

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

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**MINUTES OF THE 14<sup>th</sup> MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-2 SECTOR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006, HELD DURING NOVEMBER 20-22, 2019**

The 14<sup>th</sup> meeting of the Expert Appraisal Committee for Environmental Appraisal of Industry-2 Projects of the Ministry of Environment, Forest and Climate Change was held during **November 20-22, 2019**, at Brahmaputra Hall, First Floor, Vayu Wing, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003. The list of participants is annexed herewith.

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

**Time: 10:00 AM**

**14.1 Opening Remarks by the Chairman**

**14.2 Confirmation of the Minutes of the 13<sup>th</sup> Meeting of the EAC (Industry-2) held during 23-25 October, 2019 at Indira Paryavaran Bhawan, New Delhi**

The Minutes of the 13<sup>th</sup> Meeting of EAC (Industry-2) held during **October 23-25, 2019** were circulated to the members of the Committee. The Committee made brief deliberations on the proposals placed in the last meeting and approved the same.

**DAY 1: 20<sup>th</sup> November 2019 (Wednesday)**

**14.3 Consideration of Environmental Clearance**

**Agenda No.14.3.1**

**Setting up of pigments manufacturing unit of capacity 2310TPM by M/s J K INDUSTRIES at Khasra No.57/1, Madhya Pradesh Audyogik Kendra Vikas Nigam(AKVN), Village Dungariya, Tal & District Seoni (MP) – Reconsideration of Environmental Clearance.**

**[IA/MP/IND2/72950/2018, IA-J-11011/55/2018-IA-II(I)]**

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

**14.3.1.1** The proposal was earlier considered by the EAC in its meeting held during **29-31 July, 2019**, wherein the EAC, in the first instance, observed that the unit was proposed within the notified industrial area of AKVN, and thus the project/activity covered under category B of item 5(f) 'Synthetic Organic Chemicals' of schedule to the EIA Notification, 2006, requires appraisal at State level.

The Committee asked the project proponent to submit proposal to SEAC/SEIAA, Madhya Pradesh for consideration. In response to the observation of the EAC the project proponent has informed that the Madhya Pradesh Audyogik Kendra Vikas Nigam (AKVN) has confirmed that the unit is not located in notified industrial area and to be considered under category A of item 5(f).

**14.3.1.2** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up of pigments manufacturing unit of capacity 2310 TPM by M/s J K Industries at Khasra No.57/1, Madhya Pradesh Audyogik Kendra Vikas Nigam (AKVN), Village Dungariya, Tal & District Seoni (MP).

The details of products are as under:

<b>Sr. No.</b>	<b>Name of Product</b>	<b>Quantity (MTPM)</b>
1	Copper Phthalocyanine Blue	1000
2	Alpha Blue-15.0, 15.1 & 15B	200
3	Beta Blue-15.3 & 15.4	400
4	Copper Phthalocyanine Green	300
5	Pigment Violet 23	10
6	Azo Pigment-Red	100
a	Red - 3	
b	Red - 4	
c	Red - 8	
d	Red - 48.2	
e	Red - 49.1	
f	Red - 53.1	
g	Red - 57.1	
h	Red - 63.1	
i	Red - 112	
7	Azo Pigment-Yellow	60
a	Yellow - 12	
b	Yellow - 13	
c	Yellow - 74	
d	Yellow - 83	
8	Azo Pigment-Orange	40

a	Orange - 5	
b	Orange - 13	
9	Metallic Pigments	200
a	Lemon Chrome/Middle Chrome	
b	Scarlet Chrome	
<b>Total</b>		<b>2310</b>

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

The standard ToR for the project was granted on 22<sup>nd</sup> March, 2018. Public hearing for the project was conducted by the State Pollution Control Board on 6<sup>th</sup> October, 2018 under the Chairmanship of ADM. The main issues raised during the public hearing are related to employment to locals and proper treatment of wastewater. The Committee deliberated the action plan on the issues raised during the Public Hearing and satisfied with the action plan.

Total land area is estimated to be 1,18,000 sqm. Green belt will be developed in 33% i.e. 40000 sqm. out of total project area. The estimated project cost of proposed unit is Rs.48 crore. Total capital cost earmarked towards environmental pollution control measures is Rs.12 crore and the recurring cost (operation and maintenance) will be about Rs.6.6 crore per annum. Total employment including direct and indirect will be 175 persons

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Total water requirement is estimated to be 2311 cum/day, which includes fresh water requirement of 633 cum/day, proposed to be met from MPAKVN water supply. Total trade effluent generation will be 1723.0 KLD. Process effluent will be taken into ETP along with wastewater generated from scrubber, washing effluent, utility and reject of water treatment (50 KLD). Then it will be taken in to RO/Microfiltration. RO reject will be sent to MEE. RO permeate and condensate of MEE will be reused. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement will be 600 HP and will be met from Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Ltd (MPPKVVCL). Unit will install one DG Set of 1000 kVA capacity and will be used as standby during power failure. Stack (height 11 meters) will be provided as per CPCB norms to the proposed DG set.

Two Steam boilers (8TPH), one Thermic Fluid Heater (25 Lakhs KCal/hr) and one Hot Air Generator (25 lakhs Kcal/hr) will be installed. Coal will be used as fuel in proposed Boiler, TFH& HAG. Cyclone and bag filter with a stack height of 41 m (Common stack for boilers), 25 m & 25 m respectively will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup> for the proposed utilities.

Ambient air quality monitoring was carried out at 8 locations during January, 2018 to March, 2018 and the baseline data indicates the ranges of concentrations as: PM10 (50.2–63.0µg/m<sup>3</sup>), PM2.5 (30.1–34.6 µg/m<sup>3</sup>), SO<sub>2</sub> (10.5 –13.3 µg/m<sup>3</sup>) and NO<sub>x</sub> (14.1–17.4 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.761 µg/m<sup>3</sup>, 1.537 µg/m<sup>3</sup>, 1.268 µg/m<sup>3</sup>, 0.675 µg/m<sup>3</sup>, 0.102 µg/m<sup>3</sup> and 0.034 µg/m<sup>3</sup> respectively with respect to PM10, SO<sub>2</sub>, NO<sub>x</sub>, NH<sub>3</sub>, HCl, & Cl<sub>2</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be Rs. 3 crores of the project cost as committed by the project proponent.

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. Additional information submitted by the project has been found to be in order.

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

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

- (i). Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.
- (ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.

- (iii). Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv). National Emission Standards for Pharmaceuticals Industry (Bulk Drugs) issued by the Ministry vide G.S.R.149(E) dated 4<sup>th</sup> March, 2009 and amended from time to time shall be followed. Fugitive emissions shall be controlled at 99.98% with effective chillers.
- (v). No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (vi). To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (vii). Solvent management shall be carried out as follows:
  - (a) Reactor shall be connected to chilled brine condenser system.
  - (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
  - (c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
  - (d) Solvents shall be stored in a separate space specified with all safety measures.
  - (e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
  - (f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
  - (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (viii). Total fresh water requirement shall not exceed 633 cum/day, proposed to be met from MPAKVN water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (ix). Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
- (x). Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- (xi). Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.

- (xii). The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- (xiii). Fly ash should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.
- (xiv). The company shall undertake waste minimization measures as below:-
  - (a) Metering and control of quantities of active ingredients to minimize waste.
  - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - (c) Use of automated filling to minimize spillage.
  - (d) Use of Close Feed system into batch reactors.
  - (e) Venting equipment through vapour recovery system.
  - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xvi). As proposed Rs. 3 crores shall be allocated for Corporate Environment Responsibility (CER). The CER funds shall be utilized for greenbelt development, skill development and check dam construction, as suggested during public hearing. The CER plan shall be completed within a period of two years or before commissioning of the project.
- (xvii). For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xviii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xix). Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xx). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent,

the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

- (xxi). The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018. The said OM is available at the Ministry's website (PARIVESH portal i.e. www.parivesh.nic.in). The grant of Environmental Clearance is further subject to compliance of generic conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018.

### **Agenda No. 14.3.2**

#### **Manufacturing of Synthetic Organic Chemicals Plot No.E-67, RIICO, Phase-II, Maval, Abu Road, District Sirohi (Rajasthan) by M/s Paras Industries- Reconsideration of Environmental Clearance.**

#### **[IA/RJ/IND2/86809/2018, IA-J-11011/388/2018-IA-II(I)]**

The project proponent and their consultant Mr. B.S Rana (with order from Hon'ble High Court of Gujarat), made a detailed presentation on the salient features of the project.

**14.3.2.1** The proposal was earlier considered by the EAC in its meeting held during **29-31 July, 2019**. The Committee, observed that the project details mentioned in the EIA report were not consistent with that presented during the meeting. In view of substantive deviations, the Committee suggested the Ministry to take action against the EIA consultant for submitting misleading information. The EAC, has also asked for clarification/inputs, in respect of the following:-

- (i). Incremental values for PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> (72.08 µg/m<sup>3</sup>, 12.76 µg/m<sup>3</sup> and 24.09 µg/m<sup>3</sup>) were reported to be much higher side, and needs to be confirmed.
- (ii). Notification status for the said industrial area.
- (iii). EIA report to be revised as per the terms of reference granted for the project.

**14.3.2.2** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up synthetic organic chemical manufacturing unit of capacity 42 TPM by M/s Paras Industries in an area of 4879.2sqm at Survey No.E-67, RIICO, Phase II, Maval, Abu Road, District Sirohi (Rajasthan).

The details of products are as under:

<b>S.</b>	<b>Product</b>	<b>CAS NO.</b>	<b>Capacity</b>
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No.			(TPM)
1	Meta Ureido Aniline (MUA)	59690-88-9	8
2	2, Naphthol, 6,8 DiaSulphonic Acid (G. Salt)	118-32-1	12
3	4 Sulpho Ortho Amino Benzoic Acid	98-43-1	10
4	4,4 Dinitro Stilbene, 2,2 Disulphonic Acid	3709-43-1	12
Total			42

The project/activity is covered under category B of item 5(f) 'Synthetic Organic Chemicals' of schedule to the Environment Impact Assessment (EIA) Notification, 2006. Due to applicability of general condition (location of the site within 5 km of Gujarat state), the project requires appraisal at central level by the sectoral EAC in the Ministry.

The standard ToR for the project was granted on 4<sup>th</sup> January, 2019. Public hearing is exempted as per the Ministry's OM dated 27<sup>th</sup> April 2018, as the project site is located inside the notified industrial area.

Total land area is estimated to be 4879.2 sqm. Green belt will be developed in 33% i.e. 1630 sqm out of total project area. The estimated project cost of proposed unit is Rs.3.5 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.0.72 crores and the recurring cost (O&M) will be about Rs.0.06 crores per annum. Total Employment will be 10 persons as direct & 15 persons indirect for propose project.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. River Banas flows at 2.6 km in North. Total fresh water requirement is estimated to be 12 cum/day, proposed to be met from RIICO supply/tankers. Effluent of 8.07 cum/day (7.27 cum/day industrial waste water + 0.80 cum/day domestic waste water) will be treated in ETP and passed through the RO system, MEE and ATFD. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement will be 125 KVA, proposed to be met from Jodhpur VidyutVitrان Nigam Ltd(JVVNL). Unit is proposing 1 DG set 125 KVA with stack height of 5 m will be provided as per CPCB norms, to be used during power failure. Agro waste fired boiler of 1 TPH will be installed in the unit with multi cyclone separator/bag filter with a stack of height of 13 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm<sup>3</sup>.

Ambient air quality monitoring was carried out at 10 locations during December, 2018 to February, 2019 and the baseline data indicates the ranges of concentrations as: PM10 (46-64 µg/m<sup>3</sup>), PM2.5 (25 -44 µg/m<sup>3</sup>), SO<sub>2</sub> (3 - 14 µg/m<sup>3</sup>), NO<sub>2</sub> (10 -25 µg/m<sup>3</sup>) and HCl (BDL -18



µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.48 µg/m<sup>3</sup>, 0.5 µg/m<sup>3</sup> and 0.9 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards.

**14.3.2.3** The EAC, during deliberations noted that the project proponent has not addressed the concerns raised by the Committee in its meeting held during 29-31 July, 2019. The Committee, observed that the project details mentioned in the EIA report were not consistent with that presented during the meeting. The EAC, after detailed deliberations decided to **return the proposal in its present form** and have asked for clarification/inputs, in respect of the following:-

- (i) EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) The Committee noted that there are various deficiencies in Form 2 (viz. S. no. 11, 27 etc.) uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (iii) Incremental GLC values in the EIA/Form 2 were reported to be much higher side, and needs to be confirmed.
- (iv) Onsite emergency plan as per MSIHC Rules.
- (v) Revised water balance with details of total water and fresh water requirement.
- (vi) MoU/NOC from RIICO for supply of fresh water.
- (vii) Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (viii) Details of Wildlife Sanctuary/Protected Area within 10 km of the project site, and status of wildlife recommendations for the project, and conservation plan for Schedule I species, if any.
- (ix) Plan for Corporate Environmental Responsibility.
- (x) QCI/NABET Accreditation details of consultants prepared the EIA/EMP report.
- (xi) Copy of stay order of Hon'ble High Court permitting experts who prepared the EIA/EMP report.

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

### **Agenda No. 14.3.3**

#### **Proposed capacity enhancement and expansion of nylon - 6 CHIPS at PO-Fertilizer nagar, Taluka & District Vadodara, Gujarat by M/s Gujarat State Fertilizers & Chemicals Limited–Consideration of Environmental Clearance.**

**[IA/GJ/IND2/113461/2011, SEIAA/GUJ/EC/5(e)/131/2013]**

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

**14.3.3.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for Expansion of nylon chip manufacturing unit from 24425 TPA to 45245 TPA by M/s Gujarat State Fertilizers & Chemicals Limited in an existing area of 328 ha at Fertilizer nagar, Taluka and District Vadodara (Gujarat).

The project/activity is covered under category B of item 5(e) 'Petrochemical products and petrochemical based processing such as production of carbon black and electrode grade graphite (processes other than cracking & reformation and not covered under the complexes)' of schedule to the Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at State level. However due to project site is located in Critically polluted area, project requires appraisal at Central level in the Ministry.

The project proposal was considered by the State Expert Appraisal Committee Gujarat in 480th meeting held during 6th February 2019 and recommended Terms of References (ToRs) for the Project. ToR has been issued by State level Environment impact Assessment Authority, (SEIAA) Gujarat vide letter No.SEIAA/GUJ/ToR/5(e)/520/2019]; dated 1<sup>st</sup> April 2019. Public hearing is exempted as the project site is located inside the notified industrial area.

Existing land area is 3280000 m<sup>2</sup> (328 ha). The area for proposed plant is demarcated in same area as 813 m<sup>2</sup> (0.0813 Ha.). Industry has already developed greenbelt in an area of 33 % i.e., 1187000 m<sup>2</sup> (36.1 %) out of total area of the project. The estimated project cost is Rs. 20 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 0.25 lakh and the recurring cost (operation and maintenance) will be about Rs.0.05 Lakh per annum. Total Employment will be 5004 (Existing 5000 and Proposed 4) persons as direct&15 persons indirect after expansion.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Narmada Canal is at a distance of 1.6 km in South East. Total water requirement of Nylon 6 Chips project is 36.95 m<sup>3</sup>/day, proposed to be met from French Well in Mahi River (GSFC's own source) Water Supply. Effluent of 20.4 KLD quantities from proposed Nylon 6 Chips will be treated through ETP. Effluent of 1.8 KLD will be Sent to Vadodara Effluent Channel Limited(VECL). GSFC will

surrender the waste water disposal quantity of 30 KLD available with it in the name of GATL project, against the proposed 22.2 KLD of effluent disposal.

Power requirement after expansion will be 77400 KVA including existing 76000 KVA and will be met from Wind Mill / Cogeneration Plant/MGVCL. Existing Nylon 6 unit has 1 DG sets of 562.5 KVA capacity. No additional DG set will be required. There will be no Process gas emission from proposed project.

Ambient air quality monitoring was carried out at 8 Nos. locations during March 2018 to May 2018 and the baseline data indicates the ranges of concentrations as: PM10 (62.7 – 86.2µg/m<sup>3</sup>), PM2.5 (32.1 – 46.2µg/m<sup>3</sup>), SO<sub>2</sub> (8.5-16.8µg/m<sup>3</sup>) and NO<sub>2</sub> (13.7-20.8µg/m<sup>3</sup>). No flue gas and process emission from the proposed project.

The project proponent has confirmed that there is no litigation is pending against the proposal.

**14.3.3.2** The EAC, during deliberation noted that the chapters of EIA report are not in line as per appendix III of EIA Notification, 2006. Accordingly, the committee recommended the proposal to **return in the present form** and advised the project proponent to submit the revised EIA/EMP as per the generic structure provided in the Appendix III of EIA Notification, 2006 addressing all the ToRs and specific to the project, in respect of the following:-

- (i) The Committee noted that there are various deficiencies in Form 2 (viz. S. no. 6, 9.1, 28, 39 etc.) uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (ii) Two ECs were issued under provisions of the EIA Notification, 2006, however PP in form 2 mentioned the "NIL" EC and TOR details.
- (iii) EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (iv) The onsite emergency plan is not satisfactory as per MSIHC Rules, layout plan of the plant need to be revised.
- (v) As per EIA Report (page no. 110) schedule I species reported, however in form 2 No schedule I species mentioned. Please submit details accurately and conservation plan for Schedule I species along with budgetary provisions and its approval needs to be provided.
- (vi) Detailed Plan for Corporate Environmental Responsibility and its implementable schedule with budgetary provisions needs to be resubmitted.
- (vii) Copy of stay order of Hon'ble High Court permitting experts who prepared the EIA/EMP report.

(viii) Details of show cause notice issued and its compliance needs to be provided.

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

#### **Agenda No. 14.3.4**

#### **Exploratory Drilling of 134 locations (Onshore) in 32 ML Blocks of Western Onshore Basin at Vadodara, Gujarat by M/s ONGC Limited-Consideration of Environmental Clearance.**

**[IA/GJ/IND2/69699/2017, IA-J-11011/485/2017-IA-II(I)]**

The project proponent and their consultant M/s Kadam Environmental Consultant have made a detailed presentation on the salient features of the project.

**14.3.4.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for onshore oil & gas exploration by drilling 134 wells in 32 ML Blocks of Western Onshore Basin, District Vadodara (Gujarat) by M/s Oil and Natural Gas Corporation Limited.

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, 2006, and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC).

Terms of Reference for the project was issued on 6<sup>th</sup> November, 2017. Public Hearing for the project was conducted in seven districts Gandhinagar, Kheda, Sabarkantha, Anand, Mehsana, Ahmedabad and Vadodara by the State Pollution Control Board.

The estimated land requirement is 110m x 110m for each exploratory well. The estimated project cost is Rs.1447 crores. The one-time expenditure for environmental management and mitigation is estimated to be approx. Rs.95.10 Crore and the Recurring cost (operation and maintenance) will be about Rs17.05 Crore. About 40 employees will be working in 8 hour shift at site.

The Thol lake bird Sanctuary lies within the one of the block i.e. Sanand ML Block, Eco Sensitive Zone of Thol wildlife Sanctuary is declared vide MOEF&CC Notification S.O 421 (E.) dated 9th February 2015, as per the notification the extent of Eco sensitive Zone ranges from 0.308 km to 2.244 km from boundary of the sanctuary, ONGC do not plan to drill any well within Eco sensitive Zone of the Thol Wildlife Sanctuary, so National Board of Wildlife Clearance is not required. Sabramati, Khari, Meshwo, Vatrak, Seri, Shedi, Mahi and Vishwamitri are flowing through the block area.

Total water requirement is 25 cum/day which will be met from nearby ONGC installation through tanker. Wastewater (drill cutting washing + rig washing+ cooling etc) shall be generated at an average rate of around 3 m<sup>3</sup>/day during the drilling operations from a single well. Waste water will be discharged in HDPE lined evaporation pit for solar evaporation in addition to that 1 m<sup>3</sup>/day will be generated from domestic operations and will be discharge in soak pit. Drilling is a temporary activity lasting for 40-60 days. Power requirement will be met through three DG sets of 1250 HP capacity(3 Nos, two running and one standby). Stack (height 12m) will be provided as per CPCB Norms to the proposed DG sets.

Ambient air quality monitoring was carried out at 67 locations during 2018-2019 the baseline data indicates the average ranges of concentration of PM<sub>10</sub>: (60 µg/m<sup>3</sup> to 71 µg/m<sup>3</sup>), PM<sub>2.5</sub>: (20 µg/m<sup>3</sup> to 28 µg/m<sup>3</sup>), SO<sub>2</sub>: (5.3 µg/m<sup>3</sup> to 6.0 µg/m<sup>3</sup>) and NO<sub>x</sub>: ( 13.0 µg/m<sup>3</sup> to 18.1 µg/m<sup>3</sup>). AAQ modeling study for point source emission indicates that the maximum incremental ground level concentration (GLCs) after the proposed project would be 0.23 µg/m<sup>3</sup>, 5.09 µg/m<sup>3</sup> and 0.23 µg/m<sup>3</sup> for SO<sub>2</sub>, NO<sub>x</sub> and particulate matter respectively. These GLC's are expected to occur at a distance of 100 m from the source towards the South-South-East direction. The resultant Concentration are within NAAQS.

The expenditure towards CER for the project would be Rs. 11.47 crores of the project cost as committed by the project proponent.

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report.

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

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

- (i). No drilling shall be carried out in Protected Areas.
- (ii). Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.
- (iii). As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land. Mobile ETP shall be installed to treat the waste water and efforts shall be made for gradual reduction in daily intake of water (to reduce fresh water foot print ) by suitable mechanism or by putting RO facility in place coupled with onsite mobile ETP. Size of the waste shall be equal to the hole volume+ volume of drill cutting and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.
- (iv). To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (v). Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (vi). 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 16<sup>th</sup> November, 2009 for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, CH<sub>4</sub>, HC, Non-methane HC etc.
- (vii). During exploration, production, storage and handling, the fugitive emission of methane, if any, shall be monitored by CPCB approved method or by appropriate technology.
- (viii). Approach road shall be made pucca to minimize generation of suspended dust.
- (ix). The company shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with the adequate stack height as per CPCB guidelines.

- (x). Total fresh water requirement shall not exceed 25 cum/day. Prior permission shall be obtained from the concerned regulatory authority.
- (xi). The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.
- (xii). Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud/drill cutting shall be discharged/disposed off into nearby surface water bodies. The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30<sup>th</sup> August, 2005.
- (xiii). Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/ contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.
- (xiv). The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed.
- (xv). The company shall develop a contingency plan for H<sub>2</sub>S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H<sub>2</sub>S detectors in locations of high risk of exposure along with self containing breathing apparatus.
- (xvi). Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.
- (xvii). Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- (xviii). On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment safety angle. In case of hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- (xix). All the commitments made to the public during public hearing/consultation shall be satisfactorily implemented.

- (xx). As proposed Rs. 11.47 crores shall be allocated for Corporate Environment Responsibility (CER).The CER funds shall be utilized for greenbelt development, skill development and check dam construction, as suggested during public hearing. The CER plan shall be completed within a period of two years or before commissioning of the project.
- (xxi). No lead acid batteries shall be utilized in the project/site.
- (xxii). Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- (xxiii). 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.
- (xxiv). The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018. The said OM is available at the Ministry's website (PARIVESH portal i.e. www.parivesh.nic.in). The grant of Environmental Clearance is further subject to compliance of generic conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018.

### **Agenda No. 14.3.5**

#### **Manufacturing of Synthetic organic chemicals at F/95, RIICO Grow Centre, Phase-II, Abu Road, Abu Road, Sirohi (Rajasthan) by M/s Arbuda Industries- Consideration of Environmental Clearance.**

#### **[IA/RJ/IND2/97842/2019, IA-J-11011/61/2019-IA-II(I)]**

The project proponent and their consultant Mr. B.S Rana (with order from Hon'ble High Court of Gujarat), made a detailed presentation on the salient features of the project.

#### **14.3.5.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up Dyes and its Intermediates manufacturing unit of capacity 30 TPM by M/s Arbuda Industries in an area of 1977.30 sqm, located at Plot No. F-95, RIICO Industrial Area Phase-II, District Sirohi, Rajasthan.

The details of products and capacity as under:



<b>S. No.</b>	<b>Product</b>	<b>M.W</b>	<b>CAS NO.</b>	<b>Use Of Product</b>	<b>Capacity (TPM)</b>
1	Sulpho VS			Dyestuff & Dyestuff Intermediate	4
2	2, Naphthol, 6,8 DiaSulphonic Acid (G. Salt)	304.287	118-32-1	Dyestuff & Dyestuff Intermediate	6
3	4 Sulpho Ortho Amino Benzoic Acid	217	98-43-1	Dyestuff Intermediate	5
4	4,4 Dinitro Stilbene, 2,2 Disulphonic Acid	430.358	3709-43-1	Dyestuff Intermediate for Direct Dyes, Manufacturing of DSD Acid	5
5	Metanilic Acid	173.19	121-47-1	Dyestuff & Dyestuff Intermediate	5
6	MPDSA (Meta Phenyl Di Amine Sulphonic Acid)	188	88-63-1	Dyestuff Intermediate	5
<b>Total</b>					<b>30</b>

The project/activity is covered under category B of item 5(f) 'Synthetic Organic Chemicals' of schedule to the EIA Notification, 2006. Due to applicability of general condition (location of the project site within 5 km of Gujarat), the project requires appraisal at central level by sectoral EAC in the Ministry.

Standard ToR for the project was granted on 13<sup>th</sup> April, 2019. Public hearing is exempted as the project site is located inside the notified industrial area, as per the Ministry's OM dated 27<sup>th</sup> April 2018.

Land area available for the project is 1977.30 sqm. Industry will develop greenbelt in an area of 660 sqm covering 33 % of total project area. The estimated project cost is Rs 1.5 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 0.32crores and the recurring cost (operation and maintenance) will be about Rs 0.10 crores per annum. The project will provide employment for 25 persons directly and 15 persons indirectly. Industry proposes to allocate Rs 3.75 lakhs towards Corporate Environmental Responsibility.

Total fresh water requirement is estimated to be 12 cum/day, proposed to be met from RIICO water supply. Total waste water generation will be 8.07 cum/day (Domestic-0.8 cum/day & Industrial 7.27 cum/day). Industrial effluent of 7.27 cum/day will be treated through ETP followed by MEE and ATFD. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge. Power requirement for project will be 250 kVA and will be met from Jodhpur Vidyut Vitran Nigam Ltd. One DG set of 125 kVA shall be kept as standby during power failure, with stack of height 5mas per CPCB norms.

Agro waste fired boiler of 1 TPH and Thermic Fluid Heater of 6.0 Lac Kcal will be installed. Multi cyclone separator/ bag filter with a stack of height of 13 m will be installed to control the particulate emissions within the statutory limit of 115 mg/Nm<sup>3</sup>.

Ambient air quality monitoring was carried out at 10 locations during December, 2018 - February, 2019 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (46-64 µg/m<sup>3</sup>), PM<sub>2.5</sub> (25 -44 µg/m<sup>3</sup>), SO<sub>2</sub> (3 – 14 µg/m<sup>3</sup>), NO<sub>2</sub> (10 -25 µg/m<sup>3</sup>) and HCl (BDL -18 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.48 µg/m<sup>3</sup> ,0.5 µg/m<sup>3</sup> and 0.9 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, Sox and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

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

- (i) EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) The Committee noted that there are various deficiencies in Form 2 (viz. S. no. 11, 13, 23, 27, 28, etc.) uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (iii) Incremental GLC values in the EIA/Form 2 were reported to be much higher side, and needs to be confirmed.
- (iv) Revised water balance with details of total water and fresh water requirement.
- (v) MoU/NOC from RIICO for supply of fresh water.
- (vi) Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (vii) Details of Wildlife Sanctuary/Protected Area within 10 km of the project site, and status of wildlife recommendations for the project.
- (viii) Conservation plan for Schedule I species with budgetary provisions and its approval status from CWLW State Govt..
- (ix) Onsite emergency plan as per MSIHC Rules.
- (x) Plan for Corporate Environmental Responsibility.
- (xi) QCI/NABET Accreditation details of consultants prepared the EIA/EMP report.

- (xii) Copy of stay order of Hon'ble High Court permitting experts who prepared the EIA/EMP report.
- (xiii) Detailed Plan for Corporate Environmental Responsibility and its implementable schedule with budgetary provisions needs to be resubmitted.
- (xiv) The Balram Ambaj Sanctuary is at 2.7 km, Details of NBWL or ESZ Notification needs to be submitted.

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

### **Agenda No. 14.3.6**

**Expansion of the grain based distillery unit from 125 KLPD to 200 KLPD and expansion of cogeneration power plant from 3 MW to 9 MW at A-2(P), A-3 and A-4, Industrial Growth Center, Village Ranipur, Defence Road, Pathankot, (Punjab) by M/s Pioneer Industries Ltd. –Consideration of Environmental Clearance.**

**[IA/PB/IND2/114817/2016, J-11011/127/2016-IA II (I)]**

The project proponent and their accredited consultant M/s Enviro Infra Solutions Pvt. Ltd, made a detailed presentation on the salient features of the project.

**14.3.6.1** During deliberations, the EAC noted the following:

The proposal is for environmental clearance to the project for expansion of grain based Distillery from 125 KLPD to 200 KLPD & Co-generation from 3 MW to 9 MW by M/s Pioneer Industries Ltd in an area of 181000 sqm., located at A-2(P), A-3 and A-4, Industrial Growth Center, Village Ranipur, Defence Road, Tehsil and District Pathankot, Punjab.

The details of products and capacity are as under:

<b>S. No.</b>	<b>Item</b>	<b>Unit</b>	<b>Existing</b>	<b>Proposed</b>	<b>Total</b>
1	ENA/RS/ Impure spirit/ Country spirit/ Denatured spirit/ Fuel Ethanol (Absolute ethanol)	KL	125	75	200
2	By-products				
	CO2	MT	100	60	160
	Fusel Oil	MT	2.0	1.2	3.2
	DDGS/Conc. rice protein	MT	130	70	200
	Corn Oil(in case of maize used as raw material)	MT	7	3	10

The project/activity is covered under category A of item 5 (g) 'Distilleries' of the Schedule to the EIA Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

Standard Terms of Reference (ToR) for the project was granted on 2<sup>nd</sup> August, 2016. Public hearing was conducted by the Punjab Pollution Control Board on 14<sup>th</sup> March, 2019 under the Chairmanship of Additional District Magistrate. The main issues raised during the public hearing are related to employment, control of pollution, etc.

Existing land area is 181000 sqm. No additional land will be used for the proposed expansion. Industry has developed green belt in an area of 65000 sqm covering more than 33 % of total project area. The estimated project cost is Rs. 214.71 crores including existing investment of Rs. 162.21 crores. Total capital earmarked towards environmental pollution control measures is Rs. 6.50 crores and recurring cost (operation and maintenance) will be about Rs. 2.75 crores. The project will provide employment for 300 persons directly and 100 indirectly after expansion. Industry proposes to allocate Rs. 1.25 crores towards corporate environmental responsibility.

There are no national parks, wildlife sanctuaries, biosphere reserves, Tiger/Elephant reserves, Wildlife corridors etc. within 10 km from the project site. Ravi river flows at a distance of 4 kms. in North direction.

Total fresh water requirement is estimated to be 2145 cum/day, proposed to be met from ground water. Total effluent generation is 580 cum/day, out of which 425 cum/day is condensates which will be treated in condensate polishing unit and reused for cooling tower makeup water. Effluent from misc. streams will be 155 cum/day which will be treated in ETP and reused for water of green belt within the industrial premises. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirements after expansion will be 6000 KVA including existing requirements of 4500 KVA and will be met from in house cogeneration power plant. Existing unit has 3200 KVA DG sets used as standby during power failure. Stack height to the DG sets has been provided as per CPCB norms. Existing unit has 49 TPH biomass/coal fired boilers. Additional 50 TPH biomass/coal fired boiler will be installed. Electrostatic precipitator will be installed as pollution control system to achieve the statutory limit of 11 mg/Nm<sup>3</sup> for the proposed boiler. The industry will install dryers for the handling of DWGS for controlling process odours from the factory.

Ambient air quality monitoring was carried out at 8 locations during January - March, 2019 and the baseline data indicates the range of concentration as PM<sub>10</sub> (40 to 71 µg/m<sup>3</sup>), PM<sub>2.5</sub> (18 to 37 µg/m<sup>3</sup>), SO<sub>2</sub> (5.4 to 10.2 µg/m<sup>3</sup>) and NO<sub>x</sub> (11.7 to 23.4 µg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum incremental GLC's after the proposed project would be particulate matter (8 µg/m<sup>3</sup>), SO<sub>2</sub> (3.5 µg/m<sup>3</sup>) and NO<sub>x</sub> (4.3 µg/m<sup>3</sup>). The resultant concentrations are within the National Ambient Air Quality Standards.

Ministry has earlier issued EC vide letter no. J-11011/38/2010-IA.II(I) dated 7<sup>th</sup> December, 2012 to the existing project of 125 KLPD grain based distillery and 3 MW of cogeneration of power in favour of M/s Pioneer Industries Ltd. Compliance status of the existing EC conditions has been forwarded by Ministry's Regional Office vide letter no. 5-65/2005-RO(NZ)/143 dated 07<sup>th</sup> August, 2019.

**14.3.6.2** The EAC, during deliberations noted that the project details mentioned in the EIA report were not consistent with that presented during the meeting. The Committee also took serious note on the quality of the EIA/EMP report prepared by the consultant and underrated the consultant. The EAC, after detailed deliberations decided to **return the proposal** in its present form and have asked for clarification/inputs, in respect of the following:-

- (i). EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii). The Committee noted that there are various deficiencies in Form 2 (viz. S. no. 6, 15, etc.) uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (iii). Action Taken Report on non-compliance points in the existing EC conditions to be forwarded by the Regional Office of the Ministry.
- (iv). Revised layout plan with 33% green belt area.
- (v). Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation and its time lines needs to be submitted.
- (vi). Revised water balance with details of total water and fresh water requirement, and permission from CGWA.
- (vii). Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (viii). Detailed Plan for Corporate Environmental Responsibility and its implementable schedule with budgetary provisions needs to be resubmitted.
- (ix). The onsite emergency plan is not satisfactory as per MSIHC Rules, layout plan of the plant need to be revised.
- (x). Consent to Operate for the present Industrial operations needs to be submitted.

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

#### **Agenda No. 14.3.7**

**Proposed Carboxymethyl Cellulose manufacturing unit at Sy.No. 169/Part-2, Manhalli Village, Bidar Taluk and District Bidar (Karnataka) by M/s Meridian Polymers – Consideration of Environmental Clearance**

**[IA/KA/IND2/72938/2018, IA-J-11011/51/2018-IA-II(I)]**

The project proponent and their consultant M/s Kadam Environmental Consultant have made a detailed presentation on the salient features of the project.

**14.3.7.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up of Carboxymethyl Cellulose manufacturing unit of capacity 2000 TPA by M/s Meridian Polymers in an area of 3 acres at Sy. No. 169/Part-2, village Manhalli, Taluka and District Bidar, Karnataka.

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

The standard ToR for the project was granted on 22<sup>nd</sup> March, 2018. Public hearing for the project was conducted by the State Pollution Control Board on 17<sup>th</sup> January, 2019. The main issues raised during the public hearing are related to employment, air pollution due to installation of boiler, impact on animal health due to discharge of wastewater, rain water harvesting, plantation and village development.

Total land area is estimated to be 3 acres. Green belt will be developed in 33% i.e. 1 acre out of total project area. The estimated project cost is Rs 24.3 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 2.53 crores and the recurring cost (operation and maintenance) will be about Rs 2.78 crores Per annum. Total employment including direct and indirect will be 190 persons.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. River Madhura flows at a distance of 4.4 km in northeast. There are seven reserve forests in the impact area of 10 km. Tadapalli RF located at 0.2 km in southwest direction, Honnadi RF located at 4.6 km in West direction, Kalbemal RF located at 6.9 km in North direction, Bagdal RF located at 7.1 km in West direction, Godepalli RF located at 7.1 km in North direction, Chitta RF located at 7.5 km in North direction and Rajola RF located at 9.4 km in North direction.

The total water requirement is 220 KLD out of which 155 KLD will be fresh water and 65 KLD is recycled. Fresh water requirement shall be met from ground water. Total effluent of 67.5KLD will be treated through "Zero Liquid Discharge" based effluent treatment system. The high COD/TDS stream of 30 KLD is segregated and sent to stripper followed by multiple effect evaporators (MEE), and agitated thin film dryer (ATFD). The condensate from stripper is sent to cement plants for co-incineration, while condensate from MEE and ATFD is mixed with low

TDS/COD from utility blow downs and domestic wastewater of 37.5 KLD in biological treatment plant followed by Reverse Osmosis. The treated wastewater is reused for cooling towers make-up.

Power requirement will be met by Transco. DG sets of capacity 2 x 500 kVA is proposed to cater to the energy requirement during load shut down by Transco. Stack (height 5 m for 2 x 500 kVA) will be provided as per CPCB norms to the proposed DG sets which will be used as standby during power failure. It is proposed to establish 1 x 6 TPH coal fired boiler. Bag filters with a stack height of 30 m for 1 x 6 TPH coal fired boilers will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm<sup>3</sup>).

Ambient air quality monitoring was carried out at eight locations during March 2018 to May 2018 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (33-45µg/m<sup>3</sup>), PM<sub>2.5</sub> (13-19µg/m<sup>3</sup>), SO<sub>2</sub> (9-12µg/m<sup>3</sup>) and NO<sub>2</sub> (9-12µg/m<sup>3</sup>) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCS after the proposed project would be 0.96 µg/m<sup>3</sup>, 2.81 µg/m<sup>3</sup>, and 3.13 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>X</sub> and NO<sub>X</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be Rs. 48.6 Lacs of the project cost as committed by the project proponent. The project proponent has confirmed that there is no litigation is pending against the proposal.

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. Additional information submitted by the project has been found to be in order.

The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC

have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i). Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.
- (ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iii). Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv). National Emission Standards for Pharmaceuticals Industry (Bulk Drugs) issued by the Ministry vide G.S.R.149(E) dated 4<sup>th</sup> March, 2009 and amended from time to time shall be followed. Fugitive emissions shall be controlled at 99.98% with effective chillers.
- (v). No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (vi). Low sulphur Coal shall be used as boiler fuel.
- (vii). To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (viii). Solvent management shall be carried out as follows:
  - (a) Reactor shall be connected to chilled brine condenser system.
  - (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
  - (c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
  - (d) Solvents shall be stored in a separate space specified with all safety measures.
  - (e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
  - (f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.



- (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (ix). Total fresh water requirement shall not exceed 155 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.
- (x). Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
- (xi). Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- (xii). Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xiii). The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- (xiv). Fly ash should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.
- (xv). The company shall undertake waste minimization measures as below:-
  - (a) Metering and control of quantities of active ingredients to minimize waste.
  - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - (c) Use of automated filling to minimize spillage.
  - (d) Use of Close Feed system into batch reactors.
  - (e) Venting equipment through vapour recovery system.
  - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xvi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

- (xvii). As proposed Rs.48.6 Lacs shall be allocated for Corporate Environment Responsibility (CER).The CER funds shall be utilized for greenbelt development, skill development and check dam construction, as suggested during public hearing. The CER plan shall be completed within a period of two years or before commissioning of the project.
- (xviii). For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xx). Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xxii). The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018. The said OM is available at the Ministry's website (PARIVESH portal i.e. www.parivesh.nic.in). The grant of Environmental Clearance is further subject to compliance of generic conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018.

### **Agenda No. 14.3.8**

#### **Setting up 500 KTA Propane Dehydrogenation unit integrated with Polypropylene Unit at Usar, Raigadh (Maharashtra) by M/s Gail India Limited – Consideration of Environmental Clearance**

**[IA/MH/IND2/69404/2017, No.IA-J-11011/464/2017-IA-II(I)]**

The project proponent and their accredited consultant M/s Engineers India Limited made a detailed presentation on the salient features of the project.

**14.3.8.1** During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for setting up Setting up 500 KTA Propane Dehydrogenation (PDH) unit integrated with Polypropylene (PP) Unit by M/s GAIL

(India) Limited in an area of 160 acres at Usar Industrial Area, Usar village, Alibag Tehsil, District Raigad, Maharashtra.

The details of products and capacity are as under: :

S. No.	Product Details	Total Quantity
1.	Polypropylene	500 KTA

The project/activity is covered under category A of item 5(c) "Petro-chemical complexes" of the Schedule to the Environment Impact Assessment Notification, 2006 and requires appraisal/approval at central level in the Ministry.

Standard Terms of Reference for the project was granted by the Ministry on 26<sup>th</sup> October, 2017. Public hearing for the project has been conducted by the Maharashtra State Pollution Control Board on 21<sup>st</sup> June, 2019 under the Chairmanship of Additional District Magistrate, Raigad.

Land area required for the project is 160 acres, which is available within existing GAIL Usar plant complex. Industry will develop greenbelt in an area of 106 acres covering 33 % of the total complex area (321 acres). The estimated project cost is Rs. 6706.67 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 10.25 crores and the recurring cost (operation and maintenance) will be about Rs 1.38 crores per annum. The project will lead to direct employment for 230 persons during operation & indirect employment for 2500 persons during construction phase (peak). Rs 16.76 crores has been proposed towards Corporate Environment Responsibility (CER).

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site. Arabian sea, Palepada tidal back water and Amba river are present 10.5 km from the project site.

Total fresh water requirement will be 500 m<sup>3</sup>/hr which will be met from supply of Maharashtra Industrial Development Corporation (MIDC). There shall be 15 m<sup>3</sup>/hr of liquid effluent generation from proposed plant which will be treated in Effluent Treatment Plant. ETP treated waste water will be recycled through Zero Liquid Discharge (ZLD) plant. Power requirement for the proposed project will be 125 MW and sourced from state electricity grid. Gas fired boiler with a capacity of 50 TPH (1+1) will be installed. Total SO<sub>x</sub> emission from the proposed project shall be 8.0 kg/h. Most of the process units will run on Natural Gas.

Ambient air quality monitoring was carried out at 6 locations during January to March 2018 and the baseline data indicates the ranges of concentrations as PM<sub>10</sub> (56.2-67.8 µg/m<sup>3</sup>), PM<sub>2.5</sub> (25.5-32.5 µg/m<sup>3</sup>), SO<sub>2</sub> (12.2-14.7 µg/m<sup>3</sup>) and NO<sub>2</sub> (14.1-16.5 µg/m<sup>3</sup>) respectively. Air quality modeling was carried out for the proposed project. 24 hourly maximum GLC for SO<sub>2</sub> and NO<sub>x</sub> are predicted as 2.75 µg/m<sup>3</sup> and 2.11 µg/m<sup>3</sup>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Earlier EC has been issued for LPG Recovery Project vide letter no. J-11011/22/91-IA-II (I) dated 29/04/1992 and 11/11/1992 in favor of M/s GAIL (India) Limited. It was informed that the LPG recovery unit is under shutdown and new Petrochemical Plant is proposed at the existing site.

**14.3.8.2** The EAC, during deliberations noted that the project details mentioned in the EIA report were not consistent with Appendix III of the EIA Notification, 2006. The EAC, after detailed deliberations decided to **return the proposal** in its present form and has asked for clarification/inputs, in respect of the following:-

- (i) The Committee noted that Consultant has submitted EIA Report in 8 chapters and changed the generic structure as mentioned in the Appendix III of the EIA Notification, 2006. The Committee annoyed and directed that consultant has to revised the EIA Report as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) The Committee noted that there are various deficiencies in Form 2 (viz. S. no. 7 (a), 13.1, 18.1, 32, etc.) uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (iii) The Committee noted that monitoring was done during January-March 2018 which is not as per TOR prescribed. Baseline monitoring season are March-May, October-December and December-February. PP has changed the monitoring schedule. Correct monitoring seasons baseline data needs to be conducted. The Committee also observed that there are error in the data of SO<sub>x</sub> & NO<sub>x</sub> and suggested to recalculate the same.
- (iv) Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation needs to be submitted.
- (v) Revised water balance with details of total water and fresh water requirement, and permission/NOC from concerned regulatory authority.
- (vi) Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (vii) The onsite emergency plan is not satisfactory as per MSIHC Rules, layout plan of the plant need to be revised.
- (viii) Detailed Plan for Corporate Environmental Responsibility and its implementable schedule with budgetary provisions needs to be resubmitted.
- (ix) Details of raw material linkage.
- (x) Dismantling plan of the existing unit.

- (xi) As per the Form 2 uploaded on Parivesh portal the accreditation of consultant has been expired and valid up to 15.09.2019.
- (xii) The Committee noted that the EIA/EMP report is not in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has not been properly addressed in the EIA/EMP report.

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

### **Agenda No. 14.3.9**

**Molasses based ethanol plant (120 KLPD) and 4 MW cogeneration power plant at village-chak Allabaksh, Tehsil-Mukerian, District-Hoshiarpur Punjab by M/s Indian Sucrose Limited - Consideration of Environmental Clearance**

**[IA/PB/IND2/116878/2018, No.IA-J-11011/404/2018-IA-II(I)]**

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

**14.3.9.1** During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for Setting up Molasses based distillery of 120 KLD (Ethanol) and co-generation power plant of 4 MW by M/s Indian Sucrose Ltd located at Village chak Allabaksh, Tehsil Mukerian, District Hoshiarpur, Punjab.

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

Standard terms of reference to the project was issued on 7<sup>th</sup> January, 2019. Public Hearing for the project has been conducted by the State Pollution Control Board on 11<sup>th</sup> June 2019.

The estimated project cost is Rs.160crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 9.61 crores and the recurring cost (operation and maintenance) will be about Rs 4.36 lakhs per annum. The project will provide employment for 98 persons directly and 50 persons indirectly. Industry proposes to allocate Rs. 3.2 crores towards Corporate Environmental Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site. Beas river is flowing at

a distance of 8 km in West direction.

Total fresh water requirement is estimated to be 853 cum/day, proposed to be met from ground water. Effluent of 853 m<sup>3</sup>/day quantity will be treated through ETP and treated water will be reused in the process. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement will be 3100 Kwh will be met through own power plant of capacity 4 MW. In case of emergency DG sets of capacity 600 KVA will be used. Stack (height 30m) will be provided as per CPCB norms to the proposed DG sets. Boiler of 45 TPH will be installed in the unit with multi cyclone separator/ bag filter and a stack of height of 30 m to control the particulate emissions within the statutory limit of 115 mg/Nm<sup>3</sup>.

Boiler ash will be collected and will be given to authorized vendor for the Brick manufacturing. MEE salt will be burnt in the boiler. Yeast Sludge from the fermenter tank and decanter will be dried in the lagoon and would be used as the cattle feed. Used oil which will be in minimum quantity would be given to authorized vendor for disposal. Other solid waste like plastic container, tank would be sold to authorized vendor.

Ambient air quality monitoring was carried out at 8 locations during October to December 2018 and the baseline data indicates the ranges of concentrations as: PM10 (66.5 to 86.9 µg/m<sup>3</sup>), PM2.5 (35.3 to 56.4 µg/m<sup>3</sup>), SO<sub>2</sub> (8.1 to 14.5 µg/m<sup>3</sup>) and NO<sub>2</sub> (16.5 to 31.2 µg/m<sup>3</sup>). The maximum cumulative GLC concentration of PM10 viz. 87.127 ug/m<sup>3</sup> was predicted inside the study area. As the distance from source increases, the incremental concentration of PM10 drops drastically due to settling of PM10 particles under gravity. The maximum cumulative GLC concentration of SO<sub>2</sub> viz. 14.563 ug/m<sup>3</sup> was predicted inside the study area. The maximum cumulative GLC concentration of NO<sub>2</sub> viz. 31.207 ug/m<sup>3</sup> was predicted inside the study area.

**14.3.9.2** The EAC, during deliberations noted that the project details mentioned in the EIA report were not consistent with that presented during the meeting. The Committee also took serious note on the quality of the EIA/EMP report prepared by the consultant. The EAC, after detailed deliberations has asked for clarification/inputs, in respect of the following:-

- (i) EIA report to be revised as per the terms of reference granted for the project.
- (ii) Incremental GLC of air quality parameters due to the proposed project.
- (iii) Details of courts/NGT cases, if any, on the project area or against the project proponent.
- (iv) Details of land area available for the project, proof for occupancy and permission for industrial use.

- (v) Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation. Public hearing proceedings along with annexures.
- (vi) Revised layout plan with 33% greenbelt.
- (vii) Revised water balance with details of total water and fresh water requirement, and permission from concerned regulatory authority.
- (viii) Details of fuels to be used in the boiler/unit.
- (ix) As per EIA Report (page no. 190) schedule I species reported, however conservation plan for Schedule I species along with budgetary provisions and its approval has not submitted.
- (x) Occupational health plan.
- (xi) Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (xii) Detailed Plan for Corporate Environmental Responsibility and its implementable schedule with budgetary provisions needs to be resubmitted.
- (xiii) The onsite emergency plan is not satisfactory as per MSIHC Rules, layout plan of the plant need to be revised.

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

#### **14.4 Any Other**

##### **Agenda No. 14.4.1**

#### **Expansion of Urea and DAP at Southern Petrochemical Fertilisers Complex at Tuticorin (Tamil Nadu) by M/s Greenstar Fertilizers Limited – Consideration of amendment/correction of Environmental clearance**

**[IA/TN/IND2/117308/2019, J-11011/171/2007-IA-II(I)]**

**14.4.1.1** The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated 20<sup>th</sup> May, 2019 in favour of M/s Greenstar Fertilizers Limited for the project expansion of Urea and DAP at Southern Petrochemical Fertilisers Complex, Tuticorin, Tamil Nadu.

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

<b>S.</b>	<b>Para of EC</b>	<b>Details as per the</b>	<b>To be revised/ read as</b>	<b>Justification/reas</b>
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No	issued by MoEF&CC	EC dated 20.05.2019		on
1	2 Item (Land area)	139.01 acres	139.43 acres	Total land area including the missed survey numbers.
2	3 Item (Plot Nos)	239/2, 240/2, 242, 243, 244/2, 244/3, 245, 246, 247/1, 247/2, 248/2, 249/1B, 250/2, 251/2B, 424/3, 425, 426/1, 427, 429/3, 439, 444/1	239/2, 240/2, 242, 243, 244/2, 244/3, 245, 246, 247/1, 247/2, 248/2, 249/1B, 250/2, 251/2B, 424/3A, 425, 426/1, 427/1, 429/3B, 439 part, 444/1, 244/1, 248/2A, 424/3B	While submitting the application for bifurcation /amendment some of the Land survey numbers were by mistake not included

**14.4.1.3** The EAC, after detailed deliberations, **recommended** the amendments as proposed by the project proponent mentioned in the above table.

#### **Agenda No. 14.4.2**

#### **Expansion of Urea and DAP at Southern Petrochemical Fertilizers Complex at Tamil Nadu) by M/s Southern Petrochemical Industries Corporation Limited – Consideration of amendment/correction of Environmental clearance**

**[IA/TN/IND2/117906/2019, J-11011/171/2007-IA-II(I)]**

**14.4.2.1** The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated 20<sup>th</sup> May, 2019 in favour of M/s Southern Petrochemical Industries Corporation Limited for the project expansion of Urea and DAP at Southern Petrochemical Fertilisers Complex, Tuticorin, Tamil Nadu.

**14.4.2.2** 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 dated 20.05.2019	To be revised/ read as	Justification/reason
1	2 Item( Land area)	113.49 acres	116.41 acres	Total land area including the missed survey numbers.
2	3 Item (Plot Nos)	426/2, 428, 429/3, 431/2, 432/2, 433, 434/2, 435/2A, 436/1, 439	426/2, 427/2, 428, 429/3A, 431/2, 432/2, 433, 434/2, 435/2A, 436/1, 439	While submitting the application for bifurcation /amendment some of



			part, 438/3	the Land survey numbers were by mistake not included
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**14.4.1.3** The EAC, after detailed deliberations, **recommended** the amendments as proposed by the project proponent mentioned in the above table.

**Agenda No. 14.4.3**

**Bulk Drugs Manufacturing Unit (2684.4 MTPA) at Village Ranu, Tehsil Padra, District Vadodara, Gujarat by M/s IPCA Laboratories Limited by M/s IPCA Laboratories Ltd. – Consideration of amendment in Environmental Clearance**

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

**14.4.3.1** The Ministry has granted environmental clearance vide letter dated 18<sup>th</sup> January, 2013 in favour of M/s IPCA Laboratories Limited to the project for Bulk Drugs Manufacturing Unit (2684.4 MTPA) at Village Ranu, Tehsil Padra, District Vadodara (Gujarat). The project proponent has informed that due to financial constraint, unit was not able to install the manufacturing facility as per total production capacity of Environment Clearance. Unit has converted partly Consent to Operate. Now, market conditions are improved and unit wants to install the production capacity as per Environment Clearance and requested for extension of the validity of the said project for a period of three years.

**14.4.3.2** The EAC, during deliberation noted that the actual status of construction and operation needs to be checked with the present CTO and production details. Also, the status of ground water permission needs to be checked before granting validity extension. Accordingly, the EAC unanimously suggested for undertaking site visit by the Sub-committee of the EAC of comprising Dr. J. P. Gupta (Chairman), Dr. Uma Kapoor (Member, CGWA) and Dr. Tudi Indrasen Reddy (Member) and one officer from Ministry.

The proposal is therefore, **deferred** for site visit.

## **DAY 2: 21<sup>st</sup> November 2019 (Thursday)**

### **14.5 Consideration of Environmental Clearance**

#### **Agenda No. 14.5.1**

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

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

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

**14.5.1.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of Bulk Drug and Intermediates manufacturing unit from 5.25 TPM to 150 TPM by M/s Hindys Lab Pvt. Ltd. in an area of 11 acres, located at Sy. Nos. 289, 290, 291 and 292, Village Veliminedu, Mandal Chityal, District Nalgonda, Telangana.

Details of products and by-products are as under:

#### **Existing Manufacturing Capacity**

<b>S. No.</b>	<b>Name of Product</b>	<b>Capacity</b>	
		<b>Kg/day</b>	<b>TPM</b>
<b>GROUP - A</b>			
1	N-[4-(3,4-dichlorophenyl)-3,4-dihydro-1-naphth alenylidene]-methanamine (DDN)	116.7	3.5
2	5-Methoxy-2-[[[(4-methoxy-3,5-dimethylpyridin-2-yl) methyl]thio]-1H-benzimidazole (Omeprazole intermediate)	58.3	1.75
	<b>Total - Group A</b>	<b>175</b>	<b>5.25</b>
<b>GROUP - B</b>			
1	(s)-N,N-Dimethyl-3-hydroxy-3-(2-thienyl) propanamine (DMP)	66.7	2
2	Camphor sulfonyl Chloride (CSC)	108.3	3.25
	<b>Total - Group B</b>	<b>175</b>	<b>5.25</b>
<b>GROUP - C</b>			
1	CBZ L Valine	100	3
2	Tert-butyl 2-((4R,6S)-6-((E)-2-(4-(4-fluorophenyl)-6-isopropyl-2-(N-methylmethanesulfonamido) Pyrimidin - 5-yl)vinyl)-2,2-dimethyl-1,3-dioxane-4-yl-) acetate (TPA)	75	2.25

	<b>Total - Group C</b>	<b>175</b>	<b>5.25</b>
<b>GROUP - D</b>			
1	3-(Carbamyl Methyl)-5-Methyl hexanoic Acid (CMH)	86.7	2.6
2	5-Cyano phthalide (Citalopram HBr Intermediate) (FCP)	88.3	2.65
	<b>Total - Group D</b>	<b>175</b>	<b>5.25</b>
<b>* Worst case one group will be manufactured on campaign basis</b>		<b>175</b>	<b>5.25</b>

### Manufacturing Capacity – After Expansion

S. No.	Product Name	Capacity	
		TPM	Kg/day
1	Amlodipine Besylate	1	33.3
2	Clopidogrel Hydrogen Sulfate	5	166.7
3	Dex Lansoprazole	1	33.3
4	Divolproex sodium	3.5	116.7
5	Dulaxetine	5	166.7
6	Glimepiride	0.6	20
7	Mesalamine	1	33.3
8	Metaprolol	7	233.3
9	Nebivolol HCL	9	300
10	Pragabalin	1	33.3
11	Rosuvastatin	3	100
12	Sertraline HCl	4	133.3
13	Valaciclovir	1	33.3
14	2- Acetyl Ethoxy acetyl methoxy ether (AEA) (Acyclovir Intermediate)	12.4	413.3
15	Trans-4-(4-chlorophenyl)-cyclohexane carboxylic acid (Atovaquone Intermediate)	0.5	16.7
16	5-Cyano phthalide (Citalopram Intermediate)	8	266.7
17	Ethyl 3-{[3-Amino-4-(Methylamino) Benzoyl](Pyridine-2-Yl) Amino} Propanoate (EMP) (Dabigatran EtixilateMesylate Intermediate)	1	33.3
18	(S)-3-(Dimethylamino)-1-(2-thienyl)-1-propanol (DMTP) (Duloxetine Intermediate)	0.5	16.7
19	(Cis-Exo)-2,3-norbornane dicarboximide [BDX] (LurosidoneHCl Intermediate)	9	300
20	(1R,2R)-cyclohexane-1,2-diyl-bis (methylene) dimethane sulfonate [MOC] (LurosidoneHCl Intermediate)	1.5	50
21	2-[2-[3(S)-[3-[2-(7-Chloro-2-Quinolonyl)-ethenyl]phenyl]-3-hydroxypropyl]phenyl]-2-propanol (CQHP) (Montelukast Sodium Intermediate)	0.5	16.7
22	2,8-Diazo bicycloNonane	0.5	16.7

	(Moxifloxacin Intermediate)		
23	Carbamyl Methyl-5-Methyl hexanoic Acid (CMM) (Pragabalin Intermediate)	4	133.3
24	(2S,3S,5S)-2-Amino-3-Hydroxy-5-Tert-Butylcarbonyl Amino 1,6-Diphenyl (BDH pure) (Ritonavir Intermediate)	0.5	16.7
25	Tert-butyl 2-((4R,6S)-6-((E)-2-(4-(4-fluorophenyl)-6- isopropyl-2-(N- methylmethanesulfonamido)Pyrimidin - 5-yl)vinyl)-2,2-dimethyl-1,3-dioxane-4-yl-) acetate (TIN) (Rosuvastatin Intermediate)	3	100
26	Poly allyl amine HCl (Sevelamir Intermediate)	5	166.7
27	Dibenzimidazole (Telmisartan Intermediate)	6	200
28	Diacetyl acyclovir (Valaciclovir Intermediate)	16	533.3
29	Camphor sulfonyl dichloride (Intermediate of Esomeprazole Mg)	7	233.3
30	D- Mandalic acid (Intermediate of Sertraline HCl)	5	166.7
31	4-(3,4-Dichlorophenyl)-3,4-dihydro-N-methyl-1-(2H)- Naphthaleneimine (Intermediate of Sertraline HCl)	26	866.7
32	N2-(1-(S)-ethoxy carbonyl-3-phenyl propyl-N6-trifluoro acetyl-L-lyline (Intermediate of Lisinopril)	4	133.3
	<b>Total Worst Case: 27 Products on Campaign Basis</b>	150	5000

#### List of By-Products

S. No.	Name of Product	Stage	Name of By Product	Quantity (Kg/day)
1	Clopidogrel hydrogen sulfate	I	p-toluene sulfonic acid	90
2	Di acetyl acyclovir	I	Acetic acid	207

#### List of Utilities

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

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

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

Terms of Reference for the project was granted on 26.05.2017. Public Hearing for the project has been conducted by the Telangana State Pollution Control Board on 18<sup>th</sup> September, 2018

under the Chairmanship of Additional District Magistrate. The main issues raised during the public hearing are related to employment, ground water contamination, pollution control measures, odour nuisance, impact on human health, milch animals and village development.

Total land area available for the project is 11 acres (existing -3.47 acres, additional acquired-7.53 acres. Industry will develop greenbelt in an area of 3.7 acres covering 34% of total project area. The estimated project cost is Rs 45 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 6.57 crores and the recurring cost (operation and maintenance) will be about Rs.6.97 crores per annum. The project will provide employment for 150 persons directly and 60 persons indirectly. Industry proposes to allocate Rs. 1.11 crores towards Corporate Environment Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Reserve forests etc. within 10 km from the project site. Chityal RF is at 7km in east direction. Seasonal nala Chinna Vagu is flowing from northwest to southeast direction at a distance of 5.5 km in southwest direction.

Ambient air quality monitoring was carried out at nine locations during March – June 2017 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (32-56 µg/m<sup>3</sup>), PM<sub>2.5</sub> (11-24 µg/m<sup>3</sup>), SO<sub>2</sub> (9-12 µg/m<sup>3</sup>) and NO<sub>2</sub> (9-12 µg/m<sup>3</sup>) respectively. AAQ modelling study for point source emissions considering proposed expansion projects of this group, indicates that the maximum incremental GLC<sub>s</sub> after the proposed expansion would be 1.74 µg/m<sup>3</sup>, 8.38 µg/m<sup>3</sup>, and 9.26 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards.

The total water requirement is estimated to be 302.3 cum/day, which includes fresh water requirement of 205.3 cum/day, proposed to be met from Mission Bhagiratha (Industrial supply), Government of Telangana. It was informed that the fresh water requirement shall be further reduced to 160 cum/day using harvested rainwater for greenbelt development, improving process/utility efficiency. Necessary permission in this regard has been obtained from Mission Bhagiratha (Industrial supply) vide letter dated 9<sup>th</sup> February, 2019.

Out of the total effluent of 100.6 cum/day, high COD/TDS stream of 61.1 cum/day shall be segregated and sent to stripper followed by multiple effect evaporators (MEE) and agitated thin film dryer (ATFD). The condensate from stripper shall be sent to cement plants for co-incineration, while condensate from MEE and ATFD shall be mixed with low TDS/COD from utility blow downs. Domestic wastewater of 39.5 cum/day shall be treated in biological treatment plant followed by Reverse Osmosis. The treated wastewater is reused for cooling towers and boiler make-up. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement of 5250 kVA will be met from RANSCO. Existing unit has one DG set of 250 kVA, additionally 1 x 1500, 2 x 1000, 3 x 500 kVA DG sets are proposed as standby during power failure. Stack with height of 12, 7, and 5 m will be provided as per CPCB norms

to the proposed DG sets of 1 x 1500, 2 x 1000, 3x500 kVA respectively, in addition to existing DG sets stack (height 3 m for 250 kVA) which will be used as standby during power failure.

Existing unit has 1 x 2 TPH coal fired boiler and 2 x 8 TPH coal fired boilers are proposed as part of expansion. Bag filters and a stack with height of 30 m will be installed for controlling the particulate emissions for proposed boilers and bag filters and a stack with height of 15 m is provided for existing coal fired boiler.

The unit was reported to be established in the year 2006 after obtaining consent letter from SPCB vide letter dated 28<sup>th</sup> April, 2006 for manufacturing Bulk drug intermediates. The unit was established in the name of M/s Hychem Laboratories, then taken over by M/s Hind Life Science Private Limited in 2014, and subsequently name of industry has been changed to M/s Hindys Lab Pvt. Ltd. in 2015. The unit was involved in Bulk drug intermediate manufacturing which did not attract prior EC as per the EIA Notification, 1994. It was informed that the total production remained same. The unit has a valid Consent to operate dated 13<sup>th</sup> March, 2019 which is valid till 31<sup>st</sup> July, 2020.

**14.5.1.2** The EAC, after detailed deliberations has asked for clarification/inputs, in respect of the following:-

- (i) Cross verification of AAQ data of NO<sub>2</sub> and SO<sub>2</sub>, and its incremental GLC due to the proposed project.
- (ii) Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation. Video coverage of the public hearing along with complete public hearing/consultation documents.
- (iii) Production details from the year 2006 along with copy of CTO's.
- (iv) Plan for raw material storage for 3 days.
- (v) Commitment/plan for using coal with Sulphur content <0.5%.
- (vi) Occupational health and management plan and details of worker's rotation.
- (vii) Plan for controlling fugitive emissions at 99.95 %.
- (viii) Revised water balance with 20% reduction in fresh water requirement, and permission from concerned regulatory authority.
- (ix) Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (x) Onsite emergency plan as per MSIHC Rules.
- (xi) Detailed Plan for Corporate Environmental Responsibility @ 5% of total project cost.

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

### **Agenda No. 14.5.2**

#### **Expansion of Chemical Processing Unit at Village Bhagwanpur, Tehsil Derabassi, Dist. SAS Nagar, Punjab by M/s HPL Additives Ltd. - Consideration of Environmental Clearance**

**[IA/PB/IND2/86068/2017, IA-J-11011/460/2017-IA-II(I)]**

The project proponent and their accredited consultant M/s SBA Enviro Systems Pvt. Ltd., made a detailed presentation on the salient features of the project.

**14.5.2.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of chemical processing unit by M/s HPL Additives Ltd in an area of 67,414.57 sqm. at Village Bhagwanpur, Tehsil Derabassi, District SAS Nagar, Punjab.

The details of products and capacity as under:

<b>S. No.</b>	<b>Product</b>	<b>CAS No.</b>	<b>Existing (TPM)</b>	<b>Proposed (TPM)</b>
1.	1,3,5-Trimethyl-2,4,6-tris (3,5-di-tert-butyl-4-hydroxybenzyl) benzene [Kinox-30]	1709-70-2	--	170MT
2.	Pentaerythrityltetrakis [3-(3,5-di-tert. butyl-4-hydroxyphenyl) propionate] [Kinox-10]	6683-19-8	--	220 MT
3.	1,3:2,4 Bis (3,4-dimethylbenzylidene) sorbitol [HC-301]	135861-56-2	--	80 MT
4.	3,4 Dimethyl Benzaldehyde [3,4 DMB]	5973-71-7	--	90 MT
	<b>Lube Antioxidants</b>			
5.	Benzene propanoic acid, 3,5-bis (1,1-dimethyl-ethyl)-4-hydroxy-C7-C9 branched alkyl esters [Kinox-135L]	125643-61-0	--	15 MT
6.	Butylated/ octylated diphenylamine [Kinox-57L]	68411-46-1	--	50 MT
7.	Acetic acid, [[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl] methyl] thio]-C <sub>10-14</sub> isoalkyl ester [Kinox-18L]	118832-72-7	--	10 MT
8.	Bis (2,4-dicumylphenyl)	154862-43-8	--	25 MT

	pentaerythritoldiphosphate [Kinox-28]			
9.	3-Salicyloylamino-1,2,4-triazole [Kinox-DA]	36411-52-6	--	5 MT
10.	Hydrazine Hydrate	7803-57-8	110 MT	295MT
11.	Hydrazodicarbonamide [HDC]	110-21-4	--	645MT
12.	Azodicarbonamide [ADC]	123-77-3	--	600MT
13.	Adipicdihydrazide [ADH]	1071-93-8	--	48MT

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

Standard ToR for the project was granted on 26<sup>th</sup> October, 2019. Public hearing for the project has been conducted by the State Pollution Control Board on 25<sup>th</sup> July, 2018. The main issues raised during the public hearing are related to unemployment in the locality, ground water contamination, air pollution, etc.

Existing land area is 67,414.57sqm. No additional land will be required for proposed expansion. Industry will develop green belt in an area of 27,889sqm in addition to existing 16,000 sqm covering more than 33% of total project area. The estimated project cost is Rs. 231.02 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 4.57crores and the recurring cost (operation and maintenance) will be about Rs. 3.03 crores per annum. The project will lead to employment for 329 persons directly and 1200 persons indirectly.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site. Ghaggar river is flowing at a distance of 6.5 km in western direction and Dangri river is flowing at a distance of 5.5 km in Eastern direction.

Total water requirement is estimated to be 1280cum/day, which includes fresh water requirement of 830cum/day, proposed to be met from Ground Water. Effluent of 450 cum/day quantity will be treated through ETP and treated water shall be reused in the process/utilities. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement after expansion will be 7278 kW. From state grid, 5150 kW will be met and 3000 kVA from proposed Steam Turbine. Existing unit has 3 DG sets of 320 kVA capacity each, during expansion these DG sets will be replaced by 2 nos. 2000 kVA and one 320 kVA DG sets for the use of captive power. Stack height will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 8 TPH pet coke fired boiler, which will be replaced by new 30 TPH pet coke fired boiler and there will be 1 lakh Kcal capacity Thermic Fluid Heater. Cyclone Separator



followed by Wet Scrubber with a combined stack of height of 30 m (or as per CPCB guidelines) will be installed for controlling the particulate emissions as well gaseous pollutants within the statutory limit of 150 mg/Nm<sup>3</sup> for the proposed boiler and Thermic Fluid Heater.

Ambient air quality monitoring was carried out at 8 locations during November, 2017 - January, 2018 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (71.1-104.4 µg/m<sup>3</sup>), PM<sub>2.5</sub> (39.0 - 65.9 µg/m<sup>3</sup>), SO<sub>2</sub> (7.2 - 18.0 µg/m<sup>3</sup>) and NO<sub>2</sub> (14.3 - 25.1 µg/m<sup>3</sup>). AAQ modelling study for point source emissions at the project site indicates that the maximum incremental GLCs after the proposed project would be 1.91 µg/m<sup>3</sup>, 41.1 µg/m<sup>3</sup> and 5.84 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, Sox and NOx. The resultant concentrations at project site is within the National Ambient Air Quality Standards.

Ministry had earlier issued EC vide letter no. J-11013/852/2007/IA-II (I) dated 7<sup>th</sup> November, 2008 for 'Expansion of Hydrazine Hydrate (3.7 MT/day) manufacturing unit by adding 1,2,4 Triazole (36 MTPM) at village Bhagwanpur, Tehsil Derabassi, in District SAS Nagar, Punjab by M/s High Polymer Lab Limited'. It was informed that the project was not implemented, whereas, the existing production of Hydrazine Hydrate (3.7 MT/day) was started before the EIA Notification, 1994. Compliance report of existing EC conditions was issued by the Ministry's Regional Office vide letter no. 5-163/2008-RO (NZ)/267-268 dated 1<sup>st</sup> May, 2019. It was informed that the project proponent now is M/s HPL Additives Ltd.

**14.5.2.2** The EAC, during deliberations noted that the project details mentioned in the EIA report were not consistent with that presented during the meeting. The Committee also took serious note on the quality of the EIA/EMP report prepared and underrated the consultant. The EAC, after detailed deliberations **decided to return the proposal in its present form**, and has asked for clarification/inputs, in respect of the following:-

- (i) The Committee noted that Consultant has submitted the EIA in 10 chapters and not followed the generic structure of the EIA Notification, 2006. EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) The Committee noted that there are various deficiencies in Form 2 (viz. S. no. 6, 9, 13, 19, 26, 27, 28 etc.) uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (iii) Incremental GLC values in the EIA/Form 2 were reported are not accurate and needs to be redone/confirmed.
- (iv) Commitment for not using ground water, in view of prevailing ground water scenario of the region.
- (v) Details of Hon'ble NGT order regarding ground water exploitation of the region, if any.

- (vi) Total production capacity and details of products along with category as per the EIA Notification, 2006.
- (vii) Plan for using alternate fuel in place of pet coke.
- (viii) Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation.
- (ix) Revised water balance with details of total water and fresh water requirement, and permission/MoU/NOC from concerned regulatory authority.
- (x) Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (xi) Onsite emergency plan as per MSIHC Rules.
- (xii) Raw material linkage.
- (xiii) Plan for Corporate Environmental Responsibility.
- (xiv) Consent to Operate for the present Industrial operations.

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

**Agenda No. 14.5.3**

**Sugar factory (from 4900 TCD to 7500 TCD), Co-Gen (from 11 MW TO 30 MW) & Molasses/Sugarcane juice based distillery (from 30 KLPD TO 200 KLPD) at Watwate, Taluka Mohol, District Solapur (Maharashtra) by M/s Jakraya Sugar Ltd.- Consideration of Environmental Clearance**

**[IA/MH/IND2/118448/2012, J-11011/314/2012-IA II(I)]**

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

**14.5.3.1** During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for expansion of Molasses/Sugarcane juice based Distillery from 30 KLPD to 200 KLPD, Sugar factory from 4900 TCD to 7500 TCD and Co-gen plant from 11 MW to 30 MW by M/s Jakraya Sugar Limited in an area of 22.51 ha located on Gat No. 61-A, 70, 71, 72, 73, 74, Village Watwate, Taluka Mohol, District Solapur, Maharashtra.

Details of products are as under:-

Unit	Product &	Quantity
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	<b>By-product</b>	<b>Existing (4900 TCD) MT/M</b>	<b>Proposed (2600 TCD) MT/M</b>	<b>Total (7500 TCD) MT/M</b>
<b>Sugar</b>	White Sugar	17,640	9,360	27,000
	<b>By-product</b>			
	Molasses	5,880	3,120	9,000
	Bagasse	44,100	23,400	67,500
	Press mud	5,880	3,120	9,000
<b>Co-Gen</b>	<b>Product</b>	<b>Existing</b>	<b>Expansion</b>	<b>Total</b>
	Electricity	11 MW	19 MW	30 MW
	<b>Product</b>	<b>Existing (30 KLPD)</b>	<b>Expansion (170 KLPD)</b>	<b>Total (200 KLPD)</b>
<b>Distillery (Molasses/ Sugarcane Juice based)</b>	Rectified Spirit /ENA	900 KL/M	5,100 KL/M	6,000 KL/M
	CO <sub>2</sub> Gas (MT/D)	22	128	150
	Potash Rich Powder	--	4020 MT/M	4020 MT/M

The project/activity is covered under category A of item5 (g) 'Distilleries', 5 (j) 'Sugar Industry' and 1(d) 'Thermal Power Plants' of the Schedule to the Environment Impact Assessment Notification, 2006 and requires appraisal at central level by the sectoral EAC in the Ministry.

Standard ToR has been issued by Ministry on 3<sup>rd</sup> December, 2018. Public hearing for the project was conducted by the SPCB on 16<sup>th</sup> July, 2019 under the Chairmanship of Additional District Magistrate. Issues raised during public hearing are related to effluent generation its disposal, electricity generation, benefits to farmers from proposed project, APC installation, employment generation etc.

Total land available for the project is 22.51 ha. Industry has developed an area of 7.32 ha, additionally green belt area of 0.19 ha shall be developed covering 33.27 % of total project area. The estimated project cost is Rs.141 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 24.25 crores and the recurring cost (operation and maintenance) will be about Rs. 2.08 crores per annum. The project will provide employment for 1006 persons directly and indirectly. Industry proposes to allocate Rs.3.5 crores towards Corporate Environmental Responsibility. Great Indian Bustard (GIB) Sanctuary is located 4.10 km from project site. The site is located at 3.50 km from ESZ. Bhima river flows at a distance of 3.14 km in West to South direction.

Total water requirement in Sugar Factory & Co-gen plant after expansion of project will be 3961 cum/day (industrial -3841 cum/day, Domestic- 65 cum/day and Gardening- 55 cum/day). Out of total water requirement, 3886 cum/day will be cane condensate to be recycled, 60 cum/day will be recycled treated water from STP and remaining 15 cum/day will

fresh water, proposed to be met from Bhima river. Total water requirement in Distillery unit after expansion will be 2197 cum/day. Out of total water requirement, 1655 cum/day will be recycled water from proposed distillery CPU, 537 cum/day will be fresh water and 5 cum/day will be treated water from STP. Permission in this regard for lifting fresh water from Bhima River has been granted by Irrigation Department; Govt. of Maharashtra.

From existing sugar factory & co-gen plant operations, trade effluent to the tune of 520 cum/day is generated which is 106.12 lit per MT of cane crushed against the CREP norm of 200 Lit/MT. Subsequent to implementation of expansion, total effluent generated from sugar factory and co-gen plant activities would be to the tune of 788.5 cum/day. Same shall be forwarded to the existing ETP in the JSL premises which shall be duly upgraded. The ETP units comprises of namely Screen chamber & Oil & Grease trap, Anaerobic Lagoon - I, Aeration Tank - I, Primary Clarifier Tank, Secondary Clarifier Tank, treated water Sump, Dual Media Filter, Treated water Tank. The treated effluent shall be used for gardening and on shareholders farmland. As per CREP norms, 15 days storage capacity tank for treated water shall be provided on site.

The effluent generated from distillery would be in the form of raw spent wash to the tune of 1600 cum/day. Raw spent wash shall be treated in bio-methanation plant followed by concentration in Multiple (Five) Effect Evaporator (MEE). Concentrated spent wash to the tune of 320 cum/day shall be dried for powder, to be used as manure. Power requirement of 9.5 MW will be procured from own Co-gen Plant. Two DG set of capacity 625 KVA each has already been installed under existing project. DG sets will be used as standby during turbine tripping. Stack of height 5 M ARL is provided as per CPCB norms to the DG sets.

Coal/bagasse fired boiler of 90 TPH will be installed. Electrostatic Precipitator (ESP) along with stack of 72 m height will be installed to control the particulate emissions. The CO<sub>2</sub> generated from the process shall be bottled and supplied to manufacturers.

Ambient air quality monitoring was carried out at 8 locations during October - December 2018 and baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (54.93 – 63.32 µg/m<sup>3</sup>), PM<sub>2.5</sub> (16.54 – 25.64 µg/m<sup>3</sup>), SO<sub>2</sub> (15.57 – 29.98 µg/m<sup>3</sup>) and NO<sub>x</sub> (24.44 – 33.04 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the expansion project would be 0.882 µg/m<sup>3</sup> PM<sub>10</sub> (towards South West side), 0.221 µg/m<sup>3</sup> PM<sub>2.5</sub> (towards South West side), 5.80 SO<sub>2</sub> µg/m<sup>3</sup> (towards South West side) and 2.80 µg/m<sup>3</sup> NO<sub>x</sub> (towards South West side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Ministry has earlier issued EC vide letter no. J-11011/314/2012-IA-II dated 28<sup>th</sup> October, 2015 for Molasses based 30 KLPD Distillery unit in favour of M/s Jakraya Sugar Limited. Compliance status of existing EC conditions has been forwarded by the Ministry's Regional Office (site visit on 04.05.2019) vide letter dated 18<sup>th</sup> June, 2019.

**14.5.3.2** The EAC, after detailed deliberations has asked for clarification/inputs, in respect of the following:-

- (i) Great Indian Bustard (GIB) Sanctuary is located 4.10 km from project site. Requirement of obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, for the existing project and status of the application of the proposed project.
- (ii) The Committee noted that there are 5 Schedule I species in the study area. PP needs to prepare the species specific conservation plan along with budgetary allocation and PP to take approval for the Wildlife conservation and management plan from CWLW State Government.
- (iii) Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation. Public hearing proceedings to be forwarded by the Member Secretary, SPCB along with complete public hearing/consultation documents.
- (iv) Revised water balance with reduction in fresh water requirement, and permission from concerned regulatory authority.
- (v) Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (vi) Commitment for not releasing treated/untreated waste water outside the plant premises.
- (vii) Onsite emergency plan as per MSIHC Rules.
- (viii) Plan for Corporate Environmental Responsibility.
- (ix) Compliance status of the existing EC conditions, and Action Taken Report on non-complied points forwarded by the Regional Office of the Ministry.

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

#### **Agenda No. 14.5.4**

**Onshore Oil & Gas Development Drilling and Production in Mechaki Area covering Mechaki, Mechaki Extension, Baghjan and Tinsukia Extension PMLs in Tinsukia District of Assam by M/s Oil India Limited - Consideration of Environmental Clearance.**

**[IA/AS/IND2/97724/2007, J-11011/1260/2007-IA II(I)]**

The project proponent and their accredited consultant ERM India Pvt. Ltd. made a detailed presentation on the salient features of the project.

**14.5.4.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for Onshore Oil & Gas Development Drilling and Production from 18 wells and setting up 4 production installations and laying pipeline by M/s Oil India Ltd in an area of 82 ha covering Mechaki, Mechaki Extension, Baghjan and Tinsukia Extension PMLs in District Tinsukia, Assam.

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, 2006, and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC).

Terms of Reference for the project was issued vide letter No. J-11011/105/2017.IA II(I) dated 31<sup>st</sup> May 2017. Public hearing for the proposed project has been exempted as per para 7 (ii) of the EIA Notification, 2006.

Application for Forest Clearance (FC) has been submitted for two wells (MKD & MKE). It has been now proposed to drop the two location from the scope of the present project.

Land required for the project is 82 ha. The estimated project cost is Rs. 1067.20 crores and recurring cost (operation and maintenance) earmarked towards environmental pollution control measures is Rs. 0.7 crore per annum. The project will provide employment for 60 persons directly and 120 persons indirectly. Industry proposes to allocate Rs 5 crores towards Corporate Environmental Responsibility. Dibru Saikhowa National Park is within 10 km of the well locations. Dangori river is flowing at a distance of 0.7 km in east-west direction.

Ambient air quality monitoring was carried out at 8 locations during October -December 2017 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (77-89 µg/m<sup>3</sup>), PM<sub>2.5</sub> (39-48 µg/m<sup>3</sup>), SO<sub>2</sub>(5.4-6.2 µg/m<sup>3</sup>) and NO<sub>2</sub>(19-24 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.167 µg/m<sup>3</sup>, 13.01 µg/m<sup>3</sup> and 30.994 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The Committee found the AAQ monitoring to be satisfactory and noted that the resultant concentrations are within the National AAQ Standards.

Total water requirement is estimated to be 50 cum/day, which includes fresh water requirement of 50 cum/day, proposed to be met from tube well. Application in this regard has been submitted to CGWA. Effluent of 24.8 cum/day will be treated through effluent treatment plant and septic tank soak pit. Power requirement for drilling is 2500 kVA, sufficed through Diesel Generator Sets. One 1250 KVA DG set is will kept as standby. Stack (height 10 m) will be provided to the proposed DG sets.

Ministry had issued earlier EC vide letter no. F. No. J-11011/1260/2007 - IA II (I); dated 2<sup>nd</sup> November, 2011 to the existing project Drilling of Exploratory Well (6 Nos.) at Mechaki Area, District Tinsukia, Assam in favour of M/s Oil India Limited. Certified compliance report has been forwarded by Ministry's Regional Office (site visit during 7<sup>th</sup>-14<sup>th</sup> June 2016), vide letter dated on 5<sup>th</sup> July, 2016. It was informed that presently there is no project activity/operations is being carried out in the drill locations.

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. Additional information submitted by the project has been found to be in order.

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

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

- (i) The environmental clearance is subject to obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, as applicable. Grant of environmental clearance does not necessarily imply that Wildlife Clearance shall be granted to the project and that their proposals for Wildlife Clearance will be considered by the respective authorities on their merits and decision taken.
- (ii) As committed no drilling shall be carried out in the forest areas.
- (iii) Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.
- (iv) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.

- (v) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (vi) Ambient air quality shall be monitored at the nearest human settlements to ensure conformity with the National Ambient Air Quality Emission Standards issued by the Ministry vide GSRNo.826(E) dated 16<sup>th</sup> November, 2009 for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, CH<sub>4</sub>, HC, Non-methane HC etc.
- (vii) During exploration, production, storage and handling, the fugitive emissions of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.
- (viii) The project proponent also to ensure trapping/storing of the CO<sub>2</sub> generated, if any, during the process and handling.
- (ix) Approach road shall be made pucca to minimize generation of suspended dust.
- (x) 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.
- (xi) Total fresh water requirement shall not exceed 40 cum/day/well proposed to be met through tankers. Mobile ETP shall be installed to treat the waste water and efforts shall be made for gradual reduction in daily intake of water (to reduce fresh water foot print ) by suitable mechanism or by putting RO facility in place coupled with onsite mobile ETP. Size of the waste shall be equal to the hole volume+ volume of drill cutting and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.
- (xii) 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.
- (xiii) 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 30<sup>th</sup> August, 2005.
- (xiv) 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.



- (xv) 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.
- (xvi) The company shall develop a contingency plan for H<sub>2</sub>S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H<sub>2</sub>S detectors in locations of high risk of exposure along with self containing breathing apparatus.
- (xvii) Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.
- (xviii) Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- (xix) After completion of drilling process, suitable measures shall be taken for well plugging and secured enclosures, and drilling site shall be restored to the original condition. In case of the hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- (xx) At least Rs. 5 crores shall be allocated for Corporate Environment Responsibility (CER) and item-wise details proposed with time bound action plan shall be properly implemented.
- (xxi) Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- (xxii) 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.
- (xxiii) The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018. The said OM is available at the Ministry's website (PARIVESH portal i.e. www.parivesh.nic.in). The grant of Environmental Clearance is further subject to compliance of generic conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018.

#### **Agenda No.14.5.5**

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

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

The project proponent and their consultant M/s Kadam Environmental Consultant have made a detailed presentation on the salient features of the project.

**14.5.5.1** During deliberations, the EAC noted the following: -

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

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

The details of products and capacity as under:

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

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

Existing land area is 6630.32m<sup>2</sup>. Industry has already developed greenbelt in an area of 9.8 % i.e., 647 sqm. out of total area of the project. Additional 24% greenbelt is developed at Atul Village. The estimated project cost is Rs 187.5 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 2048.24 Lacs and the Recurring cost (operation and maintenance) will be about Rs. 647.95 Lacs per annum. Total Employment will be ~72 persons as direct & indirect after expansion.

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

Total water requirement is 499.4 m<sup>3</sup>/day including existing requirement of 84.3 KLD of which fresh water requirement of 186.1m<sup>3</sup>/day will be met from river Par. Effluent of 318 quantity will be treated through ETP from that 313.3 KLD will recycled back from RO- MEE. The plant will be Zero Liquid discharge. Power requirement after expansion will be 1360 KVA(86,10,000 kW/Annum) including existing 217 KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has No DG set, additionally 1 DG set of 500 kVA is used as standby during power failure. Stack (height 10m) will be provided as per CPCB norms to the proposed DG sets.

Ambient air quality monitoring was carried out at 8 locations during December, 2017 to February, 2018 and the baseline data indicates the ranges of concentrations as: PM10 (32-93µg/m<sup>3</sup>), PM2.5 (14-45µg/m<sup>3</sup>), SO<sub>2</sub> (6-11µg/m<sup>3</sup>) and NO<sub>2</sub> (12- 23µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.11µg/m<sup>3</sup>, 5.2µg/m<sup>3</sup> and 1.32µg/m<sup>3</sup> with respect to PM10, Sox and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

PP reported that permission was granted to M/s Atul Ltd. before EIA notification came into existence and later CCA was split and transferred to Anaven LLP in April 2018. Unit has received CTO from GPCB Consent Order No.: A 92566 Date of issue: 23.04.2018 valid up to 03.11.2019 (Applied for renewal and expected soon)

**14.5.5.2** The EAC, after deliberations, insisted for certain information/inputs as under:-

- (i). The Committee noted that there are Schedule I species in the study area. PP needs to prepare the species specific conservation plan along with budgetary allocation and PP to take approval for the Wildlife conservation and management plan from CWLW State Government.
- (ii). Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation. Public hearing proceedings to be forwarded by the Member Secretary, SPCB along with complete public hearing/consultation documents.
- (iii). Plan for Corporate Environment Responsibility.
- (iv). Revised water balance with reduction in fresh water demand
- (v). Details of raw material linkage needs to be submitted
- (vi). Incremental GLC values in the EIA/Form 2 were reported to be very lower side, and needs to be redone/confirmed.
- (vii). Details of land ownership paper needs to be submitted.

(viii). Onsite emergency plan as per MSIHC Rules needs to be submitted

The proposal was therefore, **deferred**.

#### **Agenda No.14.5.6**

**Proposed Expansion of Pesticide technical, its Intermediates, Bio-Pesticides Manufacturing Unit at Plot No. 50, 82P, 83, 84P, KIADB, Industrial Area, Humnabad, Bidar District, Karnataka by M/s Nichino Chemical India Private Limited - Consideration of Environmental Clearance**

**[IA/KA/IND2/119338/2010, IA-J-11011/132/2010-IA-II(I)]**

The project proponent and their consultant M/s KKB Envirocare Consultants Pvt. Ltd., made a detailed presentation on the salient features of the project.

**14.5.6.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for expansion of pesticides technical, its intermediates and bio pesticides manufacturing unit by M/s Nichino Chemical India Private Limited in an area of 5.46 Ha located at Plot nos. 50, 82P, 83 and 84P, Karnataka Industrial Area Development Board (KIADB) Industrial Area, Taluka Humnabad, District Bidar, Karnataka.

The details of products and capacity as under:

**(a)** Permitted (Existing) Products and their Capacities as per EC-2012

<b>S. No.</b>	<b>Name of the product</b>	<b>Quantity (TPA)</b>
1.	Cartap Hydrochloride technical	1000
2.	Indoxacarb technical	50
3.	Acephate technical	250
4.	Monocrotophos technical	600
<b>Total Production Quantity</b>		<b>1900</b>

**(b)** The industry has obtained CTE for Change of Products from KSPCB vide order No. PCB//189/HPI/2014-15/718 dated 09-09-2014 which are listed below under existing products.

Permitted and Proposed Products, their quantities

<b>S. No.</b>	<b>Product</b>	<b>Existing (TPA)</b>	<b>Additional (TPA)</b>	<b>Total (TPA)</b>
1.	Cartap Hydrochloride	800	(-782)	18
2.	Indoxacarb	50	20	70
3.	Acephate	220	(-196)	24
4.	Monocrotophos technical( <b>Dropped</b> )	250	-	--

<b>S. No.</b>	<b>Product</b>	<b>Existing (TPA)</b>	<b>Additional (TPA)</b>	<b>Total (TPA)</b>
5.	Profenofos	150	210	360
6.	Imidacloprid	50	50	100
7.	Acetamiprid	30	30	60
8.	Buprofezin	50	310	360
9.	Fipronil	25	75	100
10.	Chlorpyrifos( <b>Dropped</b> )	100	--	--
11.	Dichlorvos( <b>Dropped</b> )	100	-	--
12.	Tricyclazole	50	370	420
13.	ClodinafopPropargyl	25	5	30
14.	(R)-(+)-2-(4-Hydroxy phenoxy) Propionic acid (DHPPA)	--	60	60
15.	2-Amino-4,6-Dimethoxy Pyrimidine (ADMP)	--	60	60
16.	5-Amino-3-cyano-1-(2,6-dichloro-4-trifluoro methyl phenyl)pyrazole (Phenyl Pyrazole)	--	120	120
17.	Azimsulfuron	---	50	50
18.	Azoxystrobin	--	70	70
19.	Bensulfuron Methyl	---	50	50
20.	Benzpyrimoxan (NNI-1501)	--	240	240
21.	Bifenthrin	--	150	150
22.	Bispyribac sodium	--	50	50
23.	BITU [N-Tertiary butyl N'-isopropyl thio urea]	--	500	500
24.	Chlorantraniliprole	--	100	100
25.	Chlormequat Chloride	--	600	600
26.	Chlorsulfuron	--	50.4	50.4
27.	Cloquintocet Mexyl	--	90	90
28.	CMBC [N-chloromethyl-N-phenyl carbamoyl chloride]	--	180	180
29.	Diafenthiuron	--	360	360
30.	Difenoconazole	--	60	60
31.	DIPPT [2,6-diisopropyl-4-phenoxy phenyl thiourea]	---	150	150
32.	EMCA [4-chloro-3-ethyl-1-methyl-1H-pyrazole-5-carboxylic acid]	--	100	100
33.	Ethion	--	100	100
34.	Ethiprole	--	100	100
35.	Fenoxanil	--	60	60
36.	Fenpyroximate	--	120	120
37.	Flubendiamide	--	120	120
38.	Flutolanil	--	480	480

<b>S. No.</b>	<b>Product</b>	<b>Existing (TPA)</b>	<b>Additional (TPA)</b>	<b>Total (TPA)</b>
39.	Halosulfuron-Methyl	---	50	50
40.	Hexaconazole	--	50	50
41.	Isoprothiolane	--	1000	1000
42.	Meta isopropoxy aniline [MIPA]	--	600	600
43.	Metaflumizone	--	50	50
44.	Metsulfuron Methyl	--	50	50
45.	Nicosulfuron	---	50	50
46.	Orthosulfamuron	--	50	50
47.	Penoxsulam	--	50	50
48.	Phenyl (4,6-Dimethoxy Pyrimidine-2-yl) carbamate	--	60	60
49.	Pinoxaden	---	50	50
50.	Pretilachlor	--	120	120
51.	Pyflubumide	--	50	50
52.	Pymetrozine	--	150	150
53.	Pyraflufen-ethyl	--	24	24
54.	Pyrafluprole	--	24	24
55.	Pyraziflumid	---	50	50
56.	Pyrazosulfuron-Ethyl	---	100	100
57.	Pyrifluquinazon	--	24	24
58.	Pyriprole	--	50	50
59.	Quizalofop ethyl	--	100	100
60.	Rimsulfuron	---	50	50
61.	Sodium TrifluoromethaneSulfinate	--	180	180
62.	Sulfonamide [2-(Ethylsulfanyl) Imidazo[1,2-A]-Pyridine-3-Sulfonamide]	--	60	60
63.	Sulfosulfuron	--	50	50
64.	Tebufenpyrad	--	50	50
65.	Thiamethoxam	--	300	300
66.	Thiodicarb	--	50	50
67.	Tiadinil	--	240	240
68.	Tolfenpyrad	--	100	100

S. No.	Product	Existing (TPA)	Additional (TPA)	Total (TPA)
<b>Total 9 products to be manufactured from the total 65 products (3 permitted products dropped)</b>				4680
<b>Bio-Pesticides</b>				
1	Bio Pesticides	--	1170	1170
<b>R &amp; D Products</b>				
1	R&D Products	--	1.8	1.8
<b>Pesticide Formulation Products</b>				
1	Formulation (powder / Granules / Liquid)	--	1200	1200
<b>Total Production capacity</b>		<b>1900</b>	<b>5151.8</b>	<b>7051.8</b>

### List of By-Products

Sl. No	Name of the By-Product	Existing Quantity (TPA)	Additional Quantity (TPA)	Quantity (TPA)	Generated from the Product
1	Acetic acid	--	9.18	9.18	Acephate Diafenthionon
2	Ammonia	--	17.28	17.28	
3	Ammonium Sulphate	--	13.32	13.32	Acephate
4	Hydrogen Chloride (25%)	--	848.5	848.5	Benzpyrimoxan (NNI-1501)
5	Phosphoric acid (20%) / Di-ammonium Phosphate	--	1423.8 / 384.5	1423.8 / 384.5	
6	Potassium Bromide	--	43.20	43.20	Fenpyroximate
7	Potassium Chloride	--	361.4	361.4	Azoxystrobin, Bifenthrin, CloquintocetMexyl, Fenpyroximate, Imidacloprid, Quizalofop Ethyl, Thiamethoxam
8	Sodium Bromide complex	--	474.8	474.8	Ethion
9	TrimethylamineBromoethane solution	--	1037.2	1037.2	Profenofos

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' and 5 (f) 'Synthetic organic Chemicals' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry. Standard ToR for the project was granted on 24th May, 2019. Public hearing is exempted as the project is located in the notified Industrial area.

Existing land area is 5.46 Ha (54634.5 m<sup>2</sup>). No additional land will be used for proposed expansion. Industry has already developed greenbelt in an area of 35.14% i.e. 19197 m<sup>2</sup> out of total area of the project. The estimated project cost Rs.126.89 crores including existing investment of Rs.51.47 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 8.59 crores and Recurring cost (Operation and maintenance) will be about Rs.9.48 crores per annum. Total Employment will be 187 persons as direct & 210 persons indirect after expansion.

There are no National parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife corridors, rivers etc. within 10 km from the project site. Water bodies viz., Chandri Halla – 2 km in N direction; Pond near Dumansur Tanda– 6.1 km in NE direction; Pond near Hallikhed – 7.6 km in S direction; Mullamari Reservoir – 9.1 km in SW direction.

Total water requirement is 507m<sup>3</sup>/day of which fresh water requirement of 368.5m<sup>3</sup>/day and will be met from Private Tanker supply. Effluent of 153.5 m<sup>3</sup>/day quantity will be treated through Effluent Treatment plant–ZLD. The plant will be based on Zero Liquid Discharge system. Power requirement after expansion will be 1350 kVA including existing 900 kVA and will be met from Karnataka State Power Distribution Corporation Limited (KSPDCL). Existing unit has 2 nos. DG sets of 625 kVA & 250 kVA capacity, additionally 1 no. of 625 KVA DG set are used as standby, during power failure. Stack (height 10 m) will be provided as per CPCB norms to the proposed DG set.

Existing unit has 3 & 2 TPH coal fired boilers. Additionally 2 nos. of 5 TPH Coal fired boilers will be installed. Multi cyclone separator & bag filter with a stack of height of 30 m will be installed for controlling the Particulate emissions within statutory limit of 115 mg/Nm<sup>3</sup> for the proposed boilers.

Ambient air quality monitoring was carried out at 8 locations during March to May 2018 and the baseline data indicates that ranges of concentrations as: PM<sub>10</sub> (29-57µg/m<sup>3</sup>), PM<sub>2.5</sub> (13-26µg/m<sup>3</sup>), SO<sub>2</sub> (5-13µg/m<sup>3</sup>) and NO<sub>2</sub> (5-16µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.249 µg/m<sup>3</sup>, 4.683µg/m<sup>3</sup> and 2.68 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Ministry has issued environmental clearance vide letter dated 20<sup>th</sup> July, 2012 in favour of M/s Hyderabad Chemical Products Limited for existing products. Further EC has been transferred to M/s Nichino Chemical India Private Limited on 16<sup>th</sup> October, 2018. Monitoring report on compliance status of the EC conditions have been forwarded by Ministry's RO at Bangalore vide letter dated 19<sup>th</sup> June, 2018. The EAC found the same to be satisfactory.

The expenditure towards CER for the project would be 3% of the project cost as committed by the project proponent.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by



the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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

- (i). Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.
- (ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iii). Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv). National Emission Standards for Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13<sup>th</sup> June, 2011, as amended from time to time, shall be followed.
- (v). No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD<sub>50</sub><100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.
- (vi). National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21<sup>st</sup> July, 2010 and amended from time to time shall be followed. Fugitive emissions shall be controlled at 99.98% with effective chillers.

- (vii). No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (viii). To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (ix). Solvent management shall be carried out as follows:
  - (a) Reactor shall be connected to chilled brine condenser system.
  - (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
  - (c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
  - (d) Solvents shall be stored in a separate space specified with all safety measures.
  - (e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
  - (f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
  - (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (x). Total fresh water requirement shall not exceed 368.5 cum/day to be met from Private Tanker supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (xi). Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system
- (xii). Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xiv). The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.
- (xv). The company shall undertake waste minimization measures as below:-
  - a) Metering and control of quantities of active ingredients to minimize waste.
  - b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.

- c) Use of automated filling to minimize spillage.
  - d) Use of Close Feed system into batch reactors.
  - e) Venting equipment through vapour recovery system.
  - f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xvi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
  - (xvii). As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 3% of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
  - (xviii). The unit shall provide 85% employment to local peoples.
  - (xix). Safety and visual reality training shall be provided to employees.
  - (xx). For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
  - (xxi). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
  - (xxii). Occupational health surveillance and urological assessment of the workers shall be done on a regular basis and records maintained as per the Factories Act.
  - (xxiii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
  - (xxiv). Mitigating measures suggested during process safety and risk assessment studies shall be carried out.
  - (xxv). The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018. The said OM is available at the Ministry's website (PARIVESH portal i.e. [www.parivesh.nic.in](http://www.parivesh.nic.in)). The grant of Environmental Clearance is further subject to compliance of generic conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018.

### **Agenda No. 14.5.7**

#### **Greenfield Multi-Purpose Plant for Manufacturing of Various Technical Grade Pesticides and Intermediates at Plot No. D-3/5/3 GIDC Dahej Phase III Tal Vagara, Dist. Bharuch, Gujarat by M/s Shreeji Pesticides Pvt. Ltd.- Consideration of Environmental Clearance**

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

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

**14.5.7.1** During deliberations, the EAC noted the following: -

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

The details of proposed products are as under:-

<b>S. No.</b>	<b>Product Details</b>	<b>Existing Quantity</b>	<b>Proposed Quantity MTPA</b>	<b>Total Quantity</b>	<b>End Use</b>
<b>A</b>	<b>FUNGICIDES</b>				
1	AZOXYSTROBIN TECHNICAL	-	<b>11400</b>	<b>11400</b>	Fungicide
2	BOSCALID TECHNICAL				
3	CARBOXIN TECHNICAL				
4	CHLOROTHALONIL TECHNICAL				
5	DIFENOCONAZOLE TECHNICAL				
6	EPOXICONAZOLE TECHNICAL				
7	HEXACONAZOLE TECHNICAL				
8	KRESOXIM-METHYL TECHNICAL				
9	PENCONAZOLE TECHNICAL				

<b>S. No.</b>	<b>Product Details</b>	<b>Existing Quantity</b>	<b>Proposed Quantity MTPA</b>	<b>Total Quantity</b>	<b>End Use</b>
10	PICOXYSTROBIN TECHNICAL				
11	PROPICONAZOLE TECHNICAL				
12	PROTHIOCONAZOLE TECHNICAL				
13	PYRACLOSTROBIN TECHNICAL				
14	TEBUCONAZOLE TECHNICAL				
15	THIFLUZAMIDE TECHNICAL				
16	TRIFLOXYSTROBIN TECHNICAL				
<b>B</b>	<b>INSECTICIDE</b>				
1	CHLORANTRANILIPROLE TECHNICAL				Insecticide
2	CYANTRANILIPROLE TECHNICAL				
3	FLUBENDIAMIDE TECHNICAL				
4	NITENPYRAM	-	<b>3300</b>	<b>3300</b>	
5	PYMETROZINE TECHNICAL				
6	SPIRODICLOFEN				
7	SPIROTETRAMET				
8	THIAMETHOXAM TECHNCIAL				
<b>C</b>	<b>HERBICIDES</b>				
1	CARFENTRAZONE- ETHYL TECHNICAL				
2	CLETHODIM TECHNICAL	-	<b>12000</b>	<b>12000</b>	
3	CLODINAFOP-				

S. No.	Product Details	Existing Quantity	Proposed Quantity MTPA	Total Quantity	End Use	
	PROPARGYL TECHNICAL				<b>Herbicide</b>	
4	CLOMAZONE TECHNICAL					
5	CHLORANSULAM TECHNICAL					
6	DICLOSULAM TECHNICAL					
7	FENOXAPROP-P-ETHYL TECHNICAL					
8	FLUFENACET TECHNICAL					
9	FOMESAFEN TECHNICAL					
10	GLUFOSINATE-AMMONIUM TECHNICAL					
11	GLYPHOSATE					
12	MESOTRIONE TECHNICAL					
13	PENOXsulAM TECHNICAL					
14	PRETILACHLOR TECHNICAL					
15	PROPANIL TECHNICAL					
16	PROPAQUIZAFOP TECHNICAL					
17	SULFENTRAZONE TECHNICAL					
<b>D</b>	<b>Total (A+B+C)</b>		<b>26700</b>	<b>26700</b>		
<b>E</b>	<b>INTERMEDIATE</b>					
1	1,2,4-TRIAZOLE	-	<b>4400</b>	<b>4400</b>	Internal/Pesticide manufacturing units	
2	2-CHLORO-5-CHLOROMETHYLTHIAZOLE					

S. No.	Product Details	Existing Quantity	Proposed Quantity MTPA	Total Quantity	End Use
3	3-Methyl-N-Nitroimino-Perhydro-I, 3, 5-Oxadiazine				

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' and 5 (f) 'Synthetic organic Chemicals' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry. Standard ToR for the project was granted on 13th May, 2019. Public hearing is exempted as the project is located in the notified Industrial area.

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

There are no National parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife corridors, rivers etc. within 10 km from the project site. Total water requirement is 1787 m<sup>3</sup>/day of which fresh water requirement will be 1525 m<sup>3</sup>/day proposed to be met from Gujarat Industrial Development Corporation. Effluent of 610 KLD quantity will be treated through MEE, ATFD and ETP.

Power requirement for proposed project will be 7550 KWH proposed to be met from Dakshin Gujarat Vij Company Limited (DGVCL). 4 X 750 KWH of DG sets will be provided to be used as standby during power failure. Stack (height 20 m) will be provided as per CPCB norms to the proposed DG sets. Three NG/Coal/FO fired boiler of 15 TPH capacity each will be installed. ESP+Water Scrubber + Bag Filter with a stack height of 45 m will be provided for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup> for the proposed boilers.

Ambient air quality monitoring was carried out at 8 locations during 1<sup>st</sup> Dec 2018 to 28<sup>th</sup> Feb 2019 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (59.3 – 85.6 µg/m<sup>3</sup>), PM<sub>2.5</sub> (31.4 – 46.7 µg/m<sup>3</sup>), SO<sub>2</sub> (8.7 – 15.4 µg/m<sup>3</sup>) and NO<sub>2</sub> (13.1- 20.4 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.84µg/m<sup>3</sup>, 1.75 µg/m<sup>3</sup> and 5.67 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

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

**14.5.7.2** The EAC, after deliberations, sought certain information/inputs as under:-

- (i). Alternate site analysis needs to be conducted.
- (ii). Study report on acute poisoning in Gujarat
- (iii). Onsite emergency plan as per MSIHC Rules
- (iv). Details of other pesticide manufacturing unit located in the vicinity and Comment of SPCB on carrying capacity of the area needs to be submitted.
- (v). Plan for Corporate Environmental Responsibility.
- (vi). Effluent treatment mechanism with plan for Zero Liquid Discharge
- (vii). Revised water balance with details of total water and fresh water requirement. PP unloaded payment receipt in place of water approval. Kindly submit the correct documents as per Form 2.

The proposal was therefore, **deferred**.

### **Agenda No. 14.5.8**

**Expansion of Sugar Factory capacity from 7500 to 13,200 TCD, Distillery capacity from 45 to 145 KLPD,/ ENA-20 to100 KLPD and establishing 100 KLPD Ethanol and 24MW Co-generation Power Plant at Yeshwantnagar, Taluka-Karad, District Sataraby M/s Sahyadri Sahakari Sakhar Karkhana Limited - Consideration of Environmental Clearance**

**[IA/MH/IND2/118935/2018,IA-J-11011/114/2018-IA-II(I)]**

The project proponent and their accredited consultant Dr. Subbarao Environment Center, made a detailed presentation on the salient features of the project.

**14.5.8.1** During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for expansion of Sugar Factory from 7500 to 13,200 TCD, Distillery from 45 to 145 KLPD and establishing 24MW Co-generation Power Plant by M/s Sahyadri Sahakari Sakhar Karkhana Limited in an area of 1064500 sqm located at Village Yeshwantnagar, TalukaKarad, District Satara, Maharashtra.

Details of products are as under:

<b>S. No</b>	<b>Product</b>	<b>Existing</b>	<b>Proposed</b>	<b>Total</b>
1	Sugarcane Crushing Capacity	7500 TCD	5700 TCD	13200 TCD
2	Rectified Spirit/ENA/Ethanol	45 KLPD	100 KLPD	145 KLPD
3.	Co-generation Power Plant	---	24 MW	24 MW



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

Standard terms of reference (ToR) for the project has been issued by Ministry on 4<sup>th</sup> May, 2018. Public hearing for the project has been conducted by the State Pollution Control Board on 15<sup>th</sup> June, 2019 under the Chairmanship of Additional District Magistrate. It was reported that no issues were raised during public hearing. The people are in favor of the project and desired that the expansion should be implemented immediately for timely crushing of sugarcane in the command area.

Existing land area is 1064500 sqm. No additional land will be required for proposed expansion. Industry has developed green belt in an area of 268100 sqm covering 33% of total project. The estimated project cost is Rs 441.5139 crores including existing investment of Rs. 141.5139 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 54.9 crores and the recurring cost (operation and maintenance) will be about Rs. 5.1 crores per annum. Industry will provide employment for 50 persons directly and 100 persons indirectly after expansion.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site. Krishna river flows at a distance of 3 km in South-West direction.

Total water requirement is estimated to be 9780 cum/day, which includes fresh water requirement of 655 cum/day, proposed to be met from Krishna River. Total effluent generation from the unit is estimated to be 1417 cum/day (Sugar & Co-generation effluents- 545 cum/day, domestic effluent 202 cum/day and spentwash- 670 cum/day). Sugar effluent & co-generation effluent shall be treated in sugar ETP and treated effluent shall be used for irrigation. Spentwash generated from existing distillery unit is treated in existing composting plant and spentwash generated from proposed distillery unit shall be treated based on concentration and incineration technology. Domestic effluent shall be treated using Root Zone Technology and used for gardening/irrigation and. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement after expansion will be 17000 KVA and will be met from own proposed 24 MW co-generation power plant. Existing unit has 3 DG sets (2x160 KVA, 625 KVA). Existing unit has five bagasse fired boilers (2x50 TPH, 30 TPH, 2x20 TPH). After the proposed expansion the existing boilers shall be abandoned and two bagasse fired boilers of 120 TPH and one 35 TPH incinerator boiler with bagasse and concentrated spentwash as fuel will be installed. ESP with a stack of height of 80 m for co-generation boilers and 70 m height for incinerator boiler will be installed to control the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup>.

CO<sub>2</sub> generated during the process shall be recovered. Press mud shall be used in composting along with spentwash. Fly ash generated shall be used in composting and remaining shall be sold to brick manufacturer. ETP sludge generated shall be used as manure.

Ambient air quality monitoring was carried out at 9 locations during February - April 2018 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (47.3 - 59.6 µg/m<sup>3</sup>), PM<sub>2.5</sub> (24.6 -43.7 µg/m<sup>3</sup>), SO<sub>2</sub> (24.3 -41.3 µg/m<sup>3</sup>) and NO<sub>2</sub> (23.1 - 40.5 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.37 µg/m<sup>3</sup>, 14.28 µg/m<sup>3</sup> and 2.25 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards.

The sugar unit of 7500 TCD was commissioned in the year 2000 and the distillery was commissioned in the year 1987-88, at which time the environment clearance was not applicable and as such no earlier EC and compliance report of the EC.

**14.5.8.2** The EAC, during deliberations noted that the project details mentioned in the EIA report were not consistent with that presented during the meeting, and also not as per Appendix III of the EIA Notification, 2006. The EAC, after detailed deliberations **decided to return the proposal in its present form**, and has asked for clarification/inputs, in respect of the following:-

- (i) EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) The Committee noted that there are various deficiencies in Form 2 uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (iii) EAC noted that PP has not submitted adequately TOR compliance and PP needs to be resubmit the TOR Compliance adequately.
- (iv) Details of Schedule its conservation and I species, if any plan along with budgetary provisions and its approval needs to be submitted.
- (v) Clarity on the details of land available for the present project.
- (vi) Public hearing/consultation documents to be forwarded by the Member Secretary, SPCB.
- (vii) Revised water balance with reduction in fresh water requirement, and permission/MoU/NOC from concerned regulatory authority.
- (viii) Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (ix) Onsite emergency plan as per MSIHC Rules.

- (x) Plan for Corporate Environmental Responsibility.
- (xi) Consent to Operate for the present Industrial operations.
- (xii) Baseline data monitoring has not done in proper season.
- (xiii) Details of CTO and its approval needs to be submitted.

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

### **Agenda No. 14.5.9**

**Expansion in Molasses based Distillery (100 KLPD to 250 KLPD) & Co-generation power plant (3 MW to 10 MW) along with installation of 100 KLPD Grain based distillery & 6 KLPD Malt spirits plant at Mansurpur, Tehsil Khatauli, District Muzaffarnagar, Khatauli, (Uttar Pradesh) by M/s Sir Shadilal Distillery and Chemical Works (A unit of SVP Industries Limited) – Consideration of Environmental Clearance**

**[IA/UP/IND2/119671/2005, IA-J-11011/436/2005-IA-II(I)]**

The project proponent and their accredited consultant M/s JM Enviro Net Pvt. Ltd., made a detailed presentation on the salient features of the project.

**14.5.9.1** During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for expansion of Molasses based Distillery from 100 KLPD to 250 KLPD & Co-generation power plant from 3 MW to 10 MW along with installation of 100 KLPD Grain based distillery & 6 KLPD Malt spirits plant by M/s Sir Shadilal distillery and Chemical Works (A division of SVP Industries Limited) in an area of 26.3 ha located at Village Mansurpur, Tehsil Khatauli, District Muzaffarnagar, Uttar Pradesh.

The details of proposed products are as under:-

<b>Units</b>	<b>Existing</b>	<b>Additional</b>	<b>Total</b>	<b>Product</b>	<b>By product</b>
Molasses based Distillery Plant	100 KLPD	150 KLPD	250 KLPD	Ethanol/Extra Neutral Alcohol (ENA), Rectified Spirit (RS) & denatured spirit	CO <sub>2</sub> & Bio-compost
Grain based Distillery Plant	---	100 KLPD	100 KLPD	Spirit (RS) & denatured spirit	CO <sub>2</sub> & DDGS
Co-Generation Power Plant	3 MW	7 MW	10 MW	Power	--
Malt Spirit Plant	---	6 KLPD	6 KLPD	Malt Spirit	CO <sub>2</sub> & DDGS

Standard ToR has been issued by Ministry vide letter dated 17<sup>th</sup> November, 2018. Public hearing for the project has been conducted by the Uttar Pradesh State Pollution Control Board on 18<sup>th</sup> July, 2019 under the Chairmanship of Additional District Magistrate. The main issues raised during the public hearing are related to air and water pollution, construction of roads, employment, press mud, etc. The Committee found the action plan submitted by the project proponent and budgetary provisions satisfactory and addressing the concerns raised during public consultation/hearing.

Total land area available for the project is 263000 sqm (26.30 ha) [Existing -145600 sqm. (14.56 ha), additional -117400 sqm. (11.74 ha)]. Industry will develop greenbelt in an area of 90000 sqm. (9 ha) covering 33% of total project area. The estimated project cost is Rs. 195 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 52 crores and the recurring cost (operation and maintenance) will be about Rs. 5 crores per annum. The project will provide employment during operation phase to 750 persons (250 persons on regular basis and 500 persons on contract basis). Industry proposes to allocate Rs. 1.46 crores towards Corporate Environment Responsibility. The company increased CER budget from 0.75% to 2.5% and the CER activities have been revised. The budget allocated for CER activities has been proposed to increase from Rs.1.46 Crores to Rs. 5 Crores to be spent in five years.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the plant site. Kali nadi flows at a distance of 3 km in West direction and Nagan nadi flows at a distance of 9 km in SE direction.

The existing fresh water requirement is 1525 cum/day (1000 cum/day for distillery, 525 cum/day for bottling plant). Additional fresh water requirement is estimated to be 2048 cum/day (754 cum/day for grain based distillery, 1200 cum/day for molasses based distillery & 94 cum/day for malt spirit plant), and thus total fresh water requirement after expansion was estimated to be 3573 cum/day, proposed to be met from groundwater. Necessary permissions in this regard has been obtained from CGWA for exiting unit and application has been submitted for the additional quantity.

It was now informed that the fresh water requirement shall be further reduced from 3573 KLPD to 2696 KLPD. After reduction, fresh water requirement for distillery will be 6 KL/KL (2136 KLPD for 250 KLPD Molasses based Distillery, 100 KLPD Grain Based Distillery & 6 KLPD Malt Spirits Plant). Fresh water requirement for Bottling plant (525 KLPD) & Domestic water (35 KLPD) shall remain the same. Accordingly, total fresh water requirement after expansion will be 2696 cum/day.

Effluent of 3664 cum/day will be treated through Effluent Treatment Plant (Anaerobic, aerobic, filters and RO plant) of capacity 4000 KLPD, and treated water shall be reused. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge. Total power requirement after expansion will be 8.6 MW including existing power requirement of 2.3 MW which will be met from 10 MW Co-Generation Power Plant. Existing unit has two DG sets each of 380 KVA capacity, additionally 1000 KVA D.G. set will

be installed. DG sets are used as standby during power failure. Stack height of 8 m will be provided as per CPCB norms to the proposed DG set.

Existing unit has 20 TPH capacity biomass fired boiler. Additionally, 56 TPH concentrated spent wash and biomass/coal fired boiler will be installed. Electrostatic Precipitator along with a stack of height of 42 m is already installed and an additional ESP along with stack height of 82 m will be installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed boiler.

Ambient air quality monitoring was carried out at 8 locations during October -December, 2018 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (69.22 to 96.72 µg/m<sup>3</sup>), PM<sub>2.5</sub> (32.05 to 56.28 µg/m<sup>3</sup>), SO<sub>2</sub> (7.5 to 16.2 µg/m<sup>3</sup>) and NO<sub>2</sub> (14.6 to 33.5 µg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.39 µg/m<sup>3</sup>, 0.056 µg/m<sup>3</sup>, 2.62 µg/m<sup>3</sup>, 2.94 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The Committee found the AAQ monitoring data to be satisfactory and noted that the resultant concentrations are within the National AAQ Standards.

Concentrated spent wash is presently used for bio-composting. It was informed that the existing unit shall also be taken to incineration route within one year and bio-composting shall be stopped. Spent wash generated during Molasses operation, will be concentrated in Multi-effect evaporator and then used as fuel in the incineration boiler. Yeast sludge is being/will be sent to sludge drying beds to be used as manure. Solid waste from the Grain based operations (DDGS) shall be used as cattle feed. Yeast sludge will be added to the wet cake. Fly ash generated from the boiler is being / will be utilized for brick manufacturing/ soil amendment. Used oil & grease generated from plant machinery/gear boxes as hazardous waste are being/will be sold out to the CPCB authorized recyclers.

The Ministry had issued EC earlier vide letter no. J-11011/436/2005-IA II (I) dated 3<sup>rd</sup> April, 2006 as amended on 10<sup>th</sup> July, 2018 to the project 'Expansion of Molasses based distillery plant from 40 KLPD to 100 KLPD along with 3 MW Co-generation Power Plant' in favour of M/s Sir Shadilal distillery and Chemical Works (A division of SVP Industries Limited). Certified copy of the latest monitoring report of the Regional Office of MoEFCC, Lucknow has been obtained vide letter no. IV/Env/UP/Ind/-78/195/2006 and date of site visit was 08.08.2019 and reply of partial non-compliances mentioned in Certified EC compliance report have been submitted to RO, MoEFCC, Lucknow. The Committee found the compliance report to be satisfactory.

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

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public hearing

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. Additional information submitted by the project has been found to be in order.

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

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

- (i) Grain unfit for human consumption shall only be used for industrial operations.
- (ii) Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board as required.
- (iii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. The reuse of treated effluent in gardening/ horticulture shall not be considered as ZLD.
- (iv) Concentrated spent wash shall be incinerated and not to be released in open space. The existing unit shall install incineration boiler within one year to ensure complete incineration in place of bio-composting.
- (v) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (vi) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (vii) Odour shall be prevented at the source and effective odour management scheme shall be implemented.

- (viii) Total fresh water requirement shall not exceed 2696 cum/day cum/day, proposed to met from ground water. Prior permission shall be obtained from the concerned regulatory authority/CGWA.
- (ix) 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.
- (x) 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.
- (xi) 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.
- (xii) 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.
- (xiii) 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.
- (xiv) All commitments made during public hearing shall be satisfactorily implemented.
- (xv) As proposed Rs. 5 Crores shall be allocated for Corporate Environment Responsibility (CER) and action plan prepared and submitted shall be completed in time bound manner.
- (xvi) For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xvii) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.

- (xviii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xix) There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.
- (xx) Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xxi) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises. For continuous discharge the unit shall install pH, TSS, BOD,COD and flow meter at the ETP outlet.
- (xxii) CO<sub>2</sub> generated from the process shall be bottled/made solid ice and sold to authorized vendors.
- (xxiii) The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018. The said OM is available at the Ministry's website (PARIVESH portal i.e. www.parivesh.nic.in). The grant of Environmental Clearance is further subject to compliance of generic conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018.

#### **Agenda No. 14.5.10**

#### **Onshore Oil & Gas exploration & development drilling and production in NINGRU OIL & GAS FIELD in Changlang and Namsai Districts under Ningru PML by M/s OIL India Ltd. – Consideration of Environmental Clearance**

**[IA/AR/IND2/123232/2018, J-11011/116/2018-IA-II(I) ]**

The project proponent and the accredited consultant M/s ERM India Pvt. Ltd. made a detailed presentation on the salient features of the project.

**14.5.10.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project Onshore Oil & Gas exploration & development drilling and production in 33 wells in Ningru Oil & Gas Field in Changlang and Namsai Districts under Ningru PML in the State of Arunachal Pradesh by M/s Oil India Ltd.

#### **Details of total 33 wells proposed to drill in Ningru PML block**



SI No	Name of Drilling Location	Existing Well Plinth and land area	FC Details	Remarks
1	KUP	KUP & KUL: 7.111 ha in Chnaglang District	Letter No 8-556/89-FC dated 8 <sup>th</sup> July, 1991	Stage-II Final FC
2	KUAU			
3	KUAV			
4	KUAX			
5	Loc-G			
6	KUL			
7	KUAW			
8	Loc-E			
9	Loc-F			
10	KUAT			
11	KUC & Production Installation No.3	KUC : 3.96 ha in Changlang district ( earlier known as Tirap District)	Letter No 8-246/86-FC dated 18 <sup>th</sup> February, 1987 & NFD/62/83/520-65 13 <sup>th</sup> March, 1987	Stage-II Final FC for two Locations- <b>KUC(3.96 ha)</b> & <b>KHY(1.66 ha)</b> , where location KHY is in Kharsang block of Ge-Enpro
12	KUAG	Stage-I FC for 29.32 ha in Changlang District	No 8-95/92-FC dtd 20 <sup>th</sup> August, 1992	<b>Stage-I FC-</b> No drilling activities/ construction activities will be taken up till Stage-II Final FC is obtained
13	KUAJ	Stage-I FC for 29.32 ha in Changlang District	No 8-95/92-FC dtd 20 <sup>th</sup> August, 1992	<b>Stage-I FC-</b> No drilling activities/ construction activities will be taken up till Stage-II Final FC is obtained
14	KUZ			
15	KUX			
16	KUR & Production Installation No-1			
17	KUAC			
18	KUAE			
19	KUO			
20	KMC-2, KMC-13 &	Land already diverted for		

21	Production Installation no-2	existing Well Plinths (KUC, KMC-5,		Land diverted prior to enactment of FC Act, 1980	FC not required as there is no requirement of additional land
22	KMC-5	KMC-6,	KMC-7,		
23	KMC-6	KMC-8,	KMC-9,		
24	KMC-7	KMC-10,			
25	KMC-8	KMC-11,			
26	KMC-9	KMC-12,			
27	KMC-10	KMC-13 &			
28	KMC-11	KMC-14) involving			
29	KMC-12	34.508 ha forest			
30	KMC-14	lands			
31	KUAZ				
32	KUAR	Existing drilling plinths of KMC-1 & KMC-4	Non-Forest Land	FC not Required	

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, 2006, and requires appraisal at central level by sectoral Expert Appraisal Committee (EAC).

Standard terms of reference for the project was issued by the Ministry on 4<sup>th</sup> May, 2018. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 18<sup>th</sup> June, 2019 at Namsai District under the Chairmanship of Additional District Magistrate and 19<sup>th</sup> June, 2019 at Changlang District Chairmanship of Additional District Magistrate. The main issues raised during the public hearing are related to Employment for locals, Infrastructure development related to education, healthcare, roads in the area through CSR activities, Pollution control. The Committee found the response, action plan and budgetary provision submitted by the project proponent to be satisfactory and addressing the concerns raised during public hearing/consultation.

Land required for the project is 109.369 ha. The estimated project cost is Rs. 1431.90 crores and recurring cost (operation and maintenance) earmarked towards environmental pollution control measures is Rs. 0.79 crore per annum. Total employment will be for approximately 60 persons directly & 120 persons indirectly.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. is within 10 km of the well locations. Kumchairiver is flowing at a distance of 0.5 km in east-west direction.

Total water requirement is 50 m<sup>3</sup>/day of which fresh water requirement of 50 m<sup>3</sup>/day will be met from tube well. Effluent of 24.8 m<sup>3</sup>/day quantity will be treated through effluent treatment plant and septic tank soak pit. Power requirement for drilling is 2500 kVA, sufficed through

Diesel Generator Sets. One 1250 KVA DG set is will kept as standby. Stack (height 7 m) will be provided as per CPCB norms to the proposed DG sets.

Ambient air quality monitoring was carried out at 8 locations during October 2018-January 2019 and the average baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (49.30-85.85 µg/m<sup>3</sup>), PM<sub>2.5</sub> (21.76-26.05 µg/m<sup>3</sup>), SO<sub>2</sub>(7.31-9.87 µg/m<sup>3</sup>) and NO<sub>2</sub> (22.25-24.35 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub> are with NAAQ standards. The Committee found the AAQ monitoring data and incremental GLC due to the project satisfactory and the resultant concentrations are within the National AAQ Standards.

It was informed that two no drilling locations (Location NMA and Loc-V) has been dropped from the proposal, and it is proposed to drill total 33 wells in place of 35 as per original proposal. The plan for construction of three Production installations & associated Pipeline facilities remains un-changed as per original application. None of the drilling locations/Pipeline facilities/ Production installations are falling either inside PAs or within ESZ area, hence no approval required from SC-NBWL for the said proposal. It was also informed that no activities will be taken up (drilling activities or construction of Production Installation or laying of Pipeline facilities) till Stage-II FCs are obtained against the Stage-I FC granted on 20<sup>th</sup> August, 1992.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. The Committee observed that if ESZ is not notified for the protected area, the project proponent needs to take recommendations from SC NBWL, if the drilling site is located within 10 km of the drilling location.

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. Additional information submitted by the project has been found to be in order.

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

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

- (i) The environmental clearance is subject to obtaining prior clearance from the wildlife angle, including clearance from the Standing Committee of the National Board for Wildlife, as applicable. Grant of environmental clearance does not necessarily imply that Wildlife Clearance shall be granted to the project and that their proposals for Wildlife Clearance will be considered by the respective authorities on their merits and decision taken.
- (ii) Drilling in forest areas shall be started after getting prior permission under the Forest (Conservation) Act, 1980.
- (iii) Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.
- (iv) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (v) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (vi) Ambient air quality shall be monitored at the nearest human settlements to ensure conformity with the National Ambient Air Quality Emission Standards issued by the Ministry vide GSRNo.826(E) dated 16<sup>th</sup>November, 2009 for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, CH<sub>4</sub>, HC, Non-methane HC etc.
- (vii) During exploration, production, storage and handling, the fugitive emissions of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.
- (viii) The project proponent also to ensure trapping/storing of the CO<sub>2</sub> generated, if any, during the process and handling.
- (ix) Approach road shall be made pucca to minimize generation of suspended dust.

- (x) 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.
- (xi) Total fresh water requirement shall not exceed 40 cum/day/well proposed to be met through tankers. Mobile ETP shall be installed to treat the waste water and efforts shall be made for gradual reduction in daily intake of water (to reduce fresh water foot print ) by suitable mechanism or by putting RO facility in place coupled with onsite mobile ETP. Size of the waste shall be equal to the hole volume+ volume of drill cutting and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.
- (xii) 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.
- (xiii) 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 30<sup>th</sup> August, 2005.
- (xiv) 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.
- (xv) 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.
- (xvi) The company shall develop a contingency plan for H<sub>2</sub>S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H<sub>2</sub>S detectors in locations of high risk of exposure along with self containing breathing apparatus.
- (xvii) Blow Out Preventer system shall be installed to prevent well blowouts during drilling operations.
- (xviii) Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.

- (xix) After completion of drilling process, suitable measures shall be taken for well plugging and secured enclosures, and drilling site shall be restored to the original condition. In case of the hydrocarbon not found economically viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- (xx) All the commitments made to the public during public consultation/hearing shall be satisfactorily implemented.
- (xxi) At least Rs 5 crore shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- (xxii) Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- (xxiii) 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.
- (xxiv) The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018. The said OM is available at the Ministry's website (PARIVESH portal i.e. www.parivesh.nic.in). The grant of Environmental Clearance is further subject to compliance of generic conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018.

## **14.6: Any Other**

### **Agenda No. 14.6.1**

**Grain based distillery unit of 30 KLPD capacity to manufacture ENA located at village Malinagar, Tahsil Maishiras in District Solapur, Maharashtra by M/s Saswad Mali Sugar Factory Ltd.- Consideration of amendment in Environmental Clearance.**

**[IA/MH/IND2/91678/2009, J-11011/92/2009-IA II (I)]**

**14.6.1.1** The proposal is for amendment in the environmental clearance (EC) granted by the Ministry vide letter dated 13<sup>th</sup> April, 2009 for 30 KLPD Molasses based Distillery of M/s Saswad Mali Sugar Factory Ltd.(SMSFL) located at Village Malinagar, Tehsil Malshiras, District Solapur (Maharashtra).

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

<b>S. No.</b>	<b>Para of EC issued by MoEF&amp;CC</b>	<b>Details as per EC</b>	<b>To be Revised /Read as</b>	<b>Justification/ reasons</b>
1.	Page No. 1, Paragraph - 2	M/s Saswad Mali Sugar Factory Ltd. Proposed for Grain based distillery unit to manufacture 30 KLPD of Ethanol.	M/s Saswad Mali Sugar Factory Ltd. Proposed for Grains/ <u>Molasses/sugarcane juice/ based (Multi-feed)</u> distillery unit to manufacture 30 KLPD of Ethanol.	1. Presently, due to unavailability of grains in command area the distillery is in shut down mode  2. Industry has participated in National Bio-fuel Policy. Accordingly, they want to operate existing grain distillery setup for production of Ethanol using molasses/sugarcane juice as raw material.
2.	Page No.1, Paragraph -2	Total cost of the project is Rs. 26.68 Crore	Total cost of the project is Rs. <u>36.68 Crore</u>	Total cost will be increased for installation of MEE and dryer for spentwash treatment.
3.	Page No.1, <u>Paragraph</u> -3	Spentwash (100 m <sup>3</sup> /d) will be centrifuged in to 35% solids & 65% of water. The MEE will remove the thin stillage and concentrating the total solids fraction to about 34% w/w solids. The condensate from the MEE will be recycled. The wet cake and concentrate from MEE will be mixed	<u>While using grain</u> Spentwash (100 m <sup>3</sup> /d) will be centrifuged in to 35% solids & 65% of water. The MEE will remove the thin stillage and concentrating the total solids fraction to about 34% w/w solids. The condensate from the MEE will be recycled. The wet cake and concentrate from MEE will be mixed to produce Dry Wet	While using molasses/sugarcane juice/ grains as raw material ZLD will be achieved for spentwash generated Here there will be no increase in pollution load as specified in earlier EC.

		<p>to produce Dry Wet Grain Solubles (DWGS). The effluent generated from the proposed distillery after treatment will be recycled and will be used for irrigation. The yeast sludge along with the wet cake and converted into DWGS/DDGS, will be either burnt in the boiler along with bagasse or sold as a cattle feed to the farmers.</p>	<p>Grain Solubles (DWGS). The effluent generated from the proposed distillery after treatment will be recycled and will be used for irrigation. The yeast sludge along with the wet cake and converted into DWGS/DDGS, will be either burnt in the boiler along with bagasse or sold as a cattle feed to the farmer sand <u>while using molasses/sugarcane juice raw Spentwash shall be evaporated &amp; concentrated in MEE. MEE condensate will be recycled in process. Further, conc. Spentwash 78m<sup>3</sup>/d will be dried in dryer to form powder which shall be sold as manure and ZLD will be achieved.</u></p>	
4.	Page No.2 A. Specific Conditions No. (i)	<p>The effluent generation shall not exceed 3-5 KL/KL of alcohol produced. The stillage from the fermented wash shall be evaporated in the Five Effect Evaporator. The condensate from evaporator shall be recycled. The</p>	<p>The effluent generation shall not exceed 3-5 KL/KL of alcohol produced. The stillage from the fermented wash shall be evaporated in the Five Effect Evaporator. The condensate from evaporator shall be recycled. The wet cake shall be mixed with concentrated</p>	<p>LD will be achieved for rains/ molasses/sugarcane based operations.</p>



		wet cake shall be mixed with concentrated syrup from the MEE to produce Distillers Wet Grain Solubles (DWGS). The DWGS shall be burnt in the boiler or sold as cattle feed.	syrup from the MEE to produce Distillers Wet Grain Solubles (DWGS). The DWGS shall be burnt in the boiler or sold as cattle feed. <u>The spentwash generated while using molasses/ sugarcane juice shall be evaporated and the condensate from evaporator shall be recycled . The concentrated spentwash shall be dried in dryer to form powder as and shall be used as manure thereby achieving ZLD.</u>	
5.	Page No.2 A Specific Conditions	In EC there is no mention of distillery operational days.	The grain/ molasses/ sugarcane juice based distillery will be operated for 330 days.	As ZLD will be achieved the distillery will be in operations for 330 days.

**14.6.1.3** The EAC, after detailed deliberations, insisted for **an impact assessment study for the proposed project** and certified report on the compliance status of the existing EC conditions from the Regional Office of the Ministry.

The present proposal was accordingly **deferred** for the needful as suggested by the EAC.

### **Agenda No. 14.6.2**

**Expansion of Dye Intermediates manufacturing unit at plot no. 166, 169 at Village Indrad, Tehsil Kadi, District Mehsana, Gujarat by M/s Akshar Chem India Ltd.- Consideration of amendment in Environmental Clearance.**

**[IA/GJ/IND2/27624/2014, J-11011/552/2010-IA.II(I)]**

**14.6.2.1** The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated 17-10-2016 & 01-08-2017 [File No. J-11011/552/2010-IA II (I)] for

the Project Dyes Intermediate Manufacturing unit (Synthetic Organic Chemicals – Schedule 5(f) – Cat A) Located at S. No. 166,169,154/1,154/2,155,159,162,161,163,157,158,160,165, Village – Indrad, Ta – Kadi, Dist – Gandhinagar, Gujarat in favour of M/s Akshar Chem (India) Ltd.

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

<b>S. No.</b>	<b>Para of EC issued by MoEF &amp; CC</b>	<b>Details as per the EC</b>	<b>To be Revised as</b>	<b>Justification / Reason</b>
1	3.0 EC dated 17 <sup>th</sup> Oct 2016	Waste Water generation will increase from 171 M <sup>3</sup> to <b>257 M<sup>3</sup></b> .	Waste Water generation will increase from 171 M <sup>3</sup> to <b>703 M<sup>3</sup></b> . It is a Typographic Error and nothing else.	It is a Typographic Error and nothing else.
2	3.0 EC dated 17 <sup>th</sup> Oct 2016	Concentrated Effluent will be treated in in-house Spray drier	Concentrated Effluent will be sent to common spray drying facility in the nearby in the name of M/s. Chhatral Environment management System Pvt. Ltd. With the help of Tanker Service.	a) Basically the Cost factor is there which affects the viability of the Project; In-house treatment cost (Spray Drier) is (Approximately @ Rs. 5/- Per Kg) much higher than to send the Effluent to nearest common spray drier M/s. Chhatral Environment Management System P. Ltd. (Approximately @ Rs.2.50/- Per Kg) b) Also handling the operation of Spray Drier within the Facility is much Cumbersome

				than sending it to Common Spray Drier. The Environment issue is also there. It is always better for putting all Industrial area effluent to be treated in one common Facility rather than individual spread Industry's Effluent. We hope Government is also appraising this type strategy.
3.	3.b.1 EC dated 1 <sup>st</sup> August 2017	Total Land details of Survey No. 154/1, 154/2, 155, 159, 162, 163, 166, 169 in a total area of 40685 M <sup>2</sup>	Total Land details of Survey No. of Survey No. 157, 158, 160, 165, 154/1, 154/2, 155, 159, 162, 163, 166, 169 and finally the area will be 60031 M <sup>2</sup> .	Clarification is shown in below table.
4.	Specific conditions A. VII. EC dated 17 <sup>th</sup> Oct 2016	Effluent generation shall not exceed 257 M <sup>3</sup> /day.  Effluent will be treated in in-house ETP including RO. MEE and spray Drier for concentrated effluent to achieve Zero liquid Discharge.	Effluent generation shall not exceed 703 M <sup>3</sup> /day.  Effluent will be treated in in-house ETP including RO. MEE and concentrated effluent to be sent to common spray drying facility in the nearby in the name of M/s. Chhatral Environment management System Pvt. Ltd. With the help of SPCB registered	It is a Typographic Error and nothing else.  a) Basically the Cost factor is there which affects the viability of the Project; In-house treatment cost (Spray Drier) is (Approximately @ Rs. 5/- Per Kg) much higher than to send the Effluent to nearest common

		Domestic Sewage should be treated in STP	Tanker Service operated by GPS system.  Domestic Sewage should be treated in STP	spray drier M/s. Chhatral Environment Management System P. Ltd.(Approximately @ Rs.2.50/- Per Kg) b)Also handling the operation of Spray Drier within the Facility is much Cumbersome than sending it to Common Spray Drier. The Environment issue is also there. It is always better for putting all Industrial area effluent to be treated in one common Facility rather than individual spread Industry's Effluent. We hope Government is also appraising this type strategy.
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**14.6.2.3** The EAC, after deliberations and in view of no polluting sources proposed in the additional area, **recommended** for amendment in EC dated 26<sup>th</sup> February 2019, as proposed by the project proponent. The all other terms and conditions mentioned in the EC dated shall remain unchanged.

### **Day 3 (November 22, 2019)**

#### **14.7 Consideration of Environmental Clearance**

##### **Agenda No. 14.7.1**

**Expansion of Technical Grade Pesticides at SP1-5, RIICO Industrial Area, Sotanala, Behror' District Alwar' Rajasthan by M/s Ambey Laboratories Pvt. Ltd. - Consideration of Environmental Clearance**

**[IA/RJ/IND2/106343/2016, J-11011/296/2013-IA II (I)]**

The project proponent and their consultant M/s EQMS India Pvt Ltd, made a detailed presentation on the salient features of the project.

**14.7.1.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for Expansion technical grade pesticides from 3085 TPA to 14885 TPA at SP1-5, RIICO Industrial Area, Sotanala, Behror District Alwar, Rajasthan by M/s Ambey Laboratories Pvt. Ltd.

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

Terms of Reference (ToR) for the project was granted on 11<sup>th</sup> December, 2014 and amended for including additional products on 6<sup>th</sup> June, 2017. The EIA/EMP report submitted by the project proponent is after completion of the validity period hiding the details of the ToR.

**14.7.1.2** The EAC, after deliberations, took serious note on the malafide intention of the consultant to hide details of the project and guiding the project proponent in wrong direction. The Committee, has warned the consultant M/s EQMS India Pvt. Ltd. not to hide the facts before the Ministry/EAC. The Committee noted that the validity of the ToR has already been completed and proposal has been submitted thereafter. The Committee, observed that the project details mentioned in the EIA report were not consistent with ToR and Appendix III of the EIA Notification, 2006. **The Committee has suggested the project proponent to apply afresh for ToR in Form 1.**

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

**Agenda No. 14.7.2**

**Expansion of pesticides technical products at plot no. E-442, 443 & 444, RIICO Industrial area, Chopanki, Taluka BHIWADI, District Alwar (Rajasthan) by M/s Insecticides India Limited - Consideration of Environmental Clearance**

**[IA/RJ/IND2/116690/2019, J-11011/253/2005-IA II(I), J-11011/63/2009-IA II (I)]**

The project proponent and their consultant M/s Aqua-Air Environmental Engineers Pvt. Ltd. (with stay order from High Court of Gujarat), made a detailed presentation on the salient features of the project.

**14.7.2.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for Expansion of Pesticides Technical Products from 1800 TPA to 9350 TPA by M/s Insecticides India Limited located at Plot No. E-442, 443 & 444, RIICO Industrial Area, Chopanki, Taluka Bhiwadi, District Alwar, Rajasthan.

Details of products are as under:

S. No.	Product Name	Category	Existing	Additional	Total	CAS Nos.	LD <sub>50</sub> (mg/kg)	
			Capacity (Mt/ Annum)				Oral	Dermal
<b>A. PESTICIDE TECHNICAL</b>								
<b>1.</b>	<b>Phenoxy Herbicides</b>	5(b)	20	280	300			
	Quizalofop	5(b)				76578-12-6	1670	>5000
	2,4-D Ethyl Ester	5(b)				533-23-3	>2000	>2000
	2,4-D sodium salt	5(b)				2702-72-9;	>2000	>2000
	Clodinafoppropargyl	5(b)				114420-56-3	1392	>2000
<b>2.</b>	<b>Imidazolinone Herbicide</b>	5(b)	50	0	50			
	Imazethapyr	5(b)				81335-77-5	5000	>2000
<b>3.</b>	<b>Sulfonyl Urea Herbicides</b>	5(b)	20	380	400			
	Metsulfuron methyl	5(b)				744223-64-6	>5000	>2000
	Sulfosulfuron	5(b)				141776-32-1	>5000	>5000
	Tribenuron methyl	5(b)				101200-48-0	>5000	>5000
	Flazasulfuron	5(b)				104040-78-0	>5000	>2000
	Iodosulfuron	5(b)				144550-36-7	2678	>2000
	Nicosulfuron	5(b)				111991-09-4	>5000	>2000
	Rimsulfuron	5(b)				122931-48-0	>5000	>2000

<b>4.</b>	<b>Organochlorine Herbicides</b>	5(b)	200	0	200			
	Butachlore	5(b)				23184-66-9	2000	>13000
	Pretilachlor	5(b)				51218-49-6	6099	>3100
<b>5.</b>	<b>Other Herbicides</b>	5(b)	600	200	800			
	Oxyfluorfen	5(b)				42874-03-3	>5000	>10000
	Paraquate	5(b)				1910-42-5	129	>911
	Diclofop methyl	5(b)				51338-27-3	563-693	>2000
	Diflufenican	5(b)				83164-33-4	>2000	>2000
	Sulcotrione	5(b)				99105-77-8	>5000	>4000
	Benfuresate	5(b)				68505-69-1	3536	>5000
	Glufosinate ammonium	5(b)				77182-82-2	2000	>4000
	Penoxsulam	5(b)				219714-96-2	>5000	>5000
	Pinoxaden	5(b)				243973-20-8	>5000	>5000
	Propanil	5(b)				709-98-8	367	4830
	Tembotrione	5(b)				335104-84-2	>2000	>5000
<b>6.</b>	<b>Carbamate Insecticide</b>	5(b)	10	90	100			
	Thiodicarb	5(b)				59669-26-0	66	>2000
<b>7.</b>	<b>Neo Nicotinoid Insecticides</b>	5(b)	100	2900	3000			
	Acetamiprid	5(b)				135410-20-7	217	>2000
	Imidacloprid	5(b)				138261-41-3	450	>5000
	Thiacloprid	5(b)				111988-49-9	621	>2000
	Thiamethoxam	5(b)				153719-23-4	1563	>2000
	Dinotefuran	5(b)				165252-70-0	2804	>2000
	Clothianidin	5(b)				210880-92-5	>5000	>2000
	Imidaclothiz	5(b)				105843-	>2000	>2000

						36-5		
<b>8.</b>	<b>Organophosphorus Insecticides</b>	5(b)	300	0	300			
	Chlorpyrifos	5(b)				2921-88-2	135	>5000
<b>9.</b>	<b>Pyrethroid Insecticides</b>	5(b)	150	2850	3000			
	Allethrin	5(b)				584-79-2	2150	2660
	Alpha cypermethrin	5(b)				67375-30-8	57	>2000
	Cyfluthrin	5(b)				68359-37-5	500	>5000
	Cypermethrin	5(b)				52315-07-8	250-4150	>4920
	Delta cypermethrin	5(b)				52918-63-5	1965	>2000
	d-transallethrin	5(b)				28434-00-6	370	1200
	Lambda cyhalothrin	5(b)				91465-08-6	79	632
	Permethrin	5(b)				52645-53-1	430-4000	>2500
	Prallethrin	5(b)				23031-36-9	640	>5000
	Transfluthrin	5(b)				118712-89-3	>5000	>5000
	Bifenthrin	5(b)				82657-04-3	54.5	>2000
	Metofluthrin	5(b)				240494-70-6	>5000	>5000
<b>10.</b>	<b>Other Insecticides</b>	5(b)	100	200	300			
	Fipronil	5(b)				120068-37-3	97	>2000
	Buprofezin	5(b)				953030-84-7	2198	>5000
	Cartap hydrochloride	5(b)				15263-52-2	345	>1000
	Metalaxyl	5(b)				57837-19-1	633	>3100
	Novaluron	5(b)				116714-46-6	>5000	>2000
	Ethiprole	5(b)				181587-01-9	NA	NA
	Thiocyclam hydrogen oxalate	5(b)				31895-22-4	33900	NA
	Pymetrozine	5(b)				123312-89-0	5820	>2000



	Fenpyroximate	5(b)				134098-61-6	480	>2000
	Spirotetramat	5(b)				203313-25-1	>2000	>4000
	Flonicamid	5(b)				158062-67-0	>2000	>2000
	Flubendiamide	5(b)				272451-65-7	>2000	>2000
<b>11.</b>	<b>Conazole Fungicides</b>	5(b)	75	225	300			
	Difenoconazole	5(b)				119446-68-3	1453	>2010
	Hexaconazole	5(b)				79983-71-4	2189	>2000
	Ipconazole	5(b)				125225-28-7	888	>2000
	Paclobutrazol	5(b)				76738-62-0	2000	>1000
	Propiconazole	5(b)				60207-90-1	1517	>4000
	Tebuconazole	5(b)				107534-96-3	4000	>5000
	Tricyclazole	5(b)				41814-78-2	314	>2000
	Probenazole	5(b)				27605-76-1	NA	NA
	Prothioconazole	5(b)				178928-70-6	>2000	>2000
	Epoxiconazole	5(b)				133855-98-8	>2000	>2000
<b>12.</b>	<b>Other Fungicides</b>	5(b)	75	225	300			
	Indoxacarb	5(b)				144171-61-9	1732	>5000
	Thiophenate methyl	5(b)				23564-05-8	7500	>10000
	Pyraclostrobin	5(b)				175013-18-0	>5000	>2000
	Cyzofamid	5(b)				120116-88-3	>5000	>2000
<b>13.</b>	<b>Fermentation Technology</b>	5(b)	100	200	300			
	Abamectin	5(b)				71751-41-2	10-13.5	>2000
	Azoxystrobin	5(b)				131860-33-8	>5000	>2000
	Picoxystrobin	5(b)				117428-22-5	>2000	>2000
	Emamectin benzoate	5(b)				155569-	56-63	>2000

						91-8		
<b>Total</b>			<b>1800</b>	<b>7550</b>	<b>9350</b>			
<b>B. PESTICIDE FORMULATIONS (KL/MT)</b>								
1.	Pesticide formulation Bulk		1500	0	1500			
2..	Emulsifier formulation		500	0	500			
3.	Granule formulations		7500	0	7500			
4.	Liquid formulations		6000	0	6000			
5.	Powder formulations		4500	0	4500			
6.	R&D Unit		1 (Service)	0	1 (Service)			
<b>Total</b>			<b>20,000</b>	<b>0</b>	<b>20,000</b>			

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal/approval at central level by the sectoral EAC in the Ministry. Standard ToR for the project was granted on 18th February, 2019. Public hearing is exempted as the project is located in the notified Industrial area.

Ministry has issued EC earlier vide letter no. IA-J-11011/63/2019-IA-II (I) dated 29<sup>th</sup> April, 2009. Certified report on the compliance status of the EC conditions has been forwarded by the Ministry's Regional Office.

PP reported that 11,958 m<sup>2</sup> Land area will be used for project. Industry developed Greenbelt in an area of 33% i.e., 4000 (33.4%) m<sup>2</sup> out of 11,958 m<sup>2</sup> of area of the project. The estimated project cost is Rs. 45.67 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 9.43 crores and the recurring cost (operation and maintenance) will be about Rs. 2.5 Crores per annum. Total employment will be 160 persons as direct & indirect for project. Rs 16.54 Lakh (approx.) in next 2 years @ of 1% of the additional cost towards Corporate Environment Responsibility. There are no National parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance.

Ambient air quality monitoring was carried out at 10 locations during December, 2018 to February, 2019 and submitted baseline data indicates that ranges of concentrations of PM10 (99.18 – 62.12 µg/m<sup>3</sup>), PM2.5 (58.33 – 36.92 µg/m<sup>3</sup>), SO<sub>2</sub> (11.09 – 6.30 µg/m<sup>3</sup>) and NO<sub>2</sub> (15.59 – 6.09 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.149 µg/m<sup>3</sup>, 0.009 µg/m<sup>3</sup>, 0.012 µg/m<sup>3</sup> & 0.007 µg/m<sup>3</sup> with respect to PM10, SO<sub>x</sub>, HCl & HBr.

Total water requirement is 188 m<sup>3</sup>/day of which fresh water requirement of 56m<sup>3</sup>/day and will be met from RIICO Water supply. Total waste water generation will be 136 KL/Day (Industrial: 129 KL/Day + Domestic: 7KL/Day). Out of 136 KL/Day, wastewater from processes, scrubber and lab (49 KL/Day) will be sent to MEE and treated effluent will be re-used back in the utilities and gardening. Wastewater from septic tank, utilities and washing

(136 KL/Day) will be sent to ETP and final treated effluent will be recycled. Domestic wastewater (6 KL/Day) will be sent to septic tank and then mixed with industrial effluent in ETP for further treatment.

Power requirement for proposed project will be 860 KVA and will be met from JVVNL. 2 Nos. DG set of 500 KVA, 1 Nos. DG set of 380 KVA & 1 Nos. DG set of 125 KVA capacities shall be used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms. Unit shall have 1 Nos. of 2 TPH Briquette/Wood = 3 MT/Hr boiler, 1 Nos. of 4 TPH Briquette/FO = 12MT/Day boiler will be installed. Multi cyclone separator, Bag filter + Water Scrubber with a stack of height of 30 m will be installed for controlling the Particulate emissions (within statutory limit of 150 mg/Nm<sup>3</sup>) respectively.

Details of Process emissions generation and its management.

### 1) Flue Gas Stack

S. No.	Stacks attached to	Height from ground level (m)	Fuel	Consumption of fuel	Diameter (m)	Expected pollutants	APCM
1	Boiler (2 TPH) (Existing)	30	Wood	3 MT/Hr	1	SPM, SO <sub>2</sub> , NO <sub>x</sub>	Adequate Stack Height
2	DG set (380 KVA) (Existing)	6	Diesel	15 litre/hr	0.15	SPM, SO <sub>2</sub> , NO <sub>x</sub>	Adequate Stack Height
3	DG set (500 KVA)	7		25 litre/hr	0.15	SPM, SO <sub>2</sub> , NO <sub>x</sub>	Adequate Stack Height
4	DG set (125 KVA)	5.5		10 litre/hr	0.15	SPM, SO <sub>2</sub> , NO <sub>x</sub>	Adequate Stack Height
5	Incinerator (Existing)	30	Diesel	35 litre/hr	1	SPM, SO <sub>2</sub> , NO <sub>x</sub>	Adequate Stack Height
6	Boiler (4TPH) (Proposed)	30	Briquettes / FO	12 MT/Day	1	SPM, SO <sub>2</sub> , NO <sub>x</sub>	Multi-cyclone separator with bag filter and scrubber

### Process Stack

SR. NO.	PROCESS STACK ATTACHED TO	HEIGHT (m)	DIAMETER (m)	AIR POLLUTION CONTROL SYSTEM	EXPECTED POLLUTANTS
1	Process Vent	10	0.15	Scrubber	SO <sub>2</sub>
2	Process Vent	10	0.15	Water Scrubber	HCl

3	Process Vent	10	0.15	Scrubber	HBr
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**14.7.2.2** The EAC, during deliberations noted that the project details mentioned in the EIA report were not consistent with that presented during the meeting. The EAC, after detailed deliberations has asked for clarification/inputs, in respect of the following:-

- (i) EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) EAC noted that PP has not submitted adequately TOR compliance and PP needs to be resubmit the TOR compliance adequately.
- (iii) Action plan in view of the project site being in Critically Polluted Area.
- (iv) PP needs to prepare the species specific conservation plan for schedule-I species along with budgetary allocation and PP to take approval for the Wildlife conservation and management plan from CWLW State Government.
- (v) Details of courts/NGT cases, if any, on the project area or against the project proponent.
- (vi) Details of existing production with supporting documents.
- (vii) Considering complaint against the project proponent regarding production without prior permission, pollution etc, report from SPCB and CPCB on the factual status.
- (viii) Revised water balance with details of total water and fresh water requirement, and permission from concerned regulatory authority.
- (ix) Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (x) Onsite emergency plan as per MSIHC Rules.

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

### **Agenda No.14.7.3**

**Expansion of Caustic Chlorine Products and Value Added Derivatives along with installation of new Chloromethane Plant at Birlagram, Nagda, District Ujjain (Madhya Pradesh) by M/s Grasim Industries Ltd. (Chemical Division) - Consideration of Environmental Clearance**

**[IA/MP/IND2/26969/2015 , J-11011/119/2015-IA-II(I)**

The project proponent and the accredited consultant M/s J.M. Enviro Net Pvt. Ltd., made a detailed presentation on the salient features of the project.

**14.7.3.1** During deliberations, the Committee noted the following:

The proposal is for environmental clearance to the project for expansion of Caustic Soda manufacturing (270000 to 450000 TPA), and Value Added Derivatives along with installation of new Chloromethane Plant by M/s Grasim Industries Ltd (Chemical Division) in an area of 61.92 ha at Birlagram, Nagda, District - Ujjain (Madhya Pradesh).

The details of existing/proposed products are as under:-

<b>S. No.</b>	<b>Particulars</b>	<b>Existing (TPA)</b>	<b>Additional (TPA)</b>	<b>Total (TPA)</b>
<b>A. Main Products</b>				
1.	Caustic Soda	270000	180000	450000
2.	Poly Aluminum Chloride	27720	137280	165000
3.	Stable Bleaching Powder	29436	25314	54750
4.	Chlorinated Paraffin	27000	18645	45645
5.	Chloromethane	Nil	36000	36000
6.	Chloro Sulphonic Acid	23400	Nil	23400
7.	Calcium Chloride (100 %)	54000	Nil	54000
<b>B. CO-Products and By-Products</b>				
1.	Chlorine	215200	149800	365000
2.	Hydrochloric Acid (100%)	79000	56000	135000
3.	Sodium Hypochlorite (100%)	53520	36480	90000
4.	Hydrogen	6730	4670	11400
5.	Compressed Hydrogen	960	500	1460
6.	Carbon Dioxide (By-product)	23760	Nil	23760

The project/activity is covered under category A of item 4(d) 'Chlor - Alkali Industry' and 5(f) 'Synthetic organic chemical industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 under category 'A' and requires appraisal/approval at Central level in the Ministry.

The terms of reference for the project was granted on 29<sup>th</sup> July, 2015 followed by validity extension of ToR vide letter dated 11<sup>th</sup> December, 2018. Public Hearing for the proposed expansion project was conducted by State Pollution Control Board on 04<sup>th</sup> June, 2019. The main issue raised during the public hearing are related to Employment, Water source & Water pollution, Effluent discharge, Gaseous Emission etc.

Existing land area is 61.92 ha (619200 m<sup>2</sup>). No additional land will be required for proposed expansion. Industry has already developed greenbelt in an area of 38% i.e 23.68 ha (236800 m<sup>2</sup>) out of total area of the project. The estimated project cost for expansion project is Rs. 285 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 20 Crores and the recurring cost (operation and maintenance) will be about Rs. 3.4 Crores/ annum. Total Employment will be 1545 persons as direct & 200 persons indirect after expansion.

There is no National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger/Elephant Reserve, and Wildlife Corridor within 10 km distance from the project site. Dam is at a distance of 2.13 km in NW direction, Bangerl Nadi flows at distance of 2.5 km in West direction, Chambal River flows at a distance of 0.6 km in West direction, Khajuri Nala is at 0.5 km in South direction.

Total water requirement is 6000 m<sup>3</sup>/day including fresh water requirement of 5400 m<sup>3</sup>/day proposed to be met from Chambal river. Effluent of 610 m<sup>3</sup>/day quantity is being/will be treated in Effluent Treatment Plant. The plant is being/will be based on Zero Liquid discharge system. Power requirement after expansion will be 141 MW including existing 80 MW and will be met from Outsource & Madhya Pradesh State Electricity Board (MPSEB). Existing unit has 2 Nos. DG sets of 2000 KVA capacity each, having 30 metre stack height as per CPCB norms used during power failure. Additionally, no DG sets will be required for proposed expansion project. Existing unit has 2 Hydrogen gas fired boilers of 9 TPH capacity each. No new boiler will be installed.

Ambient air quality monitoring was carried out at 8 locations during Winter Season (Dec., 2016 to Feb., 2017) and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (63.2 to 90.1 µg/m<sup>3</sup>), PM<sub>2.5</sub> (28.2 to 47.4 µg/m<sup>3</sup>), SO<sub>2</sub> (7.3 to 32.9 µg/m<sup>3</sup>), NO<sub>2</sub> (12.6 to 30.6 µg/m<sup>3</sup>), respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.024 µg/m<sup>3</sup>, 0.085 µg/m<sup>3</sup>, 0.10 µg/m<sup>3</sup>, with respect to PM, Cl<sub>2</sub>, HCl. The resultant concentration of PM is within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be Rs. 5 crore of the project cost as committed by the project proponent.

The existing unit is operating prior to EIA Notification, 2006 on Consent to Operate basis and no prior environmental clearance was required at that time for operation, accordingly, no Certified compliance report for the existing operation is required.

The project proponent has informed that a case was filed in High court and transferred to NGT (Case no.77/2017 CZ) regarding pollution being caused in the river Chambal due to effluents from the industry. As per NGT order, Grasim Industries Ltd. Chemical Division received MPPCB directions, in compliance of which company has achieved ZLD in March, 2018. As on date no other case is due against the existing project.

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. Additional information submitted by the project has been found to be in order.

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

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

- (i). Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.
- (ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iii). Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv). To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (v). Solvent management, if any, 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 98% 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.
- (vi). Total fresh water requirement shall not exceed 5400 m<sup>3</sup>/day proposed to be met from Chambal river. Prior permission in this regard shall be obtained from the concerned regulatory authority.
  - (vii). Rain water harvesting structures shall be provided to reduce dependency of fresh surface water for industrial purposes. In any case, no ground water shall be used for the plant.
  - (viii). The storm water from the premises shall be collected and discharged through a separate conveyance system.
  - (ix). 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.
  - (x). ETP sludge, process inorganic & evaporation salt shall be disposed through Captive Secured Landfill.
  - (xi). 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.
  - (xii). 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.
  - (xiii). The green belt of at least 5-10 m width shall be developed in more than 40% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
  - (xiv). As proposed Rs. 5 crores shall be allocated for Corporate Environment Responsibility (CER).The CER funds shall be utilized for greenbelt development, skill development and



check dam construction, as suggested during public hearing. The CER plan shall be completed within a period of two years or before commissioning of the project.

- (xv). For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xvi). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- (xvii). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xviii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB 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.
- (xix). The energy sources for lighting purposes shall preferably be LED based.
- (xx). Transportation of raw materials/products should be carefully performed using GPS enabled vehicles.
- (xxi). The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018. The said OM is available at the Ministry's website (PARIVESH portal i.e. [www.parivesh.nic.in](http://www.parivesh.nic.in)). The grant of Environmental Clearance is further subject to compliance of generic conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018.
- (xxii). Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act. PP shall submit the six monthly compliance report to the Regional Office of the Ministry.
- (xxiii). PP shall conduct 3D modeling for risk management and mitigation measures as the flammable and hazardous chemicals are being stored and processed in the Plant. PP shall conduct a study comprise the details of detectors and its locations and outcome of the study shall be implemented and the compliance shall be submitted six monthly to the Regional Office of the Ministry.

#### **Agenda No.14.7.4**

#### **Proposed Synthetic Organic Chemicals Manufacturing Unit at Survey No. 202/6/p, sokhda, khambhat, Anand, Gujarat by M/s Cosmic Pigments And Intermediates - Consideration of Environmental Clearance**

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

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

**14.7.4.1** During deliberations, the EAC noted the following: -

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

The details of products are as under:

Sr. No. of Total Products	Category wise Sr. No. of Products	Group wise Sr. No. of Products	Name of the Products	CAS no. / CI no.	Quantity MT/Month	LD50 /LC50
<b>1.Total No. of Products : Category : A+B = 147;</b>						
<b>Total Production capacity of All Products : 1200 MT/Month</b>						
<b>Category-A: Pigments (Group 1+2+3+4+5 = 106 )</b>						
<b>Group-1: Pigment Red = 49</b>						
1	1	1	Pigment Red 2	6041-94-7	200	LD50 Oral, Rat 8110 mg/kg
2	2	2	Pigment Red 3	2425-85-6		LD50 Oral, Rat 8180 mg/kg
3	3	3	Pigment Red 4	2814-77-9		LD50 Oral, Rat 8140 mg/kg
4	4	4	Pigment Red 5	6410-41-9		LD50 Oral, Rat 8190 mg/kg
5	5	5	Pigment Red 12	6410-32-8		LD50 Oral, Rat 8160 mg/kg
6	6	6	Pigment Red 14	6471-50-7		NA
7	7	7	Pigment Red	6358-87-		dermal route (LD50 >

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

			63:1	0	
24	24	24	Pigment Red 63:2	35355- 77-2	LD50 rat (oral): > 2.000 mg/kg
25	25	25	Pigment Red 81	12224- 98-5	LD50 rat : 8260 mg/kg
26	26	26	Pigment Red 81:1	80083- 40-5	LD50 rat (oral): > 2.000 mg/kg
27	27	27	Pigment Red 81:x	63022- 06-0	LD50 rat (oral): > 2.000 mg/kg
28	28	28	Pigment Red 81:y	N.A.	LD50 rat (oral): > 2.000 mg/kg
29	29	29	Pigment Red 81:2	75627- 12-2	LD50 rat (oral): > 2.000 mg/kg
30	30	30	Pigment Red 81:3	68310- 07-6	LD50 rat (oral): > 2.000 mg/kg
31	31	31	Pigment Red 81:4	85959- 61-1	LD50 rat (oral): > 2.000 mg/kg
32	32	32	Pigment Red 112	6535-46- 2	LD50 Oral, Rat 8290 mg/kg
33	33	33	Pigment Red 122	980-26-7	LD50 Oral, Rat 8290 mg/kg
34	34	34	Pigment Red 123	24108- 89-2	LD50 rat (oral): > 2.000 mg/kg
35	35	35	Pigment Red 144	5280-78- 4	LD50 Oral, Rat 8380 mg/kg
36	36	36	Pigment Red 146	5280-68- 2	LD50 Oral, Rat 8360 mg/kg
37	37	37	Pigment Red 168	4378-61- 4	NA
38	38	38	Pigment Red 169	12237- 63-7	LD50 Oral, Rat 5000 mg/kg
39	39	39	Pigment Red 170	2786-76- 7	LD50 Oral, Rat 8270 mg/kg

40	40	40	Pigment Red 175	6985-92- 8		LD50 Oral, Rat 8350 mg/kg
41	41	41	Pigment Red 176	12225- 06-8		LD50 Oral, Rat 8380 mg/kg
42	42	42	Pigment Red 177	4051-63- 2		LD50 Oral, Rat 8340 mg/kg
43	43	43	Pigment Red 178	3049-71- 6		LD50 Species: rat Value: > 5,000 mg/kg
44	44	44	Pigment Red 179	5521-31- 3		LD50 Oral, Rat 8290 mg/kg
45	45	45	Pigment Red 188	61847- 48-1		LD50 rat (oral): > 2.000 mg/kg
46	46	46	Pigment Red 202	3089-17- 6		LD50 Oral, Rat 8360 mg/kg
47	47	47	Pigment Red 254	122390- 98-1		LD50 Oral, Rat 8380 mg/kg
48	48	48	Pigment Red 256	79102- 65-1		Oral LD50: >10 g/kg (rats) practically non- toxic
49	49	49	Pigment Red 264	122390- 98-1		LD50 Oral, Rat 8320 mg/kg
<b>Group-2: Pigment Yellow = 32</b>						
50	50	1	Pigment Yellow 1	2512-29- 0	200	LD50 Oral, Rat. >10000mg/kg
51	51	2	Pigment Yellow 3	6486-23- 3		LD50 Oral, Rat 8252mg/kg
52	52	3	Pigment Yellow 12	6358-85- 6		LD50 Oral, Rat . >5000mg/kg
53	53	4	Pigment Yellow 13	5102-83- 0		LD50 Oral, Rat . >5000mg/kg
54	54	5	Pigment Yellow 14	5468-75- 7		LD50 Oral, Rat . >5000mg/kg
55	55	6	Pigment	5979-28-		Not Listed

			Yellow 16	2		
56	56	7	Pigment Yellow 17	4531-49-1		LD50 Oral, Rat 8230 mg/kg
57	57	8	Pigment Yellow 61	12286-65-6		LD50 Oral, Rat 8160 mg/kg
58	58	9	Pigment Yellow 62	12286-66-7		LD50 rat (oral): > 5,000 mg/kg
59	59	10	Pigment Yellow 63	14569-54-1		Not Listed
60	60	11	Pigment Yellow 65	6528-34-3		LD50 Oral, Rat 8230 mg/kg
61	61	12	Pigment Yellow 73	13515-40-7		LD50 Oral, Rat 8190 mg/kg
62	62	13	Pigment Yellow 74	6358-31-2		LD50 Oral, Rat 8260 mg/kg
63	63	14	Pigment Yellow 83	5567-15-7		LD50 Oral, Rat 8390 mg/kg
64	64	15	Pigment Yellow 93	5580-57-4		LD50 Oral, Rat 14000 mg/kg
65	65	16	Pigment Yellow 97	12225-18-2		LD50 Oral, Rat 8250 mg/kg
66	66	17	Pigment Yellow 101	2387-03-3.		LD50 rat (oral): > 2.000 mg/kg
67	67	18	Pigment Yellow 120	29920-31-8		oral route (LD50 > 15 000 mg/kg bw)
68	68	19	Pigment Yellow 121	61968-85-2		NA
69	69	20	Pigment Yellow 138	30125-47-4		LD50 rat (oral): > 5.000 mg/kg
70	70	21	Pigment Yellow 139	36888-99-0		LD50 Oral, Rat 2000 mg/kg
71	71	22	Pigment Yellow 151`	31837-42-0		LD50 Oral, Rat 8330 mg/kg

72	72	23	Pigment Yellow 153	68859-51-8		NA
73	73	24	Pigment Yellow 154	68134-22-5		LD50 Oral, Rat 8250 mg/kg
74	74	25	Pigment Yellow 155	68516-73-4		NA
75	75	26	Pigment Yellow 174	78952-72-4		LD50 Oral, Rat =980mg/kg
76	76	27	Pigment Yellow 180	77804-81-0		LD50 Oral, Rat 5000mg/kg
77	77	28	Pigment Yellow 181	74441-05-7		oral route (LD50 > 5000 mg/kg bw)
78	78	29	Pigment Yellow 182	67906-31-4		NA
79	79	30	Pigment Yellow 183	23792-68-9		LD50 Species: rat (male/female) Value: > 5,000 mg/kg
80	80	31	Pigment Yellow 191	129423-54-7		Oral LD50 value of 5 mg/kg or greater in rats.
81	81	32	Pigment Yellow 191:1	154946-66-4		LD50 Oral, Rat 2000mg/kg
<b>Group-3: Pigment Orange = 8</b>						
82	82	1	Pigment Orange 5	3468-63-1	200	LD50 Oral, Rat 8120 mg/kg
83	83	2	Pigment Orange 13	3520-72-7		LD50 Oral, Rat 8190 mg/kg
84	84	3	Pigment Orange 16	6505-28-8		LD50 Oral, Rat 8120 mg/kg
85	85	4	Pigment Orange 34	15793-73-4		LD50 Oral, Rat 8250 mg/kg
86	86	5	Pigment Orange 36	12236-62-3		LD50 Oral, Rat 8210 mg/kg

87	87	6	Pigment Orange 43	4424-06-0		LD50 Oral, Rat 2000 mg/kg
88	88	7	Pigment Orange 62	52846-56-7		LD50 Oral, Rat 8370 mg/kg
89	89	8	Pigment Orange 64	72102-84-2		LD50 Oral, Rat 8270 mg/kg
<b>Group-4: Pigment Blue = 10</b>						
90	90	1	Pigment Blue 1	1325-87-7	200	NA
91	91	2	Pigment Blue 15	147-14-8		LD50 Oral, Rat. >3200mg/kg
92	92	3	Pigment Blue 15:1	147-14-8		LD50 Oral, Rat. >3200mg/kg
93	93	4	Pigment Blue 15:2	147-14-8		LD50 Oral, Rat. >3200mg/kg
94	94	5	Pigment Blue 15:3	147-14-8		LD50 Oral, Rat 2000mg/kg
95	95	6	Pigment Blue 15:4	147-14-8		LD50 Oral, Rat 2000mg/kg
96	96	7	Pigment Blue 15:6	147-14-8		LD50 Oral, Rat 2000mg/kg
97	97	8	Pigment Blue 16	574-93-6		LD50 Oral, Rat 2000mg/kg
98	98	9	Pigment Blue 60	81-77-6		LD50 Oral, Rat > 980 mg/kg
99	99	10	Pigment Blue 62	57485-98-0		LD50 Oral, Rat 2000mg/kg
<b>Group-5: Pigment Violet = 7</b>						
100	100	1	Pigment Violet 1	1326-03-0	200	LD50 Oral, Rat 2000mg/kg
101	101	2	Pigment Violet 1x	N.A.		LD50 Oral, Rat 2000mg/kg



102	102	3	Pigment Violet 3	1325-82- 2		LD50 Oral, Rat 2000mg/kg
103	103	4	Pigment Violet 19	1047-16- 1		LD50 Oral, Rat 8420 mg/kg
104	104	5	Pigment Violet 23	6358-30- 1		LD50 Oral, Rat 2000mg/kg
105	105	6	Pigment Violet 27	12237- 62-6		LD50 Oral, Rat. >3200mg/kg
106	106	7	Pigment Violet 29	<u>81-33-4</u>		LD50 Oral, Rat 2000mg/kg
<b>Total of Category-A ( Group 1 + 2 + 3 + 4 + 5 )</b>					<b>1000</b>	
<b>Category-B: Solvent Dyes</b>						
<b>Group-1: Red Solvent Dyes = 13</b>						
107	1	1	Solvent Red 19E	6368-72- 5	200	NA
108	2	2	Solvent Red 23	85-86-9		NA
109	3	3	Solvent Red 24	85-83-6		Acute oral toxicity: LD50(Rat): 8110mg/kg
110	4	4	Solvent Red 52	81-39-0		Acute oral toxicity: LD50(Rat): 8160mg/kg
111	5	5	Solvent Red 111	82-38-2		Acute Toxicity: Oral- dog LD 50:>8 g/kg
112	6	6	Solvent Red 135	20749- 68-2		Acute oral toxicity: LD50(Rat): 8260mg/kg
113	7	7	Solvent Red 151	144013- 41-1		NA
114	8	8	Solvent Red 168	71832- 19-4		Acute oral toxicity: LD50(Rat): 8220mg/kg

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

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

142	36	2	Solvent Violet 14	67577- 84-8	Acute oral toxicity: LD50(Rat): 8110mg/kg
143	37	3	Solvent Violet 38	63512- 14-1	NA
144	38	4	Solvent Violet 59	6408-72- 6	Acute oral toxicity: LD50(Rat): 8220mg/kg
<b>Group-6: Green Solvent Dyes = 3</b>					
145	39	1	Solvent Green 3	128-80-3	LD50 = 3660 mg/kg ( Rat )
146	40	2	Solvent Green 28	71839- 01-5	LD50 = 3660 mg/kg ( Rat )
147	41	3	Solvent Green 33	10671- 57-8	NA
<b>Total of Category-B ( Group 1 + 2 + 3 + 4 + 5 + 6 )</b>					<b>200</b>
<b>Total All Products Category - A(106) + Category-B (41) = 147</b>					<b>1200</b>

The project/activity is covered under category A of item 5(f) 'Synthetic organic chemicals industry' of schedule to the Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at Central level in the Ministry. The standard ToR for the project was granted on 26th February, 2019. Public hearing for the project was conducted by the State Pollution Control Board on 9th August, 2019.

Total land area is estimated to be 12,000 sqm. Green belt will be developed in 33% i.e. 3,960 sqm out of total project area. The estimated project cost of proposed unit is Rs.10 crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 1.5 Crores and the Recurring cost (operation and maintenance) will be about Rs. 2.5 Crores per annum. Total Employment will be 65 persons as direct & indirect for project.

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

Total water requirement is 393 m<sup>3</sup>/day of which fresh water requirement of 124 m<sup>3</sup>/day and will be met from Ground Water. Total wastewater generation will be 281 KL/day (Industrial: 275 KL/day + Domestic: 6 KL/day). 121 KLD of dilute stream of effluent will be sent to RO and RO permeate @ 83 KLD will be reused in process. 190 KLD of Concentrated stream of

effluent (Process: 152 KLD + RO Reject: 38 KLD) will be treated in ETP and sent to own MEE, 184 KLD MEE condensate will be recycled. 2 KLD wastewater from cooling will be directly reused. Domestic wastewater will be disposed through Septic Tank/Soak Pit.

Power requirement for proposed project will be 1200 KVA and will be met from MGCVCL. 2 Nos. DG set of 250 KVA capacity shall be used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets of 250 KVA which will be used as standby during power failure. Unit shall have 1 Nos. of 5 TPH Briquette/Coal = 2000 Kg/Hr fired boiler, 4 Nos. of 2 Lakh Kcal/Hr PNG = 320 Cum/Hr fired HAG, 1 Nos. of 2 Lakh Kcal/Hr Briquette = 2000 Kg/Hr fired Thermo pack Boiler will be installed. Multi cyclone separator, Dust Collector & Bag filter + Water Scrubber with a stack of height of 32 m will be installed for controlling the Particulate emissions (within statutory limit of 150 mg/Nm<sup>3</sup>) respectively.

Ambient air quality monitoring was carried out at 10 locations during October, 2017 to December, 2017 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (78.83 – 69.35 µg/m<sup>3</sup>), PM<sub>2.5</sub> (47.28 – 40.35 µg/m<sup>3</sup>), SO<sub>2</sub> (12.92 – 8.57 µg/m<sup>3</sup>) and NO<sub>2</sub> (17.09 – 11.94 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.0594 µg/m<sup>3</sup>, 0.0888 µg/m<sup>3</sup>, and 0.0312 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

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

- (i) EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) EAC noted that PP has not submitted adequately TOR compliance and PP needs to be resubmit the TOR Compliance adequately.
- (iii) The Committee noted that there are various deficiencies in Form 2 (viz. S. no. 13, 15 etc.) uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (iv) The Committee noted that there are Schedule I species in the study area. PP needs to prepare the species specific conservation plan along with budgetary allocation and PP to take approval for the Wildlife conservation and management plan from CWLW State Government.

- (x) Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation. Public hearing proceedings to be forwarded by the Member Secretary, SPCB along with complete public hearing/consultation documents.
- (v) Onsite emergency plan as per MSIHC Rules.
- (vi) Revised water balance with details of total water and fresh water requirement.
- (vii) Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (viii) Plan for Corporate Environmental Responsibility.
- (ix) QCI/NABET Accreditation details of consultants prepared the EIA/EMP report.
- (x) Copy of stay order of Hon'ble High Court permitting experts who prepared the EIA/EMP report.
- (xi) PP/Consultant was unable to show the video of PH
- (xii) PP/Consultant has submitted the undertaking for owning the draft EIA Report. The consultant has not applied his mind during uploading the information on portal. The Committee was very disappointed by this act of consultant.

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

#### **Agenda No.14.7.5**

**Setting up of Pigments, Dyes and synthetic organic chemicals manufacturing unit by M/s Cosmic Pigments & Intermediates (Unit-II) at Survey No. 238, Village Lunej, Taluka Khambhat, District Anand, Gujarat - For Environmental Clearance**

**[IA/GJ/IND2/91049/2019, IA-J-11011/25/2019-IA-II(I)]**

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

**14.7.5.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for Setting up of pigments, dyes and synthetic organic chemicals manufacturing unit of capacity 2900 TPM by M/s Cosmic Pigments & Intermediates (Unit-II) in an area of 20,538 sqm at Survey No. 238, Village Lunej, Taluka Khambhat, District Anand, Gujarat.

The details of products are as under:

Sr.No. of Total Products	Category wise Sr.No. of Products	Group wise Sr.No. of Products	Name of the Products	CAS no. / CI no.	Quantity MT/Month	LD50 /LC50
<b>1.Total No. of Products : Category : A+B+C+D+E+F+G+H+I+J+K+L = 274; Total Production capacity of All Products : 2900 MT/Month</b>						
<b>Category-A: Pigments (Group 1+2+3+4+5 = 106 )</b>						
<b>Group-1: Pigment Red = 49</b>						
1	1	1	Pigment Red 2	6041-94-7	200	LD50 Oral, Rat 8110 mg/kg
2	2	2	Pigment Red 3	2425-85-6		LD50 Oral, Rat 8180 mg/kg
3	3	3	Pigment Red 4	2814-77-9		LD50 Oral, Rat 8140 mg/kg
4	4	4	Pigment Red 5	6410-41-9		LD50 Oral, Rat 8190 mg/kg
5	5	5	Pigment Red 12	6410-32-8		LD50 Oral, Rat 8160 mg/kg
6	6	6	Pigment Red 14	6471-50-7		NA
7	7	7	Pigment Red 38	6358-87-8		dermal route (LD50 > 2000 mg/kg bw)
8	8	8	Pigment Red 48:1	7585-41-3		LD50 Oral, Rat 8160 mg/kg
9	9	9	Pigment Red 48:2	7023-61-2		LD50 Oral, Rat 8190 mg/kg
10	10	10	Pigment Red 48:3	15782-05-5		LD50 Oral, Rat 8130 mg/kg
11	11	11	Pigment Red	5280-66-0		LD50 Oral, Rat 8160

			48:4			mg/kg
12	12	12	Pigment 48:5	Red	N.A.	NA
13	13	13	Pigment Red 49		1248-18-6	NA
14	14	14	Pigment 49:1	Red	1103-38-4	NA
15	15	15	Pigment 49:2	Red	1103-39-5	NA
16	16	16	Pigment 49:3	Red	6371-67-1	NA
17	17	17	Pigment 52:1	Red	17852-99-2	NA
18	18	18	Pigment 52:2	Red	12238-31-2	NA
19	19	19	Pigment Red 53		2092-56-0	NA
20	20	20	Pigment 53:1	Red	5160-02-1.	LD50 Oral, Rat 8190 mg/kg
21	21	21	Pigment 53:3	Red	73263-40-8	L.D.50 ACUTE ORAL(RATS) : ABOUT 5,000mg/KG
22	22	22	Pigment 57:1	Red	5281-04-9.	LD50 Oral, Rat 8140 mg/kg
23	23	23	Pigment 63:1	Red	6417-83-0	NA
24	24	24	Pigment 63:2	Red	35355-77-2	LD50 rat (oral): > 2.000 mg/kg
25	25	25	Pigment Red 81		12224-98-5	LD50 rat : 8260 mg/kg
26	26	26	Pigment 81:1	Red	80083-40-5	LD50 rat (oral): > 2.000 mg/kg
27	27	27	Pigment 81:x	Red	63022-06-0	LD50 rat (oral): > 2.000 mg/kg
28	28	28	Pigment	Red	N.A.	LD50 rat (oral): > 2.000



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

45	45	45	Pigment Red 188	61847-48-1		LD50 rat (oral): > 2.000 mg/kg
46	46	46	Pigment Red 202	3089-17-6		LD50 Oral, Rat 8360 mg/kg
47	47	47	Pigment Red 254	122390-98-1		LD50 Oral, Rat 8380 mg/kg
48	48	48	Pigment Red 256	79102-65-1		Oral LD50: >10 g/kg (rats) practically non-toxic
49	49	49	Pigment Red 264	122390-98-1		LD50 Oral, Rat 8320 mg/kg
<b>Group-2: Pigment Yellow = 32</b>						
50	50	1	Pigment Yellow 1	2512-29-0		LD50 Oral, Rat. >10000mg/kg
51	51	2	Pigment Yellow 3	6486-23-3		LD50 Oral, Rat 8252mg/kg
52	52	3	Pigment Yellow 12	6358-85-6		LD50 Oral, Rat .>5000mg/kg
53	53	4	Pigment Yellow 13	5102-83-0		LD50 Oral, Rat .>5000mg/kg
54	54	5	Pigment Yellow 14	5468-75-7		LD50 Oral, Rat .>5000mg/kg
55	55	6	Pigment Yellow 16	5979-28-2	200	Not Listed
56	56	7	Pigment Yellow 17	4531-49-1		LD50 Oral, Rat 8230 mg/kg
57	57	8	Pigment Yellow 61	12286-65-6		LD50 Oral, Rat 8160 mg/kg
58	58	9	Pigment Yellow 62	12286-66-7		LD50 rat (oral): > 5,000 mg/kg
59	59	10	Pigment Yellow 63	14569-54-1		Not Listed
60	60	11	Pigment Yellow	6528-34-3		LD50 Oral, Rat 8230

			65			mg/kg
61	61	12	Pigment 73	Yellow	13515-40-7	LD50 Oral, Rat 8190 mg/kg
62	62	13	Pigment 74	Yellow	6358-31-2	LD50 Oral, Rat 8260 mg/kg
63	63	14	Pigment 83	Yellow	5567-15-7	LD50 Oral, Rat 8390 mg/kg
64	64	15	Pigment 93	Yellow	5580-57-4	LD50 Oral, Rat 14000 mg/kg
65	65	16	Pigment 97	Yellow	12225-18-2	LD50 Oral, Rat 8250 mg/kg
66	66	17	Pigment 101	Yellow	2387-03-3.	LD50 rat (oral): > 2.000 mg/kg
67	67	18	Pigment 120	Yellow	29920-31-8	oral route (LD50 > 15 000 mg/kg bw)
68	68	19	Pigment 121	Yellow	61968-85-2	NA
69	69	20	Pigment 138	Yellow	30125-47-4	LD50 rat (oral): > 5.000 mg/kg
70	70	21	Pigment 139	Yellow	36888-99-0	LD50 Oral, Rat 2000 mg/kg
71	71	22	Pigment 151`	Yellow	31837-42-0	LD50 Oral, Rat 8330 mg/kg
72	72	23	Pigment 153	Yellow	68859-51-8	NA
73	73	24	Pigment 154	Yellow	68134-22-5	LD50 Oral, Rat 8250 mg/kg
74	74	25	Pigment 155	Yellow	68516-73-4	NA
75	75	26	Pigment 174	Yellow	78952-72-4	LD50 Oral, Rat =980mg/kg
76	76	27	Pigment 180	Yellow	77804-81-0	LD50 Oral, Rat 5000mg/kg

77	77	28	Pigment Yellow 181	74441-05-7		oral route (LD50 > 5000 mg/kg bw)
78	78	29	Pigment Yellow 182	67906-31-4		NA
79	79	30	Pigment Yellow 183	23792-68-9		LD50 Species: rat (male/female) Value: > 5,000 mg/kg
80	80	31	Pigment Yellow 191	129423-54-7		Oral LD50 value of 5 mg/kg or greater in rats.
81	81	32	Pigment Yellow 191:1	154946-66-4		LD50 Oral, Rat 2000mg/kg
<b>Group-3: Pigment Orange = 8</b>						
82	82	1	Pigment Orange 5	3468-63-1	200	LD50 Oral, Rat 8120 mg/kg
83	83	2	Pigment Orange 13	3520-72-7		LD50 Oral, Rat 8190 mg/kg
84	84	3	Pigment Orange 16	6505-28-8		LD50 Oral, Rat 8120 mg/kg
85	85	4	Pigment Orange 34	15793-73-4		LD50 Oral, Rat 8250 mg/kg
86	86	5	Pigment Orange 36	12236-62-3		LD50 Oral, Rat 8210 mg/kg
87	87	6	Pigment Orange 43	4424-06-0		LD50 Oral, Rat 2000 mg/kg
88	88	7	Pigment Orange 62	52846-56-7		LD50 Oral, Rat 8370 mg/kg
89	89	8	Pigment Orange 64	72102-84-2		LD50 Oral, Rat 8270 mg/kg
<b>Group-4: Pigment Blue = 10</b>						
90	90	1	Pigment Blue 1	1325-87-7	200	NA
91	91	2	Pigment Blue 15	147-14-8		LD50 Oral, Rat. >3200mg/kg

92	92	3	Pigment Blue 15:1	147-14-8	200	LD50 Oral, Rat. >3200mg/kg
93	93	4	Pigment Blue 15:2	147-14-8		LD50 Oral, Rat. >3200mg/kg
94	94	5	Pigment Blue 15:3	147-14-8		LD50 Oral, Rat 2000mg/kg
95	95	6	Pigment Blue 15:4	147-14-8		LD50 Oral, Rat 2000mg/kg
96	96	7	Pigment Blue 15:6	147-14-8		LD50 Oral, Rat 2000mg/kg
97	97	8	Pigment Blue 16	574-93-6		LD50 Oral, Rat 2000mg/kg
98	98	9	Pigment Blue 60	81-77-6		LD50 Oral, Rat > 980 mg/kg
99	99	10	Pigment Blue 62	57485-98-0		LD50 Oral, Rat 2000mg/kg
<b>Group-5: Pigment Violet = 7</b>						
100	100	1	Pigment Violet 1	1326-03-0	200	LD50 Oral, Rat 2000mg/kg
101	101	2	Pigment Violet 1x	N.A.		LD50 Oral, Rat 2000mg/kg
102	102	3	Pigment Violet 3	1325-82-2		LD50 Oral, Rat 2000mg/kg
103	103	4	Pigment Violet 19	1047-16-1		LD50 Oral, Rat 8420 mg/kg
104	104	5	Pigment Violet 23	6358-30-1		LD50 Oral, Rat 2000mg/kg
105	105	6	Pigment Violet 27	12237-62-6		LD50 Oral, Rat. >3200mg/kg
106	106	7	Pigment Violet 29	<u>81-33-4</u>		LD50 Oral, Rat 2000mg/kg
<b>Total of Category-A ( Group 1 + 2 + 3 + 4 + 5 ) = 106</b>					<b>1000</b>	
<b>Category-B: Solvent Dyes</b>						
<b>Group-1: Red Solvent Dyes = 13</b>						

107	1	1	Solvent Red 19E	6368-72-5	100	NA
108	2	2	Solvent Red 23	85-86-9		NA
109	3	3	Solvent Red 24	85-83-6		Acute oral toxicity: LD50(Rat): 8110mg/kg
110	4	4	Solvent Red 52	81-39-0		Acute oral toxicity: LD50(Rat): 8160mg/kg
111	5	5	Solvent Red 111	82-38-2		Acute Toxicity: Oral-dog LD 50:>8 g/kg
112	6	6	Solvent Red 135	20749-68-2		Acute oral toxicity: LD50(Rat): 8260mg/kg
113	7	7	Solvent Red 151	144013-41-1		NA
114	8	8	Solvent Red 168	71832-19-4		Acute oral toxicity: LD50(Rat): 8220mg/kg
115	9	9	Solvent Red 169	27354-18-3		Acute oral toxicity: LD50(Rat): 8230mg/kg
116	10	10	Solvent Red 179	479-27-6		Acute oral toxicity: LD50(Rat): 8260mg/kg
117	11	11	Solvent Red 197	52372-39-1		Acute oral toxicity: LD50(Rat): 8190mg/kg
118	12	12	Solvent Red 207	15958--69-6		NA
119	13	13	Solvent Red 227	2944-28-7		NA
			<b>Group-2: Yellow Solvent Dyes = 12</b>			
120	14	1	Solvent Yellow 2	6370-43-0		NA
121	15	2	Solvent Yellow 14	842-07-9		NA
122	16	3	Solvent Yellow 18	6407-78-9		NA
123	17	4	Solvent Yellow 33	8003-22-3		Skin, rabbit: LD50 = >2 gm/kg.

124	18	5	Solvent 43	Yellow	19125-99-6	NA
125	19	6	Solvent 44	Yellow	2478-20-8	NA
126	20	7	Solvent 72	Yellow	61813-98-7	NA
127	21	8	Solvent 114	Yellow	7576-65-0	NA
128	22	9	Solvent 131	Yellow	71819-82-4	NA
129	23	10	Solvent 157	Yellow	27908-75-4	Acute oral toxicity: LD50(Rat): 8200mg/kg
130	24	11	Solvent 163	Yellow	<u>106768-99-4</u>	LD50 rat (oral): > 2,000 mg/kg (OECD Guideline 423)
131	25	12	Solvent 167	Yellow	N.A.	NA
			<b>Group-3: Orange Solvent Dyes = 3</b>			
132	26	1	Solvent 60	Orange	61969-47-9	Acute oral toxicity: LD50(Rat): 8090mg/kg
133	27	2	Solvent 63	Orange	16294-75-0	Acute oral toxicity: LD50(Rat): 8190mg/kg
134	28	3	Solvent 105	Orange	31482-56-1	LD50 Intraperitoneal Rat=3060 MG/KG
			<b>Group-4: Blue Solvent Dyes = 6</b>			
135	29	1	Solvent Blue 35		17354-14-2	NA
136	30	2	Solvent Blue 36		14233-37-5	Acute oral toxicity: LD50(Rat): 8080mg/kg
137	31	3	Solvent Blue 97		61969-44-6	Acute oral toxicity: LD50(Rat): 8200mg/kg
138	32	4	Solvent Blue 101		6737-68-8	NA

139	33	5	Solvent Blue 102	15403-56-2		NA
140	34	6	Solvent Blue 104	116-75-6		Not acutely toxic via the oral route (LD50 > 5000 mg/kg bw)
			<b>Group-5: Violet Solvent Dyes = 4</b>			
141	35	1	Solvent Violet 13	81-88-1		LD50 Oral, Rat. >500mg/kg
142	36	2	Solvent Violet 14	67577-84-8		Acute oral toxicity: LD50(Rat): 8110mg/kg
143	37	3	Solvent Violet 38	63512-14-1		NA
144	38	4	Solvent Violet 59	6408-72-6		Acute oral toxicity: LD50(Rat): 8220mg/kg
			<b>Group-6: Green Solvent Dyes = 3</b>			
145	39	1	Solvent Green 3	128-80-3		LD50 = 3660 mg/kg ( Rat )
146	40	2	Solvent Green 28	71839-01-5		LD50 = 3660 mg/kg ( Rat )
147	41	3	Solvent Green 33	10671-57-8		NA
<b>Total of Category-B ( Group 1 + 2 + 3 + 4 + 5 + 6 ) = 41</b>					<b>100</b>	
<b>Category-C: Solvent Dyes</b>						
			<b>Group-1: Red Acid Dyes = 3</b>			
148	1	1	Acid Red 34	6360-67-1	100	NA
149	2	2	Acid Red 88	1658-31-7		NA
150	3	3	Acid Red 183	6408-31-7		NA
			<b>Group-2: Yellow Acid Dyes = 3</b>			



151	4	1	Acid Yellow 36	587-98-4	ORAL LD50 Rat > 2000 mg/k
152	5	2	Acid Yellow 151	12715-61-6	NA
153	6	3	Acid Yellow 194	61814-52-6	NA
		<b>Group-3: Orange Acid Dyes = 2</b>			
154	7	1	Acid Orange 33	6507-77-3	NA
155	8	2	Acid Orange 61	6408-33-9	NA
		<b>Group-4: Blue Acid Dyes = 3</b>			
156	9	1	Acid Blue 40	4474-24-7	NA
157	10	2	Acid Blue 49	N.A.	NA
158	11	3	Acid Blue 80	4474-24-2	Oral, rat: LD50 = 3350 mg/kg.
		<b>Group-5: Black Acid Dyes = 1</b>			
159	12	1	Acid Black 210	99576-15-5	Rat Oral LD50 (mg/kg) >5000
		<b>Group-6: Brown Acid Dyes=5</b>			
160	13	1	Acid Brown 58	12269-87-3	NA
161	14	2	Acid Brown 126	N.A.	NA
162	15	3	Acid Brown 362	61931-13-3	Acute oral toxicity: LD50(Rat): 8300mg/kg
163	16	4	Acid Brown 425	119509-49-8	NA
<b>164</b>	17	5	Acid Brown 432	119509-	NA

				50-1		
<b>Total Of Category C =(Group 1+2+3+4+5+6) = 17</b>					<b>100</b>	
<b>Category-D:Basic Dyes</b>						
<b>Group-1: Red Basic Dyes=3</b>						
165	1	1	Basic Red 12	6320-14-5		NA
166	2	2	Basic Red 14	12217-48-0		NA
167	3	3	Basic Red 18	14097-03-01		NA
<b>Group-2: Yellow Basic Dyes=2</b>						
168	4	1	48054	54060-92-3		Acute oral toxicity: LD50(Rat): 200mg/kg
169	5	2	N.A	78181-99-4	100	NA
<b>Group-3: Orange Basic Dyes=2</b>						
170	6	1	Basic Orange 30	12217-45-7		NA
171	7	2	Basic Orange 33	12217-46-8		NA
<b>Group-4: Blue Basic Dyes</b>						
172	8	1	Basic Blue 140	61724-62-4		NA
<b>Group-5: Black Basic Dyes</b>						
173	9	1	Basic Mix Black	NA		NA
<b>Total Of Category D =(Group 1+2+3+4+5) = 9</b>					<b>100</b>	
<b>Category-E: Direct Dyes</b>						
<b>Group-1: Red Basic Dyes=3</b>					100	
174	1	1	Direct Red 16	07/02/622		NA

				7		
175	2	2	Direct Red 80	08/10/2610		NA
176	3	3	Direct Red 81	09/11/2610		NA
<b>Group-2: Yellow Direct Dyes</b>						
177	4	1	Direct Yellow 11	1325-37-7		NA
178	5	2	Direct Yellow 27	10190-68-8		NA
179	6	3	Direct Yellow 147	71838-49-8		NA
<b>Group-3: Orange Direct Dyes</b>						
180	7	1	Direct Orange 15	1325-35-5		NA
181	8	2	Direct Orange 102	6598-63-6		NA
<b>Group-4: Blue Direct Dyes</b>						
182	9	1	Direct Blue 80	12222-00-3		NA
183	10	2	Direct Blue 86	1330-38-7		ORAL RAT LD50:>5 g/kg
<b>Group-5: Black Direct Dyes</b>						
184	11	1	Direct Black 168	3818-60-8		NA
<b>Total Of Category E =(Group 1+2+3+4+5) = 11</b>					<b>100</b>	
<b>Category-f: Disperse Dyes</b>						
<b>Group-1: Red Disperse Dyes</b>						
185	1	1	Disperse Red 50	12223-35-7	100	NA
186	2	2	Disperse Red 60	12223-37-9		NA

187	3	3	Disperse Red 91	12223-46-0	NA
188	4	4	Disperse Red 92	12236-11-2	NA
189	5	<b>5</b>	Disperse Red 167	61968-52-3	NA
<b>Group-2: Yellow Disperse Dyes</b>					
190	6	1	Disperse Yellow 54	12223-85-7	NA
191	7	2	Disperse Yellow 56	54077-16-6	NA
192	8	3	Disperse Yellow 114	61968-66-9	NA
193	9	4	Disperse Yellow 119	57308-41-5	NA
194	10	5	Disperse Yellow 211	86836-02-4	NA
<b>Group-3: Orange Disperse Dyes</b>					
195	11	1	Disperse Orange 25	12223-22-2	Oral (rat) LD50: >2000 mg/kg
196	12	2	Disperse Orange 30	12223-23-3	NA
<b>Group-4: Blue Disperse Dyes</b>					
197	13	1	Disperse Blue 56	12217-79-7	NA
198	14	2	Disperse Blue 79	12239-34-8	NA
199	15	3	Disperse Blue F2RX (mix)	N.A.	NA
200	16	4	Disperse Blue F2GX (mix)	N.A.	NA

201	17	5	Disperse Blue F2IX (mix)	N.A.		NA
<b>Group-5: Black Disperse Dyes</b>						
202	18	1	Disperse Black R (mix)	N.A.		NA
203	19	2	Disperse Black RLX (mix)	N.A.		NA
204	20	3	Disperse Black XPX (mix)	N.A.		NA
<b>Group-6: Green Disperse Dyes</b>						
205	21	1	Disperse Green 2B (mix)	NA		NA
<b>Group-7: Brown Disperse Dyes</b>						
206	22	1	Disperse Brown 3BS(mix)	NA		NA
<b>Group-8: Gray Disperse Dyes</b>						
207	23	1	Disperse Gray RBB (mix)	NA		NA
<b>Total Of Category f = (Group 1+2+3+4+5+6+7+8) = 23</b>					<b>100</b>	
<b>Category-G: Reactive Dyes</b>						
<b>Group-1: Red Reactive Dyes</b>						
208	1	1	Reactive Red 45	12226-22- 1	100	Rat Oral LD50 (mg/kg) >5000
209	2	2	Reactive Red 65	12226-32- 3		NA
210	3	3	Reactive Red 111	88232-20- 6		NA
211	4	4	Reactive Red 152	71870-80- 5		NA
212	5	5	Reactive Red 194	23354-52- 1		NA

<b>Group-2: Yellow Reactive Dyes</b>					
213	6	1	Reactive Yellow 18	12226-48-1	Rat Oral LD50 (mg/kg) >5000
214	7	2	Reactive Yellow 57	61969-35-3	NA
215	8	3	Reactive Yellow 81	59112-78-6	Rat Oral LD50 (mg/kg) >5000
216	9	4	Reactive Yellow 135	77907-38-1	NA
217	10	5	Reactive Yellow 160	129898-77-7	NA
<b>Group-3: Orange Reactive Dyes</b>					
218	11	1	Reactive Orange 12	35642-64-9	NA
219	12	2	Reactive Orange 13	12225-85-3	Rat Oral LD50 [mg/kg] : > 5000
220	13	3	Reactive Orange 84	91261-29-9	NA
221	14	4	Reactive Orange 122	12220-12-1	NA
<b>Group-4: Blue Reactive Dyes</b>					
222	15	1	Reactive Blue 49	12236-92-9	Rat Oral LD50 (mg/kg) >5000
223	16	2	Reactive Blue 50	12225-61-5	Rat Oral LD50 (mg/kg) >5000
224	17	3	Reactive Blue 69	59800-32-7	NA
225	18	4	Reactive Blue 198	124448-55-1	Rat Oral LD50 (mg/kg) >5000
<b>Group-5: Black Reactive Dyes</b>					
226	19	1	Reactive Black 5	12225-25-	LD50 > 2,000 mg/kg (rat)

				1		
	<b>Total Of Category G =(Group 1+2+3+4+5) = 19</b>				<b>100</b>	
	<b>Category-H: Vat Dyes</b>					
	<b>Group-1: Red Vat Dyes</b>				100	
227	1	1	Vat Red 1	2379-74-0		NA
	<b>Group-2: Yellow Vat Dyes</b>					
228	2	1	Vat Yellow 2	129-09-9		NA
229	3	2	Vat Yellow 4	128-66-5		NA
230	4	3	Golden Yellow GK	1324-11-4		NA
	<b>Group-3: Orange Vat Dyes</b>					
231	5	1	Vat Orange 1	1324-11-4		NA
232	6	2	Vat Orange 5	3263-31-8		NA
	<b>Group-4: Blue Vat Dyes</b>					
233	7	1	Vat Blue 5	2475-31-2	ipr-rat LD50:5700 mg/kg	
	<b>Group-5: Brown Vat Dyes</b>					
234	8	1	Vat Brown 5	398-75-1	NA	
	<b>Total Of Category H =(Group 1+2+3+4+5) = 8</b>				<b>100</b>	
	<b>Category-I: Naphtho</b>					
235	1	1	NAPHTHOL – AS	92-77-3	100	NA
236	2	2	NAPHTHOL – ASBO	132-68-3		ipr-rat LD50:7320 mg/kg
237	3	3	NAPHTHOL – ASD	135-61-5		NA
238	4	4	NAPHTHOL – ASOL	135-62-6		NA
239	5	5	NAPHTHOL –	132-65-9		NA

			ASBS			
240	<b>6</b>	<b>6</b>	NAPHTHOL - ASE	92-78-4		NA
241	<b>7</b>	<b>7</b>	NAPHTHOL - ASCL (ASCA)	132-65-9		NA
242	<b>8</b>	<b>8</b>	NAPHTHOL - ASKB	135-63-7		NA
<b>Total Of Category I = 8</b>					<b>100</b>	
<b>Category-J: Fast Basis</b>						
243	1	1	Bordeaux GP	96-96-8	100	Oral, rat: LD50 = 14100 mg/kg.
244	2	2	Orange GC	17333-85-5		NA
245	3	3	Red B	97-52-9		Oral, rat: LD50 = 997 mg/kg
246	4	4	Red RC	93-34-5		NA
247	5	5	Red TR	97-35-8		NA
248	<b>6</b>	<b>6</b>	Scarlet RC	27165-17-9		LD50 Oral - Rat - 400 mg/kg
249	<b>7</b>	<b>7</b>	Yellow GC	17333-83		NA
250	<b>8</b>	<b>8</b>	Blue B	119-90-4		NA
251	<b>9</b>	<b>9</b>	Garnet GBC	97-56-3		NA
252	<b>10</b>	<b>10</b>	Black K	64071-88-9		NA
253	<b>11</b>	<b>11</b>	Red KB	2780-35-4		NA
254	<b>12</b>	<b>12</b>	Blue BB	5486-84-0		NA
255	<b>13</b>	<b>13</b>	Red 3GL	89-63-4		LD50 Oral - Rat - 400 mg/kg(4-Chloro-2-nitroaniline)
256	<b>14</b>	<b>14</b>	Orange RD	29362-18-3		NA



257	<b>15</b>	<b>15</b>	Corinth V	47300-91-4		NA
258	<b>16</b>	<b>16</b>	Fast Red G Base	89-62-3		NA
259	<b>17</b>	<b>17</b>	Fast Scarlet R Base	99-59-2		Oral, rat: LD50 = 2250 mg/kg;
<b>Total Of Category J = 17</b>					<b>100</b>	
<b>Category-K: Pyrazolone</b>						
260	1	1	2,5-Dichloro SPMP	84-57-1	100	NA
261	2	2	Ortho Chloro SPMP	88-76-6		NA
262	3	3	1,3-SPMP	119-17-5		NA
263	4	4	1,4-SPMP	89-36-1		NA
264	5	5	PMP	89-25-8		Oral, rat: LD50 = 1915 mg/kg;
<b>Total Of Category K = 5</b>					<b>100</b>	
<b>Category-L: Fast Basis</b>						
65	1	1	3,3-Dichloro Benzidine Dihydrochloride [3,3-DCB]	612-83-9	500	Oral LD50 5628 mg/kg (rat)
266	2	2	Tobias Acid	81-16-3	150	Oral LD50 19400 mg/kg (rat)
267	3	3	4B- Acid	88-44-8	50	LD50 = 11700 mg/kg ( Rat )
268	4	4	2B-Acid	88-51-7	50	Oral LD50 1230 mg/kg (rat)
269	5	5	Quinizarine	81-64-1	25	ORAL LD50 Rat > 5000 mg/kg
270	<b>6</b>	<b>6</b>	Chloranil	118-52-2	25	NA
271	<b>7</b>	<b>7</b>	DMSS	6289-46-9	25	LD50 > 15000 mg/kg ( Rat )

272	8	8	1-Chloro-1,8-Naphthalic Anhydride	01/08/405 3	25	Oral LD50 3460 mg/kg (rat)
273	9	9	1, 8-Diamino Naphthalene	479-27-6	25	Acute oral toxicity (LD50): 800 mg/kg [Rat].
274	10	10	1,5-Dichloro Anthraquinone	82-46-2	25	NA
<b>Total Of Category L</b>					<b>900</b>	
<b>Grand Total</b>					<b>2900</b>	

The project/activity is covered under category A of item 5(f) 'Synthetic organic chemicals industry' of schedule to the Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at Central level in the Ministry. The standard ToR for the project was granted on 26th February, 2019. Public hearing for the project was conducted by the State Pollution Control Board on 21st August, 2019.

Total land area is estimated to be 20,538 sqm. Green belt will be developed in 6,356 sqm out of total project area. The estimated project cost of proposed unit is Rs.20 crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 2.5 Crores and the recurring cost (operation and maintenance) will be about Rs. 3.5 Crores per annum. Total Employment will be 100 persons as direct & indirect for project.

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

Total water requirement is 1001 m<sup>3</sup>/day of which fresh water requirement of 313 m<sup>3</sup>/day and will be met from Ground Water. Total wastewater generation will be 720 KL/day (Industrial: 705 KL/day + Domestic: 15 KL/day). 310 KLD of dilute stream of effluent will be sent to RO and RO permeate @ 210 KLD will be reused in process. 490 KLD of Concentrated stream of effluent (Process: 390 KLD + RO Reject: 100 KLD) will be treated in ETP and sent to own MEE, 473 KLD MEE condensate will be recycled. 5 KLD of wastewater from cooling will be reused within premises. Domestic wastewater will be disposed through Septic Tank/Soak Pit.

Power requirement for proposed project will be 2000 KVA and will be met from MGVL. 2 Nos. DG set of 250 KVA capacity shall be used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets of 250 KVA which will be used as standby during power failure. Unit shall have 1 Nos. of 5 TPH Briquette/Coal = 5240 Kg/Hr fired boiler, 4 Nos. of 2 Lakh Kcal/Hr PNG = 800 Cu.mt./Hr fired HAG, 1 Nos. of 2 Lakh Kcal/Hr Briquette = 5260 Kg/Hr fired Thermopack Boiler will be installed. Multi cyclone separator, Dust Collector & Bag filter + Water Scrubber with a stack of height of 32 m will be installed for controlling the Particulate emissions (within statutory limit of 150 mg/Nm<sup>3</sup>) respectively.

Ambient air quality monitoring was carried out at 10 locations during October, 2017 to December, 2017 and submitted baseline data indicates that ranges of concentrations of PM10 (78.83 – 69.35 µg/m<sup>3</sup>), PM2.5 (47.28 – 40.35 µg/m<sup>3</sup>), SO<sub>2</sub> (12.92 – 8.57 µg/m<sup>3</sup>) and NO<sub>2</sub> (17.09 – 11.94 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.0594 µg/m<sup>3</sup>, 0.0888 µg/m<sup>3</sup>, and 0.0312 µg/m<sup>3</sup> with respect to PM10, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

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

- (i) EIA report to be revised as per the terms of reference granted for the project, and shall conform to Appendix III of the EIA Notification, 2006.
- (ii) EAC noted that PP has not submitted adequately TOR compliance and PP needs to be resubmit the TOR Compliance adequately.
- (iii) The Committee noted that there are various deficiencies in Form 2 (viz. S. no. 13, 15 etc.) uploaded by the PP and accordingly Revised Form 2 shall be submitted incorporating all the information related to the project.
- (iv) The Committee noted that there are Schedule I species in the study area. PP needs to prepare the species specific conservation plan along with budgetary allocation and PP to take approval for the Wildlife conservation and management plan from CWLW State Government.
- (xi) Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation. Public hearing proceedings to be forwarded by the Member Secretary, SPCB along with complete public hearing/consultation documents.
- (v) Onsite emergency plan as per MSIHC Rules.
- (vi) Revised water balance with details of total water and fresh water requirement.
- (vii) Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (viii) Plan for Corporate Environmental Responsibility.
- (ix) QCI/NABET Accreditation details of consultants prepared the EIA/EMP report.
- (x) Copy of stay order of Hon'ble High Court permitting experts who prepared the EIA/EMP report.

- (xi) PP/Consultant was unable to show the video of PH
- (xii) PP/Consultant has submitted the undertaking for owning the draft EIA Report. The consultant has not applied his mind during uploading the information on portal. The Committee was very disappointed by this act of consultant.

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

### **Agenda No.14.7.6**

**Manufacturing of Agrochemicals and Intermediates at Plot No. DP 53-55, Sayakha-I GIDC Industrial Estate, Sayakha – 392 140, Taluka Vagra, District Bharuch Gujarat by M/s Bharat Rasayan Limited (Unit – III) - For Environmental Clearance**

**[IA/GJ/IND2/102692/2019, IA-J-11011/170/2019-IA-II(I)]**

The project proponent and their consultant M/s Siddhi Green Excellence Pvt. Ltd, made a detailed presentation on the salient features of the project.

**14.7.6.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up Agrochemicals & agrochemicals intermediate manufacturing unit of capacity 36300 TPA by M/s Bharat Rasayan Limited (Unit – III) in an area of 86019 sqm located at Plot No.DP 53-55, Sayakha - I GIDC Industrial Estate, Sayakha, Taluka Vagra, District Bharuch (Gujarat).

The details of products and capacity are as under:

<b>Sr. No.</b>	<b>Name of Product</b>	<b>CAS No.</b>	<b>Proposed (TPA)</b>	<b>End Use</b>	<b>LD50 – Oral (Rat) mg/kg</b>
1.	1,2,4 -Triazole	288-88-0	600	Intermediate of Tebuconazole (Fungicide)	1648
2.	2,4-D-Ethyl Ester	533-23-3	700	Weedicide	650 – 800
3.	2-[2-(4-Chlorophenyl)Ethyl]-2-(1,1-Dimethylethyl)-Oxirane	80443-63-6	600	Intermediate of Tebuconazole (Fungicide)	2500
4.	(2,6-Diisopropyl-4-Phenoxy) Phenylthiourea (DIPPT)	135252-10-7	900	Intermediate of Diafenthiuron (Insecticide)	>500
5.	2-Chloro-5-Chloromethyl Thiazole (CCMT)	105827-91-6	1500	Intermediate of Thiamethoxam (Insecticide)	>2000
6.	3-Methyl-4-	153719-38-	1500	Intermediate of	>500

Sr. No.	Name of Product	CAS No.	Proposed (TPA)	End Use	LD50 – Oral (Rat) mg/kg
	Nitroiminoperhydro-1,3,5-oxidiazine	1		Thiamethoxam (Insecticide)	
7.	4-Amino-6-(Tert-Butyl)-3-Mercapto-1,2,4-Triazin-5(4H) One	33509-43-2	600	Intermediate of Metribuzin (Herbicide)	1100
8.	5-amino-1-(2,6-Dichloro-4-Trifluoromethyl)-Phenyl-1H-Pyrazole-3-Carbonitrile	120068-79-3	600	Intermediate of Fipronil (Insecticide)	530
9.	5-Chloro-2,3-Difluoropyridine	89402-43-7	250	Intermediate of Clodinafop Propargyl (Herbicide)	342
10.	Aluminium Chloride	7446-07-0	2200	For Acetylation Reaction	3470
11.	4-acetyl-2-methylbenzoic acid (AMBA)	55860-35-0	50	Intermediate	>300 (Mouse)
12.	4-acetyl-2-methylbenzamide (AMBAD)	1095275-06-1	100	Intermediate	>300 (Mouse)
13.	Amitraz Technical	33089-61-1	60	Insecticide	400
14.	Atrazine	1912-24-9	900	Herbicide	2220
15.	Azoxystrobin Technical	131860-33-8	200	Fungicide	>2000
16.	Benzaldehyde	100-52-7	1800	Intermediate of m-Phenoxybenzaldehyde	1300
17.	Bifenthrin Alcohol	76350-90-8	500	Intermediate of Bifenthrin (Insecticide)	2219
18.	Bispyribac sodium salt	125401-92-5	300	Herbicide	2635
19.	Bromobenzene	108-86-1	700	Intermediate	2383
20.	Butachlor Technical	23184-66-9	1500	Herbicide	1740
21.	Carfentrazone-ethyl	128639-02-1	200	Herbicide	5143
22.	Cartap Hydrochloride	15263-52-2	500	Insecticide	250
23.	Cypermethric acid chloride (CMAC)	52314-67-7	2000	Intermediate	>600
24.	Isopropyl 5-chloro-4-Methyl-2-nitrobenzoate (CMNBP)	1204518-43-3	150	Intermediate	>500
25.	Cymoxanil Technical (98%)	57966-95-7	300	Fungicide	1100
26.	Chlorpyrifos-methyl Technical	5598-13-0	500	Insecticide	3000

<b>Sr. No.</b>	<b>Name of Product</b>	<b>CAS No.</b>	<b>Proposed (TPA)</b>	<b>End Use</b>	<b>LD50 – Oral (Rat) mg/kg</b>
27.	3',5'-Dichloro-2,2,2-trifluoroacetophenone (DCAP)	130336-16-2	100	Intermediate	>300 (Mouse)
28.	3,6-dichloropyridazin-4-ol (DCHD)	2779-81-9	100	Intermediate	>200 (Fish)
29.	Deltamethrin Technical	52918-63-5	300	Insecticide	>5000
30.	[(R)-(+) -2-(4-Hydroxyphenoxy)-Propionic Acid] (D-HPPA)	94050-90-5	300	Intermediate of Clodinafop Propargyl (Herbicide)	2000
31.	Diafenthiuron Technical	80060-09-9	800	Insecticide	2068
32.	Difenoconazole Technical	119446-68-3	200	Fungicide	1453
33.	Ethephon Technical (75%)	16672-87-0	200	Herbicide	4229
34.	Fenoxaprop-P-ethyl	71283-80-2	200	Herbicide	3150 – 4000
35.	Fenprothrin Technical (90% min)	64257-84-7	150	Insecticide	1000 (Skin & Eye)
36.	Fenpyroximate Technical	134098-61-6	25	Insecticide	245
37.	Fipronil Technical	120068-37-3	600	Insecticide	>2000 (Skin & Eye)
38.	Halosulfuron-methyl	100784-20-1	50	Herbicide	8866
39.	Hexaconazole Technical	79983-71-4	400	Fungicide	>2000 (Dermal)
40.	2-Hydroxy Propyloxymine Hydrochloride (HPOA HCl)	950595-72-9	100	Intermediate	>300 (Mouse)
41.	Imazethapyr Technical (97%)	81335-77-5	100	Herbicide	>5000
42.	Imibenconazole	86598-92-7	100	Fungicide	2800
43.	Imidacloprid Technical	138261-41-3	600	Insecticide	410
44.	Imiprothrin Technical	72963-72-5	15	Insecticide	2400
45.	Indoxacarb Technical	144171-61-9	100	Insecticide	268
46.	Isofetamid	875915-78-9	100	Fungicide	1302 – 6690
47.	Isoprothiolane Technical (96%)	50512-35-1	150	Fungicide	1190
48.	Lambda Cyhalothric Acid	72748-35-7	1200	Intermediate	980
49.	Lambda Cyhalothrin Technical	91465-08-6	1000	Insecticide	632 – 696 (Skin & Eye)

<b>Sr. No.</b>	<b>Name of Product</b>	<b>CAS No.</b>	<b>Proposed (TPA)</b>	<b>End Use</b>	<b>LD50 – Oral (Rat) mg/kg</b>
50.	M,N,O-1,2 dimethyl-N-nitrosoarea	255708-80-8	600	Intermediate	>500
51.	Metalaxyl Technical (90%)	57837-19-1	300	Fungicide	566
52.	m-Phenoxybenzaldehyde	39515-51-0	2000	Intermediate	1222
53.	Novaluron Technical	116714-46-6	100	Insecticide	>5000
54.	Paclobutrazol	76738-62-0	100	Plant growth regulator	1300
55.	4-Chlorophenylacetic acid	1878-66-6	500	Intermediate (For Food and Bulk Drug)	1350
56.	Penoxsulam	219714-96-2	100	Herbicide	>5000
57.	Picoxystrobin Technical	117428-22-5	100	Fungicide	>5000
58.	Prallethrin Technical	23031-36-9	100	Insecticide	640
59.	Pretilachlor Technical	51218-49-6	600	Herbicide	2200
60.	Probenazole	27605-76-1	1000	Fungicide	2030
61.	Profenofos Technical	41198-08-7	400	Intermediate	358
62.	Propanil Technical	709-98-8	400	Herbicide	367
63.	Propargite Technical	2312-35-8	100	Insecticide	2800
64.	Propiconazole Technical	60207-90-1	300	Fungicide	1517
65.	Propineb Technical (80%)	12071-83-9	400	Fungicide	8500
66.	Propoxy Ethyl Chloride	42149-74-6	300	Intermediate	204
67.	Pymetrozine	123312-89-0	100	Insecticide	>5000
68.	Pyrazosulfuron-ethyl Technical (97%)	93697-74-6	50	Herbicide	>5000
69.	Pyriithiobac Sodium	123343-16-8	50	Herbicide	3300
70.	Quizalofop-p-ethyl	100646-51-3	200	Herbicide	1670
71.	Spiromesifen Technical	283594-90-1	50	Insecticide	>2500
72.	Temephos Technical	3383-96-8	100	Insecticide	1000
73.	Thifluzamide	130000-40-7	200	Fungicide	>6500
74.	Thiodicarb Technical (94%)	59669-26-0	150	Insecticide	120
75.	Thiophanate-methyl	23564-05-8	200	Fungicide	6640
76.	Tolfenpyrad	129558-76-5	50	Insecticide	260 – 386
77.	Topramezone	210631-68-	50	Herbicide	>2000

Sr. No.	Name of Product	CAS No.	Proposed (TPA)	End Use	LD50 – Oral (Rat) mg/kg
		8			
78.	Transfluthrin Technical	118712-89-3	200	Insecticide	>5000
79.	Tricyclazole Technical	41814-78-2	300	Fungicide	250
80.	Trifluoromethanesulfinyl chloride	20621-29-8	300	Intermediate of Fipronil (Insecticide)	250
81.	Zeta Cypermethrin	52315-07-8	500	Insecticide	>5000
82.	Zineb	12122-67-7	200	Fungicide	1850 – 8900
83.	Pilot Products #	--	100	--	--
<b>Total</b>			<b>36300</b>		
<b>Formulation Products</b>					
1.	Pesticide Formulation (Solid)	--	6000	--	--
2.	Pesticide Formulation (Liquid)	--	6000	--	--

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry. Standard ToR for the project was granted on 24th May, 2019. Public hearing is exempted as the project is located in the notified Industrial area.

Total land area is 86019 m<sup>2</sup>. Greenbelt will be developed in an area of 33% i.e. 28386 m<sup>2</sup>, out of total area of the project and 7% i.e. 6022 sqm at GIDC allotted land. The estimated project cost is Rs. 310 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 22.7 Crore and the recurring cost (operation and maintenance) will be about Rs. 41.551 Crore per annum. Total Employment will be 700 Nos. persons as direct & 500 Nos. persons as indirect for proposed project.

There are no National parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife corridors, rivers etc. within 10 km from the project site. Bhadra River & Bhukhi River are flowing at a distance of ~2 km in NWW direction and ~4.5 km in S direction respectively.

Total water requirement is 3090 m<sup>3</sup>/day of which fresh water requirement is 1280 m<sup>3</sup>/day will be met from GIDC supply. Industrial Effluent of 1299 m<sup>3</sup>/day will be treated through Effluent Treatment Plant (ETP) having Primary, Secondary & Tertiary Treatment, MEE and RO. Domestic effluent of 90 m<sup>3</sup>/day will be treated through Sewage Treatment Plant (STP). The committee suggested to adopt the Zero Liquid discharge system as this is a new plant. The project proponent was agree with it and submitted the ZLD plan.



Power requirement of 6000 KVA proposed to be met from M/s. Dakshin Gujarat Vij Company Ltd. (DGVCL). Unit will be used 4 Nos. DG sets (2 Nos. 750 KVA of each & 2 Nos. 1500 KVA of each) as standby during power failure for proposed project. Stack (15 m Height) will be provided as per CPCB norms to the proposed DG Sets.

Unit shall be installed one common stack for Multi fuel boiler (1 No. 18 MT/hr) and Thermic Fluid Heaters (2 Nos. 4 Lakh Kcal/hr each) and another Common stack for Multi fuel boilers (2 Nos. 18 MT/hr each) and Thermic Fluid Heaters (2 Nos. 4 Lakh Kcal/hr each). ESP shall be provided for each stack (30 m height) with online CEMS for continuous monitoring. Natural gas OR HSD & OR Coal shall be used as Fuel for MFBs & TFHs, HSD shall be used as Fuel for DG Sets.

Ambient air quality monitoring was carried out at 12 locations including project site during January 2019 to March 2019 and the baseline data indicates the ranges of concentrations as PM10 (74-89 µg/m<sup>3</sup>), PM2.5 (26-45 µg/m<sup>3</sup>), SO<sub>2</sub> (12-24 µg/m<sup>3</sup>) and NO<sub>x</sub> (21-26 µg/m<sup>3</sup>) (98th percentile values) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.237 µg/m<sup>3</sup>, 10.579 µg/m<sup>3</sup> and 4.337 µg/m<sup>3</sup> with respect to PM10, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be Rs.10 crores of the project cost as committed by the project proponent. The project proponent has submitted the activity wise revised CER plan.

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components.

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

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

- (i). Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.
- (ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iii). Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv). National Emission Standards for Pesticides Manufacturing Industry issued by the Ministry vide G.S.R.446(E) dated 13<sup>th</sup> June, 2011, as amended from time to time, shall be followed.
- (v). No pesticides/chemicals banned by the Ministry of Agriculture and Farmers Welfare, or having LD<sub>50</sub><100 mg/kg shall be produced. Also, no raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used for production of pesticides.
- (vi). No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (vii). To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (viii). Solvent management shall be carried out as follows:
  - a) Reactor shall be connected to chilled brine condenser system.
  - b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
  - c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
  - d) Solvents shall be stored in a separate space specified with all safety measures.
  - e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
  - f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
  - g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

- (ix). Total fresh water requirement shall not exceed 1280 cum/day to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (x). Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system
- (xi). Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- (xii). Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xiii). The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act, 1989.
- (xiv). The company shall undertake waste minimization measures as below:-
  - a) Metering and control of quantities of active ingredients to minimize waste.
  - b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - c) Use of automated filling to minimize spillage.
  - d) Use of Close Feed system into batch reactors.
  - e) Venting equipment through vapour recovery system.
  - f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xvi). As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be Rs. 10 crore of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- (xvii). Safety and visual reality training shall be provided to employees.
- (xviii). For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.

- (xix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xx). Occupational health surveillance and urological assessment of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xxii). Mitigating measures suggested during process safety and risk assessment studies shall be carried out.
- (xxiii). The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018. The said OM is available at the Ministry's website (PARIVESH portal i.e. www.parivesh.nic.in). The grant of Environmental Clearance is further subject to compliance of generic conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018.

#### **Agenda No.14.7.7**

#### **Setting up synthetic organic chemicals manufacturing unit at Nej, Tal- Chikodi, District Belgavi (Karnataka) by M/s Shri Chandreshwari Chemicals Pvt. Ltd. - Consideration of Environmental Clearance**

#### **[IA/KA/IND2/73280/2018, IA-J-11011/79/2018-IA-II(I)]**

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

#### **14.7.7.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for setting up synthetic organic chemicals manufacturing unit of capacity 15 TPD by M/s Shri Chandreshwari Chemicals Pvt.

Ltd. in an area of 0.6075 ha at Plot No. 82/1 at Nej, Taluka Chikodi, District Belgavi, Karnataka.

The details of products are as under:

<b>S. No.</b>	<b>Name of the Product</b>	<b>Quantity (MT/Day)</b>
1.	Di-ethyl Pthalate	5
2.	Formaldehyde (37 %)	10
	<b>Total (MT/ Day)</b>	<b>15</b>

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

The standard ToR for the project was granted on 5<sup>th</sup> April, 2018. Public hearing for the project was conducted by the State Pollution Control Board on 19<sup>th</sup> June, 2019. The main issues raised during the public hearing are related to effluent generation its disposal, electricity generation, benefits to farmers from proposed project, APC installation, employment generation etc.

Total plot area acquired by industry is 0.6075 Ha. Industry will develop an area of 0.2039 Ha under green belt during establishment of proposed project which accounts for 33 % of total plot area. The estimated cost for proposed project is Rs.5.95 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 1.10 Crores and the Recurring cost (operation and maintenance) will be about Rs. 0.19 Crores per annum. Total employment of 29 persons as direct as well as indirect under proposed SCCPL project would be generated.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. River Dudhganga flows at 6.13 km in West to North direction.

Total fresh water requirement for proposed project will be 47 cm/day proposed to be met from Dudhganga river. Generated effluent will be treated in the ETP and treated water of 9 cum/day will be recycled in industrial process. The unit will be based on Zero Liquid Discharge.

Power requirement to the tune of 0.6 MWH for proposed project would be taken from Karnataka Govt. (Hubali Div.) KPTCL (HESCOM) Grid. Additionally, two D.G. sets of 60 KVA and 125 KVA resp. will be installed under proposed project. DG sets will be used as standby during power failure. Stack of height 1.5-2.5 M will be provided as per CPCB norms to the proposed DG sets. Under proposed unit one boiler of capacity 5 TPH each will be installed.

Bagasse to the tune of 48 TPD will be used as fuel for the same. MDC followed by Bag filter along with stack of 30 M height each will be installed to the same for controlling the particulate emission.

Ambient air quality monitoring was carried out at 8 locations during February 2018 – April 2018 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (40.2 – 52.1 µg/m<sup>3</sup>), PM<sub>2.5</sub> (12.1 – 20.8 µg/m<sup>3</sup>), SO<sub>2</sub> (16.7 – 30.2 µg/m<sup>3</sup>) and NO<sub>x</sub> (20.1 – 38.5 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.093 µg/m<sup>3</sup> PM<sub>10</sub> (towards West side), 0.023 µg/m<sup>3</sup> PM<sub>2.5</sub> (towards West side), 1.61 µg/m<sup>3</sup> SO<sub>2</sub> (towards West side) and 0.872 µg/m<sup>3</sup> NO<sub>x</sub> (towards West side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The expenditure towards CER for the project would be 5% of the project cost as committed by the project proponent.

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. Additional information submitted by the project has been found to be in order.

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

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

- (i). Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.
- (ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iii). Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv). National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21st July, 2010 and amended from time to time shall be followed. Fugitive emissions shall be controlled at 99.98% with effective chillers.
- (v). No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (vi). To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (vii). Solvent management shall be carried out as follows:
  - a) Reactor shall be connected to chilled brine condenser system.
  - b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
  - c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
  - d) Solvents shall be stored in a separate space specified with all safety measures.
  - e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
  - f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
  - g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (viii). Total fresh water requirement shall not exceed 47 cum/day proposed to be met from Dudhganga river. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

- (ix). Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
- (x). Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- (xi). Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xii). No coal shall be used as fuel in boilers. Bio-briquettes shall be used as boiler fuel. Unit shall install briquette manufacturing unit inside the plant premises.
- (xiii). The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- (xiv). The company shall undertake waste minimization measures as below:-
  - a) Metering and control of quantities of active ingredients to minimize waste.
  - b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - c) Use of automated filling to minimize spillage.
  - d) Use of Close Feed system into batch reactors.
  - e) Venting equipment through vapour recovery system.
  - f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xvi). As proposed 5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER).The CER funds shall be utilized for greenbelt development, skill development and check dam construction, as suggested during public hearing. The CER plan shall be completed within a period of two years or before commissioning of the project.
- (xvii). For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.



- (xviii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xix). Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xx). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xxi). The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018. The said OM is available at the Ministry's website (PARIVESH portal i.e. www.parivesh.nic.in). The grant of Environmental Clearance is further subject to compliance of generic conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018.

### **Agenda No. 14.7.8**

#### **Modernization/Product mix of existing Synthetic organic chemicals and Specialty Chemicals manufacturing facility at Roha by M/s Deepak Nitrite Limited - Consideration of Environmental Clearance**

##### **[IA/MH/IND2/63448/2016, J- 11011/363/2016-IA.II(I)]**

The project proponent and their accredited consultant M/s Aditya Environmental Services Pvt. Ltd., made a detailed presentation on the salient features of the project.

##### **14.7.8.1** During deliberations, the EAC noted the following: -

The proposal is for environmental clearance to the project for Expansion of pesticide specific intermediate and synthetic organic chemicals manufacturing Facility at Plot No 1 to 8, 26 to 34, MIDC Roha, Dist Raigad, Maharashtra by M/s Deepak Nitrite Limited.

The project/activity is covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' and 5(f) 'Synthetic Organic Chemicals' of schedule to the EIA Notification, 2006, and requires appraisal at central level by sectoral EAC in the Ministry.

Standard ToR for the project was granted on 24<sup>th</sup> June 2019. Public hearing was exempted as the project site is located in the notified Industrial area.

Ministry has issued EC earlier vide letter No. F No J-11011/363/2016-IA-II(I) dated 2<sup>nd</sup> January 2018 and 12<sup>th</sup> April 2018 to the existing project of modernization with Change in product mix in favour of M/s Deepak Nitrite Limited.

Existing land area is 26,624 sq. m, additional 8,192 sq. m land will be used for proposed expansion. Total plot area after expansion will be 34,816 sq. m. Industry will be developed Greenbelt in an area of 3676 sq. m out of total area of the project. In addition, proponent has leased area of 8605 sq m within MIDC for green belt development. The estimated project cost is Rs. 156 Crores including existing investment of Rs. 44.54 crores. Total capital cost earmarked towards environmental pollution measures is Rs. 15 Crores & the Recurring cost (operation & maintenance) will be about Rs. 5.37 Crores per annum. Total employment will be 470 persons as direct & 1000 persons indirect after expansion. Industry proposes to allocate Rs. 117 Lakhs @ of 0.75% towards Corporate Social Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Village Dhatav wherein the Roha MIDC is setup has appeared in the list of ESA village of Western Ghats (Ecological Sensitive Area Village) draft notification dated 14.03.2014, 04.09.2015, 27.02.2017 and 03.10.2018. Kundalika River is flowing at a distance of 0.8 km in north direction.

Ambient air quality monitoring was carried out at 8 locations during 1<sup>st</sup> March 2019 to 31<sup>st</sup> May 2019 and baseline data indicates that ranges of concentrations of PM<sub>10</sub> (52.4 to 79.2 µg/m<sup>3</sup>), PM<sub>2.5</sub> (18.6 to 37.5 µg/m<sup>3</sup>), SO<sub>2</sub> (9.5 to 18.5 µg/m<sup>3</sup>), NOx (15.3 to 32.8 µg/m<sup>3</sup>), CO (0.17 to 0.44 mg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.48 µg/m<sup>3</sup>, 4.22 µg/m<sup>3</sup> & 2.53 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> & NOx.

Total water requirement is 1647 m<sup>3</sup>/day out of which fresh water requirement of 1164 m<sup>3</sup>/day will be met from MIDC. Treated effluent of 777 m<sup>3</sup>/day will be treated through ETP, RO, MEE with stripper. 247 cmd of treated effluent will be discharge to CETP as per existing CTO & balance will be recycle.

Power requirement after expansion will be 5000 KVA including existing 2500 KVA and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Existing unit has 3 nos. DG sets of 750 KVA, 750 KVA & 500 KVA respectively, additionally 2 nos. of 1000 KVA DG sets are used as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 2 nos. of 8 TPH Coal & FO fired boiler, 2 nos. of 4 Lakh Kcal/Hr each Hot oil units & 1 no. of 6 Lakh Kcal/Hr. Additionally 20 TPH coal Fired boiler & 10 Lakh Kcal/ HrThermopack will be installed. Mechanical dust collector followed by ESP with a common stack height of 40 m will be installed for controlling the Particulate emissions within statutory limit of 50 mg/Nm<sup>3</sup> for Proposed 20 TPH coal Fired boiler & 10 Lakh Kcal/ HrThermopack respectively.

Details of products are as under:

<b>S. No.</b>	<b>Product / By products</b>	<b>Existing (TPM)</b>
1	Para cumidine (PC) OR 3 Amino Benzotri Fluoride (3 ATBF)	200
2	Ortho Anisidine (OA) OR Tri methyl hydro Quinine (TMHQ)	50
3	2,4 Xylidine and 2,6 Xylidine OR 2,3 Xylidine and 3,4 Xylidine OR 2,5 Xylidine OR 2,3 Xylenol OR 2, 4 Xylenol and 2,5 Xylenol	250
4	Diphenyl amine derivatives	50
5	Crystal diethyl Meta Amono Phenol ( Cryst. DEMAP) OR Dibutyl Para Phenylene Di amine (DBPPDA) OR 3 NAP (3 Nitro Acetophenone) OR 3 AAP ( 3 AmonoAcetophenone) OR 3 HAP ( 3 HydroxyAcetophenone)	40
6	TFMAP (3 Trifloromethylacetophenone)	80
7	2 MePPDASulphate (2 Methyl p-Phenylene Diamine Sulphate) OR 1,3 CHD (1,3 Cyclohexanedione)	60
8	Pilot plant products (Synthetic orgaonic chemicals)	10
9	Ortho nitro cumine (from p-Cumidiene) (By product)	150
10	2 NBTF (2 Nitro BTF) / 2 ATBF (2 Amino BTF) / 4 ATBF (4 Amino BTF) from 3 Amino BTF (By product)	41
11	PPO (Poly phenylene oxide / (By product)	135
12	OHBTf/OA BTF From TFMAP (By product)	20
13	Ortho Toludine (OT) (By product)	25
	<b>Grant Total</b>	<b>1,111</b>

#### **Post expansion Products & By products**

<b>Sr No</b>	<b>Product</b>	<b>Total Quantity MT/M (after expansion)</b>
1	Para Nitro cumene (PNC) / Para cumidine (PC) OR Ortho Nitro cumene (ONC) /Ortho cumidine (OC)	300
2	2 Amino BenzotriFlouride (2ABTF) OR 3 Amino BenzotriFlouride (3ABTF) OR 2 Nitro BenzotriFlouride (2 NBTF) OR 3 Nitro BenzotriFlouride (3NBTF) OR 4 Nitro BenzotriFlouride (4NBTF)	400
3	Ortho Anisidine (OA) OR Tri methyl hydro Quinine (TMHQ)	100
4	2,3 Nitro-Xylene OR 2,4-Nitro-Xylene OR 3,4 Nitro-Xylene OR 2,6 Nitro-Xylene	1330
5	2,3 Xylenol OR 2,4 Xylenol OR 2,5 Xylenol	120
6	Phenyl hydrazine OR 4 -Methoxy 2 - Methyl Diphenyl Amine (MMDPA)	100
7	Aniline	10
8	3 NAP (3 Nitro AcetoPhenone)	60

9	3 AAP (3 Amino AcetoPhenone)	48
10	3 HAP (3 HydroxyAcetoPhenone)	30
11	2 MePPDASulphate (2 Methyl p-Phenylene Diamine Sulphate) OR Di-Butyl Para Phenylene Diamine (DBPPDA) OR 1,3 CHD (1,3 Cyclohexane dione)	100
12	Ortho Toludine(OT)	46
13	SMIA (synMethoximino(2 furanyl)acetic acid)	25
14	Adenine OR PMPA OR S - Alcohol OR DBTZ OR Trimethyl phenol OR Chlorphenesin OR MethoxyMePPDA OR 2-Acetylfuran OR 2-Methyl-3-Amino Benzotrifluoride OR 4 Nitro 3 Methyl Benzoic acid OR N Methyl Duloxetine oxalate	30
15	Sodium Acetate	150
16	Pilot Plant	10
17	1,2,4-Triazinone	100
18	Thiocarbohydrazide (TCH)	
19	Dichloropnacolone (DCP)	
20	2-Cyanophenol	150
21	4-Chloro-6-methylanthramide	50
22	PPO (Poly Phenylene Oxide)	150
23	TFMAP (3-(Trifloromethyl) acetophenone)	200
24	CL-BTF / OHBTF / OA BTF from TFMAP	25
	<b>Grand Total</b>	<b>3534</b>

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

- (i) EAC noted that PP has not submitted adequately TOR compliance and PP needs to be resubmit the TOR Compliance adequately.
- (i) Details of protected area/ESA within 10 km of the project area.
- (ii) Details of rivers in the vicinity of the project site and details of mitigation measures to avoid pollution of rivers.
- (iii) Plan for rain water harvesting
- (iv) Revalidation of baseline data and incremental GLCs
- (v) Detailed layout plan with 33% green belt area.
- (vi) Details of Schedule I species in the study area and its conservation and management plan and status of approval from CWLW State Govt.
- (vii) Raw material linkage

- (viii) Details of hazardous waste management plan
- (ix) Certified compliance report/ATR on complied conditions to be forwarded by Ministry's Regional Office
- (x) Details of courts/NGT cases, if any, on the project area or against the project proponent, and affidavit conforming the same.
- (xi) Details of existing production, copy of CTO.
- (xii) Revised water balance with details of total water and fresh water requirement, and permission from concerned regulatory authority, along with Effluent treatment mechanism with plan for Zero Liquid Discharge.
- (xiii) Onsite emergency plan as per MSIHC Rules.
- (xiv) Plan for Corporate Environmental Responsibility.

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

#### **Agenda No. 14.7.9**

**Installation of Polypropylene unit at Rasayani, Khalapur Taluka, Raigad district, Maharashtra and interconnecting pipelines from M/s BPCL Mumbai Refinery to Rasayani – Environmental Clearance - reg.**

**[Proposal No: IA/MH/IND2/74952/2018, File No: IA-J-11011/168/2018-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s Engineers India Limited made a detailed presentation on the salient features of the project and informed that:

**14.7.9.1** During deliberation, the EAC noted the following:

The proposal is for environmental and CRZ clearance to the project of Installation of Polypropylene unit of capacity 450 KTPA at Rasayani, Khalapur Taluka, Raigad District, Maharashtra and interconnecting pipelines from BPCL Mumbai Refinery to Rasayani by M/s Bharat Petroleum Corporation Limited.

The project/activity is covered under category A of items 5(c) "Petro-chemical complexes" of Schedule of Environmental Impact Assessment (EIA) Notification 2006 and requires appraised at Central Level by Expert Appraisal Committee (EAC).

Standard ToR was issued vide letter no. IA-J-11011/168/2018-IA-II (I) dated 17<sup>th</sup> June, 2018 for the proposed project. Public Hearing for the proposed project has been conducted by the Maharashtra State Pollution Control Board on 24.09.2019 presided over by the Additional

District Magistrate, Raigad. The main issues raised during the public hearing were related to employment, compensation, local developmental activities, EIA studies etc.

Land area available for the project is 334 acres. Proponent will develop greenbelt in an area of 33 % i.e. 110.7 acres out of 334 acres of the total complex area. The estimated project cost is Rs. 6431 Crores (Rs. 3826 Crores for Rasayani complex & Rs. 2605 Crores for Pipelines from BPCL-MR to Rasayani). Total capital cost earmarked towards environmental pollution control measures is Rs 104.95 crores and the recurring cost (operation and maintenance) will be about Rs 2.10 crores per annum. Direct employment will be 120 persons during operation & indirect employment for 2000 persons during construction phase (peak). BPCL proposes to allocate Rs 32.15 crores (0.5%) towards Corporate Environment Responsibility (CER).

Thane Creek Flamingo Sanctuary falls within the deemed ESZ area and 5.5km distance from the pipeline route. Karnala Bird Sanctuary ESZ falls within 1km distance from pipeline and 2 kms from the project site. Arabian sea is 20 km (south-west) and Patalganga river 1.2 km (south-east) from the project site.

Ambient air quality monitoring was carried out at 8 locations during December 2018 to February 2019 and the baseline data indicates the ranges of concentrations as PM10 (62.4 - 93.6- $\mu\text{g}/\text{m}^3$ ), PM2.5 (24.7-54.2  $\mu\text{g}/\text{m}^3$ ), SO<sub>2</sub> (6.2-16.3  $\mu\text{g}/\text{m}^3$ ) and NO<sub>2</sub> (30.3-46.8  $\mu\text{g}/\text{m}^3$ ) respectively. Air quality modeling was carried out for the proposed project. 24 hourly maximum GLC for SO<sub>2</sub> and NO<sub>x</sub> are predicted as 0.32  $\mu\text{g}/\text{m}^3$  and 0.44  $\mu\text{g}/\text{m}^3$ .

Total fresh water requirement will be 375 m<sup>3</sup>/hr which will be met from supply of Maharashtra Industrial Development Corporation (MIDC). There shall be 160 m<sup>3</sup>/hr of liquid effluent generation out of which 132 m<sup>3</sup>/hr will be from cooling tower blowdown. The process effluent generated will be treated in new Effluent Treatment Plant. ETP. Treated waste water will be recycled through Zero Liquid Discharge (ZLD) plant.

Power requirement for the proposed project will be 42.9 MW and sourced from state electricity grid. Gas fired boiler with a capacity of 50 TPH (1+1) will be installed.

Total SO<sub>x</sub> emission from the proposed project shall be 0.05 kg/h. Most of the process units will run on Natural Gas. Spent Catalyst will be generated (once in 4 years) during operation phase and other solid waste like spent Filter Elements, Spent Bag Filter, absorbent etc. will be sold to Catalyst processor for metals reclamation or disposed off to TSDF. An agreement with locally approved TSDF agency will also be put in place. The solid & hazardous waste will be managed as per CPCB guidelines.

**14.7.9.2** The Committee, after detailed deliberations, desired for requisite information/inputs in respect of the following:

- (i) Details of protected area/ESA/ESZ within 10 km of the project area/pipeline route. Details of NBWL clearance and its updated status.

- (ii) Details of pipeline route passing through mangrove area, details of area to be diverted and conservation plan.
- (iii) Details of raw material/product taken through pipeline with quantity.
- (iv) Action plan vis-à-vis CRZ recommendations/conditions from the SCZMA needs to be submitted.
- (v) The Committee noted that the project involve forest land. However PP is unable to explain to provide the details of status of forest clearance and accordingly PP needs to be submitted the details of FC proposal and its status.
- (vi) Details of rivers in the vicinity of the project site and details of mitigation measures to avoid pollution of rivers.
- (vii) Details of map as per requirements under CRZ Notification needs to be submitted.
- (viii) Onsite emergency plan as per MSIHC Rules.
- (ix) Plan for Corporate Environmental Responsibility with activities and timelines.
- (x) The Committee noted that there are Schedule I species in the study area. PP needs to prepare the species specific conservation plan along with budgetary allocation and PP to take approval for the Wildlife conservation and management plan from CWLW State Government.
- (xi) Issues raised during public hearing, response by the project proponent, action plan with budgetary allocation needs to be submitted. All Annexures of Public hearing proceedings needs to be submitted.
- (xii) The Committee also noted that the project involves CRZ issues and accordingly the comments from CRZ sector also needs to be obtained by the Sector before placing the project in the EAC.

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

## **14.8 Any Other**

### **Agenda No. 14.8.1**

**Expansion of existing ethylene capacity with new product diversification at Tehsil Sutahata-1, Haldia, District East Medinipur (West Bengal) by M/s Haldia Petrochemicals Limited – Reconsideration of amendment in Environmental Clearance**

**[IA/WB/IND2/67219/2016, IA/WB/IND2/54367/2016, J-11011/194/2016-IA-II (I)]**

**14.8.1.1** The proposal is for amendment in environmental clearance granted by the Ministry vide letter dated 20<sup>th</sup> March 2018 for expansion of Naphtha cracking facility and petrochemical products at Tehsil Sutahata-I, Haldia, District East Medinipur, West Bengal in favour of M/s Haldia Petrochemicals Limited.

**14.8.1.2** The project proponent has requested for amendment/bifurcation of EC for the following reasons:

- (i). HPL has incorporated a wholly owned subsidiary in the name of Advanced Performance Materials Private Limited (AdPerMa) in July 2017 to explore new opportunities downstream of HPL, which will help to de-risk HPL’s cash flows by driving business in performance chemicals with flexibility to venture with technology partner and/or other value added partners (equity, trading or specialist distributors);
- (ii). Butene -1 Project will be the initial project that will be transferred to AdPerMa; and
- (iii). HPL has no objection in transferring applicable part of the EC to AdPerMa for Butene -1 plant along with associated infrastructure like storage and pipelines.
- (iv). The bifurcation/amendment would include the following:

Description( Products as per EC – F.No. J-11011/194/2016-IA-II(I) dated 20/03/2018)	Existing Conditions		Proposed bifurcation of products and infrastructure			
	Name of Product	KTA	HPL		AdPerMa	
	Name of Product	KTA	Name of Product	KTA	Name of Product	KTA
1.	Ethylene	770	Ethylene	770	-	-
2.	Propylene	385	Propylene	385	-	-
3.	Polypropylene	341	Polypropylene	341	-	-
4.	High Density Poly Ethylene (HDPE)	494	High Density Poly Ethylene (HDPE)	494	-	-



5.	Linear Low Density Poly Ethylene (LLDPE)	386	Linear Low Density Poly Ethylene (LLDPE)	386	-	-
6.	Butadiene	111	Butadiene	111	-	-
7.	Benzene	175	Benzene	175	-	-
8.	Butene-1	30.2			Butene-1*	30.2
9.	MTBE	98.6			MTBE*	98.6
10.	C4 Raffinate	-	C4 Raffinate	126 <sup>Note-1</sup>		
11.	Vinyl Acetate Ethylene (VAE)	60	Vinyl Acetate Ethylene (VAE)	60	-	-
12.	Mixed Butane	126 <sup>Note-2</sup>	Mixed Butane	126 <sup>Note-2</sup>	-	-
13.	Cyclo Pentane	8.2	Cyclo Pentane	8.2	-	-
14.	Pyrolysis Gasoline	200	Pyrolysis Gasoline	200	-	-
15.	Motor Spirit (MS) Euro IV	300	Motor Spirit (MS) Euro IV	300	-	-
16.	Phenol	200	Phenol	200	-	-
17.	Acetone	123	Acetone	123	-	-
18.	Carbon Black Feedstock (CBFS)	100	Carbon Black Feedstock (CBFS)	100	-	-
19.	Poly Butylene Terephthalate (PBT)	70	Poly Butylene Terephthalate (PBT)	70	-	-
20.	Tetrahydrofuran (THF)	16	Tetrahydrofuran (THF)	16	-	-
21.	C6 Raffinate	64	C6 Raffinate	64	-	-
Additional Hazardous Chemical Storage Tank	Name of Product (No. of tanks)	Storage Quantity	Name of Product (No. of tanks)	Storage Quantity	Name of Product (No. of tanks)	Storage Quantity
1.	Naphtha (1)	28,632	Naphtha (1)	28,632	-	-
2.	Motor Spirit (1)	6,160	Motor Spirit (1)	6,160	-	-
3.	Hydrogenat	3,560	Hydrogenated	3,560	-	-

	ed Py-Gas (1)		Py-Gas (1)			
4.	MS Blending Tank (1)	932	MS Blending Tank (1)	932	-	-
5.	Butadiene (1)	1,271	Butadiene (1)	1,271	-	-
6.	Fuel Grade Naphtha (1)	9,380	Fuel Grade Naphtha (1)	9,380	-	-
7.	LPG (1)	10,000	LPG (1)	10,000	-	-
8.	Methanol (2)	7,128			Methanol (2)	4500
9.	MTBE (2)	7,400			MTBE (2)	5000
10.	MTBE (1)	2,072			MTBE (1)	2800
11.	Phenol (3)	16,050	Phenol (3)	16,050	-	-
12.	Acetone (2)	7,910	Acetone (2)	7,910	-	-
13.	Butanediol (2)	6,324	Butanediol (2)	6,324	-	-
14.	THF (2)	3,556	THF (2)	3,556	-	-
15.	VAM (2)	10,274	VAM (2)	10,274	-	-
16.	VAE (2)	7,520	VAE (2)	7,520	-	-
17.	NaOH 50% (Caustic Soda) (2)	795	NaOH 50% (Caustic Soda) (2)	795	-	-
18.	H <sub>2</sub> SO <sub>4</sub> 98% (1)	478	H <sub>2</sub> SO <sub>4</sub> 98% (1)	478	-	-
Land (ha)	453.00		451.48		1.519	
Manpower (Permanent)	40-50		40-50		Currently, five key positions have been identified and filled for AdPerMa by nominating/transferring appropriate resources from HPL. In addition, O&M contract between HPL and AdPerMa is already in place for extending necessary services by HPL to AdPerMa for operating and maintaining the Plant.  Welfare amenities for	
Manpower (Contractual)	100-150		100-150			

			the above employees will be provisioned at AdPerMa by HPL
Power (MW)	19	18.24	0.76
Steam (TPH)	172.25	148.55	23.7
Power and Steam Source	Additional 1X35 MW CSTG and 3X120 TPH Coal Fired Boiler in existing Captive Power Plant	Additional 1X35 MW CSTG and 3X120 TPH Coal Fired Boiler in existing Captive Power Plant	Sourced from HPL
Water (MGD)	10 (Sourced from Geonkhali Water Supply System)	9.842 (Sourced from Geonkhali Water Supply System)	0.158 (Sourced from HPL)
Effluent (m <sup>3</sup> /day)	1000 (Effluent discharged will be treated in Integrated Wastewater Treatment Plant of HPL)	937.6 (Effluent discharged will be treated in Integrated Wastewater Treatment Plant of HPL)	62.4 (Effluent discharged to be treated in Integrated wastewater Treatment Plant of HPL)
Catalysts MT/3-5 years (Hazardous waste)	150 (To be handled by HPL)	104.32 (To be handled by HPL)	45.68 (To be handled by HPL)
Project Cost in Crores (INR)	4310	4080	230
<p>Note-1: In EC approved by MoEFCC on 20th March, 2018, C4 Raffinate from Naphtha Cracker Associated Unit was considered transferred as feedstock to Butene-1 plant to produce Butene-1 and MTBE. Accordingly, C4 Raffinate was not shown in the product slate of HPL. After proposed bifurcation of EC, HPL would produce and transfer C4 Raffinate to AdPerMa as feedstock to Butene-1 plant. Thus, HPL's product slate shall include C4 Raffinate as product.</p> <p>Note-2: Maximum production in case Butene-1 plant is non-operational. Normal production would be 33 kTA.</p>			

**14.8.1.3** The proposal was earlier considered by the EAC in its meetings held on 30-31 May, 2019 and 28-29 August, 2019. The Committee in its earlier meeting held on 30-31 May, 2019 was not inclined to take the proposal forward. However, during the meeting held on 28-29 August, 2019, the project proponent informed that there are similar other cases where existing EC was split and/or amended. The Committee asked for details of such proposals to ensure uniformity.

**14.8.1.4** The EAC, during deliberation noted that the cases submitted by the project proponent in support of their claim for amendment/bifurcation has been appraised and recommended by the sectoral EACs and approved by the Ministry are on merit and case to case basis, as those project were separable physically, and thus monitoring and compliance of the environment norms are possible.

The Committee, observed that the EIA Notification, 2006, read with subsequent amendments, was not having any provisions for the proposed bifurcation/amendment of environmental clearances on the above lines. Further, in view of M/s AdPerMa being a wholly owned subsidiary of M/s HPL, the EAC was not inclined to consider the present proposal and desired to discourage such bifurcations aimed only at mere financial gains, which would recur at subsequent stages and ultimately result in compliance of the EC conditions more difficult and complex. The Committee suggested that the project proponent have the liberty to apply afresh for ToR/EC.

The Committee has accordingly decided **not to recommend the present proposal and return in present form.**

#### **Agenda No. 14.8.2**

**Expansion of pesticides manufacturing plant at Plot No. CG-5 & E-362 GIDC Industrial Estate Dahej Taluk Vagra, District Bharuch (Gujarat) by M/s Hemani Industries Limited (UNIT-3) – Amendment in environment clearance.**

**[IA/GJ/IND2/63876/2010, J-11011/583/2010-IA II (I)]**

The said proposal has already been considered and as per the record letter has already been issued by the Ministry.

#### **Agenda No.14.8.3**

**Expansion of agrochemical & agrochemical intermediate by M/s Tagros Chemical India Ltd. at Plot No.43/1, GIDC Dahej, Taluka Vagra, District Bharuch, Gujarat - For Amendment in Environment Clearance**

**[IA/GJ/IND2/52237/2016, J-11011/122/2016- IA II(I)]**

**14.8.3.1** The proposal is for amendment in the environmental clearance granted by the Ministry vide letter dated 25<sup>th</sup> February 2019 in favour of M/s Tagros Chemical India Ltd for expansion of agrochemical & agrochemical intermediate at Plot No. 43/1, GIDC, Dahej, Dist: Bharuch (Gujarat)

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

<b>S. No.</b>	<b>Para of EC issued by MoEF&amp;CC</b>	<b>Details as per the EC</b>	<b>To be revised/ read as</b>	<b>Justification/ reasons</b>
1	Condition No. 11  Sub-Condition No. (b)	The incremental treated effluent of 980 cum/day and also the present discharge of 494 cum/day to GIDC pipeline, shall be reused/recycled for different industrial operations. No waste/treated water shall be discharged outside the premises and thus ensuring Zero Liquid Discharge.	The incremental treated effluent of 980 cum/day shall be reused/recycled for different industrial operations and the remaining present discharge of 494 cum/day shall be sent to GIDC effluent pipeline for final disposal into deep sea.	<p>With reference to the Environmental Clearance meeting held on October 31, 2018, we clarified that this GIDC pipeline to deep sea is a Government Project and there has been a huge investment already done for the same. We have contributed towards the deep-sea pipeline developed by GIDC and also, we have developed necessary Infrastructure facility required for deep sea pipeline within the premises, hence request your kind self to allow us to discharge our existing wastewater i.e. 494 KL/day to deep sea via existing pipeline.</p> <p>The waste water which will be generated by way of capacity expansion i.e. 980 KL/day, we assure you that it will be treated and recycled and reused for different industrial use only as suggested, thus the expansion capacity will</p>

				<p>be on Zero Liquid Discharge. Kindly note the permeate generation cannot be used for human consumption nor can be used in process since it can lead to contamination of the product. The waste water generated by way of capacity expansion is 1474 KL/day (494 KL/day will be discharged to deep sea via existing pipeline + 980 KL/Day will be recycled/reused).</p> <p>This effluent which is generated cannot be taken for process use, domestic use or gardening consumption, because of the COD and Ammonical Nitrogen limitations. The generated aqueous can be consumed as make up water for various Cooling Towers which is used for Process, Utilities, DG sets or MEE Cooling Towers. Since the ISI specification for use of water is not prescribed for use in boiler, we are not in a position to use the same hence non-committal for the purpose.</p>
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				<p>Hence in view of the above we humbly request that we will recycle 980 KL/day of waste water generation &amp; allow us to discharge 494 KL/day to deep sea via existing pipeline which is our existing discharge.</p> <p>Also, with reference to Minutes of the 42<sup>nd</sup> Expert Appraisal Committee (Industry-2) meeting held during 29-31 October, 2018 which clearly states that "Total effluent generation shall be increased from 920 cum/day to 1474 cum/day, which would be treated in the ETP followed by MEE &amp; RO. The RO permeate of 940 cum/day and steam condensate of 40 cum/day will be recycled/reused, and the remaining treated effluent of 494 cum/day shall be sent to GIDC effluent pipeline for final disposal into deep sea."</p>
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**14.8.3.3** The EAC, during deliberation noted that Environmental clearance was granted by the Ministry on 25<sup>th</sup> February 2019 with the condition of Zero Liquid Discharge. However,

considering the request of project proponent the Committee **recommended** for effluent discharge for 5 years with the condition as under:-

- The project proponent shall achieve zero liquid discharge within five years.

## **14.9 Additional items**

### **Agenda No. 14.9.1**

**Expansion of pesticides, pesticide specific intermediates and synthetic organic chemicals manufacturing unit from 7430 TPA to 15775 TPA by M/s Deccan Fine Chemicals (India) Pvt. Ltd. located at Plot No.3501-3515, 6301-6313 & 16 M Road/B1, and Plot No.6008-6010, GIDC Industrial Estate Ankleshwar, District Bharuch, Gujarat – For Environmental Clearance.**

**14.9.1.1** The proposal was earlier considered by the EAC (Industry-2) in its meetings held during 29-31 January, 2019 and 27<sup>th</sup> March, 2019 in the Ministry, and recommended for grant of environmental clearance. Thereafter, as desired by the competent authority (p:11/N), the proposal was again placed before the EAC in its meeting held on 29-31 July 2019, for deliberations on feasibility of ZLD system for such industries.

**14.9.1.2** During deliberations in the Committee, the project proponent agreed to reduce total fresh water consumption from 1483 KLD to 1258 KLD and total treated effluent discharge from 825 KLD to 600 KLD, after the proposed expansion. It was also agreed to reduce discharge of treated effluent @ 20% every following year. Accordingly, the Committee suggested for modification in earlier conditions stipulated in its meeting held on 29-31 January, 2019 & 27<sup>th</sup> March, 2019, as under:-

- (i) Total fresh water requirement shall not exceed 1258 cum/day to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (ii) The treated effluent of 600 cum/day shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, for discharge into deep sea through the conveyance system of M/s Narmada Clean Technology.
- (iii) The project proponent shall achieve zero liquid discharge within five years of commissioning of expansion project.

However, taking note of the Hon'ble NGT order/CEPI issues, EAC preferred to defer the proposal to seek advice of the Ministry for appropriate course of action in such cases. The Committee also opined that in case, such proposals are to be considered on merits, environmental conditions and other stringent measures would have to be looked into comprehensively in complete perspective and in consultation with CPCB.



The Committee noted that the Ministry vide OM dated 31<sup>st</sup> October, 2019 has communicated the course of action in such case.

**14.9.1.3** The Committee after detailed deliberations, reiterated its earlier **recommendations** for grant of environmental clearance to the project, subject to following additional conditions:

- (i) Consent to Establish/Operate (CTE/CTO) for the project shall be obtained from the State Pollution Control Board (SPCB) as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, and the SPCB shall follow the mechanism/protocol issued by the Ministry vide letter no. Q-16017/38/2018-CPA dated 24<sup>th</sup> October, 2019 and forwarded by Central Pollution Control Board vide letter dated 25<sup>th</sup> October, 2019 to the SPCB's, while issuing the CTE/CTO for the project, for improvement of environmental quality in the area.
- (ii) The green belt of at least 5-10 m width shall be developed in more than 40% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (iii) In addition, the project proponent shall develop greenbelt outside the plant premises also such as avenue plantation, plantation in vacant areas, social forestry etc.
- (iv) 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.
- (v) Total fresh water requirement shall not exceed 1258 cum/day to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (vi) The treated effluent of 600 cum/day shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, for discharge into deep sea through the conveyance system of M/s Narmada Clean Technology.
- (vii) The project proponent shall achieve zero liquid discharge within five years of commissioning of expansion project.
- (viii) The project proponent shall strictly comply the sector specific conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018. The said OM is available at the Ministry's website (PARIVESH portal i.e. www.parivesh.nic.in). The grant of Environmental Clearance is further subject to compliance of generic conditions as mentioned in the Ministry's Office Memorandum No. 22-34/2018-IA.III, dated 9<sup>th</sup> August, 2018.

#### **Agenda No. 14.9.2**

**Expansion of agro chemicals, synthetic organic dyes and optical brightening agents manufacturing facility within existing premises at Plot No.Z-6, GIDC, Dahej, Taluka-Vagra, District Bharuch, Gujarat by M/s Meghmani Industries Limited (SEZ) - Environmental Clearance**

**[Proposal No. IA/GJ/IND2/102990/2018, F. No. IA-J-11011/403/2018-IA-II(I)]**

**14.9.2.1** The proposal was earlier considered by the EAC (Industry-2) in its meetings held during 29-31 July, 2019 and recommended for grant of environmental clearance. Thereafter, as desired by the competent authority the proposal was again placed before the EAC in its meeting held on 29-31 July 2019, for deliberations for being consist regarding ZLD condition system for such industries.

**14.9.2.2** The EAC during deliberation noted that in similar proposals the Committee has recommended for discharge with the condition that unit shall achieve zero liquid discharge within five years of commissioning of expansion project. Accordingly, the Committee suggested the additional condition as under:-

- The project proponent shall achieve zero liquid discharge within five years of commissioning of expansion project.

**Agenda No. 14.9.3**

**Expansion of resins manufacturing unit at Block No.1834/P1 & P2, Chikhli Vandsa Road, Opposite Khodiyar Quarry, Taluka Chikhali, District Navasari, Gujarat by M/s Windson Chemical Pvt. Ltd - Amendment in Environment Clearance**

**[IA/GJ/IND2/27574/2014, F. No.J-11011/103/2014-IA-II(I)]**

**14.9.3.1** The proposal was earlier considered by the EAC (Industry-2) in its meetings held during 28-29 August, 2019 for amendment in environmental clearance on certain para/conditions , wherein the EAC recommended for remove the above para from the environmental clearance dated 28<sup>th</sup> December, 2017, for which amendment has been sought. Thereafter, as desired by the competent authority the proposal was again placed before the EAC as the recommendations of the EAC was not clear and directed to reconfirmed from EAC.

**14.9.3.2** The EAC during deliberation noted that 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	6 (page no. 2)para -1	Power requirement after expansion will be 600 KVA,	• Existing unit has one DG set of 250 KVA capacity which will be removed after proposed	During executing process; it

		<p>proposed to be met from Dakshin Gujarat Vij Company Ltd. (DGVCL). Existing unit has one DG set of 250 KVA capacity. Two more DG sets of 250 KVA each shall be kept as standby during power failure. Stack (6 m) shall be provided as per CPCB norms to the proposed DG sets.</p>	<p>expansion.</p> <ul style="list-style-type: none"> <li>• Additionally one DG set of 350 KVA capacity, 2 DG set of 400 KVA capacity and 1 DG set of 620 KVA capacity shall be kept as standby during power failure. Stack (6 m) shall be provided as per CPCB norms to the each proposed DG set.</li> </ul>	<p>comes to conclude that unit has to provide higher capacity of DG set to control process operation.</p>
6 (page no. 2)	<p>Existing unit has 0.6 TPH bio-coal/agro waste fired boiler equipped with multicyclone separator with a stack of 30 m to control the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup>. No additional boiler shall be used for the proposed expansion project.</p>	<ul style="list-style-type: none"> <li>• Existing unit has 0.6 TPH bio-coal fired boiler equipped with multicyclone dust collector with a stack of 30 m to control the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup>.</li> <li>• One additional 1.5 TPH bio-coal fired boiler will be used for the proposed expansion project. It will be equipped with multicyclone dust collector with a stack of 30 m to control the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup>. No additional fuel shall be used for the proposed expansion project.</li> <li>• Additionally waste hydrogen gas fired Hot Air Generator with the capacity of 5 Lac Kcal/Hr., 7 Lac Kcal/Hr. and 9 Lac Kcal/Hr. will be equipped with a stack of 20 m to control air emissions.</li> </ul>	<p>During executing project ; it comes to know that steam requirement at first time is higher. So only 0.6 TPH Boiler is not adequate and unit will have to propose 1.5 TPH additional boiler to start up the process.</p> <p>Hot air generators have been described in EIA report but detailed capacities</p>	

				have not mentioned in EIA report.
	6 (page no. 2)	--	<ul style="list-style-type: none"> <li>• Bag filter will be provided to spray dryer having capacity of 500 KG/Hr. and 700 Kg/Hr. &amp; 1 bag filter will be provided to spray dryer having capacity of 1000 Kg/Hr. with each stack of 20 m to control the process emissions.</li> <li>• Common bag filter will be provided with 2 nos. of Fluid bed dryer each of having capacity of 300 Kg/Hr. with a common stack of 18 m to control the process emissions.</li> <li>• Water Scrubber will be attached with Hexamine reactor with a stack of 6 m to control process emission - NH<sub>3</sub>.</li> <li>• Common scrubber will be attached with reactor-1 (Para Formaldehyde concentrator), reactor-2 (Para Formaldehyde concentrator) &amp; Adsorbing column (formaldehyde) with a stack of 6 m to control process emissions - Formaldehyde.</li> </ul>	<p>Spray Dryers with their air pollution control measures have been described in EIA report but detailed capacities have not mentioned in EIA report.</p> <p>Water scrubbers and common scrubber have been described in EIA report but detailed capacities have not mentioned in EIA report.</p>

**14.9.3.2** The EAC, after detailed deliberations, recommended the amendment in EC as proposed by the project proponent.

#### **Agenda No.14.9.4**

**Exploratory Drilling of additional 10 wells in Onshore NELP-IV Block CYONN-2002/2, Cauvery Basin, Tamil Nadu located at Tamil Nadu in favour of M/s Oil and Natural Gas Corporation Limited (ONGCL) - Amendment in Environmental Clearance**

**[Proposal No. IA/TN/IND2/111762/2019, J-11011/28/2013-IA-II(I)]**

**14.9.4.1** The proposal was already considered by the EAC in its meeting held during 29-31 July, 2019. The EAC reiterate their earlier decision on the proposal.

**Agenda No.14.9.5**

**Proposed Acrylics/ Oxo Alcohol Project, Creation of necessary facility for origination of Koyali – Ahmednagar – Sholapur pipeline (KAHSPL) & installation of Tank Truck Loading facility (TTL) for linear Alkyl Benzene and laying of 9 Piggable, dedicated hydrocarbon service cross country pipelines (Including LPG supply and return) between refinery and Dumad in the existing Right of Way (ROW) AT Village Dumad, Taluk Vadodara District Vadodara (Gujarat) by M/s Indian Oil Corporation Limited- Environmental Clearance**

**[IA/GJ/IND2/109376/2017, J-11011/370/2016-IA-II(I)]**

**13.2.2.1** The proposal was earlier considered by the EAC (Industry-2) in its meeting held on 26-27 September, 2019 in the Ministry, and has recommended the project for grant of environmental clearance.

**13.2.2.2** The project proponent vide letter dated 8<sup>th</sup> October, 2019 has requested for correction in the minutes of the EAC meeting, with the details as under:

(a)

<b>S.No</b>	<b>Details mentioned as per EAC minutes/ condition</b>	<b>Corrigendum required in EAC minutes/ condition</b>
1.	Project cost is Rs. 4554 crores	Project cost is Rs. 4577 crores
2.	One DG set of 1500 KVA	DG sets: 2 nos. of DG set (total 3 MW capacities)
3.		Inclusion of 15 Km RLNG pipe line

(b) **The storage capacities considered in DFR is as given below:**

<b>S. No</b>	<b>Chemical Name</b>	<b>Details mentioned as per EAC minutes</b>	<b>Corrigendum required in EAC minutes (KL)</b>	<b>No of Tanks</b>
1	N Butanol	1025	2380	2
2	I-Butanol	232	300	2
3	Acrylic Acid	1583	-	-
4	Butyl Acrylate	3617	7620	3
5	Propylene	1410	2820	3

**13.2.2.3** *The Committee, after detailed deliberations, noted that the request of the project proponent is on merit and as presented before the EAC, and has accordingly agreed for correction in the minutes of meeting held on 26-27 September, 2019 as submitted above, with all other terms and conditions remain unchanged.*

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**List of the Expert Appraisal Committee (Industry-2) members attended the meeting**

<b>S. No.</b>	<b>Name and Address</b>	<b>Designation</b>
1.	Dr. J. P. Gupta	Chairman
2.	Dr. Y.V. Rami Reddy	Member
3.	Dr. TudiIndrasen Reddy	Member
4.	Dr. J S Sharma	Member
5.	Shri Dinabandhu Gouda	Member
6.	Dr. T K Joshi	Member
7.	Shri S.C. Mann	Member
8.	Ms. Saloni Goel	Member
9.	Dr. Uma Kapoor	Member
10.	Shri Ashok Agarwal	Member
11.	Dr. R. B. Lal, Scientist 'E'	Member Secretary
<b>MoEFCC</b>		
12.	Dr Saurabh Upadhyay	Scientist 'B'
13.	Dr. E.P. Nobi	Research Officer

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Subject: **Re: Draft Minutes of 14th EAC (industry -2)**  
To: Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>

Date: 04/12/19 01:49 PM  
From: JEEWAN PRAKASH GUPTA <jpglobalconsultinggroup@gmail.com>

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

With Kindest Regards,  
Dr. J.P. Gupta

On Tue, Dec 3, 2019 at 5:27 PM Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in> wrote:

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Dear Sir,

The correction suggested by you has been incorporated in the draft minutes and accordingly the draft minutes is resubmitted for approval of Chairman.

Best Regards,

Dr. R. B. Lal

On 02/12/19 04:58 PM, **JEEWAN PRAKASH GUPTA** <jpglobalconsultinggroup@gmail.com> wrote: