum.
- (vi) Total Employment will be 16 persons as direct & 15 persons indirect after expansion.
- (vii) The Great Indian Bustard Sanctuary, Nannaj, is situated at a distance of 2.55 km from the project site. Sina River is flowing at a distance of 6.73 in SSW direction.
- (viii) Ambient air quality monitoring was carried out at 8 locations during 1st October, 2017 to 31st December, 2017 and the baseline data indicates the ranges of concentrations as: PM₁₀ (52.6 to 64.5 µg/m³), PM_{2.5} (22.1 to 27.1 µg/m³), SO₂ (5.1 to 7.7µg/m³) and NO₂ (11.3 to 14.8 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.5µg/m³, 1.81µg/m³ and 1.06 µg/m³ with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).
- (ix) Total water requirement is 51.9 m³/day of which fresh water requirement of 51.9 m³/day will be met from MIDC water supply.
- (x) Effluent of 34.3 cum/day will be treated through ETP and then sent to CETP for further treatment.
- (xi) Power requirement will be 250 KVA and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Unit has DG sets of 250 kVA capacity used as standby during power failure. Stack (height 13.00 m) will be provided as per CPCB norms to the proposed DG sets.
- (xii) 1.5 TPH Briquette fired boiler will be installed. Multi cyclone separator followed by 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/Nm³ for the proposed boilers.
- (xiii) Details of Process emissions generation and its management: Scrubber will be provided to Process Reactor having capacity 3000 CFM x 3 Nos. and stack of adequate height (14 m height) will be installed to control gaseous emission from process.
- (xiv) Hazardous waste like ETP Sludge (10 Kg/day) will be Collection, Storage, Transportation, Disposal at TSDF site, MEE Salts (600 Kg/day) will be Collection, Storage, Transportation, Disposal at TSDF site, Discarded containers/barrels/liners (25 Nos./Month) will be Return back to raw material supplier, Used/spent oil (5 Litres/Month) will be Sold to authorized reprocessor and Process residue/Bottom fraction (383 Kg/day) will be Sold to authorized vendor.
- (xv) No litigation is pending against the proposal. Public hearing is not applicable for this project.
- (xvi) The details of products and capacity as under:

S. No	Product	Quantity
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		(TPM)
1	Cyano Acetic Acid	80.00
2	Cyclohexanyle Acetonitrile (Alkyl Nitrile)	30.00
3	Caffeine	3.00
4	Theophylline	3.00
5	Theobromine	5.00
6	Ethyl Cyano Acetate	6.50
7	Methyl Cyano Acetate	5.80
8	Cyano Acetamide	2.034
9	Metformin Hydrochloride	10.50
	Total	145.834

40.3.7.2 The proposal was last considered by the EAC in its meeting held on 29-31 May, 2018, wherein the EAC observed discrepancies in the proposal especially in respect of the different industrial processes/operations involved. Due to that, it was not possible to understand the pollution concerns and/or the impact of the project on different environmental parameters. The Committee also desired for presence of the EIA coordinator for presentation of the proposal.

40.3.7.3 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for setting up Bulk Drugs & Intermediates manufacturing unit of 145.834 TPM by M/s Tetrahedron Laboratories Pvt. Ltd in a total area of 6000 sqm at Plot No. F-25, MIDC Chincholi, Taluka Mohol, District Solapur (Maharashtra).

The project/activity is covered under category B of item 5(f) 'Synthetic Organic Chemical Industries' of Schedule to the EIA Notification, 2006 and requires appraisal by respective SEAC/SEIAA. Due to the applicability of general condition (located within 5 km of Wildlife Sanctuary), the project is appraised at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 11th August, 2017. Public hearing is exempted as the project site is located in the notified Industrial area.

Total fresh water requirement is estimated to be 51.9 cum/day proposed to be met from MIDC water supply.

Total effluent generated from different industrial operations is estimated to be 34.30 cum/day, which will be taken to the Effluent Treatment plant and taken to CETP for further treatment.

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 expenditure towards CER for the project would be 2% of the project cost as committed by the project proponent.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *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.*
- *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.*
- *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.*
- *Solvent management shall be carried out as follows:*
 - (i) Reactor shall be connected to chilled brine condenser system.*
 - (ii) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
 - (iii) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
 - (iv) Solvents shall be stored in a separate space specified with all safety measures.*
 - (v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
 - (vi) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
 - (vii) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 51.9 cum/day to be met from MIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.*
- *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*
- *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.*
- *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.*
- *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.*
- *Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.*
- *The company shall undertake waste minimization measures as below:-*
 - (i) Metering and control of quantities of active ingredients to minimize waste.*
 - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*

- (iii) Use of automated filling to minimize spillage.
- (iv) Use of Close Feed system into batch reactors.
- (v) Venting equipment through vapour recovery system.
- (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- 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.
- 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.
- 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.
- 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.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- 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.40.3.8

Expansion of Epoxy Hardening Plant at Sy. Nos. 206 & 207, Village Luna, TahsilPadra, District Vadodara (Gujarat) by M/s Admark Polycoats Pvt Ltd - For reconsideration of Environmental Clearance reg.

[IA/GJ/IND2/35855/2015, J-11011/15/2016-IA II (I)]

4.3.8.1 The project proponent vide email dated 27th August, 2018 has communicated their inability to attend the meeting. The proposal was, therefore, not considered and deferred.

Day two - 28th August 2018

Agenda No.40.3.9

Expansion of Oil Terminal at Jasidih Industrial area, Jasidih, Deoghar (Jharkhand) by M/s Indian Oil Corporation Ltd (IOCL)

[IA/JH/IND2/56677/2015; J-11011/143/2014-1A II (I)]

40.3.9.1 The project proponent and the accredited Consultant M/s ABC Techno Labs India Pvt. Ltd, made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for expansion at IOCL Jasidih terminal by installation of following additional tankages by M/s Indian Oil Corporation Ltd. and located at Jasidih, District: Deoghar, Jharkhand:

- 1 no. of Motor Spirit Cap-10,592 KL,
- 1 no. High Speed Diesel Cap-9,025 KL,

1 no. Super Kerosene Oil Cap- 2,100 KL and
4 nos. of Tank Lorry Filling Bays.

(ii) The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 14th EAC meeting held on 26-27 October, 2016. The Committee recommended to follow the environmental protection measures to be undertaken as per draft Terms of Reference (ToRs) granted by SEIAA vide their letter no EC/ SEIAA/2015-16/798/2015/593/ dated 9th September, 2015 for preparation of EIA-EMP report.

(iii) As per, EIA Notification S.O. No. 1533 issued on 14th September, 2006. This Project comes under schedule 6(b)-Isolated Storage & Handling of Hazardous Chemicals and Category 'B'. Hence, this project requires prior environmental clearance from SEIAA, Jharkhand. Due to non-functional of SEAC & SEIAA committee in Jharkhand the project was submitted to MoEF&CC new Delhi, EAC, IND-2 to obtain the environmental clearance.

(iv) Ministry has issued EC earlier vide letter no. No.-J-11011/320/2010-IA.II(I); dated:14/01/11 for "Pipeline Terminal (POL) for storage and marketing of petroleum products 37,590 KL including branch line facilities from Haldia Barauni Pipeline at Jasidih, District Deogarh, Jharkhand" unit to M/s. IOCL.

(v) Existing land area is 27 acres for the proposed expansion the additional land required will be used from the existing premises of IOCL Jasidih itself.

(vi) Industry will be developing Greenbelt in an area of 33% i.e. 35,652.81 m² out of 1,09,265.12 m² of area of the project.

(vii) The estimated project expansion cost is Rs 22.03 Crores INR.

(viii) Total capital cost earmarked towards environmental pollution control measures is Rs 5,00,000 and the Recurring cost (operation and maintenance) will be about Rs 3,05,000 per annum.

(ix) Total Employment will be 25 persons. Industry proposes to allocate Rs. 57.65 Lakhs towards Corporate Social Responsibility in addition to corporate level ESR.

(x) There are no national parks, wildlife sanctuaries, archaeological monuments, Tourists places, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance.

(xi) Below mentioned river bodies flow in the study area:

- Ajay River flows at a distance of 8.8 km in SSE direction.
- Dharwa River flows at a distance of 4.8 km in NNW direction.
- KutaniyaNadi flows at a distance of 4.5 km in South direction.
- NandanPahar Dam at a distance of 3.5 Km in SE direction.

(xii) Ambient air quality monitoring was carried out at Project Site, Jasidih Town, Chitolorhiya Village, Sinhgua Village, Kobidih Village, Gopalpur Village, Jetutanr Village and Bhogtidih Village were selected locations during February 2016 to April 2016 and submitted baseline data indicates that ranges of concentrations of PM_{2.5} (28.4 to 40.1 µg/m³), PM₁₀ (51.2 µg/m³ to 68.6 µg/m³), SO₂ (5.1 to 11.0µg/m³) and NO₂ (8.1 to 22.0µg/m³) respectively. The hydrocarbon concentrations were below detection limit.

(xiii) Total water requirement is 6.0 m³/day of which fresh water requirement is 4.0 m³/day. It will be met from Government water supply. 4 KLD of sewage generated will be treated in STP. The treated water will be utilised for green belt development. Thus the plant will be based on Zero Liquid discharge system.

(xiv) Power requirement after expansion will be met from Jharkhand State Electricity Board (JSEB) 33 kV substation. Additionally the plant has 3 DG sets of (2 no. x 750 kVA), (1 no. x 320 kVA) capacity, that are used as standby during power failure. Stack height will be provided as per CPCB norms to the DG sets.

(xv) There are no boilers/furnace in plant. This is only a petroleum product storage plant. Hence No manufacturing process are carried out here

(xvi) Details of Process emissions generation and its management. The proposed project is only a petroleum product storage plant. Hydrocarbon leakage detectors will be installed at strategic locations with the plant premises.

(xvii) Details of Solid waste/ Hazardous waste generation and its management: 15 Kgs of MSW will be generated. This waste will be treated as per MSW management rules. 300 Litres of spent oil will be generated per year. It will be handed over to CPCB authorised hazardous waste recycler.

(xviii) The project location lies in notified: 'Jasidih Industrial Area'. Therefore, the project was exempted from Public Hearing (mentioned in Minutes of Meeting of 14 EAC IND2, dated 26-27 october, 2016. sr. no. 14.6.9, page 77.)

(xix) Details of Certified compliance report submitted by RO, MoEF&CC.

(xx) The Regional Officer (MoEF&CC, Ranchi) already visited the IOCL Jasidih plant to check the current status of conditions of existing EC (environmental clearance letter) and submitted their observations to Monitoring Cell, MoEF&CC, New Delhi through letter dated 08/05/2017 (Letter no: 103-268/09/EPE/1212).

(xxi) Status of Litigation Pending against the proposal, if any: Not Applicable.

(xxii) Following are the list of existing and proposed products:

Existing Product list

Existing Units		
Class A		
S. No.	Product	Capacity
1.	MS Tank	2 x 4,241 KL + 1 x 2212 KL = 10,694 KL
2.	Ethanol Tank	3 x 70 KL = 210 KL
3.	Transmix MS	1 x 500 KL = 500 KL
Class B		
1.	SKO Tank	1 x 3,006 KL + 2x938 KL = 4,882 KL
2.	HSD Tank	2 x 5,303 KL + 2x2604 KL = 15,814 KL
3.	HSD Tank	1 x 20 KL (U/G) = 20 KL
4.	Water Tank	2 x 5,600 KL = 11,200 KL

Proposed Products and their Capacities for Expansion

Proposed Units		
S. No.	Product	Capacity
1.	MS Tank	1 x 10,592 KL
2.	HSD Tank	1 x 9,025 KL
3.	SKO Tank	1 x 2,100 KL
4.	Tank Truck Filling Bays	4 nos bottom filling loading bays

40.3.9.2 The proposal was earlier considered by the EAC in its meetings held on 26-27th October, 2016, 6-7 February, 2017 and 14-16 June, 2017. The Committee in its last meeting noted that are several non-compliance points in the certified compliance report forwarded by Ministry's Regional Office. The Committee desired that the PP need to submit copy of permission for ground water withdrawal from CGWB and action taken report on non-compliance points and accordingly deferred the proposal for the needful.

40.3.9.3 During deliberations, the EAC noted the following:-

The proposal is for environmental clearance to the project for expansion of Jasidih POL terminal from the present storage capacity of 32100 KL (14 nos of tanks) to 53817 KL (by providing additional 3 tanks of capacity 21,717 KL) by M/s Indian Oil Corporation Ltd in a total area of 27 acres located at Jasidih, District Deoghar (Jharkhand).

The project/activity is covered under category B of item 6(b) 'Isolated Storage & Handling of Hazardous Chemicals' of Schedule of Environmental Impact Assessment (EIA) Notification, 2006, and requires appraisal at the State level by the concerned SEAC/SEIAA. However, due to non-existence of SEIAA in Jharkhand, the proposal was earlier accepted and appraised at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 9th September, 2015 by the SEIAA, Jharkhand. Public hearing is exempted as the project site is located in the Industrial area/estate.

Total water requirement is estimated to be 6 cum/day, which includes fresh water of 4 cum/day to be met from the borewell supply. Permission in this regard has been obtained from CGWA vide their letter dated 14th November, 2017. Sewage of 4 KLD generated will be treated in STP. The treated water will be utilised for green belt development. Thus the plant will conform to Zero Liquid discharge system.

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.

Ministry has granted environmental clearance vide letter dated 24th January, 2011, to the project for Pipeline terminal (POL) for storage and marketing petroleum products including branch line facilities from Haldia-Barauni pipeline at Jasidih, District Deoghar (Jharkhand) by M/s IOCL. The report on compliance status of the environmental clearance conditions forwarded by the Ministry's Regional Office and the subsequent action taken report submitted by the project proponent and forwarded by Ministry's Regional Office vide letter dated 30th May, 2018, found to be satisfactory.

As such the earlier observations of the Committee regarding permission for ground water withdrawal and non compliance of environmental clearance conditions, now reported to complied, was found in order.

Consent to Operate for the present capacity has been obtained from the State PCB, which is presently valid up to 31st December, 2018.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Total fresh water requirement shall not exceed 4 cum/day proposed to be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/CGWA.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *During construction phase, air pollution and the solid waste management aspects need to be properly addressed ensuring compliance of the Construction and Demolition Waste Management Rules, 2016.*
- *The green belt of 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 and in consultation with the State Forest Department.*
- *At least 1% 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.*
- *Regular monitoring of VOC and HC in the work zone area in the plant premises should be carried out and data to be submitted to Ministry's Regional Office, CPCB and State Pollution Control Board. Quarterly monitoring for fugitive emissions should be carried out as per the guidelines of CPCB and reports submitted to Ministry's Regional Office.*
- *Necessary approvals from Chief Controller of Explosives, as applicable, shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented.*
- *Emergency Response Plan should be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once a month.*
- *Additional safety measures should be taken by using remote operated shut off valve, Double Block & Bleed valve (DBB), impervious dyke wall and un-bonded flexible roof drain pipe, if applicable.*
- *Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.*
- *Road tankers should be equipped to the standard specified in national regulations reputable code. Vehicles should be mobilized during transfer operations and equipped to prevent untimely movement. Loading/unloading bays should be protected against impact. Fire-resistant coatings shall be provided to tanks/vessels.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *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.*
- *Water sprinkling has to be undertaken on regular basis to control the polluting particles.*
- *Approach road shall be made pucca to minimize generation of suspended dust.*

- *The energy sources for lighting purposes shall preferably be LED based.*
- *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.*
- *Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once in a month. onsite and off-site Disaster Management Plan shall be implemented.*
- *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.*
- *Additional safety measures should be taken by using remote operated shut off valve, double block & bleed valve (DBB), impervious dyke wall and un-bonded flexible roof drain pipe, if applicable.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *Unit should carry out safety audit and report submitted to the Regional Office. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.*

Agenda No.40.3.10

Manufacturing of Sodium Cyanide Other Cyanide based products at Plot No. 26-37, 54-57, 122, 143, Village Asnabad, Tehsil Olpad, District Surat (Gujarat) by M/s Hindustan Chemicals Company Ltd.

[J-11011/466/2011-IA-II(I)]

40.3.10.1 *The project proponent, due to their pre-occupation, has requested for consideration of the proposal in the next meeting. The proposal was, therefore, not taken up and deferred.*

Agenda No.40.3.11

Expansion of molasses based Distillery project capacity from 45 KLPD to 120 KLPD & Captive Power Generation from 1.5 MW to 6.5 MW at Vill + Po- Harinagar, Distt-West Champaran, Bihar by M/s Harinagar Sugar Mills Limited (Distillery Division)

[IA/BR/IND2/68566/2017; IA-J-11011/463/2017-IA-II(I)]

40.3.11.1 The project proponent and the accredited Consultant M/s. Mantras Green Resources Ltd., made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance to the Expansion Project of Distillery Plant (45 KLPD to 120 KLPD) and Captive Power Generation Plant (1.5 MW to 6.5 MW) at Harinagar, Dist. West Champaran, Bihar by M/s Harinagar Sugar Mills Ltd.

(ii) The proposal was considered by the Expert Appraisal Committee (Industry-2) and recommended Standard Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/463/2017-IA-II(I) dated 26.10.2017.

(iii) All Molasses based Distillery are listed at S.N. 5(g) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Ministry had issued EC earlier vide letter No.J.11011/51/2006-IAII(I) ; dated 01.06.2006 to the existing project of 45 KLPD Molasses based distillery in favour of M/s Harinagar Sugar Mills Ltd.

(v) Existing land area is 4.86 Ha., No additional land will be used for proposed expansion.

(vi) Industry has already developed greenbelt in an area of 33 % i.e., 1.75 Ha. out of total area of the distillery project.

(vii) The estimated project cost is Rs 68.22 Crores including existing investment of Rs 22.1 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 355 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 95 Lakhs per annum.

(viii) Total Employment will be 92 persons as direct & 7 persons indirect after expansion. Industry proposes to allocate Rs. 112.5 Lakhs @ of 2.5 % towards Corporate Social Responsibility.

(ix) There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Ramrekha Rivulet (150 m. W) and River Burhi Gandak is flowing at a distance of 5 Km. in West direction.

(x) Ambient air quality monitoring was carried out at 8 locations during Nov.'2017 to Jan.'2018 and the baseline data indicates the ranges of concentrations as: PM₁₀ (32.6 – 65.1 µg/m³), PM_{2.5} (19.4 – 39.0 µg/m³), SO₂ (5.6 - 18.6 µg/m³) and NO₂ (10.1 – 39.1 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.58 µg/m³ with respect to PM. Bagasse will be used as Fuel, Emission of SO₂ and NO_x will be negligible so they are not considered for modeling. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(xi) Total water requirement is 2438 m³/day of which fresh water requirement of 1020 m³/day will be met from existing borewells.

(xii) Effluent (Spent Wash) of 1080 m³/day (9 KL/KL of Alcohol) quantity will be treated through Multi-Effect Evaporators (MEE) (as per latest CPCB's & BSPCB's directive) followed by Bio-Composting. The plant will be based on Zero Liquid discharge system.

(xiii) Power requirement after expansion will be 3 MW including existing 2 MW and will be met from Own Captive Power generation Plant.

(xiv) Existing unit has 14 TPH Biogas-cum-Bagasse fired boiler. Additionally 35 TPH Biogas-cum-Bagasse fired boiler will be installed. ESP with a stack of height of 65 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/NM³ for the proposed boilers.

(xv) Details of Process emissions generation and its management
After proposed expansion, modernization & installation of new Biogas cum Bagasse fired HP Boiler of 35 TPH capacity alongwith Electrostatic Precipitator (ESP) as Air Pollution Control

Equipment along with 14 TPH old boiler followed by 65 m. height stack will be installed as per CPCB guidelines.

(xvi) Details of Solid waste/ Hazardous waste generation and its management

Solid Waste	Generation	Management
Boiler Ash	7 TPD	Reutilize for Bio-composting within own premises
Decanter-Sludge	17 TPD	Reutilize for Bio-composting within own premises

(xvii) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 09.06.2018. The main issues raised during the public hearing are related to Air & Water Pollution, Social Welfare Activities, Training of Farmers, Green Belt Development.

(xviii) Certified compliance report was forwarded by Ranchi, RO, MoEF&CC.

(xix) There is no Litigation Pending against the proposal.

(xx) The details of products and capacity as under:

S. No	Product	Existing	Proposed	Total
1	Ethanol	45 KLPD	75 KLD	120 KLPD
2	Captive Power Generation	1.5 MW	5 MW	6.5 MW

40.3.11.2 During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of molasses based distillery plant from 45 KLPD to 120 KLPD by M/s Harinagar Sugar Mills Ltd in a total land area of 4.86 ha located at Harinagar, District West Champaran (Bihar).

The project/activity is covered under category A of item 5 (g) 'Molasses based distilleries' of the Schedule to the Environment Impact Assessment Notification, 2006 and requires appraisal at Central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 26th October, 2017. Public hearing was conducted by the SPCB on 9th June, 2018.

Total water requirement after the proposed expansion is estimated to be 2438 cum/day, including fresh water requirement of 1020 cum/day proposed to be met from existing borewells, which will be reduced to 960 cum/day (8 kl/kl of Alcohol) by process improvement. The distillery has already got the permission for ground water withdrawal of 1149 cum/day from the State Ground Water Authority vide letter dated 20th January, 2006. Now it is informed that as per the directives of the State Pollution Control Board, application for ground water withdrawal of 1475 cum/day has been submitted to CGWA vide letter dated 28th May, 2017.

Spent wash of 960 cum/day will be treated through multi effect evaporators (MEE) followed by Bio-Composting. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

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 have been duly addressed by the project proponent.

Earlier, the Ministry had granted EC vide letter dated 1st June, 2006 to molasses based distillery unit (45 KLPD) by M/s Harinagar Sugar Mills Limited at Village Harinagar, Tehsil Ramnagar, District West Champaran (Bihar). The monitoring report on compliance status of EC conditions and the subsequent action taken report has been forwarded by the Regional Office vide their letter dated 27th August, 2018. The same was deliberated especially in respect of non complied points relating to number of operating days more than the sanctioned one and also construction of 5 MW biomass based power plant. The clarification provided by the project proponent was found to be convincing and not amounting to non compliance of the EC conditions.

Consent to Operate for the present capacity of 45 KLPD has been obtained from the State PCB vide letter dated 2nd February, 2016, which is presently valid up to 31st December, 2018.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *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.*
- *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.*
- *Total fresh water requirement shall not exceed 960 cum/day proposed to be met from ground water source. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.*
- *The spent wash after evaporation shall be taken for bio-methanization and composted using press mud. The spent lees and evaporator condensate shall be provided physico-chemical treatment for the treated water to be reused for dilution of molasses or in cooling tower as make up water.*
- *Number of working/operating days for the distillery shall be 270 days as proposed. However, the same may be increased to 330 days/round the year subject to compliance of the Standard Operating Procedure for the bio-composting yard issued by the CPCB vide letter dated 9th August, 2018, and the same is ensured by the State Pollution Control Board while considering consent to operate.*
- *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.*
- *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.*
- *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.*
- *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.*
- *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.*
- *All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.*
- *At least 1% 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.*
- *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.*
- *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.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *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.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
- *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.*
- *CO₂ generated from the process shall be bottled/made solid ice and sold to authorized vendors.*
- *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.*

40.4 Any Other

Agenda No.40.4.1

Expansion for manufacture of Carbon Black (from 12500 TPM to 18750 TPM) along with Power Plant (From 33.7 MW to 47 MW) at K-16, Phase II, SIPCOT Village Pappankuppam, Gummidipoondi, district Tiruvallur, Tamil Nadu by M/s SKI Carbon Black India Pvt. Ltd - For Extension of validity of EC

[IA/TN/IND2/73860/2011, J-11011/350/2010-IA.II(I)]

40.4.1.1 The proposal is for extension of validity of environmental clearance granted by the Ministry vide letter dated 21st September, 2011 to the project 'Expansion of Carbon Black (12,500 MTPM to 18,750 MTPM) alongwith Power Plant (33.7 MW to 47 MW) at K-16, Phase II, SIPCOT Village, Pappakuppam, Gummidipoondi, District Thiruvallur (Tamilnadu)in favour of M/s Hi-Tech Carbon, India, which was further transferred to M/s SKI Carbon Black (India) Pvt Ltd vide Ministry's letter dated 10th February, 2015.

40.4.1.2 The EAC in its meeting held on 29-31 May, 2018, after deliberations and especially in view of the plant already commissioned at production capacity of 14500 MTPM, insisted for monitoring report on compliance status of the conditions stipulated in the environmental clearance dated 21st September, 2011 from the concerned Regional Office of the Ministry. The Committee desired to take the proposal forward after the certified compliance report is received.

In response, the project proponent has now submitted the certified compliance reported forwarded by the Ministry's Regional Office at Chennai vide letter dated 18th June, 2018, which was found to be satisfactory.

40.4.1.3 *The EAC, after deliberations, observed that the project has been already been implemented partly (12500 TPM to 14500 TPM) without obtaining the prior clearance from the Standing Committee of the NBWL, which amounts to non-compliance of the condition stipulated in the environmental clearance dated 21st September, 2011 in this regard. The Committee desired that the Ministry may take a view for further action into the matter.*

Agenda No.40.4.2

Molasses based distillery unit (30KLPD) at Mahesh Nagar, Ujana, Taluka Ahmedpur, District Latur, (Maharashtra) by M/s Siddhi Sugar & Allied Industries Ltd - For Amendment in EC

[IA/MH/IND2/30512/2015, J-11011/125/2014-IA.II(I)]

40.4.2.1 The proposal is for amendment in the environmental clearance granted by the Ministry vide letter dated 22nd February, 2017 to the project for molasses-based distillery unit (30 KLPD) located at Maheshnagar, Ujana, Taluka Ahmedpur, District Latur (Maharashtra) in favour of M/s Siddhi Sugar and Allied Industries Ltd.

40.4.2.2 The Project proponent has requested for amendment in EC with the details mentioned below:

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised /read as	Justification/reason
A		Specific Condition No.		
1	(iv)	Spent wash generation from molasses based distillery shall not exceed 8 KL/KL of alcohol. The spent wash from molasses based distillery shall be treated in biomethanation reactor. Treated spent wash will be evapourated in MEE and concentrated spent wash will be	Spent wash generation from molasses based distillery shall not exceed 8 KL/KL of alcohol. The spent wash from molasses based distillery shall be treated in biomethanation reactor. After biomethanation treated spent wash shall be passed through MEE, ATFD dryer. The Dried Spent wash powder (96% - 98% TS) Will be sold as Potash fertilizer condensate will	Due to change in technology for disposal of spent wash we can operate the unit throughout the year. It is ZLD Process. It has the following advantages as compared to concentration and incineration technology. 1) The dried material is sold as potash rich product to fertilizer

		<p>biocomposted by mixing with press mud generated from sugar unit to achieve “zero” discharge.</p> <p>Effluent from sugar, spentlees, utilities effluent and evaporator condensate shall be treated in Effluent Treatment plant and recycled /reused in process. No effluent shall be discharged outside the premises and ‘zero’ discharge shall be maintained.</p>	<p>be treated in condensate Polishing unit.</p> <p>Treated condensate water will be recycle/reused for process and cooling towers</p> <p>The distillery operations may be permitted to operate for 365 days</p> <p>Effluent from sugar, spentlees, utilities effluent and evaporator condensate shall be treated in Effluent Treatment plant and recycled /reused in process. No effluent shall be discharged outside the premises and ‘zero’ discharge shall be maintained.</p>	<p>manufactures. Many of the fertilizer companies have shown interest to purchase the material and make potash rich granules</p> <p>2) There would not be any fear of toxic gases like furans and dioxin generation if there are any process disturbances as incineration is avoided in the proposed technology</p>
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40.4.2.3 *The EAC after detailed deliberations, recommended for amendment in the environmental clearance dated 22nd February, 2017 as proposed by the project proponent.*

Agenda No.40.4.3

Grain based distillery plant (Extra Neutral Alcohol; 45 KLD) and CPP (1.5 MW) at Sy. No.57/1, village Pothavaram, MandalNalljerla, District West Godavari (Andhra Pradesh) by M/s Jagruthi Biotech (P) Ltd - For extension of EC

[IA/AP/IND2/75895/2011, J-11011/248/2010-IA.II(I)]

40.4.3.1 The proposal is for extension of the validity of the environmental clearance dated 26th July, 2011 granted by the Ministry to the project for Grain based distillery plant (Extra Neutral Alcohol; 45 KLD) and CPP (1.5 MW) at Sy. No.57/1, village Pothavaram, Mandal Nalljerla, District West Godavari, Andhra Pradesh by M/s Jagruthi Biotech(P) Ltd.

40.4.3.2 The project proponent has informed that the project could not be taken up for construction due to various reasons like State Bifurcation, New State formation in AP, which has led to non functioning of government offices, for few years and delay in various clearances like for water, land conversion and Power. The project proponent had already spent about Rs 2.90 crores out of the total amount of Rs 55 crores and part of machinery was already received. The proponent is now in a position to resume the construction of the project.

40.4.3.3 *The EAC, after deliberations and in view of the provisions contained in the EIA Notification, 2006 read with subsequent amendments therein, recommended for extending validity of the EC dated 26th July, 2011 for a period of three years i.e. up to 26th July, 2021.*

Agenda No.40.4.4

Setting up a Grass Root Rajasthan Refinery cum Petrochemical complex Project (RRPC) of 9 MMTPA at Pachpadra Tehsil, District Barmer (Rajasthan) by M/s Hindustan Petroleum Corporation Limited (HPCL) - For Amendment in Environment Clearance

[IA/RJ/IND2/75905/2017, J- 11011/87/2013-IA.II(I)]

40.4.4.1 The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated 13th September 2017 to the project for setting up a Grassroot Rajasthan Refinery cum Petrochemical Complex Project (RRPC) at Pachpadra Tehsil, District Barmer (Rajasthan) in favour of M/s Hindustan Petroleum Corporation Limited.

40.4.4.2 The project proponent has requested for amendment in the Environment 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	Point No. XV of EC letter	At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on Public Hearing issues and item-wise details along time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	At least 0.25% of the total project cost shall be allocated for Corporate Environment Responsibility and item-wise details along time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	<p>We wish to submit that 2.5 % of the total project cost amounts to Rs 1078 Crore with the approved cost of the Project being Rs 43,129 Crore. Such an allocation is not feasible considering the economics of the project. This project has been approved with a viability gap funding (VGF) of Rs 1123 Crore per annum in the form of Interest free loan for 15 years from GOR. The same is to be returned by the JV to GOR from 16th year onwards. Hence allocation of 2.5 % of the total project cost towards Enterprise Social Commitment (ESC) amounting to Rs 1078 Crore will further burden the project and impact the project economics.</p> <p>Subsequently, vide MoEFCC Memorandum – F. No. 22-65/2017-IA.III dated May 1st, 2018, the maximum percentage of capital investment prescribed for a green field project of greater than Rs 10,000 Crores is 0.25</p>

				% on Corporate Environmental Responsibility (CER). The amount allocated on ESC as a part of CER as per the above OM, shall be Rs 107.82 Crores for the subject 9 MMTPA Rajasthan Refinery Project at a cost of Rs 43129 Crores.
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40.4.4.3 The EAC, after detailed deliberations, reiterated its earlier recommendation in its meeting held on 28-29 August, 2017 for allocation of at least 2.5% of the project cost towards Enterprise Social Commitment (ESC), and stipulated in the environmental clearance dated 13th September 2017. However, in view of the Ministry's OM dated 1st May, 2018 regarding Corporate Environment Responsibility (CER), stipulating guidelines for fund allocation towards CER, the Committee suggested that the Ministry may take a view in this regard.

Agenda No.40.4.5

Pesticide Manufacturing Unit at K-2/1/1, Additional MIDC, Taluka Mahal, District Raigad, Maharashtra by M/s Astec Life Science Ltd - For Amendment in Environment Clearance

[IA/MH/IND2/75428/2013, J-11011/111/2011-IA-II(I)]

40.4.5.1 The proposal is for amendment in environmental clearance granted by the Ministry vide letter dated 22nd March, 2013 in favour of M/s Astec Lifesciences Ltd to the project for pesticide manufacturing unit located at plot no. K-2/1/1, Additional MIDC Mahad, Taluka Mahad, District Raigad (Maharashtra).

40.4.5.2 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.	Para 2.0 Production capacity	Pesticide products: 1052.5 MT/M By-products: 1.69 MT/M	Pesticide products: 582.5 MT/month By-products: 470.8 MT/M	Due to market requirement the products purity & improved active ingredient is the main criteria for amendment in EC
2	Para 2.0 Product details	Please refer table-1	Please refer table-2	Change in product mix under same category due to improved active ingredient as per market demand.
3	Para 3.0 Water requirement	Water requirement :134 m ³ /day	Water requirement :307 m ³ /day	Change as per existing CTO due to revised product list under product-change Mixed category vide consent

					to operate no- Format 1.0/BO/AST/UAN No. 0000030501/O/CC-1710000135" dated 07/10/2017 which is valid up to 31/07/2019.	
4	Para 2.0 Capital investment	32.00 rupees	Cr.	55.45 Rupees	Cr.	Due to proposed replacement of boiler, addition of utilities, improved pollution control device

Table 1: Production details (As per EC dated 22nd March, 2013)

S. No.	Product	Quantity	Unit
1	2,4- Dichlorophenoxy Acetic acid Dimethyl Amine	560	
2	4-Chlorostyrene	50	MT/M
3	Dichloro Phenyl Oxirane	75	MT/M
4	Imazaethapyr	35	MT/M
5	Imazapyr	50	MT/M
6	3, Aminotriazole	249	MT/M
7	Siduron	33.5	MT/M
	Total	1052.5	MT/M
	By-products		
1	Dilute solution of DM	1.69	MT/M
	Total production	1054.19	MT/M

Table 2: Product details and capacity to be amended in EC

Sr. No.	Product	Proposed amendment (MT/month)
1	2,4- Dichlorophenoxy Acetic acid Dimethyl Amine/ Tebuconazole*	140
2	4-Chlorostyrene/ Propiconazole*	141
3	Dichloro Phenyl Oxirane	20
4	Imazaethapyr (IMZPR)	35
5	Imazapyr (IMPR) / Triazole*	60
6	3, Aminotriazole	25
7	Siduron	33.5
8	2-Ethyl 2-Methyl Butanoic Acid	35
9	DTX, Dextrinol	5
10	Transfluthrin	25
11	Metalaxyl	22
12	Simeconazole	21
13	Cyproconazole	20
	Total	582.5
	Byproducts	
1	Inorganic salts , K/Na/Zn of sulphate,	196.9

	Phosphate, Chloride	
2	Mg salts (sulphate/ chloride/ carbonate)	72.4
3	Aliphatic hydrocarbon	95.1
4	Hydrochloric acid	17.5
5	20% solution of DMA/ liq. Ammonia solution*	88.8
	Total	470.8
	Total production	1053.3
	* Only 1 product will be manufactured at time	

40.4.5.3 The EAC, after detailed deliberations, noted that with the proposed amendments, the project proponent desires to change the products within the total approved production capacity. However, there would be drastic increase in fresh water requirement due to proposed changes in the project profile, installation of one additional boiler, etc.

The Committee also noted that LD₅₀ of the proposed products are not made available and the proponent has not installed ETP/MEE as stipulated in the EC, which amounts to non-compliance of EC conditions, though the unit is maintaining ZLD.

The Committee, after detailed deliberation found the proposal not admissible for amendment.

Agenda No.40.4.6

Expansion of Pesticide (Technical) from 2940 MT/Annum to 4260 MT/Annum by M/s Bharat Rasayan Limited at 2 km Stone, Madina-Mokhra Road, Village Mokhra, Tehsil Meham, District Rohtak (Haryana) by M/s Bharat Rasayan Ltd - For Amendment in Environment Clearance

[IA/HR/IND2/31067/2015, J-11011/253/2015-IA II (I)]

40.4.6.1 The proposal is for amendment in the environmental clearance granted by the Ministry vide dated 31st May 2018 in favour of M/s Bharat Rasayan Ltd to the project for expansion of Pesticide (Technical) from 2940 TPA to 4260 TPA located at 2 km Stone, Madina-Mokhra Road, Village Mokhra, Tehsil Meham, District Rohtak (Haryana).

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

S. No.	Para /Point no. of EC letter issued by MOEFCC	Details as per EC Letter	To be revised / read as	Justification and Reason
1	Point no 11 (I)	Total production of Pesticides 4260 TPA shall include manufacturing of at least 25 % of bio pesticide.	As agreed in EAC meeting 10 % of the biopesticide production will be over and above the production capacity of 4260 TPA	During EAC meeting dated 12-13 Oct 2017, we (proponent) agreed on 10% bio-pesticide production not for 25% bio-pesticide production. 25 % Production included in 4260 TPA Capacity will be of no use or the proponent will be back to

				its original Production capacity i.e. 2940 TPA
2	Point 7 , Para 3	Existing unit has 6TPH coal fired, 3 TPH & 2 TPH LDO fired boilers and 2 LDO fired Thermic fluid heater of 2 Lac Kcal each. Additionally 2 TPH coal fired boiler or replacement of existing 6 TPH boiler by 8 TPH boiler and thermic fluid heater of 6 Lac Kcal will be installed	New 8 T coal fired boiler will be installed for operation and existing 6 T coal fired boiler will be kept standby along with 2 and 3 T LDO fired boiler. Other equipment will remain same.	Request for installation of new boiler capacity of 8 T for operation, remaining boilers will be kept as standby.
3	Point 11.1 (vi)	The company shall harvest rainwater from the roof tops of the building and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve the fresh water	The unit realizes the importance of rainwater harvesting however rain water harvesting is not taken up in plant area. This is because possibility of hazardous dust (despite all possible precautions) gets mixed with rainwater and enter the ground water. The ground water will get contaminated. In view of the above factors, the site has not carried out rain water harvesting.	Amendment required as per Section 5.4.6 at page no 204 of the EIA Report. Advice from committee members in view of the concerns are highly appreciated.

Request for addition in EC letter

S.No	Points needs for Addition in EC letter	Justification	Request
1	By Product Listing	As per 29 th EAC MOM dated 12-13 Oct, The listing of by product mentioned	To add the by-product list
2	Installation of	Unit is committed for ZLD, The	Installation of new MEE and

	New MEE	efficiency of the old MEE decreases and need frequent maintenance Hence we are planning for install a new MEE of same capacity and existing MEE kept as stand by.	the existing MEE will be kept as stand by.
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40.4.6.3 The EAC, after detailed deliberations, recommended for manufacturing of bio-pesticides 10% in addition to the planned production capacity of 4260 TPA. Accordingly, the total production capacity of the pesticides manufacturing unit would be 4686 TPA. The Committee also agreed for incorporating by-products details in the said environmental clearance dated 31st May 2018.

Agenda No.40.4.7

Expansion of Viscose Staple Fibre (1,27,750 to 2,33,600 TPA), Sulphuric Acid (1,46,000 to 2,19,000 TPA), Carbon-Disulphide (21,600 to 37,295 TPA) and Captive Power Plant (25 to 45 MW) at Birladham, Village Kharach, Tehsil: Hansot, District: Bharuch (Gujarat) by M/s Birla Cellulosic (A Unit of Grasim Industries Ltd) - For Amendment in Environmental Clearance

[IA/GJ/IND2/59092/2016, J-11011/320/2016-IA.II(I)]

40.4.7.1 The proposal is for amendment in the environmental clearance granted by the Ministry vide letter dated 22nd February, 2018 in favour of M/s Birla Cellulosic (A Unit of Grasim Industries Ltd) to the project for expansion of Viscose Staple Fiber Unit and Coal based CPP located at Birladham, Village Kharach, Tehsil Hansot, District Bharuch (Gujarat).

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

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons
1.	Point no. 12 - (s); Page no. 5	Storage of raw materials, coal etc. shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Raw material storage should not exceed 3 days at any point of time.	Storage of raw materials, coal etc. shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. Raw material storage should not exceed 45-60 days at any point of time.	<ul style="list-style-type: none"> ▪ Major raw material (Pulp) is imported from Sweden, Canada and South Africa; which cannot be maintained at 3 days for storage. ▪ Other raw materials are also being purchased from other states. ▪ As per the plant capacity, Unit have to maintain the 45-60 days of raw materials in advance due to import from overseas and purchased from other states.
2.	Point no. 12 - (t); Page no.	The energy sources for lighting	The energy sources for lighting purposes shall	<ul style="list-style-type: none"> ▪ Unavailability of required 60,000 Sq. meter land

5	purposes shall preferably be LED based. A minimum of 10-20% of the total power requirement for the industrial operations shall be met from non-conventional energy resources / solar supply.	preferably be LED based. A minimum of 10 % (5 MW) Solar Power shall be installed through our Corporate Solar Division of Aditya Birla Group in Sambalpur (Odisha) / Karwar (Karnataka).	required for installation of solar panels. ▪ Idle contract demand from grid during sunlight hours.
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40.4.7.3 The EAC, after detailed deliberations, recommended for amendment in specific condition 12 (s) stipulated in the EC, which now to be read as under:

'Storage of raw materials, coal etc. shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions. In case of raw materials identified as the hazardous one under the MSIHC Rules, 1989, the statutory provisions contained therein shall continue to be followed. For the remaining raw materials, storage shall not exceed 30 days at any point of time'.

Agenda No.40.4.8 Any other item with permission of the chair

Following proposal was considered by the EAC, with the approval of Chairman.

Agenda No.40.4.8.1

Synthetic organic chemicals industry (dyes & dye intermediates by M/s Godavari Biorefineries Ltd at Sakarwadi, Survey No.14, Gut No.187, Kanhegaon, Kopargaon, Ahmednagar (Maharashtra)

[IA/IND/MH/23929/2014, IA- J-11011/402/2014 IA-I (I)]

40.4.8.1.1 The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter dated 18th May, 2015 in favour of M/s Godavari Biorefineries Ltd for their expansion project of synthetic organic chemicals located at PO-Sakarwadi, Taluka Kopargaon, District Ahmednagar (Maharashtra).

40.4.8.1.2 The project proponent has requested for amendment in the ToR with the details are as under:

S. No.	Para of ToR	Details as per ToR	To be revised/ read as	Justification/reasons
1	Product Details			
	Ethyl Acetate	8,700.0	8700.00	The ToR was approved in 2015, however, this market is extremely fragile and thereby frequented by sudden changes in demand patterns
	Acetaldehyde	2,100.0	2800.00	
	Croto Resin and Croto Di Urea	0.0	130.00	
	Crotonaldehyde	0.0	1000.00	
	1,3 Butylene Glycol	0.0	200.00	
	Acetic Acid	1,950.0	598.85	

	Dilute Acetic Acid	143.0	110.00	
	Dilute Ethyl Acetate and other ester	0.0	30.00	
	Acetaldol	0.0	425.00	
	Paraldehyde	0.0	60.00	
	Crotonic Anhydride	0.0	10.00	
	Crotonitrile	0.0	10.00	
	Dilute 1-3 Butylene Glycol	0.0	32.22	
	Butanol	0.0	117.70	
	2-Ethyl, 1, 3 Hexane Diol	0.0	33.33	
	3-Methoxy Butanol	0.0	275.00	
	Dilute 3 MethoxyButanol	0.0	30.00	
	3-Methoxy Butyl Acetate	0.0	340.00	
	3-Methyl 3- Pentene -One (MPO)	0.0	500.00	
	Sodium Sulphate	0.0	245.00	
	Ketone Mixture	0.0	197.50	
	Absolute Alcohol (Fuel Grade from RS/IS)	0.0	2000.00	
	Acetaldehyde Oxime	0.0	175.00	
	Ammonium Sulphate	0.0	139.70	
	Acetaldehyde Diethyl Acetal	0.0	250.00	
	Ethyl Vinyl Ether	0.0	100.00	
	Acetonitrile	0.0	425.00	
	Diethyl Oxalate	0.0	175.00	
	Gbamber	0.0	100.00	
	Sorbic Acid or Potassium Sorbate	0.0	500.00	
	Acetals	0.0	15.00	
	Esters	0.0	20.00	
	Oximes	0.0	15.00	
	Other Aldehydes	0.0	200.00	
	Other Acids	0.0	15.00	
	Other Alcohol	0.0	20.00	
	Ketones	0.0	15.00	
	Waxes	0.0	12.00	
	Nitriles	0.0	20.00	
	Ethers	0.0	15.00	
	Ketene	0.0	15.00	
	Organic Salts	0.0	19.64	
	TOTAL	12,893.0	20,090.94	
2	Waste Water and its Management			
	Sewage	190.00	223.00	Since, the production quantities have increased there is
	Effluent	505.00	1215.00	
	STP Capacity	200.00	250.00	

	ETP Capacity	170	450.00	Corresponding change in the waste water generation
	RO	800.00	800.00	
	MEE Capacity [M3/day]	30.00	30.00	
3	Water Requirement			
	Total Water consumption	2190	4188	Since, the production quantities have increased there is Corresponding increase in water quantity
	Total Fresh Water	1495	2750	
	Domestic	200	235	
	Sewage generation	190	223	
	Washing	50	80	
	Scrubber	30	50	
	Cooling (Fresh + Recycled)	1405	2865	
	Boiler Feed	80	200	
	DM regeneration	60	100	
	R&D Activity	5	5	
	Process	170	430	
	Recycled	695	1438	
	Effluent Generation	505	1215	
	Gardening (Recycled)	190	0	
4	Power Demands			
	Power Demand	50 MW/Day	140MW/Day	Since, the production quantities have increased there is Corresponding change in the power demands
	Transformer	1500kVA x 2	1500kVA x 2	
	D.G. Set [kVA]	1000 x 1 590 x 1	1000 x 4 590 x 1	
	Turbine Generator	2.3 MW	7.1MW	
5	Hazardous Waste Generation			
	Used/Spent Oil	1.2	3 KL/Year	Since, the production quantities have increased there is Corresponding increase in quantity of Hazardous Waste
	Chemical Sludge from WWTP	0.1	0.3TPD	
	Organic Residue	8	8CMD	
	Distillation/Process Residue	0.192	10.192TPD	
	Spent Catalyst and molecular sieve	1.4	181.4Kg/Day	
	E-waste	1	2Ton/Y	
	Spent Carbon	0	0.3TPD	
	Mixed Spent Solvents	0	2KLD	
	Lead Acid Batteries	0	80Nos/Y	
	Salts generated in MEE	0	7.8 TPD	
	Used Filters (HEPA filters, Oil Filters etc)	0	100Nos./Y	
	Bio Medical Waste	0	0.8TPA	
	Used/Discarded Filter Bags	0	100Nos./Y	
	Discarded PPE	0	0.5TPA	
6	Solid waste Management			

	Dust	0.1MT/D	7.0MT/D	Since, the production quantities have increased there is Corresponding increase in quantity of Hazardous Waste
	Bio-Degradable Waste	8Kg/D	606Kg/D	
	Non-Bio-Degradable Waste	0.192Kg/D	404.5Kg/D	
	Boiler Ash	1.4TPD	150TPD	
	Glass Bottles	1No./M	100No./M	
	HDPE Containers	0TPM	100TPM	
	Liners and Bags	0	0.5TPM	
	Salts generated in MEE from Rejects of WTP	0	0.6TPD	
	Paper, Cotton waste & packing materials i.e wood, carton,ropes	0.3TPA	5TPA	
	STP Sludge	0Kg/D	75Kg/D	
	Metal Scrap	0TPA	30TPA	
	Plastic Waste	0TPA	0.5PTPA	
	Waste packing wood/ broken glass etc	0	5TPA	
	Used / Discarded RO Membranes	1.2TPA	0.2TPA	
	Insulation and Glass wool Waste	0.1TPM	1TPM	
7	Stack Details			Since, the production quantity is increased in order to control the emission generated No. of Stacks along with additional new stacks are proposed
	Boiler (18 TPH)	2	2	
	Boiler (12 TPH) *	1	1	
	Boiler (24TPH)	Nil	2	
	Thermic Fluid Heater (10 Lac KCal./hr.)	Nil	1	
	Thermic Fluid Heater (2 Lac KCal./hr.)	Nil	1	
	Hydrogen Generator (5200 Cum/day)	Nil	3	
	Nitrogen Generator (1000 Cum/day)	Nil	1	
	D.G. Set (1000kVA)**	1	4	
	D.G. Set (590kVA)**	1	1	
8	Fuel Requirement			Since, the production quantity is increased the Fuel required will simultaneously increase
	Coal	149TPD	468TPD	
	Diesel	215Lit/Hr	3.5KLPD	

40.4.8.1.3 The EAC in its earlier meeting held on 25-27 July, 2018 had recommended for extending validity of the ToR for a period of one year i.e. up to 18th May, 2019 as per the extant norms/guidelines.

During the meeting, the Committee also noted the following:

While considering the earlier ToR, different products reported to have been manufactured at that stage included, Industrial Alcohol-1800 TPM, Ethyl Acetate-5400 TPM, Acetaldehyde-1500 TPM, Acetic Acid-1500 TPM, Dilute Acetic Acid-110 TPM, Crotonaldehyde-500 TPM and Paraldehyde-60 TPM. Out of it, expansion was earlier proposed for four products only namely, Ethyl Acetate, Acetaldehyde, Acetic Acid and Dilute Acetic Acid (as per the Form 1). Later, the project proponent vide letter dated 20th January, 2015 informed that the proposed expansion shall be limited to two products namely Ethyl Acetate from 5400 TPM to 8700 TPM and Acetaldehyde from 1500 TPM to 2100 TPM. The same was considered by the EAC in its meeting held on 16-17 March, 2015, and as per their recommendations, ToR was granted on 18th May, 2015.

The proposal for amendment in ToR dated 18th May, 2015 for the proposed expansion project due to change in product mix (from 7 nos of products envisaged earlier to 42 nos of products proposed now), explains different series of existing products, reflecting huge discrepancy in the statements informed during the presentation and the documents submitted. The proposal for amendment in ToR was considered earlier also by the EAC in its meeting held on 27-28 July, 2017, wherein the Committee found no merit in the proposal and thus not recommended.

In view of the above, the Committee insisted for reconfirmation of the existing scenario, which is necessarily to be consistent with the EC issued by the Ministry/State, if any, and/or the consent to operate for different products issued by the State Pollution Control Board from time to time.

40.4.8.1.4 During deliberations on the proposal and clarifications provided by the project proponent in response to the above observations, the EAC noted the following:-

(i) As per the environment clearance dated 25th January, 1993 granted by the State Government of Maharashtra, different products included, Industrial Alcohol - 1800 TPM and other organic chemicals (mainly Acetaldehyde, Acetic Acid, Dilute Acetic Acid, Ethyl Acetate and Acetic Anhydride) - 4015.9 TPM.

While considering the proposal for ToR, present production capacity of organic chemicals was informed as 9070 TPM (7 nos of products). Also, as per the last representation dated 20th August, 2018, the existing production of organic chemicals is reported to be 6715 TPM (17 nos of products). As such, the products details are not consistent and the unit is engaged in manufacturing products more than that mentioned in the said EC.

(ii) As per the details provided earlier (in May, 2018), the project involved expansion of organic chemicals from 12893 TPM to 20090.94 TPM. The same has now been reported to be from 6715 TPM to 20090.94 TPM, and as such, again showing mismatch and the inconsistency. Also, there is no clarification regarding increase in production capacity from 9070 TPM to 12893 TPM of organic chemicals during the period from February, 2015 to May, 2018 without obtaining any EC.

(iii) Different products presently manufactured are covered under the ambit of the EIA Notification, 2006, and necessarily require prior EC in terms of the said Notification.

(iv) The project has not been granted any EC under the EIA Notification, 1994/2006. As such, even for change in product mix, prior EC should have been obtained while seeking consent under the Air Act, 1981 and the Water Act, 1974 from the State Pollution Control Board from time to time. That amounts to violation of the EIA Notification, 2006.

40.4.8.1.5 *The EAC, after deliberations vis-a-vis its earlier observations during its meeting held in May, 2018, was not convinced with present submissions of the project proponent. The Committee, however, desired that the project proponent may be provided the last opportunity to clarify the discrepancies stated above.*

The Committee further desired that pending confirmation as above, validity of the ToR may be extended as per its earlier recommendations.

Day Three - 29th August, 2018

40.5 Environmental Clearance

Agenda No.40.5.1

Setting up of Resins (1500 MTPM) and Laminated Sheets (2,50,000 Sheets/Month) Manufacturing Unit at Survey No. 98, Opp. 66 KV Substation, Before Millennium tiles, Old Rafaleshwar Road, Village Bhadiyad, Taluka&DistricMorbi (Gujarat) by M/s Welmica Laminates

[IA/GJ/IND2/65037/2017, IA-J-11011/274/2017-IA-II(I)]

40.5.1.1 The project proponent and the accredited consultant M/s T. R. Associates (Ahmedabad) made a detailed presentation on the salient features of the project and informed that:

- (i) The proposal is for environment clearance to the project Melamine Formaldehyde Resin, Phenol Formaldehyde Resin, Urea Formaldehyde Resin manufacturing unit at Survey No. 98, Opposite 66 KV Substation, before Millennium Tiles, old Rafaleshwar road, Village: Bhadiyad, Taluka & District: Morbi-363 642, Gujarat by M/s Welmica Laminates Pvt. Ltd.
- (ii) The project proposal was considered by the Expert Appraisal Committee (Industry 2) in its 24th EAC meeting held during 14th to 16th June, 2017 and recommended Terms of References (TORs) for the project. The TOR has been issued by Ministry vide letter No. J-11011/274/2017-IA-II (I) dated 03/08/2017.
- (iii) All Synthetic Organic Chemicals Industry projects, located outside the notified industrial area/estate and not fall into small scale unit criteria are listed at S.N. 5(f) of schedule of Environmental Impact Assessment (EIA) notification under Category 'A' and are appraised at Central level by the Expert Appraisal Committee (EAC).
- (iv) Industry will develop greenbelt in an area of 33.22 % i.e. 4,470 m² out of 13,456 m² total area of the project.
- (v) The estimated project cost is Rs. 1.3 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 65 Lakhs and the recurring cost (operation and maintenance) will be about Rs. 18 Lakhs per annum.
- (vi) Total employment will be 100 persons as a direct employment. Industry proposes to allocate Rs. 2.6 Lakhs @ of 2 % towards Corporate Environment Responsibility.
- (vii) There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild life Corridors etc. lies within 10 km distance from the project site. Machhu River is flowing at a distance of 1.8 km in West direction.

(viii) Ambient air quality monitoring was carried out at 8 locations during October to December 2017 and submitted baseline data indicates the ranges of concentrations as: PM₁₀ (50.12 to 80.14 µg/m³), PM_{2.5} (27.55 to 60.14 µg/m³), SO₂ (5.98 to 20.50 µg/m³) and NO₂ (7.01 to 25.99 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.93 µg/m³, 0.75 µg/m³ and 0.38 µg/m³ with respect to PM₁₀, SO₂ and NO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Total water requirement is 58 m³/day, of which fresh water requirement of 33.7 m³/day will be met from Bore well.

(x) Effluent of 15 m³/day quantity will be treated through Effluent Treatment Plant (having evaporator followed by condenser). The plant will be based on Zero Liquid Discharge system. Domestic effluent of 10.3 m³/day will be treated in Sewage Treatment Plant. Treated sewage of 10.3 m³/day will be reused in gardening.

(xi) Power requirement of proposed project will be 200 KVA and will be met from Paschim Gujarat Vij Corporation Limited (PGVCL). D. G. Set having 250 KVA capacity will be used as standby during power failure. Stack (height 10 m) will be provided as per CPCB norms to the proposed D.G. set.

(xii) Briquettes/Lignite/Coal fired 4 TPH Steam Boiler and 15 Lakh KCal/Hour Thermic Fluid Heater will be installed. Cyclone Separator followed by Bag Filter with a stack height of 30 m will be installed for controlling the Particulate Emissions within the statutory limit of 150 mg/Nm³ for the proposed boiler.

(xiii) Details of process emissions generation and its management.

Sr No	Vent attached	Vent height	Expected Pollutant	APC System	Quality of Pollutant
1	Dryer	111m	Methanol	Condenser	As per GPCB Norms

(xiv) Details of solid waste/hazardous waste generation and its management.

Sr. No	Description	Category	Quantity (MT/Annum)	Management
1	ETP Sludge & Evaporation Residue	35.3	57	Collection, storage and disposal at approved TSDF Site
2	Used Oil	5.1	0.004	Collection, storage and used within premises as a lubricant / sold to registered recycler.
3	Discarded Plastic Bags/ Barrels	33.1	12	Collection, storage & sold to authorized vendor

(xv) Public hearing for the proposed project has been conducted by the State Pollution Control Board on 20/04/2018. The main issues raised during the Public Hearing are related to Air pollution control measures, local employment and their health and wastewater management.

(xvi) No litigation is pending against the said proposal.

(xvii) The details of products are as under:-

S.No	Name of Product	Capacity (TPM)
1.	Phenol Formaldehyde Resin	700
2.	Melamine Formaldehyde Resin	400
3.	Urea Formaldehyde Resin	400
	Total	1500

40.5.1.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up resin manufacturing unit of capacity 1500 TPM (Phenol Formaldehyde Resin - 700 TPM, Melamine Formaldehyde Resin - 400 TPM and Urea Formaldehyde Resin - 400 TPM) by M/s Welmica Laminates Pvt Ltd in a total area of 13,456 sqm located at village Bhadiyad, Taluka & District Morbi (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 under category 'A' and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry.

The ToR for the project was granted on 3rd August, 2017. Public hearing was conducted by the State Pollution Control Board on 20th April, 2018.

Total water requirement is estimated to be 58 cum/day, which includes fresh water of 33.7 cum/day to be met from the borewell supply. Application for ground water withdrawal has been submitted to CGWA. Effluent of 15 cum/day generated will be treated through Effluent Treatment Plant (having evaporator followed by condenser) followed by RO. Domestic effluent of 10.3 cum/day will be treated in Sewage Treatment Plant. Treated water of 24.3 cum/day will be recycled in the process and for green belt development, and thus the plant will conform to Zero Liquid discharge system.

Considering the higher values of baseline air quality parameters especially in terms of PM₁₀ & PM_{2.5}, the Committee insisted for not using the lignite/coal as a fuel in the 4 TPH boiler.

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 have been duly addressed by the project proponent.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *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.*
- *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.*
- *Coal/lignite shall not be used as fuel in the boiler. 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.

- 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.
- Total fresh water requirement shall not exceed 33.7 cum/day to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.
- 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.
- 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.
- 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.
- 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.
- Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- The company shall undertake waste minimization measures as below:-
 - (vii) Metering and control of quantities of active ingredients to minimize waste.
 - (viii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (ix) Use of automated filling to minimize spillage.
 - (x) Use of Close Feed system into batch reactors.
 - (xi) Venting equipment through vapour recovery system.
 - (xii) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- 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.
- All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.
- 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.

- 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.
- 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.
- Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- 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.40.5.2

Manufacture of Melamine Formaldehyde Resin (300 MT/Month), Phenol Formaldehyde Resin (300 MT/Month) and Urea Formaldehyde Resin (400 MT/Month) and Laminate sheets at Survey No. 203/15, B/h. Shaktiman Rotawetar, N. H. Road, Village Bhunava, Taluka Gondal, District Rajkot (Gujarat) by M/s Swastik Laminates - For Environmental Clearance

[IA/GJ/IND2/64176/2017, IA-J-11011/207/2017-IA-II(I)]

40.5.2.1 The project proponent and the accredited consultant M/s. T. R. Associates made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environment clearance to the proposed Synthetic Organic Chemical manufacturing unit at Survey No.203/15, Plot No. 4, B/h. Shaktiman Rotawetar, N.H. Road, Village: Bhunava, Taluka: Gondal, District: Rajkot, Gujarat by M/s Swastik Laminates.

(ii) The project proposal was considered by the expert appraisal committee (Industry 2) in its 23rdEAC meeting held during 3 to 5 May, 2017 and recommended Terms of References (TORs) for the project. The TOR has been issued by Ministry vide letter no. J-11011/207/2017-IA.II (I) dated 30/05/2017.

(iii) All Synthetic Organic Chemicals Industry projects, located outside the notified industrial area/estate and not fall into small scale unit criteria are listed at S.N.5(f)of schedule of Environmental Impact Assessment (EIA) notification under Category 'A' and are appraised at Central level by the Expert Appraisal Committee (EAC).

(iv) Total 9,942 m² land area will be used for proposed project. Industry will develop greenbelt in an area of 32.39% i.e. 3220 m² out of 9942m² area of the project. Industry will develop 353 m²area as a green belt outside the industrial premises adjacent to project boundary. So total 3573 m² (3220 m² + 353 m²) area will be developed as Green belt.

(v) The estimated project cost is approx. Rs. 1.25 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 43.00Lakhsand the recurring cost(operation and maintenance) will be about Rs. 31.00Lakhsper annum.

(vi) Total employment will be 60persons as a direct. Industry proposes to allocate Rs. 2.5Lakhs@of 2.0% towards Corporate Environment Responsibility (CER) activities.

(vii) There are Nonnational Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild Life Corridors etc. within 10 km distance from the project site. Jasuki River is flowing at a distance of 3.25 km in ESE direction.

(viii) Ambient air quality monitoring was carried out at 8 locations during October – December 2016 & May 2017 to June, 2017 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (60.81 to 96.50 µg/m³), PM_{2.5} (22.50 to 36.06 µg/m³), SO₂ (9.62 to 25.00 µg/m³), NO₂ (14.87 to 30.68 µg/m³), CO (B.D.L.), VOC (B.D.L.) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.22 µg/m³, 0.62 µg/m³ and 3.26 µg/m³ with respect to PM₁₀, SO₂ and NO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Total water requirement is 47.5 m³/day of which fresh water requirement of 30.5 m³/day and which will be met from Borewell / Open well.

(x) Industrial effluent of 12.16 m³/day will be treated through Effluent Treatment Plant followed by Evaporator and the stated system will achieve Zero Liquid Discharge. Domestic effluent of 6.7 m³/day will be treated in Sewage Treatment Plant. Treated sewage, 5.5 m³/day will be reused in gardening & treated sewage, 1.2 m³/day will be reused in domestic flushing.

(xi) Power requirement of proposed project will be 200 KVA and will be met from Paschim Gujarat Vij Company Limited (PGVCL). 150 kVA D.G. Set will be used as standby during power failure. Stack height of 6 m will be provided as per CPCB norms to the proposed D.G. set.

(xii) Briquettes/Coal fired 3 TPH Steam Boiler & 15 Lac Kcal/hr. Thermic Fluid Heater will be installed. Cyclone Separator followed by Bag Filter with a stack height of 30 m will be installed for controlling the Particulate Matter Emissions within statutory limit of 150 mg/Nm³ for the proposed boiler & TFH.

(xiii) Details of process emissions generation and its management are as under:

Sr. No.	Stack attached to	Stack Height (m)	Expected Pollutant	APC System	Quality of pollutant
1	Dryer	11	Methanol	Condenser	As per GPCB Norms

(xiv) Details of solid waste/hazardous waste generation and its management are as under:

Sr. No.	Description	Category	Quantity (MT/Annum)	Mode of Disposal
1	ETP Sludge + Evaporation residue	35.3	42	Collection, storage and disposal at approved TSDF Site.
2	Edge cutting waste	23.1	9.6	Collection, storage and disposal at approved CHWIF for disposal

3	Spent Carbon	36.2	132	Collection, storage and disposal at approved CHWIF for disposal
4	Used / Spent Oil	5.1	0.048	Collection, storage and used within premises as a lubricant / sold to registered recycler.
5	Discarded bags/ drums/ containers	33.1	6.0	Collection, storage & sell to authorized vendor

(xv) Public hearing for the proposed project has been conducted by the State Pollution Control Board on 06/02/2018. There were no any issues raised during the Public Hearing. Only suggestion of social upliftment activities in surrounding area.

(xvi) Following are the list of proposed products.

S.No.	Name of Product	Capacity (TPM)
1.	Phenol Formaldehyde Resin	300
2.	Melamine Formaldehyde Resin	300
3.	Urea Formaldehyde Resin	400

40.5.2.2 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up resin manufacturing unit of capacity 1000 TPM (Phenol Formaldehyde Resin - 300 TPM, Melamine Formaldehyde Resin - 300 TPM and Urea Formaldehyde Resin - 400 TPM) by M/s Swastik Laminates in a total area of 9942 sqm located at Survey No. 203/15, Plot No. 4, B/h. Shaktiman Rotawetar, N.H. Road, Village 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 under category 'A' and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC) in the Ministry. The ToR for the project was granted on 30th May, 2017. Public hearing was conducted by the State Pollution Control Board on 6th February, 2018.

Total water requirement is estimated to be 47.5 cum/day, which includes fresh water of 30.5 cum/day to be met from the borewell/open well supply. Application for ground water withdrawal has been submitted to CGWA.

Effluent of 18.86 cum/day generated will be treated through Effluent Treatment Plant (having evaporator followed by condenser) followed by RO. Treated water of 17 cum/day will be recycled in the process and for green belt development, and thus the plant will conform to Zero Liquid discharge system.

40.5.2.3 *The EAC observed that as per the consent to establish issued by the Gujarat Pollution Control Board vide letter dated 12th July, 2018, the unit is presently engaged in manufacturing resins of total capacity 300 TPM (Phenol Formaldehyde Resin - 100 TPM, Melamine Formaldehyde Resin - 100 TPM and Urea Formaldehyde Resin - 100 TPM). Accordingly, the present proposal should have been for expansion of resin manufacturing from 300 TPM to 1000 TPM. Further, as per one of the specific condition stipulated therein, the industry was to submit the CGWA certificate for dispensing of the water from the borewell within one month, which is still awaited and there was no satisfactory response in this regard.*

In view of the above, the Committee desired that a site visit may be conducted by the concerned Regional Office of the Ministry to ascertain the factual status to facilitate further consideration of the proposal.

Agenda No.40.5.3

Expansion of Pesticides industry and pesticide specific intermediates (excluding formulations) at Plot No. SPM-28, Sterling SEZ & Infrastructure Ltd At & Po- Sarod, Taluk-Jambusar, District Bharuch (Gujarat) by M/s PI Industries Ltd

[IA/GJ/IND2/61999/2017, J-11011/511/2010-IA.II(I)]

40.5.3.1 The project proponent and the accredited Consultant M/s San Envirotech Pvt Ltd., Ahmedabad has made detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance for expansion of existing capacity of Pesticides Technical its intermediates with addition of new products from 8593.2 MT/annum to 44240 MT/annum at Plot No. SPM-28 & 29/1, Sterling SEZ & Infrastructure Ltd., At & Po: Sarod, Tal: Jambusar, District: Bharuch, Gujarat by M/s. PI Industries Ltd. 90700 MT/annum will be recovered as by product.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 21st meeting held during 27-29 March, 2017 and recommended Terms of Reference (ToRs) for the project. The ToR has been issued by Ministry vide letter No. J-11011/511/2010-IA-II (I) dated 29th May, 2017.

(iii) All pesticides industry and pesticide specific intermediates (excluding formulations) units are listed at S.N. 5(b) along with fine chemicals under 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Ministry has earlier issued EC vide letter no. J-11013/511/2010-IA.II (I) dated 04.04.2011 for manufacturing of pesticides & its intermediates.

(v) Existing land area is 90286 m², Proposed land area is 42000 m². Thus, total land area after expansion is 1,32,286 m².

(vi) Industry has already developed greenbelt in an area of 29790 m² out of 90286 m² of project area, after expansion unit will increasing the greenbelt area to 43650 m² which will be 33% of the total area.

(vii) The estimated project cost after proposed expansion will be Rs.600.0 crore including existing investment of 393.0 crore. Total capital cost earmarked towards environmental pollution control measures will be Rs. 50.0 crore and the Recurring cost (operation and maintenance) will be about Rs. 20.0 crore per annum.

(viii) Total employment including direct and indirect after expansion will be 350 persons. Industry proposes to allocate Rs.10.35 Crores i.e. 5% of total project cost towards Corporate Social Responsibility.

(ix) There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within the 10 km distance of the project site. Coastal area of Gulf of Cambay is at 2.5 km from the project site.

(x) Ambient air quality monitoring was carried out at 8 locations during January, 2017 to March, 2017 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (60.1-67.4 µg/m³), PM_{2.5} (28.8 - 32.9 µg/m³), SO₂ (8.7- 10.3 µg/m³) and NO_x (13.2-17.7 µg/m³) were observed. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs from the proposed project would be 1.646µg/m³, 0.950µg/m³, 3.671µg/m³, 0.071 µg/m³, 0.035 µg/m³, 0.106 µg/m³, 0.020 µg/m³ 0.008 µg/m³ with respect to PM, SO₂, NO_x, HCl, Cl₂, NH₃, H₂S, HC and dust of pesticides. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(xi) Total water requirement is 2973 m³/day of which fresh water requirement is 2839 m³/day and 134.0m³/day will be recycled/treated water, which will be met from SEZ water supply.

(xii) Total Industrial effluent generation will be around 1335 KLD & 50 KLD from Domestic. Industrial 1335 KLD effluent divided into two parts; one part of 522 KLD process effluents and second part dilute stream of 813 KLD which goes to ETP. Process effluent of 522 KLD is further divided into 3 parts based on the concentration, one part of 170 KLD dilute stream which is directly taken into ETP, 232KLD of high COD High TDS stream which goes to MEE along with 60 KLD of scrubber water and the third part of 60 KLD of highly concentrated organic stream which is sent for incineration. Condensate of 273 KLD from MEE is taken into ETP for further treatment. Total 1172 KLD (50 KLD domestic + 1122 KLD industrial) waste water goes to ETP for treatment and final disposal.

(xiii) 500 KLD of lean stream i.e. having low TDS and low COD from adjacent PI Unit-II will be treated in the ETP of Unit-I. Also 60 KLD of organic Waste from adjacent PI Unit-II will be incinerated in the incineration facility of Unit-I.

(xiv) The unit proposes to discharge Low TDS and low COD effluent quantity of 1672 m³/day into Gulf of Cambay after treatment through approved channel of VECL.

(xv) Power requirement 25000kVA will be met from DGVCL. Existing 2 nos. of D.G.Set with capacity of 4000 kVA each and additional four D.G sets with capacity of 4000 kVA each will be installed and used as standby during power failure. Stack (height 30 meters) will be provided as per CPCB norms to the proposed DG set.

(xvi) Existing unit has three boilers of 6 TPH (1 nos.) and 17 TPH (2 nos.) and Thermic Fluid Heater (60 lakhs kcal/hr.). Natural Gas or Furnace Oil will be used as fuel. After proposed expansion quantity of Natural Gas or Furnace Oil will be increased to 200440 Nm³/day or 204 MT/day respectively). Boiler & TFH is connected with stacks of adequate stack height of 54 m & 20 m respectively.

(xvii) Existing Process emission is from vents attached to process stack MPP-5,6,7,8,9, Hydrogenation plant (2 Nos. having common vent), MEE process stack and Rotary kiln Incinerator for which Alkali Scrubber, Hypo scrubber followed by alkali scrubber, and Venturi scrubber followed by alkali scrubber is used as APCM. There will be no additional process emissions source from the unit after expansion. Scrubbers will be modified as per requirement.

(xviii) Details of Solid waste/Hazardous waste generation and its management.

Sr. No	Type of Solid Waste	As per HWM Rules,	Quantity (MTPM)			Disposal method
			Existing	Proposed	Total	
.						

		2016				
1	ETP Sludge & MEE salt	35.3	395.41 MTPM 1216.67 MTPM	504.59 MTPM 1483.33 MTPM	900 MTPM 2700 MTPM	Collection, Storage, Transportation & Disposal in approved common TSDf/co-processing.
2	Used Oil	5.1	15.16 KL/month	9.84 KL/month	25.0 KL/month	Collection, Storage, and reused or sold to registered refiners.
3	Residues after distillation, fractionation, condensation recovery etc./ Solvent Distillation Residue	20.3	243.33 MTPM	56.67 MTPM	300 MTPM	Collection, storage, & Incineration in house or in approved common incineration facility or co-Processing/incineration.
4	Spent Carbon	36.2	16.67 MTPM	33.33 MTPM	50 MTPM	Collection, storage & Incineration in house or in approved common incineration facility or Send to Authorized recyclers/re-processors for recovery/co-processing
5	Process Waste (Process Waste Sludge/residue)	29.1	60.76 MTPM	1739.24	1800 MTPM	Collection, storage, & Incineration in house or in approved common incineration facility or Co-processing/co-incineration facility
6	Incineration Ash	37.2	456.25 MTPM	543.75 MTPM	1000 MTPM	Collection, Storage, Transportation & Disposal in approved common TSDf site.
7	Discarded containers / drums/ liners	33.1	30.41 MTPM	269.59 MTPM & 1000 Nos./month	300 MTPM & 10000 Nos./month	Recycled or sold to authorized scrap dealer or end users or disposal in approved common TSDf/incineration in-house as well approved common facility or sent for common decontamination facility
8	Date Expired off specification products	29.3	0.91 MTPM	99.09 MTPM	100 MTPM	Collection, storage, & Incineration in house or in approved common incineration

						facility/co-processing
9	Spent/Crude Solvent	29.4	121.67 MTPM	1378.33 MTPM	1500 MTPM	Collection, storage, & Incineration in house or at authorized CHWI facility or Co-processing or reuse by in-house solvent distillation. In Some of the product where purity requirements are very high, recycling is not possible due to build-up of moisture or some specific impurity, such solvents are required to be sent to authorized as well as CPCB registered solvent distillation unit. Sold to GPCB Authorized recyclers/ distillators / re-processor
10	Spent Catalyst	29.5	--	50 MTPM	50 MTPM	Collection, storage & Incineration in house or in approved common incineration facility or co-processing, Send to Authorized recyclers/ re-processors for recovery or sent for regeneration to supplier.
11	Spent Acid	29.6	--	1500 MTPM	1500 MTPM	Collection, storage, & Incineration in house or in approved common incineration facility or co-processing, Send to Authorized recyclers/ re-processors, re user.
12	Spent Resin	34.2	0.125 MTPM	1.875 MTPM	2 MTPM	Collection, storage, transportation and disposal in approved common TSDF.

- (xviii) Public Hearing is exempted as per para 7(i) III stage (3) (i) (b) of EIA Notification,2006.
(xix) Following is the list of existing & proposed products:

(a) Existing product list

Sr. No.	Common Name	IUPAC Name	Quantity (MTPA)
1	CPFK	1-cyclopropyl-2-(2-fluorophenyl) ethanone	55
2	CNZ	Cyanazine	70
3	AE473	(2-{2-chloro-4-mesyloxy-3-[(RS)]- tetrahydro-2-furylmethoxymethyl} benzoyl)- cyclohexane-1, 3-Dione	50
4	IBCZ	(4-chlorophenyl) methyl N-(2,4-dichlorophenyl)-1H-1,2,4- triazole-1-ethanimidothioate	40.2
5	MY-71	3-[1-(3,5-dichlorophenyl)-1- methylethyl]-6-methyl-5-phenyl- 2,3-dihydro-4H-1,3-oxazin-4-one	10
6	MY-100	3-[1-(3,5-dichlorophenyl)-1- methylethyl]-3,4-dihydro-6- methyl-5-phenyl-2H-1,3-oxazin-4-one	25
7	PFD	N-{3-isobutyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl) ethyl]phenyl}-1,3,5-trimethylpyrazole -4- carboxylic amide	100
8	TLF	Tolfenpyrad	225
9	TBFN	4-chloro-N-[[4-(1,1-dimethylethyl) phenyl] methyl]-3-ethyl-1-methyl-1H-pyrazole-5-carboxamide	120
10	PYCL	1-(3-chloro-4,5,6,7-tetrahydropyrazolo [1,5-a]pyridin-2-yl)-5-[methyl(prop-2-ynyl)amino] pyrazole-4-carbonitrile	150
11	Lake Palace	3-[[2,5-dichloro-4- ethoxyphenyl)methyl] sulfonyl]-4,5-dihydro-5,5-dimethylisoxazole	240
12	Octopussy	3-[[[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-1Hpyrazol- 4-yl]methyl]sulfonyl]-4,5-dihydro-5,5-dimethylisoxazole	1500
13	2C6SMT	3-Chloro-2-Methylthioanisole	140
14	DMI	2,6-dimethylindanone	600
15	ORST	Orysastrobin	170
16	PCM	N-(2 Chloro-4 Fluoro-5-((ethoxy carbonyl)-amino)-benzoyl)-Niso- propyl-N-methyl-sulfamid	1000
17	ACH	3-(difluoro methyl)-1-methyl-1Hpyrazole- 4-carboxylic acid	200
18	Star-1	Pethoxamid Technical	48
19	CFPA	3,4-dichloro-5-fluorobiphenyl-2- amine	300
20	AMB	3,4,5-Trifluoro-aminobiphenyl	100
21	PRZ	Difluoro Methyl-N-MethylPyrazolic acid	300
22	DCPA	1,3-dimethyl-5-chloro-4-pyrazolylcarboxylic acid chloride	360
23	CMTB	2-chloro-4-(methylsulfonyl)-3- [(2,2,2-trifluoroethoxy) methyl] benzoic acid	300
24	ZXMD	Zoxamide	100
25	AZST	methyl (E)-2-{2-[6-(2-cyanophenoxy) pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate	100
26	CDMB	4-chloro 2,6-dimethyl-bromobenzene	300
27	PMT	Phosmet	100

28	Flub/SOD	N-(2-Methylsulfinyl-1,1-dimethyl-ethyl)-N'-{2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl} phthalamide	300
29	CCITM	Disodiumcyanocarbonodithioimidate	140
30	IBA	3-(2-Methylpropyl)aniline	50
31	FNZQ	4-tert-Butylphenethyl quinazolin-4-yl ether	100
32	DMAI	(1R,2S) and (1S,2S)-2,6-dimethyl-2,3-dihydro-1H-inden-1-amine	200
33	Tembutrion	2-({2-chloro-4-(methylsulfonyl)-3-[(2,2,2-trifluoroethoxy)methyl] phenyl}carbonyl)cyclohexane-1,3-dione	300
34	CCMP	2-Chloro-5-(chloromethyl)pyridine	300
35	HFMOP	1,1,1,3,3,3-hexafluoro-2-methoxypropane	300
36	MDO	2,2-Dimethyl-4-methylidene-1,3- dioxolane	100
37	FMTQ	2-Ethyl-3,7-dimethyl-6-(4-(trifluoromethoxy)phenoxy)quinolin-4-yl methyl	100
Total			8593.2

(b) Proposed product list

Sr. No.	Groups	Quantity (MTPA)
Insecticides and Intermediates		
1	Amino Triazines (THM etc.)	4800
2	Diamides (Flub, SOD, MTPA/SAA, etc.)	
3	Hydazinopyridines For e.g. (CHDP etc.)	
4	Nicotinamides (TFNA etc.)	
5	Nitroguanidines (BNHT, AETF etc.)	
6	Organophosphorus Insecticides (MTN etc.)	
7	Phenyl organothiophosphates (PTF etc.)	
8	Phthalimides (PMT etc.)	
9	Pyrazole-diamides (Q4039, YB449, DPX, BPCA etc.)	
10	Quinazolines (FNZQ etc.)	
11	Quinoliny carbonates (FMTQ etc.)	
12	Thiazolidines(CCITM, CCMP etc.)	
Herbicides and Intermediates		
1	Alkylazines (DMI, DMAI etc.)	5650
2	Amide-triazolones (IAT etc.)	
3	Aryloxyphenoxypropionates (FPES etc.)	
4	Benzoyl cyclohexanediones (AE473, Tembutrion, 747 Ether, 2C6SMT etc.)	
5	Furanones (Flurt etc.)	
6	Intermediate of Herbicides (MTAA etc.)	
7	Active nitrile Herbicides (PYCL etc.)	
8	Oxazinones (MY-100 etc.)	
9	Oxazoles (Lake Palace etc.)	
10	Oxazolidinones (KPP etc.)	
11	Phosphinates (MPBS etc.)	
12	Pyrimidinediones (PCM, EATB etc.)	
13	Pyrimidinyloxybenzoicacid (Bispyribac Sodium etc.)	

14	Pyrimidinylsulfonyleureas (FRSF, ESPS etc.)	
15	Sulfonyleureas (AMSB, OTMA etc.)	
16	Triazines (CNZ etc.)	
17	Triazopyrimidinesulfonamides (DTPBS etc.)	
Fungicides and intermediates		3550
1	Active amide Fungicides (SSF-126/Oxime, TRFRN, FNXL, MIPD, ORST etc.)	
2	Benzamides (ZXMD etc.)	
3	Carboxamides (AMB etc.)	
4	Organophosphates (Kitazin etc.)	
5	Pyridine Fungicides (CTPE etc.)	
6	Pyrimidines (AZST etc.)	
7	Quinoxalines (CMTH etc.)	
8	Triazoles (IPCZ, FTL, FOX IBCZ, etc.)	
Fine Chemicals		7500
1	Substituted Anthraanilic acid (ACBM etc.)	
2	Substituted 1,2,4-Triazole (AMT etc.)	
3	Substituted tetrahydropyran (ATHP etc.)	
4	Dimethyl halo substituted benzene (CDMA, CDMB etc.)	
5	Substituted cyclopropylethanone (CPFK etc.)	
6	Substituted alkyl diamine (DAEEA etc.)	
7	Substituted dihalo pyridine (DCTFP etc.)	
8	Substituted dimethyl dioxane methanol (DHD etc.)	
9	Substituted Butanone (DMB etc.)	
10	Substituted Butanoic acid (EMBA etc.)	
11	Substituted Hydrazine (MMH,UDMH, SDMH etc.)	
12	Substituted Phenothiazine (10-H Phenothiazine etc.)	
13	Substituted diphenyl ether (Metaphenoxy Benzaldehyde etc.)	
Pyrazoles		5500
1	n-alkyl 3,4,5 substituted pyrazoles(PFD, TBFN,TLF,IBA,OCTOPUSSY,MY-71, MTP, DCPA, CFPA, ACH, BDB, PRZ etc.)	
Fluorospeciality products		2000
1	Fluoro substituted alkyl amine (DFEA etc.)	
Pharma intermediates		1000
1	Substituted triazole carboxylate (EMTC etc.)	
Specialty Chemicals		1000
1	Substituted cyclohexane carboxylate (ETMD etc.)	
2	HeptaFluoro Alkane (HFMOP etc.)	
3	Substituted 1,3-dioxalane (MDO etc.)	
4	Substituted Isobutyrate (CMIBA etc.)	
5	Substituted phenyl ether (CMTB etc.)	
Performance Chemicals		13000
1	Substituted phenyl morpholine Ketone (PCBM etc.)	
2	Catecol mixed salt (Negolyte etc.)	
New R&D product for Pilot scale		240
Total		44240

40.5.3.2 The proposal was last considered by the EAC in its meeting held on 25-27 June, 2018, wherein the EAC insisted for more inputs and clarifications in respect of the following:

- Clarity on products and quantity, which is necessarily to be consistent with the earlier EC dated 4th April, 2011 and the ToR dated 29th May, 2017.
- Revised water balance for the unit conforming to Zero Liquid Discharge.
- Factual status on the representation from Shri Girishbhai K Patel, already forwarded to the Ministry's Regional Office vide letter dated 12th December, 2013.
- Comments from GPCB also on the above representation vis-à-vis their monitoring report dated 3rd April, 2018 on compliance status of existing EC conditions.

Parawise replies submitted by the project proponent in response to the above observations, are as under: -

S. No.	Clarifications/inputs sought by the EAC	Reply submitted by the project proponent
1.	Clarity on products and quantity, which is necessarily to be consistent with the earlier EC dated 4 th April, 2011 and the ToR dated 29 th May, 2017.	Revised list of products have been submitted
2.	Revised water balance for the unit conforming to Zero Liquid Discharge.	The unit proposed to discharge treated water into the sea
3.	Factual status on the representation from Shri Girishbhai K Patel, already forwarded to the Ministry's Regional Office vide letter dated 12 th December, 2013.	It is informed that the complaint was bogus.
4.	Comments from GPCB also on the above representation vis-à-vis their monitoring report dated 3 rd April, 2018 on compliance status of existing EC conditions	GPCB have issued latest CTO, which addresses the matter

40.5.3.3 During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of pesticides technical and its intermediates manufacturing unit from 8593.2 TPA to 44240 TPA by M/s PI Industries Ltd (Unit-1) in a total area of 132286 sqm at Plot No.SPM-28 & 29/1, Sterling SEZ & Infrastructure Ltd, Post Sarod, Taluka Jambusar, District Bharuch (Gujarat).

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 EAC in the Ministry.

The ToR for the project was granted on 29th May, 2017 followed by amendment with exemption from public hearing under the provisions as per Para 7 Stage III. (3) (i) (b) of the EIA Notification, 2006, as plant is located in notified Industrial Estate.

Total water requirement is estimated to be 2973 cum/day, which includes fresh water of 2839 cum/day to be met from the SEZ water supply. The remaining water of 134 cum/day shall be obtained from recycled/treated water.

Ministry has earlier issued environmental clearance dated 4th April, 2011 for manufacturing of pesticides & its intermediates in favour of M/s PI Industries Limited. The monitoring report on compliance status of EC conditions forwarded by the Gujarat State Pollution Control Board vide letter dated 3rd April, 2018 found to be satisfactory.

The revised product list does not provide details of LD₅₀ of the products. Further, there was no clarity on the water balance and effluent treatment mechanism, commitment for ZLD, quantity of water to be discharged to the effluent channel, permission for treated effluent discharge, safety and risk management.

40.5.3.4 *The EAC, after deliberations, insisted for additional information/inputs and clarifications in respect of the following:-*

- *Details of individual products in each group along with their quantum, CAS, LD₅₀ values etc. The products having LD₅₀ less than 1000 mg/kg, reported to be highly toxic, need to be deleted. The remaining products need to be reviewed for the toxicity involved and biodegradability, to revise the product list accordingly.*
- *Confirmation on the treated effluent discharge, both from Unit-I & Unit-II, to the effluent channel operated by M/s PETL, not exceeding the present allocation of 1.5 MLD. That, in fact, requires water balance, effluent treatment, etc to be revised accordingly for both the units.*
- *Comments from GPCB on the representation from Shri Girishbhai K Patel, vis-à-vis their monitoring report dated 3rd April, 2018 on compliance status of existing EC conditions.*

The proposal was, therefore, deferred for the needful on the above lines.

40.6 Any Other

Agenda No.40.6.1

Expansion of Caustic Chlorine Products and Value Added Derivatives along with installation of new Chloromethane Plant at Village Birlagram, Nagda, District- Ujjain, Madhya Pradesh by M/s Grasim Industries Ltd (Chemical Division) - For validity Extension of ToR

[IA/MP/IND2/26969/2015; J-11011/119/2015-IA-II(I)]

40.6.1.1 The proposal is for amendment in the terms of reference granted by the Ministry vide letter dated 29th July, 2015 in favour of M/s Grasim Industries Ltd (Chemical Division) for Expansion of Chlor-alkali Plant at Village Birlagram, Nagda, District Ujjain (Madhya Pradesh).

40.6.1.2 The project proponent has now proposed extension of the validity of ToR for another one year to conduct public hearing/consultation.

40.6.1.3 *The EAC, after deliberations, recommended for validity extension of ToR dated 29th July, 2015 for another one year i.e. up to 29th July, 2019 with the same terms and conditions. The Committee suggested that while submitting the proposal for EC, the details of products shall be categorised as per Schedule to the EIA Notification, 2006 and the list shall separately mention products/co-products and by-products.*

Agenda No.40.6.2

Installation of 100 KLPD Ligno-cellulosic 2G Ethanol plant at Agasode, Bina Tehsil, Sagar district, Madhya Pradesh by M/s Bharat Petroleum Corporation Ltd - For Amendment in ToR

[IA/MP/IND2/72007/2018, IA-J-11011/4/2018-IA-II(I)]

40.6.2.1 The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter dated 11th February, 2018 to the project for Installation of 100 KLPD Ligno-cellulosic 2G Ethanol plant at Agasode, Bina Tehsil, District Sagar (Madhya Pradesh) in favour of M/s Bharat Petroleum Corporation Limited.

40.6.2.2 The project proponent has requested for amendment in the ToR with the details are as under:

S. No.	Para of TOR issued by MoEF&CC	Details as per the TOR	To be revised/read as	Justification/reasons
1	Standard ToR form Expert Appraisal Committee via letter Vide computer generated File No.IA-J-11011/4/2018-IA-II(I), 1 st page, 2 nd Para	In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard ToR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed with public consultation.	In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard ToR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance without public consultation.	<ul style="list-style-type: none"> ➤ BPCL proposes to set up the 2G Ethanol Plant within the marketing terminal of our existing Bina Refinery complex. ➤ The product from the 2G Ethanol Plant will be exclusively used for the purpose of mandatory blending with fuel (Motor Spirit) as per guidelines issued by Government of India. ➤ This project is being set up for better Environment and not on Profit basis. In fact, this project is being pursued by GOI for the improvement of environment. ➤ The Raw material (Soya Stalk/Wheat Straw) for the 2G Ethanol Project will be sourced from the nearby villages. Due to this, straw burning in the fields will be controlled, resulting in clean and SMOG free environment in surrounding areas. ➤ Considering the environmental and social benefits to the surrounding area and public at large with the

				proposed 2G Ethanol Project, it is requested for waiver of public hearing.
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40.6.2.3 *The EAC, after detailed deliberations, opined that such projects of biofuel production need to be encouraged for improving air quality in the area. However, in case of proposals for exemption from public hearing, the Committee desired that in view of national importance of such projects, the Ministry may take a view as per the extant rules/regulations.*

Agenda No.40.6.3

Installation of Ethanol Plant from PSA Off Gases ex HGU 76 & 77 using Gas Fermentation Technology at Panipat Refinery & Petrochemical Complex, Panipat Refinery, District Panipat (Haryana) by M/s Indian oil corporation limited - For Amendment in ToR

[IA/HR/IND2/73149/2018, IA-J-11011/78/2018-IA-II(I)]

40.6.3.1 The proposal is for amendment in the Terms of Reference granted by the Ministry vide letter dated 3rd May, 2018 for the project installation of Ethanol Plant from PSA Off Gases ex HGU 76 & 77 using Gas Fermentation Technology at Panipat Refinery & Petrochemical Complex Po- Panipat Refinery, District Panipat (Haryana) by M/s Indian Oil Corporation Limited.

40.6.3.2 The project proponent has requested for exemption from public hearing for the project in view of the Government's initiative for environment protection. It is informed that the ethanol project will be used for the purpose of mandatory blending of with fuel as per guidelines issued by Government of India. It is informed that the ethanol will be extracted from the PSA Off gases from the refinery. The Ministry has granted environmental clearance vide letter dated 23rd May, 2014 to the project for Butene-1 Project at Panipat Refinery & Petrochem Complex of M/s Indian Oil Corporation Limited (IOCL) for which public hearing was conducted on 3rd August, 2013. Further, Ministry has also granted EC vide letter dated 26th March, 2018 to the project for BS-VI fuel quality up-gradation and expansion of PX/PTA Plant in the same complex.

40.6.3.3 *The EAC, after detailed deliberations, opined that such projects of biofuel production need to be encouraged for improving air quality in the area. However, in case of proposals for exemption from public hearing, the Committee desired that in view of national importance of such projects, the Ministry may take a view as per the extant rules/regulations.*

List of the Expert Appraisal Committee (EAC-Industry-2)

S. No.	Name and Address	Designation
1	Dr. J. P. Gupta	Chairman
2.	Sh. R.K.Singh	Member
3	Prof. J.R. Mudakavi	Member
4	Dr. N. Nandini	Member
5	Shri Sanjay Bist	Member
6	Prof. (Dr.) Y.V. Rami Reddy	Member
7	Shri S.K. Srivastava	Member Secretary