**Minutes of 34th meeting of Expert Appraisal Committee (Industry-2) held during 26-28 February, 2018 at Indira Paryavaran Bhawan, Jorbagh Road, Ministry of Environment, Forest and Climate Change, New Delhi - 3**

**Day 1: 26th February, 2018**

**34.1 Opening Remarks by the Chairman**

**34.2 Confirmation of minutes of the 33rd meeting of the EAC (Industry-2) held on 22-24 January, 2018 at Indira Paryavaran Bhawan, New Delhi.**

The EAC, having taken note that no comments were offered on the minutes of its 33rdmeeting held on 22-24 January, 2018 at New Delhi, confirmed the same.

**34.3 Environmental Clearance**

**Agenda No.34.3.1**

**BS-VI Fuel Quality Up-gradation, Capacity Expansion of PX/PTA, NCU, MEG, HDPE, PP Units & New Catalyst Manufacturing Unit by M/s Indian Oil Corporation Limited at Panipat Refinery & Petro-Chemical Complex (PRPC) - Environment Clearance**

**[IA/HR/IND2/56442/2016, J-11011/177/2016- IA II(I)]**

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

(i) The proposal is for BS-VI quality upgradation, capacity expansion of PX/PTA located at Panipat Refinery by M/s Indian Oil Corporation Limited.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry -2) in its 13th EAC meeting held during September 26th to 27th 2016 and recommended Terms of References (ToR) for the project. The TOR has been issued by Ministry vide letter No. J-11011/177/2016-IA II (I) dated 24.11.2016. Subsequently, project was appraised in 29th EAC meeting held on 12th -13th October 2017. Though project was appraised, after deliberations, EAC accorded environmental clearance for BS VI quality upgradation project, as certified compliance report of earlier environmental clearance (J-11011/52/2000-IA-II(I) dated 30th April 2001) was available/submitted by the RO, MOEFCC
EAC has advised for the RO Certification of compliance report of environmental clearance for PX/PTA for further consideration of project and the same been submitted to MoEF&CC vide letter dated 13-11-2017.

(iii) All products are listed at S No. 4(a) schedule of Environmental Impact Assessment (EIA) notification under category 'A' and are appraised at central level by Expert Appraisal Committee (EAC).

(iv) Ministry has issued Environmental Clearance for Expansion of Panipat Refinery from 12 MMTPA to 15 MMTPA vide letter no No.J.11011/7/2004-IA II (I) dated 09.08.2004 and Integrated Paraxylene and Purified Terephthalic Acid Projects at Panipat vide letter no.No.J-11011/52/2000-IA II dated 30.04.2001 .

(v) The proposed Upgradation and capacity expansion of PX- PTA will be within the existing area of 665 ha. Industry has already developed Greenbelt in an area of 232 Ha out of 665 ha i.e. 35 % of area of the project.

(vi) The estimated project cost for BS-VI upgradation & PX-PTA revamp is Rs. 2754.15 Crores with +/- 30% accuracy. Total capital cost earmarked towards environmental pollution control measures is Rs. 115 Crores (though it is worth mentioning that BSVI Project itself is conceived as per GOI Directive for BS VI Grade fuel availability across country as per Auto Fuel Policy 2025 as an environmental measures). The Recurring cost (operation and maintenance) will be about Rs.2 Crores per annum.

(vii) Additional manpower required for BS-VI Quality Upgradation, Capacity Expansion of PX / PTA is approximate 100 nos (Existing Manpower Strength is 2200). The Industry proposes to allocate the funds towards Corporate Social Responsibility as per its IOCL's policy.

(viii) As per Form-1 no national parks, wildlife sanctuaries, Biosphere reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Yamuna River is flowing at a distance of 22.5 km in Eastern direction.

(ix) Ambient air quality monitoring was carried out at Eight locations during December 2016 to February 2017 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (41.0 - 95.6 µg/$m^3$), $PM_{2.5}$ (31.1- 57.6 µg/$m^3$), $SO_2$ (18.0 - 32.5 µg/$m^3$) and $NO_x$ (27.0 - 43.0 µg/$m^3$) respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(x) Total water requirement for BSVI and capacity expansion of PX, PTA expansion is 354 $m^3$/hr (8500 KLD) will be met from Munak Regulator on Western Yamuna Canal which is within the allocated water of 3458 $m^3$/hr (83000 KLD).

(xi) The effluent generated from proposed projects will be marginal and same shall be treated in existing ETPs (Effluent Treatment Plant).

(xii) Power requirement will be 28 MW and will be met through existing captive power plant.Proposed unit does not have any fired boiler.

(xiii) Process emissions generation and its management

Gaseous emission from various process units meets the prescribed standards. Nitrogen blanketing facility is proposed for additional tanks, for ensuring no release of VOC into atmosphere. Sulphur Recovery Units (SRUs) with efficiency of 99.9% is in operation to bring down the Sulphur emissions level within norms.45 No's of stack are being monitored online and also from MOEFCC recognized lab (M/s Haryana Test house and Consultancy Services, Panipat ) on monthly/bi-monthly basis. $SO_2$, NOx, CO, PM analyzers are available and linked with CPCB server. Fugitive emission monitoring for hydrocarbon is being done regularly through SPCB / MoEF approved agency regularly on quarterly basis.

(xiv) Solid/hazardous waste generation and its management: Solid hazardous waste generation will be marginal and intermittent which shall be handled as per existing systems.

(xv) Public hearing for the proposed project has been exempted as per para 7(ii) of EIA, Notification 2006.

(xvi) Details of Certified compliance report submitted by RO, MoEF& CC vide letter no. 4.8112004.RO(NZ)-402 dated 13th November, 2017

(xvii) Following are the list of existing and proposed facilities and products will be MS, HSD, ATF, Bitumen, Sulphur, PTA etc.

| S. No | Facilities | Existing capacity | Proposed capacity | Remarks |
|---|---|---|---|---|
| 1. | Diesel Hydro De–Sulphurisation (DHDS) | 700 KTA | 1000 KTA | Revamp |
| 2. | Prime – G | 370 KTA | 445 KTA | Revamp |
| 3. | Diesel Hydro – Treater (DHDT) | - | 2200 KTA | New |
| 4. | Hydrogen generation Unit | - | 44 KTA of hydrogen | New |
| 5. | Tertiary Amyl Methyl Ether | - | 36 KTA | New |
| 6. | OCTAMAX | - | 116 KTA | New |
| 7. | Sulphur recovery Unit (SRU) with Tail Gas Treating Unit (TGTU) | - | 225 T / Day Sulphur production | New |
| 8. | Amine Regeneration Unit (ARU) | - | 188.9 T/hr | New |
| 9. | Sour water Stripper (SWS) | - | 56.7 T/hr | New |
| 10. | DHDT feed tank | - | 20,000 KL | New |
| 11. | Para Xylene Unit | 350 KTA | 460 KTA | Revamp |
| 12. | Purified Terephthalic Acid Unit | 525 KTA | 700 KTA | Revamp |
| 13. | TAME feed tank | | 5500 $m^3$ | New |
| 14. | TAME product tank | | 2 X 3600 $m^3$ | New |
| 15. | Methanol tank | | 2 X 500 $m^3$ | New |

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

The proposal is for environmental clearance to the project 'BS-VI fuel quality up-gradation and expansion of PX/PTA (PX from 350 to 460 KTA & PTA 525 to 700 KTA) Plant' by M/s Indian Oil Corporation Ltd in a total area of 665 ha at Panipat Refinery & Petro-Chemical Complex (PRPC) in Panipat (Haryana).

The project/activity is covered under category A of item 4(a) 'Petroleum refining industry' of the Schedule to the Environmental Impact Assessment Notification, 2006, and requires appraisal at Central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 24th November, 2016 providing exemption from public hearing as per the provisions of the EIA Notification, 2006. The said ToR mentions the project title as per the project profile envisaged at that stage, which also included expansion of NCU, MEG, HDPE, PP units, and commissioning of new catalyst manufacturing unit. Subsequently, as per advice of the EAC, the project title was revised to BS-VI fuel quality upgradation and expansion of PX/PTA plant only. The same was considered and recommended by the EAC in its meeting held on 8-9 December, 2016 for the amendment therein accordingly, which was, however, not issued. It was further clarified that the scope of work contained in the ToR dated 24th November, 2016 remains the same.

Total water requirement for the project (BS-VI and PX/PTA Plant) is estimated to be 354 $m^3$/hr (8500 KLD), which is proposed to be met through Munak Regulator on Western Yamuna Canal. The same is within the allocated water of 3458 $m^3$/hr (83000KLD).

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

The Ministry had earlier issued environmental clearance on 9th August, 2004 for expansion of Panipat Refinery from 12 MMTPA to 15 MMTPA. The monitoring report on compliance status of conditions in respect of said EC, was forwarded by the Regional Office at Chandigarh vide letter dated 14th July, 2017. The EAC, in its meeting held on 12-13 October, 2017, after taking note of the observations of the Regional Office, had recommended the project 'BS-VI Fuel Quality Up-gradation', subject to compliance of certain terms and conditions. Based on the recommendations of the EAC, the project was granted EC vide letter dated 28th November, 2017.

For Integrated Paraxylene and Purified Terephthalic Acid (PTA) project at Panipat, the earlier EC was granted on 30th April, 2001. The monitoring report on compliance status of conditions in respect of the said EC, has now been forwarded by the Regional Office at Chandigarh vide letter dated 13th November, 2017, which is found to be satisfactory.

Consent to operate for the present refinery complex (including PX/PTA Plant) has been obtained from the State PCB, which is presently valid up to 30th September, 2021.

**34.3.1.3** *The EAC, after deliberations, recommended the project* 'BS-VI fuel quality up-gradation and expansion of PX/PTA (PX from 350 to 460 KTA & PTA from 525 to 700 KTA) Plant' *for grant of environmental clearance, in supersession of EC dated 28th November, 2017, subject to compliance of terms and conditions as under: -*

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *For the fuel quality up-gradation, as already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises*
- *In case of PX/PTA expansion project, there shall not be any increase in effluent discharge and the treated effluent of 255 cum/hr shall continue to be discharged to the existing Thirana drain.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *Total $SO_2$ emissions from the Refinery (including BS-VI upgradation project) shall not exceed 1100 kg/hr whereas, for the PX/PTA plant after expansion, total $SO_2$ emissions shall not exceed 375 kg/hr. Accordingly, total $SO_2$ emissions from the Refinery Complex shall be limited to 1475 kg/hr.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed with different stacks (attached to DHDT, HGU, Prime G) to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stacks of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 3500 KLD to be met from Munak Regulator. Necessary permission in this regard shall be obtained from the concerned regulatory authority.*

- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.*
- *The company shall undertake waste minimization measures as below:-*
  *(a) Metering and control of quantities of active ingredients to minimize waste.*
  *(b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  *(c) Use of automated filling to minimize spillage.*
  *(d) Use of Close Feed system into batch reactors.*
  *(e) Venting equipment through vapour recovery system.*
  *(f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. 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. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*

**Agenda No.34.3.2**

**Manufacturing Active Pharmaceutical Ingredients from API intermediates by M/s Saiteja Drugs and IntermediatesPvt Ltd at Sy No. 543/A, 544/A, Village Seetavani Gudem, Mandal Bhoodan Pochampally, District Yadadri (Telangana) - Environment Clearance**

**[IA/TG/IND2/65449/2017, J-11011/316/2017-IA-II(I)]**

**34.3.2.1** The project proponent and their accredited Consultant M/s KKB Envirocare Consultants Pvt Ltd**,** made a detailed presentation on the salient features of the project and informed that

(i) The proposal is for environmental clearance at Sy Nos. 543/A, 544/A, Seetavanigudem, Bhoodan Pochampally (V & M), District Yadadri - Bhuvanagiri (Telangana) State by M/s Saiteja Drugs & Intermediates Pvt. Ltd.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 29th EAC meeting held during 12-13 October, 2017 and recommended Terms of Reference (ToR) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/316/2017-IA II (I) dated 14th November, 2017.

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

(iv) Ministry has issued EC earlier vide letter no. J-11011/4501/2006-IA-II (I) dated 22nd August, 2007 for API (Bulk Drug) Manufacturing unit to M/s Saiteja Drugs &Intermediates Pvt. Ltd.

- In 2006 (prior to EIA Notification 14-09-2006) Industry has proposed for expansion to manufacture the APIs from API Intermediates and obtained the CFE-Expansion from APPCB vide order No. NAL-35/PCB/ZO/RCP/CFE/2006-690 dated 18-08-2006 as per EIA Notification 1994 and also obtained the Environmental Clearance from MoEF vide F.No. J-11011/4501/2006-IA II (I) dated 22-08-2007 after completion of the Public Hearing by APPCB on 07-06-2006.
- However, industry could not complete the EC permitted activity due to various reasons as per CFE-Expansion & EC but continuing the CFO of previously permitted products of manufacturing API (Bulk Drug) intermediates that were permitted prior to the EC. Since the management has changed, was unaware of the availability of EC, the new management could not submit to the Ministry an application for extension of EC in time.
- The industry hence, has submitted an application on 30-01-2017 for extension of EC and however as the validity of the EC lapsed beyond 10 years, the Hon'ble EAC committee suggested the industry to submit a fresh application for the same. Hence, application in Form-1 and PFR is submitted seeking Environmental Clearance for the same project for which EC was issued in 2007. ToR has been issued by Ministry vide letter No. J-11011/316/2017-IA II (I); dated 14-11-2017.

(v) Existing land area is 2.49 ha; No additional land will be used for proposed expansion. Industry has already developed greenbelt in an area of 0.825 ha, thus covering an area of 33.13% of the total project area. The estimated project cost Rs.18.38 crores including existing investment of Rs.14.82 crores. Total capital cost earmarked for pollution control measures is Rs. 3.56 crores including existing Rs.0.96 crores and recurring cost (Operation and maintenance) will be about Rs.2.71 crores per annum.

(vi) Total Employment will be 25 persons as direct & 40 persons indirect after expansion. It has been proposed to allocate Rs.10 lakhs @ 2.5% of the project cost towards Corporate Social Responsibility (Enterprises Social Commitment).

(vii) As per Form-1, there are No National parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km of the project site. Musi River is flowing at 6 km in NW direction &ChinnaMusi River is flowing at 2.3 km in SE direction, Water bodies viz., near Maddivanigudem – 1.3 km in N direction; Seetavanigudem – 1.5 km in NE

direction; BhoodanPochampally – 2.8 km in NE direction; Revanpalli – 4.7 km in NE direction; Mukthapuram – 2.5 km in NNE direction; Alinagar – 4.1 km in NNW direction; Jolur – 4.4 km in NNW direction; Peddagudem – 4.5 km in NW direction; Yenkirala&Madaram – 7 km in NW direction; Yenkirala – 8.3 km in NNW direction; Raghavapuram – 9 km in N direction; Khapraipalli – 5.7 km in N direction, 6.5 km in NNE direction & 5.5 km in NNE direction; Ravulapalli Kalan – 8.5 km in NE direction; Ghauskonda – 5.7 km in NE direction and Pond near Ramalingampalli – 7.3 km in NE direction.

(viii) Ambient air quality monitoring was carried out at 9 locations during May 2017 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (32-54 µg/$m^3$), $PM_{2.5}$ (19-29 µg/$m^3$), $SO_2$ (BDL – 9.4 µg/$m^3$) and $NO_2$ (6.2-14.1 µg/$m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.282 µg/$m^3$, 2.996 µg/$m^3$ and 1.751 µg/$m^3$ with respect to $PM_{10}$, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Total water requirement is 174 $m^3$/day of which fresh water requirement of 143 $m^3$/day and will be met from private tankers supply.The effluent quantity of 33.3 $m^3$/day will be treated through upgraded Effluent Treatment plant will be based on Zero Liquid discharge system.

(x) Power requirement after expansion will be 650 HP including existing 150 HP and will be met from Telangana State Power Distribution Corporation Limited (TSPDCL). Existing unit has 1no. DG set of 62.5 KVA capacity, additionally 2 nos. of 125 KVA and 380 KVA DG sets are used as standby during power failure. Stack (height 7, 7 & 8 m) will be provided as per CPCB norms to the proposed DG sets of 2 nos. of 125 KVA and 380 KVA respectively in addition to the existing DG Set of 62.5 KVA capacity which will be used as standby during power failure. Existing unit has 1 lakh Kcal/h Diesel fired Thermic Fluid Heater and additionally another 2 lakh Kcal/h Diesel fired Thermic Fluid Heater is proposed.

(xi) Existing unit has 1 TPH coal fired boiler. 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/$Nm^3$) for proposed3 TPH & 5 TPH Coal fired boiler respectively. 30m stack will be provided to the proposed 2lakh kcal/h diesel fired TFH. Existing 1 TPH coal fired boiler will be dismantled. Proposed 3 TPH Coal fired boiler as will be stand-by after expansion.

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

| S. No. | Process Emission | Maximum Quantity on various combinations (kg/day) | Treatment |
|---|---|---|---|
| 1. | HCl | 108 | Scrubbed with water / CS lye solution |
| 2. | $H_2$ | 97 | Diffused with flame arrestor |
| 3. | $SO_2$ | 1 | Scrubbed by using CS lye solution |
| 4. | $CO_2$ | 42 | Dispersed into Atmosphere |

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

| S. No. | Source | *Proposed Quantity (TPD) | Handling Method | Disposal |
|---|---|---|---|---|
| 1. | Organic residue | 0.45 | HDPE Drums | Sent to SPCB Authorized Cement industries for use as alternate fuel **(or)** TSDF if any shut down of cement industries. |
| 2. | Spent Carbon | 0.03 | | |
| 3. | Distillation Bottom Residue (1% of spent solvents) | 0.15 | | |
| 4. | Inorganic & Evaporation salt (Process) (10% moisture) | 0.95 | HDPE Bags | Sent to SPCB Authorized Cement industries **(or)** TSDF based on calorific value |
| 5. | Evaporation salt (Non-Process) (10% moisture) | 0.2 | | HWMP – TSDF |
| 6. | ETP Sludge with 50% moisture | 0.15 | | |
| 7. | Boiler Ash | 8 | Stored in covered area | Sold to Cement Brick Manufacturers |
| Other Hazardous Waste generation from the Plant | | | | |
| 8. | a) Detoxified Container / Liners drums b) HDPE Carboys c) Fiber Drums | 200 Nos./ month | Designated covered area | Disposed to SPCB Authorized agencies after complete detoxification |
| | d) PP Bags | 100 Kg/month | | |
| 9. | Spent solvents (with moisture) (solvents 12.9+water 0.5) | 13.4 KLD | Stored in Drums / Tanks | Recovery within the premises duly sending the residue to Authorized agencies |
| 10. | Recovered Solvents from spent solvents | 11.0 KLD | Stored in Drums / Tanks | Reuse in process **(or)** Send to authorized recyclers |
| 11. | Spent Mixed solvents (1.9 from SRS + 0.2 from ETP) | 2.1 KLD | Stored in Drums / Tanks | Sent to SPCB Authorized agencies |
| 12. | Waste oils & Grease | 1 KL/A | Stored in Drums | Sent to SPCB Authorized agencies for reprocessing **(or)** recycling. |
| 13. | Used Lead acid Batteries | 30 Nos. / annum | Designated covered area | Sent to suppliers on buy-back basis. |
| 14. | Misc. Waste (spill control waste) | LS | Stored in Drums | HWMP – TSDF |

| | | | | |
|---|---|---|---|---|
| 15. | Spent Catalyst (Raney Nickel, Potassium carbonate, Camphor Sulfonic Acid). | 75.2 TPA | Stored in Drums | Sold to suppliers on buy-back basis **(or)** auth. reprocessors. |
| 16. | Bio Medical waste | LS | color coded containers | Sent to auth. Bio medical waste processer |
| 17. | E-waste | LS | Designated covered area | HWMP – TSDF / SPCB Auth. Recycler |

** Solid waste quantities maximum on various combinations i.e., 3 products at a point of time on campaign products and R&D products*

(xiv) Public Hearing for the project is completed in 07-06-2006 by SPCB and MoEF issued EC on 22-08-2007. Industry could not commence the EC permitted activity as per CTE & EC 2007 due to various reasons. Hence submitted fresh application to set up API manufacturing unit as per earlier EC permitted at the existing API intermediates manufacturing unit.

(xv) Proposal is to set up an API manufacturing unit as per earlier EC-2007 at the existing API intermediates manufacturing unit. Hence, requested the MoEF&CC to exempt from Certified EC Compliance report for our proposed project in the existing plant premises.

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

**Permitted (Existing) as per CFO and their Capacities**

| S. No. | Product | Quantity | | |
|---|---|---|---|---|
| | | (Kg/day) | (TPM) | (TPA) |
| 1. | 1-Acetyl-4-(4-Hydroxy Phenyl) Piperzine (manufactured in two stages and used as raw material in the 7$^{th}$ stage of Ketaconazole) | 50 | 1.5 | 18 |
| 2. | 5-Cyano Phthalide (manufactured in three stages and used as raw material in the 4$^{th}$ stage of Citalopram Hydrobromide) | 50 | 1.5 | 18 |
| 3. | Cis-Bromo Benzoate (manufactured in three stages and used as raw material in the 4$^{th}$ stage of Ketaconazole) | 50 | 1.5 | 18 |
| 4. | Cis-Tosylate manufactured in two stages and used as raw material in the 6$^{th}$ stage of Ketaconazole) | 50 | 1.5 | 18 |
| **Any one product on campaign basis out of 4 products at a time** | | **50** | **1.5** | **18** |

**Proposed Products (as per EC 2007) and their Capacities**

| S. No. | Product | Quantity | | | Therapeutic Category |
|---|---|---|---|---|---|
| | | (Kg/day) | (TPM) | (TPA) | |
| 1. | Sidenafil Citrate | 100 | 3 | 36 | Anti-erectile dysfunction agent |
| 2. | Omeprazole | 100 | 3 | 36 | Anti-ulcerative |
| 3. | Lansoprazole | 100 | 3 | 36 | Anti-ulcerative |
| 4. | Pantoprazole | 100 | 3 | 36 | Anti-ulcerative |
| 5. | Glimepiride | 100 | 3 | 36 | Anti-diabetic |
| 6. | Clopidogrel Hydrogen Bisulfate | 100 | 3 | 36 | Anti-thrombotic |
| **Any 3 products on campaign basis out of 6 products at a time** | | **300** | **9** | **108** | |

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

The proposal is for environmental clearance to the project for manufacturing Active Pharmaceutical Ingredients by M/s Saiteja Drugs and Intermediates Pvt Ltd in a total area of 2.49 ha at Sy No. 543/A, 544/A, Village Seetavanigudem, Mandal Bhoodan Pochampally, District Yadadri (Telangana).

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

The ToR for the project was granted on 14th November, 2017. Public hearing was earlier conducted by the SPCB on 7thJune, 2006.

Total water requirement is 174 $m^3$/day of which fresh water demand of 143 cum/day to be met from private tankers supply. The effluent quantity of 33.3 cum/day will be treated through upgraded Effluent Treatment plant, thus ensuring Zero Liquid Discharge.

The unit was established in the year 2000 i.e. prior to EIA Notification, 2006 and thus not requiring prior EC. The Ministry, vide letter dated 22nd August, 2007, had granted EC to the expansion of bulk drug unit up to 108 TPA (three products at a time @36 TPA). However, the project could not be implemented.

Consent to Operate for the existing products/utilities has been obtained from the Telangana PCB, which is presently valid up to 31st January, 2018.

**34.3.2.3** *The EAC, after deliberations, deferred the project for want of clarification/inputs and documentation in respect of the following:-*

- *Revision of the proposal for the project limited to manufacturing of APIs of 108 TPA (*three products at a time @36 TPA) for the present.
- *Revised Form-1.*
- *Monitoring report on compliance status of the conditions stipulated in the EC dated 22nd August, 2007.*
- *Addition of reservoir for raw water storage.*

**Agenda No.34.3.3**

**Expansion of Grain based Distillery and Co-Generation Power Plant by M/s Globus Spirit Ltd at Industrial Park, Panagarh, District Burdwan (West Bengal) - Environmental Clearance**

**[IA/WB/IND2/71253/2017, J-11011/155/2017-IA II (I)]**

**34.3.3.1** The project proponent and their accredited Consultant M/sJ.M. EnviroNetPvt Ltd**,**made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for Expansion of grain based distillery from 120 to 240 KLPD & co-generation Power plant from 3.5 to 8.0 MW at Panagarh Industrial Park, Panagarh, District Burdwan, West Bengal by M/s Globus Spirit Limited.

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 29thEAC meeting held during 13th October, 2017 and recommended Terms of References

(ToR) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/155/2017-IA II(I) dated 6th November, 2017.

(iii) All Grain based distillery are listed at S.N. 5 (g) (ii) [Non-molasses based distilleries >60 KLD] of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Ministry has issued EC earlier vide letter no. J-1101/337/2013-IA II (I) dated 15th May, 2015 for 120 KLPD Grain based Distillery & 3.5 MW Co-Generation Power Plant unit to M/s. Globus Spirit Limited.

(v) Existing land area is 7.61 ha (18.81 Acres), no additional land will be used for proposed expansion. Industry is developing Greenbelt in an area of 33 % i.e., 2.51 Ha out of 7.61 ha of area of the project. The estimated project cost for expansion is Rs.120 Crores excluding existing investment of Rs.110 Crores. Total capital cost earmarked towards environmental pollution control measures for expansion project is Rs.20 Crores and the Recurring cost (operation and maintenance) will be about Rs.2 Crores per annum. Total Employment will be 200 persons as direct & 500 persons indirect after expansion. It has been proposed to allocate Rs.3 Crores @ 2.5 % towards Corporate Social Responsibility.

(vi) As per Form-1 No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Four river/ waterbodies i.e. Panagarh Branch Canal (~0.2 km in North direction), Left Bank Main Canal (~4.8 km in SW direction), Damodar river (~7.5 km in SW direction), KunurNadi (~9.0 km in North direction) are flowing within 10 km radius of the plant site.

(vii) Ambient air quality monitoring was carried out at 8locations during May, 2017 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (62.3 to 93.4 µg/$m^3$), $PM_{2.5}$ (24.8to 46.8µg/$m^3$), $SO_2$ (5.7 to 20.3 µg/$m^3$) and $NO_2$ (13.9 to 25.5 µg/$m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.26µg/$m^3$, 3.48 µg/$m^3$ and 4.81 µg/$m^3$with respect to $PM_{10}$, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). For submission of compliance of the existing EC to the concerned regulatory authorities, the company conducted AAQ monitoring for $PM_{10}$, $PM_{2.5}$, SOx& NOx from October, 2016 to March, 2017 at the plant site and nearby areas as well. The results are duly submitted along with the compliance report to RO, MoEFCC, Bhubaneswar and are attached as annexure with the EIA/ EMP report.

(viii) Total water requirement for expansion project is 3917 $m^3$/day of which fresh water requirement of 1205 $m^3$/day and will be met from ground water. The existing fresh water requirement is 1205 $m^3$/day and after expansion, the total water fresh water requirement will be 2410 $m^3$/day.

(ix) Effluent is being/ will be treated through Effluent Treatment Plant & completely reused/ recycled in plant activities, plant is/ will be based on Zero Liquid discharge system.

(x) Power requirement after expansion will be 7.0 MW including existing 3.0 MW and will be met from Co-generation power plant. Existing unit has 2 DG sets of 1250 kVA & 750 kVA capacity, additionally 2 more DG sets of same capacity will be used as standby during power failure.

(xi) Existing unit has 35 TPH Coal/rice husk fired boiler & 40 TPH Coal/ rice husk fired boiler will be installed. Electrostatic precipitator with a stack of height of 57 m will be installed for

controlling the particulate emissions (within statutory limit of 50 mg/$Nm^3$) for proposed 40 TPH Coal/rice husk fired boiler.

(xii) Details of Process emissions generation and its management.

- ESP has been installed with the existing boiler to control particulate & gaseous emissions due to combustion of fuel and after expansion the same type of ESP will be installed with the proposed 40 TPH boiler along with the stack height of 57 m.
- $CO_2$ generated during the fermentation process is being/ will be collected by utilizing $CO_2$ scrubbers and sold to authorized vendor.
- Online monitoring system is already operational with the existing boiler and will also be installed with the proposed boiler.

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

- Solid waste generated would be wet cake, yeast sludge and ash from the boiler.
- Solid waste generated comprises of fibres and proteins in the form of DDGS which is being/ will be ideally used as Cattle feed.
- Boiler ash is being/ will be sold to the brick/ cement manufacturers.
- Yeast sludge is being/ will be added to the Wet cake.
- Used oil & grease generated from plant machinery/ gear boxes as hazardous waste are being/ will be sold out to the CPCB authorized recyclers.

(xiv) The existing Plant (120 KLPD Distillery & 3.5 MW Co-generation Power Plant) lies in Notified Panagarh Industrial Park developed by West Bengal Industrial Development Corporation Limited (WBIDC). Now, the company has proposed expansion of the distillery from 120 to 240 KLPD along with cogeneration power plant from 3.5 to 8 MW within existing plant premises. No addition land is required for the expansion. The last public hearing for the existing project was conducted on 28th Nov., 2014. The Final EIA/ EMP report for expansion project was submitted on 27th November, 2017 i.e. within 3 years of conduction of last Public hearing.

(xv) Details of Certified compliance report submitted by RO, MoEF&CC- The status of compliance of earlier ECwas obtained from RO,MOEFCC, Bhubaneswar vide file no 102- 534/EPE dated 24th November, 2017 and 9th January, 2018.

(xvi) No litigation is pending against the proposal.

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

**Existing Product list:**

| Sl. No | Products | Quantity |
|---|---|---|
| 1 | Rectified spirit(RS) / Extra Neutral Alcohol(ENA)/IMFL &CL Bottling | 120 KLPD |
| 2 | Power | 3.5 MW |
| | **By- Product**- DDGS &CO2 | |

**Proposed products and their capacities for expansion**

| S. No | Products | Quantity |
|---|---|---|
| 1. | Rectified spirit(RS) / Extra Neutral Alcohol(ENA)/ IMFL &CL Bottling | 120 KLPD |
| 2 | Power | 4.5 MW |
| | **By- Product**- DDGS &CO2 | |

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

The proposal is for environmental clearance to the expansion of Grain based Distillery from 120 KLPD to 240 KLPD by M/s Globus Spirits Ltd in a total area of 7.61 ha at Industrial Park, Panagarh, District Burdwan (West Bengal).

The project/activity is covered under category A of item 5(g) 'Non-molasses based distilleries >60 KLD' of Schedule of Environmental Impact Assessment (EIA) Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 6th November, 2017. Public hearing was conducted by the SPCB on 28th November, 2014.

Total water requirement for expansion project is estimated to be 3917 $m^3$/day for first run, of which fresh water demand of 1205 $m^3$/day to be met from ground water. The consecutive cycles of distillery operation shall use recycled water of 2712 cum/day in addition to fresh water demand of 1205 cum/day. The fresh water requirement for existing plant is 1205 $m^3$/day, thus total water fresh water requirement will be 2410 $m^3$/day.

Earlier, the Ministry had granted EC vide letter dated 15th May, 2015 for 120 KLPD Grain based Distillery & 3.5 MW Co-Generation Power Plant unit to M/s Globus Spirit Limited. The monitoring report on compliance status of existing EC conditions, was forwarded by the Ministry's Regional Office at Bhubaneswar vide letter dated 24th November, 2017(site visit carried out 15th November, 2017). The project proponent has submitted action taken report to the Ministry's Regional Office vide letter dated 14th December, 2017. The recertification on compliance status of existing EC conditions, was forwarded by the Ministry's Regional Office at Bhubaneswar vide letter dated 9th January, 2018.

Consent to Operate for the existing products/utilities has been obtained from the West Bengal PCB, which is presently valid up to 31st July, 2021.

**34.3.3.3** *The EAC, after deliberations, noted that the public hearing conducted on 28th November, 2014 was for the distillery earlier envisaged of capacity 120 KLPD. The present proposal is for expansion of distillery from 120 KLPD to 240 KLPD, and should have been submitted to SPCB for conducting fresh public hearing in compliance of the ToR dated 6th November, 2017.*

*The Committee, in view of the extant norms/guidelines, insisted for fresh public hearing through the SPCB with the proposal for expansion from 120 to 240 KLPD. The proposal was, therefore, deferred.*

**Agenda No.34.3.4**

**Expansion of Bulk Drugs & Chemical Manufacturing Unit by M/s Sharika Life Science Private Limited at RIICO Area Sotanala, Behror, District Alwar (Rajasthan) - Environmental Clearance**

**[IA/RJ/IND2/71935/2017, SIA/RJ/IND2/20010/2017]**

**34.3.4.1** The project proponent and their accredited Consultant M/s Mantras Green Resoures Ltd**,** made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for proposed expansion of Bulk Drugs & Chemical Manufacturing Unit with capacity of 480 TPA by M/s Sharika Life Sciences Private Limited at RIICO Area Sotanala, Behror, District-Alawar (Rajasthan).

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 155$^{th}$ SEAC meeting held during 05$^{th}$ April, 2017 at Agenda no.4. and recommended Terms of References (TORs) for the Project.

The TOR has been issued by Ministry vide letter No. JF1 (4)/SEIAA/SEAC-Raj/Sectt/Project / Cat. 5(f).B1 (15235)/ 16-17/6928-6930; dated 17.05.2017. (In case of EC Proposal) 5 (f) B Synthetic Organic Chemicals Industry and are appraised at Central Level by Expert Appraisal Committee (EAC) because of Interstate boundary of Rajasthan & Haryana at a distance of 4.35 km (NW).

(iii) Existing project is distillation of methanol & ethyl acetate of 740 metric tons /annum i.e. why EC is no required as per the norms.

(iv) Existing land area is 20614.44 sq.m, and same land area will be utilized for proposed expansion. Industry has proposed green belt area of 37.06 % i.e., 7639.50 $m^2$ out of 20614.44 $m^2$ of area of the project.

(v) The estimated project cost is Rs 1343.75 lakhs including existing investment of Rs 603.19 Lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs 100 lakhs and the Recurring cost (operation and maintenance) will be about Rs 4.75 lakhs per annum. current employment is 60 persons and new expansion will proposed direct 100 persons employment. Thus total 160 persons will be employed Industry proposes to allocate Rs 35.0 Lakh @ 2.6% towards Corporate Social Responsibility.

(vi) It is reported that as per form-1, No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. River/ water body Sahibi / Sani water River is dry seens last 30 years and being developed in agricultural and constructed land at a distance of in direction is flowing at a distance of 3.5 km in South direction.

(vii) Ambient air quality monitoring was carried out Total 10 sampling locations were identified for air quality monitoring. The minimum and maximum range of $PM_{10}$ was 40-89 µg/$m^3$, the range of $PM_{2.5}$ was 20-56 µg/$m^3$, the $SO_2$ was 5-15 µg/$m^3$, the NOx was 9-28 µg/$m^3$ and CO concentration was 0.50-0.78mg/$m^3$. All the results of air quality were observed below the standard limits prescribed by NAQMS. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(viii) Total water requirement is 25.1KLD of which fresh water requirement of 14.5 KLD and will be met through RIICO Ltd, Behror. Treated effluent of 11.5 KLD effluent will be generated which will be treated in treated through ETP of 25 KLD capacity will be based on Zero Liquid discharge system.

(ix) Power requirement after expansion will be 510 KVA including existing 240 KVA and will be met from procured from Jaipur Vidyut Vitran Nigam Ltd. (JVVNL) subsidiary of Rajasthan Electricity Board (REB). we are also proposing 500 KW solar power plant to substitute the energy additional energy requirement. Existing unit has one stand by DG sets of 380KVA capacity, additionally new 500 KVA DG sets are used as standby during power failure.

(x) Stack (12m) will be provided as per CPCB norms to the proposed DG sets of 500 kVA in addition to the existing DG sets of 380 kVA which will be used as standby during power failure.

(xi) Existing unit has 0.8 TPH (standby) & 2.5 TPH (working) after expansion Fired boiler will be installed. Multi cyclone separator with a stack of height of 31 m will be installed for controlling the particulate emissions (within statutory limit of 115 mg/$Nm^3$) for Proposed 2.5 TPH boilers respectively.

(xii) Details of Process emissions generation

**Table:** Details of existing Air Pollution Measures for Process Gas Emission

| **Scrubber attached to** | **Air Pollutants** | **APC Equipment** | |
|---|---|---|---|
| Intermediates Process | HCl<br>$Cl_2$ | **1st Stage** | **2nd Stage** |
| | | Water Scrubber–A | Caustic Scrubber-B |

Adequate scrubbing system will be provided for the control of process gas emission. The details of process gas stacks and scrubbing system proposed are given here under.

**Mitigation Measures**

• Proposed plant will be using Coal/briquettes as fuel for the boilers. Expected emissions will be controlled by using proper stack height for boiler (31 m) along with scrubber system

• For DG sets HSD as fuel will be used. Expected emissions will be controlled by proper stack heights (will be 12m) respectively.

• Boiler ash be transferred in closed bulkers to the end users to avoid any spillage

All types of raw materials/chemicals and products will be received, stored and transported in closed cover/containers; hence, there will be least release of pollutants to the atmospheres. It will be ensured that vehicles are not overloaded during transportation and its management.

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

The Industry will generate following amount and type of wastes

**Hazardous waste generation**

| **S.No.** | **Type of waste** | **Category** | **Disposal** |
|---|---|---|---|
| 1 | Used oil from DG set and compressor | 5.1 | Sold to authorized recycler having PCB and CPCB approval. |
| 2 | Expired Drugs | 25.2 | Incineration at common incineration facility in RICCO, Rajasthan, Behror |
| 3 | Empty barrels and carboy from R.M. | 33.3 | After decontamination sell to dealer having PCB consent to send for refilling of same material |
| 4 | Plastic liner | 33.3 | After decontamination sell to dealer having PCB consent |
| 5 | ETP sludge | 34.3 | Sent to common treatment storage disposal facility (TSDF) site at RICCO, Behror, Rajasthan. |

**Non Hazardous waste generation**

| Particulars | Existing | Proposed |
|---|---|---|
| Fly Ash | 0.5456 MTD | 1.21 MTD |
| Bottom Ash | 0.13 MTD | 0.304 MTD |
| Sodium sulphate | | 7 MT/M |
| Sodium chloride | | 1.5 MT/M |

**Mitigation Measures**: Generated hazardous waste will be hand over to authorized vendor for disposal as well as incinerate it. SLPL is having membership of disposal facility at Rajasthan.

• The wastewater generated from the project will be divided in to high COD and low COD Streams and it will be treated up to tertiary level and RO will be used for further treatment. Also we are proposing forced vessel evaporator for excess treated water evaporation thus we are achieving ZLD in our plant and the solid waste which is generated from the waste water treatment will be disposed to CSDS Rajasthan. The treated water will be used in boiler cooling tower and green belt.
• Hazardous materials will be handled, stored and used properly. Thus, there will not be any possibility of spillage of the hazardous materials on ground.

xvii. Public Hearing for the proposed project has been conducted by the State Pollution Control Board is not applicable. as this industry is falling in notified industrial zone RIICO.

xx. Following are the list of existing and proposed products:

Existing Product list (In case of Expansion proposals):

| S. No | Items | Details |
|---|---|---|
| 1 | Project | **Solvent Recovery Project** |
| 2 | Solvent | **Methanol and Ethyl Acetate** |
| 3 | Raw material | Impure Methanol and impure Ethyl acetate |
| 4 | Quantity | **740 MTA** |
| 5 | Final Product | Pure Methanol and Ethyl Acetate |
| 6 | Process | **Physical separation by distillation** |

Proposed Products and their Capacities for Expansion

| S. No. | Product name | Uses | Proposed Capacity (T/Annum) |
|---|---|---|---|
| 1 | Cloxacillin Sodium | To treat a wide variety of **bacterial infections.** Penicillin antibiotic. Stopping the growth of bacteria. To treat only bacterial infections. | **Alternative production with maximum capacity: 300 TPA** |
| 2 | Flucloxacillin Sodium | To **treat infections** due to sensitive Gram-positive organisms, including β lactamase producing Staphylococci and Streptococci. | |

| | | | |
|---|---|---|---|
| 3 | Dicloxacillin Sodium | To treat many different types of **infections caused by bacteria** such as bronchitis, pneumonia, or staphylococcal (also called "staph") infections. | |
| 4 | Oxacillin Sodium | To treat s wide variety of **bacterial infections.** It is a penicillin antibiotic. Stops the growth of bacteria. To treat many different types of infections caused by staphylococcus (also called "Staph") infections | |
| 5 | Amoxycillin Trihydrate | It is a penicillin antibiotic that **fights bacteria.** Used to treat many different types of infection caused by bacteria, such as tonsillitis, bronchitis, pneumonia, gonorrhea, and infections of the ear, nose, throat, skin, or urinary tract.<br>It is also sometimes used together with another antibiotic called clarithromycin (Biaxin) to treat stomach ulcers caused by Helicobacter pylori infection. This combination is sometimes used with a stomach acid reducer called lansoprazole (Prevacid) | |
| 6 | Ampicillin Trihydrate | It is a **penicillin antibiotic that fights bacteria**. Used to treat or prevent many different types of infections such as bladder infections, pneumonia, gonorrhea, meningitis, or infections of the stomach or intestines. | |

**List of Intermediate Products**

| S. No. | Intermediate products | Chemical Name | Proposed Capacity (T/Annum) |
|---|---|---|---|
| 7 | CMIC Chloride | [3-(2-CHLOROPHENYL)-5-METHYL ISOXAZOLE-CARBONYL CHLORIDE] | **Alternative production with maximum capacity: 180 TPA.** |
| 8 | FCMIC Chloride | 3-(2-Chloro-6-fluorophenyl)-5-methyl-1,2-oxazole-4-carbonyl chloride | |
| 9 | DCMIC Chloride | 3-(2,6-DICHLOROPHENYL)-5-METHYLISOXAZOLE-4-CARBONYL CHLORIDE | |
| 10 | PCMIC Chloride | 3[-phenyl)-5-methyl isoxazol-4-carbonyl Cholride (PCMIC Chloride) | |
| 11 | Sodium Hexonate | Hexanoic acid, sodium salt (C6H11NaO2) | |

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

The proposal is for environmental clearance to the project for setting up Bulk Drugs & Drug Intermediates unit of capacity 480 TPA by M/s Sharika Life Science Private Limited in a total area of 20614.44 sqm at plot No.SP1-6B, RIICO Area, Sotanala, Tehsil Behror, District Alwar (Rajasthan). Presently, the unit is engaged in solvent extraction (Methanol and Ethyl Acetate) of 740 TPA.

The project/activity is covered under category B of item 5(f) 'Synthetic Organic Chemical' of Schedule of Environmental Impact Assessment (EIA) Notification, 2006. However, due to applicability of general condition (Interstate boundary of Rajasthan & Haryana at 4.35 km), the project requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted by SEIAA, Rajasthan on 17th May, 2017 with the exemption from public hearing.

Total water requirement is estimated to be 25.1 cum/day of which fresh water demand of 14.5 cum/day to be met from RIICO water supply. The remaining 10.6 cum/day shall be obtained from recycled water in the process.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

The unit is presently engaged in solvent extraction through physical separation by distillation, which is not covered under the ambit of the EIA Notification, 2006 and thus not requiring prior EC.

Consent to operate for the existing products have been obtained from the Rajasthan SPCB, which is presently valid up to 31st October, 2018.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows :*
  - *(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.*
  - *(g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 14.5 cum/day to be met from RIICO water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*

- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
  *(i) Metering and control of quantities of active ingredients to minimize waste.*
  *(ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  *(iii) Use of automated filling to minimize spillage.*
  *(iv) Use of Close Feed system into batch reactors.*
  *(v) Venting equipment through vapour recovery system.*
  *(vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on public hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.*
- *The energy sources for lighting purposes shall preferably be LED based. A minimum of 10-20% of the total power requirement for the industrial operations shall be met from non-conventional energy resources/solar supply.*

**Agenda No.34.3.5**

**Expansion of storage capacity by adding 2 x 900MT capacity LPG Plant by M/s IOCL at Gata No.17,18,19,36,37,38,42,43,44,53,54,59,61, village Jabalpur, Tehsil & District Haridwar (Uttarakhand) - Environmental Clearance**

**[IA/UK/IND2/57495/2016, J-11011/184/2016- IA II(I)]**

*On the request of the project proponent, the proposal was deferred for consideration on the next day i.e. 27th February, 2018.*

**Agenda No.34.3.6**

**Expansion of Bulk Drugs and Intermediates Manufacturing Unit by M/s S.V. Labs Pvt Ltd at Sy.No. 501, 506 and 507, Village Koyalagudem, Mandal Choutuppal, District Nalgonda (Telangana) - Environmental Clearance**

**[IA/TG/IND2/33232/2015, J-11011/301/2015-IA II (I)]**

**34.3.6.1** The project proponent and their accredited Consultant M/sTeam Labs and Consultants**,** made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for Environmental Clearance (EC) for proposed expansion of synthetic organic chemicals (Bulk Drug and Intermediates) manufacturing unit by M/s S.V. Labs Pvt Ltdat Sy.No.501, 506 and 507, Village Koyalagudem, Mandal Choutuppal, District Yadadri Bhuvanagiri (Telangana).

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 3rd EAC meeting held during 18-19th January, 2016 and recommended Terms of Reference (ToR) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/301/2015-IA II (I) dated 5th March, 2016.

(iii) All Synthetic organic chemicals manufacturing units located outside notified industrial area are listed at S.No. 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Ministry has issued EC earlier vide letter no F. No. J-11011/302/2007-IA II (I) dated 12th September, 2007 for Bulk Drug manufacturing unit to M/s S.V. Labs Pvt. Ltd.

(v) Existing land area is 6 acres land will be used for proposed expansion. Greenbelt has already been developed in an area of 2 acres, thus covering an 33.33 % of the total project area. The estimated project cost for proposed expansion is Rs.20 crores. Total capital cost earmarked for pollution control measures is Rs 8.33 crores and the recurring cost (operation and maintenance) will be about Rs 8.05 crores per annum. Total Employment will be 80 persons as direct and 20 persons indirect after expansion. It has been proposed to allocate Rs.50 lakhs @ 2.5 % towards Corporate Social Responsibility.

(vi) There are eight reserve forests within the impact area; Lakkaram RF at a distance of 2.2 km in NE direction, Choutuppal RF at a distance of 5.0 km in NE direction, Malkapuram RF at a distance of 2.3 km in W direction, Hafizpura RF at a distance of 5.1 km in SW direction, Ailaupur RF at a distance of 4.1 km in SW direction, Dandumailaram RF at a distance of 8.2 km in SW direction, Rajkonda RF at a distance of 7.5 km in S direction and Mehernagar RF at a distance of 9.4 km in NW direction.

(vii) Ambient air quality monitoring was carried out at eight locations during March 2016 to June 2016 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (21 - 40 $\mu g/m^3$), $PM_{2.5}$ (12 - 26 $\mu g/m^3$), $SO_2$ (6 - 13 $\mu g/m^3$) and $NO_2$ (8 - 16 $\mu g/m^3$) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental $GLC_S$ after the proposed project would be 0.51 $\mu g/m^3$, 2.11 $\mu g/m^3$, and 2.93 $\mu g/m^3$ with respect to $PM_{10,}$ $SO_X$ and $NO_X$. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(viii) The total water requirement is 200 KLD out of which 107 KLD will be fresh water and 93 KLD is recycled water. Fresh water requirement shall be met from ground water. Total effluent of 97 $m^3$/day will be treated through "Zero Liquid Discharge" based effluent treatment system. The high COD/TDS stream of 72 $m^3$/day is segregated and sent to stripper. Stripper condensate shall be disposed to cement industries for co-processing/TSDF. Stripper bottom is sent to multiple effect evaporators (MEE) and agitated thin film dryer (ATFD). Condensate from

MEE and ATFD is mixed with low TDS/COD from utility blow downs and domestic wastewater of 25 KLD in biological treatment plant followed by Reverse Osmosis. RO rejects are sent to MEE and permeate is reused in cooling towers, boiler make-up and scrubbers.

(ix) Power requirement after expansion will be 1630 kVA including existing 630 kVA and will be met from TS Transco. Existing unit has 2 nos DG sets of capacity 1 x 380 kVA and 1 x 250 kVA, additionally 1 x 1000 kVA DG set is proposed as standby during power failure. Stack (height 5 m) will be provided as per CPCB norms to the proposed DG set of 1 x 1000 kVA in addition to existing DG sets stack(height 4 m for 380 kVA) and (height 3 m for 250 kVA) which will be used as standby during power failure.

(x) Existing unit has 4 TPH coal fired boiler and proposed a 6 TPH coal fired boiler as part of expansion. Bag filters and a stack with height of 30 m will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm3) for proposed 1 x 6 TPH and existing 1 x 4 TPH coal fired boiler respectively.

(xi) The process emissions contain Carbon Dioxide, Hydrogen, Hydrogen chloride and Sulfur dioxide. Hydrogen chloride and Sulphur dioxide are sent to scrubber in series. Sodium chloride from HCl scrubbing and Sodium Sulfite from Sulphur dioxide Scrubbing are sent to ETP. In the case of hydrogen chloride emissions water is used as scrubbing medium in the primary scrubber and caustic in the secondary scrubber. The resultant effluent from the primary scrubber is sold to authorized agencies as spent acid and salt from secondary scrubber is sent to ETP. Carbon dioxide is let out into atmosphere following a standard operating procedure, while Hydrogen gas is let out into atmosphere through a water column.

(xii) Details of solid waste/Hazardous waste generation and its management.

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

(xiii) Public Hearing for the proposed project has been conducted by the Telangana State Pollution Control Board on 14th November, 2017 at 11.00 AM near industry site.

(xiv) The certified compliance letter from the regional office of MoEF&CC, Chennai is obtained vide letter no. F. No. EP /12.1/587/AP/0369 dated 7th March, 2017

(xv) Following are the list of proposed manufacturing capacities

**Existing Products List**

| S.No | Product | Capacity | |
|---|---|---|---|
| | | Kg/Day | TPM |
| **Group – A** | | | |
| 1 | Niacinamide | 66.67 | 2 |
| 2 | Cetirizine Dihydrochloride | 66.67 | 2 |
| 3 | Carvedilol | 50 | 1.5 |

| | | | |
|---|---|---|---|
| 4 | Terbinafine Hydrochloride | 50 | 1.5 |
| 5 | Omeprazole | 100 | 3 |
| 6 | Fluconazole | 50 | 1.5 |
| 7 | Cis-Bromo Benzoate | 66.67 | 2 |
| 8 | 4 Amino-1-Methyl-3n-Propyl Pyrazole5- Carboxamide | 83.33 | 2.5 |
| 9 | TritylTetrazoleBromomethyl Biphenyl | 100 | 3 |
| 10 | Thionordiazepam | 16.67 | 0.5 |
| 11 | Tetralone | 66.67 | 2 |
| 12 | Citalopram Hydrobromide | 66.67 | 2 |
| 13 | Losartan Potassium | 16.67 | 0.5 |
| | **Total - A (Worst Case any 4 Products on campaign Basis)** | **350** | **10.5** |
| **Group – B** | | | |
| 1 | TritylTetrazoleBromomethyl Biphenyl | 183.33 | 5.5 |
| 2 | Tetralone | 166.67 | 5 |
| | **Total – B** | **350** | **10.5** |
| **Group – C** | | | |
| 1 | Trityl TetrazoleBromomethyl Biphenyl **(OR)** | 350 | 10.5 |
| 2 | Trityl TetrazoleBromomethyl Biphenyl | 350 | 10.5 |
| | **Total - C (Worst Case any 1 Product on campaign Basis)** | **350** | **10.5** |
| **Any One Group will be manufactured at any point of time** | | **350** | **10.5** |

**Manufacturing Capacity – After Expansion**

| S.No | Product | CAS No | Capacity | |
|---|---|---|---|---|
| | | | Kg/day | TPM |
| 1 | Cetirizine Dihydrochloride | 83881-52-1 | 100 | 3 |
| 2 | Carvedilol | 72956-09-3 | 100 | 3 |
| 3 | Terbinafine Hydrochloride | 78628-80-5 | 100 | 3 |
| 4 | Omeprazole | 73590-58-6 | 100 | 3 |
| 5 | Fluconazole | 86386-73-4 | 100 | 3 |
| 6 | Cis-Bromo Benzoate | 61397-56-6 | 200 | 6 |
| 7 | 4 Amino-1-Methyl-3n-Propyl Pyrazole5-Carboxamide | 139756-02-8 | 83 | 2.5 |
| 8 | TritylTetrazoleBromomethyl Biphenyl | 124750-51-2 | 300 | 9 |
| 9 | Thionordiazepam | 4547-02-8 | 50 | 1.5 |
| 10 | Tetralone | 529-34-0 | 1500 | 45 |
| 11 | Citalopram Hydrobromide | 59729-32-7 | 150 | 4.5 |
| 12 | Losartan Potassium | 124750-99-8 | 150 | 4.5 |
| 13 | Celecoxib (CBX) | 6804-07-5 | 100 | 3 |
| 14 | N-(1-(3,4-Dichlorophenyl)-2,3-Dihydronapthalen-4 (1H)-ylidene) Methanamidne (SSB) | 154212-60-9 | 300 | 9 |
| 15 | 2-Acetyl Thiophene | 88-15-3 | 100 | 3 |
| 16 | Bosentan | 147536-97-8 | 100 | 3 |
| 17 | Dapagliflozinpropanediol | 461432-26-8 | 100 | 3 |
| 18 | Ponatinib | 943319-70-8 | 100 | 3 |
| 19 | Pozaconazole | 171228-49-2 | 35 | 1.05 |
| 20 | Vidagliptin | 274901-16-5 | 35 | 1.05 |
| 21 | N-(2-amino-4,6-dichloropyrimidin-5-yl) Formamide (AbacavirSulfateInt) | 136777-48-5 | 35 | 1.05 |

| | | | | |
|---|---|---|---|---|
| 22 | 4-Hydrazinophenyl-N-Methylmethane-sulfonamide Hydrochloride (SumatriptanInt) | 103628-48-4 | 100 | 3 |
| 23 | Amlodipine Maleate | 88150-47-4 | 100 | 3 |
| 24 | N-(4-(benzyloxy)benzylidene)-4-fluro-benzenamine (4-BBFA) | 87578-63-0 | 200 | 6 |
| 25 | (4S)-3-(5-(4-fluorophenyl)-5-methoxyimino-1-oxo-pentyl)-4-phenyl-2-oxazolidinone (Ezetimibe-Int ) | 163222-33-1 | 100 | 3 |
| 26 | Methyl 2- (2-Chlorophenyl) Acetate | 57486-68-7 | 700 | 21 |
| 27 | Trityl Chloride | 76-83-5 | 1000 | 30 |
| 28 | Atorvastatin Calcium | 134523-03-8 | 100 | 3 |
| 29 | Pregabalin | 148553-50-2 | 100 | 3 |
| 30 | Rosuvastatin Calcium | 147098-20-2 | 100 | 3 |
| 31 | Rabeprazole Sodium | 117976-90-6 | 30 | 0.9 |
| 32 | Sildenafil Citrate | 171599-83-0 | 100 | 3 |
| 33 | Quetiapine Fumarate | 111974-72-2 | 100 | 3 |
| 34 | DarunavirEthanolate | 635728-49-3 | 350 | 10.5 |
| **Total -Worst Case 12 Products on campaign basis** | | | **5050** | **151.5** |

**List of By-Products – After Expansion**

| S.No | Product | Stage | By product | Capacity | |
|---|---|---|---|---|---|
| | | | | Kg/day | TPM |
| 1 | Fluconazole | I | Aluminium Hydroxide (8.5%) | 379.6 | 11.4 |
| 2 | Tetralone | I | Aluminium Hydroxide (8.1%) | 5365.8 | 161 |
| 3 | N-(1-(3,4-Dichlorophenyl)-2,3-Dihydronapthalen-4 (1H)-ylidene) Methanamidne (SSB) | I | Aluminium Hydroxide (8.1%) | 1115.8 | 33.5 |
| 4 | 2-Acetyl Thiophene | I | Aluminium Hydroxide (6.8%) | 970.9 | 29.1 |
| 5 | DapagliflozinPropanediol | I | N-MethylmorpholineHCl | 182.5 | 5.5 |
| 7 | Sumatriptan | IV | Sulfuric Acid (40%) | 194.8 | 5.8 |
| 8 | Trityl chloride | I | Acetic Acid | 215.4 | 6.5 |
| 9 | Spent Acid from Scrubbers | | Hydrochloric Acid (30%) | 3675.4 | 110.3 |

**List of Utilities**

| S.No | Utility | Permitted | Proposed | After Expansion |
|---|---|---|---|---|
| 1 | Coal Fired Boilers (TPH) | 4 | 6 | 1 x 4<br>1 x 6 |
| 2 | DG Sets (kVA)* | 1 x 380<br>1 x 250 | 1 x 1000 | 1 x1000<br>1 x 380<br>1 x 250 |

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

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

The proposal is for environmental clearance to the project for expansion of bulk drugs and intermediates manufacturing from the present capacity of 10.5 TPM (Any one of the groups A/B/C at a time) to 151.5 TPM (Maximum 12 products on campaign basis) by M/s SV Labs Pvt

Ltd in a total area of 6 acres at Sy. No.501, 506 & 507, Village Koyalagudem, Mandal Choutuppal, District Nalgonda (Telangana).

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

The ToR for the project was granted on 5th March, 2016 and public hearing was conducted by SPCB on 14th November, 2017.

Total water requirement would be increased from 84.2 KLD to 200 KLD. The plant has the approval of the Ground Water Department of the State Government of Andhra Pradesh vide their letter dated 12th October, 2007 to draw 1500 gallons per hour with maximum 10 hours of pumping per day, i.e. 60 KLD. Out of the total proposed water requirement, 107 KLD would be met from fresh water (ground water) and 93 KLD through recycled water. Total effluent of 97 $m^3$/day will be treated in the ETP, thus ensuring Zero Liquid Discharge.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

The Ministry has earlier issued EC vide letter dated 12th September, 2007 for bulk drugs manufacturing unit by M/s SV Labs Pvt Ltd. The monitoring report on compliance status of existing EC conditions, has been forwarded by the Ministry's Regional Office at Chennai vide letter dated 07.03.2017(site visit carried out 25th February, 2017).

Consent to operate for the existing products/utilities has been obtained from the State PCB, which is presently valid up to 28th February, 2023.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows :*
  - *(i) Reactor shall be connected to chilled brine condenser system.*
  - *(ii) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
  - *(iii) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 98% recovery.*
  - *(iv) Solvents shall be stored in a separate space specified with all safety measures.*

(v) *Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
(vi) *Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
(vii) *All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*

- *Total fresh water requirement shall not exceed 107 cum/day to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
  (a) *Metering and control of quantities of active ingredients to minimize waste.*
  (b) *Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  (c) *Use of automated filling to minimize spillage.*
  (d) *Use of Close Feed system into batch reactors.*
  (e) *Venting equipment through vapour recovery system.*
  (f) *Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made regarding issues raised during the public hearing/ consultation meeting held on 14$^{th}$ November, 2017 shall be satisfactorily implemented.*
- *At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on public hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
- *The energy sources for lighting purposes shall preferably be LED based. A minimum of 10-20% of the total power requirement for the industrial operations shall be met from non-conventional energy resources/solar supply.*
- *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. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.*

**Agenda No.34.3.7**

**Expansion of Formaldehyde and Resin manufacturing unitby M/s Balaji Action Buildwell at Plot No.C-34, C-34 (a) to (d), C-6(a), 6(b), C-3 & 5, Eldeco SIDCUL industrial park, District Sitarganj - Udham Singh Nagar (Uttarakhand) - Environmental Clearance**

**[IA/UK/IND2/68059/2017, J-11011/453/2017-IA-II(I)]**

**34.3.7.1** The project proponent and their accredited Consultant M/s Perfact Enviro Solutions Pvt Ltd**,** made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for Expansion of Formaldehyde and Resin manufacturing unit by M/s Balaji Action Buildwell located at Plot no. C-34, C-34 (a) to (d), C-6(a), 6(b), C-3 & 5, ELDECO SIDCUL Industrial Park Sitarganj, Udham Singh Nagar (Uttarakhand).

(ii) The project proposal was submitted online for EC on 30/11/2017 and Standard TOR was granted by Ministry vide letter No: IA-J-11011/453/2017-IA-II(I)] dated 6/11/2017.

(iii) All products are listed at S.No. 5(f) of Scheduled of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Earlier Separate environmental clearance has been taken by M/s Balaji Action Buildwell for formaldehyde & Resin Plant for existing unit vide letter no. 293_5(4)/2013 dated 24/12/2013 for capacity 150 TPD on plot area 5378.06 sqm and vide letter no. J-11011/808/2008-IA II (I) dated 3/11/2008 for capacity 80 TPD on plot area 75452 sqm respectively.

(v) Existing land area for formaldehyde plant is 5378.06 sqm and for Resin plant is 75452 sqm, additional 256521.06 sqm land is taken from ELDECO SIDCUL adjacent to existing plant for the expansion. In expansion Formaldehyde plant will be on the same plot area and Glue plant will be on new plot adjacent to the existing plot. After expansion total plot area will be 3,37,351.12 sqm. Industry will be developed Greenbelt in area of 41.63%, 27755.47 sqm out of 337351.12 sqm of area of the project.

(vi) The estimated project cost is Rs. 10 Crores. Total capital cost embarked towards environment pollution control measures is Rs. 40 lacs and the Recurring cost (operation and maintenance) will be about Rs 23 lakhs/Per annum.

(vii) Total Employment will be 48 persons as directed & 50 persons indirect after expansion. Industry proposed to allocated Rs 26 lakhs @ 2.5% towards Corporate Social Responsibility.

(viii) It is reported that as per form-1 no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, etc lies within 10 km distance. River/waterbody within 10 Km area are given below:

| Name/ Identity | Aerial distance (within 10 km) |
|---|---|
| **Water bodies:** | |
| NandhauNadi | 0.32 km (E) |
| Kailash Nadi | 1.16 km (E) |

| | |
|---|---|
| DeohaNadi | 4.23 km (E) |
| Bhainsiyanala | 6.66 km (ENE) |
| ChungadDhara | 8.33 km (E) |
| SukhiNadi/Begulnala | 3.30 km (W) |
| BahgulNadi | 5.11 km (S) |
| GorhiNala | 1.78 km (SSW) |
| KatnaNadi | 5.51 km (W) |
| DhoraNala | 8.42 km (W) |

(ix) Ambient air quality was carried out at 8 locations during March to May 2017 and submitted baseline data indicated that ranges of concentration of $PM_{10}$ (83.5 to 135.9 µg/$m^3$), $PM_{2.5}$ (37.9 to 52.2 µg/$m^3$), $SO_2$ (5.8 to 8.1 µg/m3) and $NO_2$ (21.1 to 29.0 µg/$m^3$) respectively. AAQ modelling study for point source emissions indicated that the maximum incremental GLCs after the proposed project would be 2.07 µg/$m^3$, 0.343 µg/$m^3$ and 3.01 µg/$m^3$ with respect to $PM_{10}$, $SO_X$ and $NO_X$. The resultant concentration of SOX and NOX are within the National Ambient Air Quality Standards (NAAQS). $PM_{10}$ concentration at project site is within limit but at three locations (Village Akrauli, Village Rudpur and Govind Nagar) out of 8, its more than National Ambient Air Quality Standards (NAAQS).

(x) Total water requirement after expansion will be 782 KLD of which fresh water requirement of 447 KLD and will be met from Ground water.

(xi) Treated effluent of 81.6 KLD will be treated through ETP and STP plant will be based on Zero liquid discharge system.

(xii) Power requirement after expansion will be 644 KW including existing 319 KW and will be met from Uttarakhand Power Corporation Ltd. Existing unit has one DG sets of 320 KVA capacity, additionally 320 KVA DG sets are used as standby during power failure. Stack (3.6 m above the roof) will eb provided as per CPCB norms to the proposed DG sets of 1x 320 KVA in addition to the existing DG sets of 1x 320 KVA which will be used as standby during power failure.

(xiii) Existing unit has 2 TPH gas boiler with stack height of 35 m for controlling the Particulate emissions. Proposed Boiler is 2 TPH gas boiler which will be installed with stack height of 35 m (within statutory limit of 115 mg/$Nm^3$).

(xiv) Details of Process emissions generation and its management given below:

| **Source of Air Pollution** | **Existing** | **After Expansion** | **Management** |
|---|---|---|---|
| DG sets | 1 x 320 KVA | 2 x 320 KVA | 3.6 m stack above roof level is provided for existing DG sets and same shall be provided for proposed DG sets. |
| Process Gases | 150 TPD – Formaldehyde<br>80 TPD – Resin | From 300 TPD Formaldehyde and 300 TPD Resin Manufacturing | Emission from Formaldehyde plant contains traces of methanol and formaldehyde, this gas is being used as fuel in the boiler for producing steam. |

| | | | |
|---|---|---|---|
| Emission from Boiler | 1 x 2 TPH | 2 x 2TPH | Stack height of 35 m is provided for existing Boiler and same shall be provided with the proposed Boiler. Emission standard shall be maintained as per CPCB standards. |

(xv) Details of Process emissions generation and its management given below:

**Municipal Waste:**

| ***Category*** | ***Type of Waste*** | ***Colour of Bins*** | ***Disposal Method*** | ***Total Waste (Kg/day) (Existing)*** | ***Total Waste (Kg/day) (After Expansion)*** |
|---|---|---|---|---|---|
| Bio Degradable | Organic Waste (Includes Food & Kitchen Waste, Leaves etc.) | Green | Vermicomposting with in project site | 3 | 5.3 |
| Non-Biodegradable | Recyclable Waste (Includes Poly-bags, Plastic, metal, wood, paper, glass, containers etc.) | Blue | Authorized recycler | 1 | 2 |
| - | **Total** | **-** | **-** | **4 Kg/day** | **7.3 Kg/day** |

**Process Waste (Non-Hazardous Waste):**

| ***Process Waste*** | ***Existing*** | ***Proposed*** | ***Total*** | ***Disposal method*** |
|---|---|---|---|---|
| Formaldehyde Sediments | 10.25 Kg/day | 10.25 Kg/day | 20.50 Kg/day | Formaldehyde sediment shall be stored and disposed off at TSDF approved by Uttarakhand Environment Protection & Pollution Control Board |
| Electrolyte sediments which includes silver and mud | 0.33 Kg/day | 0.33 Kg/day | 0.66 Kg/day | Electrolyte sediment shall be sent to non-ferrous metal smelter plant to recycle. |
| Urea Bag | 80 Kg/day | 120 Kg/day | 200 Kg/day | Shall be given to approved recycler |
| Waste catalyst | 50 kg/day | 50 kg/day | 100 kg/day | Automatic recycle or send to non-ferrous metal smelter plant to recycle |

**Hazardous Waste:**

| ***Name of Process*** | ***Name of Process Waste (Category No)*** | ***Quantity Existing*** | ***Quantity Proposed*** | ***Quantity Total*** |
|---|---|---|---|---|
| 5 Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems (Schedule I) | 5.1 Used/spent oil | 61 l/month | 5 l/month | 66 l/month |

| | | | | |
|---|---|---|---|---|
| 34 Purification and treatment of exhaust air, water and waste water from the processes in this schedule and CETPs (Schedule I) | 34.3. Chemical sludge from ETP | 21 l/month | 49 l/month | 70 l/month |

(xvii) As the unit is situated in notified industrial area, thus the same is exempted from Public Hearing as per clause 7 (i) (iii) of EIA notification.

(xviii) Certified compliance has been received vide letter no vide File no.: NC-RO/ENV/IND/UK/15/2015/1695 dated: 15.01.2018 and vide File no.: IV/ENV/UTR/IND-32/93/2010/1696 dated: 15.01.2018 for Formaldehyde and Resin plant respectively. There were some non-compliance points for which reply has been submitted to MoEF&CC.

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

| S. No | Product | Unit | Existing Capacity | Proposed Capacity | Total After Expansion Capacity |
|---|---|---|---|---|---|
| 1. | **Formaldehyde** | TPA | **45000** | **45000** | **90000** |
| 2. | **Resins** | TPA | **24000** | **66000** | **90000** |
| | Urea Formaldehyde | TPA | 18000 | 57000 | 75000 |
| | Melamine Formaldehyde | TPA | 3000 | 3000 | 6000 |
| | Melamine-Urea-Formaldehyde | TPA | 3000 | 6000 | 9000 |

*Taking 300 working Days

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

The proposal is for environmental clearance to the project for expansion of Formaldehyde (from 45000 TPA to 90000 TPA) and Resin manufacturing (from 24000 TPA to 90000 TPA) by M/s Balaji Action Buildwell located in a total area of 337351.12 sqm at Plot no. C-34, C-34 (a) to (d), C-6(a), 6(b), C-3 & 5, ELDECO SIDCUL Industrial Park, Sitarganj, Udham Singh Nagar (Uttarakhand).

The project/activity is covered under category B of item 5(f) 'Synthetic organic chemicals' of the Schedule to the Environmental Impact Assessment (EIA) Notification, 2006, and requires appraisal at the State level by the concerned SEAC/SEIAA. However, due to non-existence of SEIAA in Uttarakhand, the proposal was accepted and the project was appraised at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 6th November, 2017 with the exemption from Public Hearing as per clause 7 (i) (iii) of EIA notification.

To meet the present industrial operations, fresh water requirement of 208 KLD is being met through ground water. However, the project proponent could not provide any permission in this regard from the concerned regulatory authority. Total water requirement after expansion will be

782 KLD, of which fresh water demand of 447 KLD is proposed to be met from ground water. It was informed that the proposal for withdrawal of ground water has been submitted to the CGWA. Total effluent of 81.6 KLD will be treated through ETP and STP plant, thus ensuring Zero liquid Discharge.

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

Earlier, separate environmental clearances were obtained by M/s Balaji Action Buildwell with the details as under:-
(i) For the existing Formaldehyde plant of capacity 150 TPD in an area of 5378.06 sqm by SEIAA Uttarakhand vide letter dated 24th December, 2013,
(ii) For the Resin Plant of 80 TPD in an area of 75452 sqm by the Ministry vide letter dated 3rd November, 2008.

The monitoring report on compliance status of existing EC conditions, has been forwarded by the Ministry's Regional Office at Dehradun vide letter dated 15th January, 2018 (site visit carried out 21st February, 2017. The project proponent vide letter dated 21st February, 2018 has submitted their replies in response to the compliance status of the EC conditions.

Consolidated Consent and Authorization for the existing products/utilities has been obtained from the State PCB, which is presently valid up to 31st March, 2018

**34.3.7.3** *The EAC, after deliberations, deferred the project for want of clarification/inputs and documentation in respect of the following:-*

- *Permission for withdrawal of ground water from the concerned regulatory authority.*
- *Revised water balance.*
- *Action taken report/replies submitted by the project proponent vide letter dated 21st February, 2018 in response to the earlier observations of the Regional Office, to be examined for their comments.*
- *Action plan of the SPCB for improving the baseline air quality,*
- *Control measures to be taken by the project proponent to minimize the incremental concentrations.*

**Agenda No.34.3.8**

**Expansion of bulk drug & Intermediate manufacturing unit by M/s Smruthi Organics Limited at Plot No.A-27 (Gat No. 230,231,232 & 233), MIDC Chincholi, Tehsil Mohol, District Solapur (Maharashtra) - Environmental Clearance**

**[IA/MH/IND2/70915/2015, J-11011/38/2015-IA II (I)]**

**34.3.8.1** The project proponent and their accredited Consultant M/sEquinox Environments (I) Pvt Ltd**,**made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for expansion through capacity utilization of existing of Bulk Drug & Intermediates manufacturing unit by M/s. Smruthi Organics Limited (SOL), Unit II located at Plot No. A - 27, Chincholi MIDC, TalukaMohol, District Solapur (Maharashtra).

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 36th EAC meeting held during 16-17 March, 2015 and recommended Terms of Reference (ToR) for the Project. The ToR has been issued by Ministry vide letter No.J-11011/38/2015-IA II (I) dated 18th May, 2015.

(iii) All Synthetic Organic Chemicals Industry are listed at S.N. 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'B'. However, as the project is located at 1.95 Km from boundary of Great Indian Bustard Sanctuary and due to project partly established on adjacent Non-MIDC land, the project category changes from Category B to Category A and are appraised at Central Level by Expert Appraisal Committee (EAC).

(iv) Ministry has issued EC earlier vide letter no. J-11011/44/99- IA II (I) dated 08th April, 2002 for proposed bulk drugs & intermediates manufacturing unit and vide letter no. J - 11011/738/2007 - IA -II (I) dated 12.05.2008 for expansion of bulk drugs & intermediates manufacturing unit toM/sSmruthi Organics Limited (SOL),

(v) Existing land area is 8.11 ha (3.55 ha on MIDC area + 5.2 ha Non MIDC land). Industry has already developed the green belt area of 5033 sqm i.e. 0.50 ha (15% on MIDC Land) and proposed green belt will be 29073 sqm i.e. 2.9 ha (55 % on Non- MIDC land). Hence, the total green belt after expansion shall be 34106 sqm i.e. 38 % of the total plot area.

(vi) The existing project cost is Rs.79.29 Crores. There is no increase in capital investment as existing infrastructure and facilities shall be optimally utilized for carrying out production under expansion. Total capital cost earmarked towards environmental pollution control measures is Rs.975 Lakhs i.e. Existing is 860 Lakhs & Expansion will be 115 Lakhs and the Recurring cost (Operation and maintenance) will be about Rs.218 Lakhs per annum i.e Existing is 120 Lakhs/Annum and Expansion will be 98 Lakhs/ Annum.

(vii) Total existing Employment is 360 persons as 180 skilled & 180 unskilled. No any additional manpower would be required for proposed expansion. Industry proposes to allocate Rs 387.5 Lakh @ 5 % towards Corporate Social Responsibility. As per Form- 1, that boundary of Great Indian Bustard (GIB) Sanctuary lies within 5 km distance. River Sina is flowing at a distance of 4.77 Km in south.

(viii) Ambient air quality monitoring was carried out at 06 locations during October 2015 to December 2015 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (41.6 to 70.8 µg/$m^3$), $PM_{2.5}$ (9.9 to 20.3 µg/$m^3$), $SO_2$ (10.2 to 27.5 µg/$m^3$), NOx (10.9 to 28.4 µg/$m^3$), VOC (BDL to 94.4 µg/$m^3$), HCL (BDL to 15.1 µg/$m^3$) $NH_3$ (8.3 to 18.1 µg/$m^3$) and CO (0.04 to 0.1 µg/$m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.03 µg/m3, 0.005 µg/$m^3$ and 0.48 µg/$m^3$ with respect to PM10, PM2.5 and SOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Total water requirement for existing and proposed expansion project will be 215 $m^3$/day i.e. total existing water is 157 $m^3$/day and 58 $m^3$/day will be used in expansion. Out of total water requirement of 215 $m^3$/day, 105 $m^3$/day is fresh water requirement and remaining 110 $m^3$/day will be recycled water from treated water from ETP. The fresh water requirement will be met from MIDC water Supply Scheme.

(x) Treated effluent of 110 $m^3$/day will be treated through following process:

The trade effluent generated from the existing and proposed expansion activities would be segregated into two streams viz. Stream I (High TDS and High COD Effluent) and Stream II (Low TDS and Low COD Effluent).The Stream I effluent generated would be to the tune of 30 $M^3$ / Day. Same comprise of effluent from manufacturing operations viz. process effluent. This effluent will be treated in an ETP comprising of Neutralization Tank, Equalization Tank, Grease Trap, Chemical Dosing, Flocculator, Primary settling Tank (PST) followed by Triple Effect

Evaporator (TEE) and Agitated Thin Film Dryer (ATFD). The condensate from TEE to the tune of 29.5 $M^3$ / Day would be forwarded to Stream II for treatment. Further salts from TEE would be forwarded to CHWTSDF.

The Stream II effluents generated would be to the tune of 61.3 $M^3$/Day, MEE condensate from Stream I of 29.5 $M^3$/Day and domestic effluent 19.5 $M^3$/Day. Stream II effluent shall be contributed by DM plant, boiler blow down, Lab, wash and cooling blow down. The same will be treated in Primary, Secondary & Tertiary treatment units consisting of Neutralization Tank, Equalization Tank, Chemical dosing, Flocculator, PST, Two Stage Aeration, 2 stage secondary settling Tank SST- I&II, Filter Feed Tank, Sand and Carbon Filters, Treated Sump followed by and R.O. Unit & Sludge dewatering equipment. The treated water from stream II would be recycled back for washing, DM Plant, boiler make-up, cooling make up. The process effluents generated from the existing and proposed activities are given adequate treatment and completely recycled thereby achieving **'Zero Liquid Discharge.'**

(xi) Power requirement of existing and expansion project will be 0.9 MW and will be met from Maharashtra State Electricity Board (MSEB). Under existing unit, there are 4 Nos. D.G.Sets of 125 KVA, 250 KVA, 320 KVA, and 500 KVA capacity respectively. DG sets are used as standby during power failure. Stack height of 4m ARL is provided as per CPCB norms to the existing DG sets. Under expansion project no new D.G. set shall be installed.

(xii) Existing unit has 4 TPH and 3 TPH boilers are installed.Multi cyclone separator with a stack of height of 33 m is installed. Under expansion activity, Bag filter would be provided as APC equipment for controlling the Particulate emissions (within statutory limit of 115 mg/$Nm^3$) No new boiler would be installed under expansion project.

**At glance details of Stack for Boiler , Thermic Fluid Heater and D.G.Set under Existing Activity**

<table>
<tr><th>S. No.</th><th>Description</th><th colspan="3">Boiler (2 Nos.)</th><th colspan="2">Thermic Fluid Heater</th><th>D.G. Set</th></tr>
<tr><td>1</td><td>Stack</td><td colspan="3">1</td><td>3</td><td>4</td><td>5</td></tr>
<tr><td>2</td><td>Capacity</td><td colspan="3">4 TPH,3 TPH</td><td>1 Lakh Kcal / h</td><td>1 Lakh Kcal/ h</td><td>500,325, 250, 125 KVA</td></tr>
<tr><td>3</td><td>Fuel type</td><td colspan="3">Coal/Bagasse</td><td colspan="3">HSD</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Fuel quantity</td><td>Existing</td><td>Expansion</td><td>Total</td><td colspan="3" rowspan="2">50 Lit/h</td></tr>
<tr><td>20 / 55 TPD</td><td>5/ 10 TPD</td><td>25/65 TPD</td></tr>
<tr><td>5</td><td>Height, m, AGL</td><td colspan="3">33</td><td colspan="2">Common Stack; 25</td><td>4 M ARL</td></tr>
<tr><td>6</td><td>Diameter/ size, (m)</td><td colspan="3">1.2</td><td colspan="2">0.5</td><td>0.2</td></tr>
<tr><td rowspan="2">7</td><td rowspan="2">Control equipment preceding the stack</td><td colspan="2">Existing</td><td colspan="3">Multi-Cyclone Dust Collector</td><td>Silencer & Acoustic enclosure</td></tr>
<tr><td colspan="2">Expansion</td><td colspan="3">Bag Filter</td><td>---</td></tr>
<tr><td>8</td><td>Source of Pollution</td><td colspan="6">SPM, $SO_2$, NOx</td></tr>
</table>

Presently, boilers are operated on 50% efficiency. After expansion it would be operated on 60-65% efficiency.

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

No new scrubber would be installed under expansion. Under existing unit three nos. of scrubbers are installed. Details of same are as follows-

**Details of Process Emissions**

| S. No | Scrubber Attached to Reactor | No. of Scrubber attached | Process Emission from Reactors | Diameter (inch) | Height (M) | Packing Material | Scrubbing Media | Disposal of Scrubbed media |
|---|---|---|---|---|---|---|---|---|
| 1. | Production Block-A | 1 | $SO_2$ | 8 | 10 | Ball ring | Water | Forwarded to ETP for treatment |
| 2. | Production Block-B | 1 | HCL | 6 | 12 | | | |
| 3. | Production Block-E | 1 | Acetic acid | 8 | 16 | | | |

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

**Details of Solid Wastes**

| No. | Type | Existing | Expansion | Total | Disposal |
|---|---|---|---|---|---|
| 1. | Boiler Ash (Coal/ Bagasse) | 1 / 1.5 TPD | 0.25 /0.3 TPD | 1.25/1.8 TPD | Sold to Brick manufacturers |

**Details of Hazardous Wastes**

| S. No. | Cat. | Description | Existing Quantity | Expansion Quantity | Total Quantity | Mode of Disposal |
|---|---|---|---|---|---|---|
| 1. | 20.3 | Distillation Residue | 1.96 MT/M | 1.65 MT /M | 3.61 MT /M | Forwarded to CHWTSDF |
| 2. | 28.1 | Process Residue | 4.5 MT/M | Nil | 4.5 MT/M | |
| 3. | 28.2 | Spent Carbon | 3.37MT/M | 1.88 MT /M | 5.25 MT /M | |
| 4. | 34.3 | ETP Sludge | 4.5 MT/M | 1.2 MT/M | 5.7 MT/M | |
| 5. | 33.3 | Discarded Containers | 50 nos./M | 50 Nos/M | 100 Nos. M | Re-processor |
| 6. | 35.1 | Contaminated Filter Cloth | 0.5 MT/M | 1 MT/M | 1.5 MT/ M | Burnt in Boiler |

(xv) Public hearing for the proposed project has been conducted by the State Pollution Control Board on 13.06.2017.

(xvi) Details of Certified compliance report submitted by RO, MoEF& CC. –
Compliance observed towards EC granted to existing unit was certified by the Regional Officer MoEFCC; Nagpur during the site visit conducted on 09.04.2016 to Smruthi Organics Ltd. A report is presented by RO; MoEFCC vide letter No. F.No:5-123/2008(pyaa-) / 428 dated 20.05.2016.

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

**Details of existing and proposed products**

| S. No | Products | Existing Quantity (MT/Month) | Proposed Quantity (MT/Month) | Total (MT/Month) |
|---|---|---|---|---|
| 1 | Pefloxacin | 3 | 1 | 4 |
| 2 | Ciprofloxacin HCL | 9.5 | 5.5 | 15 |
| 3 | Enrofloxacin | 1 | 1 | 2 |
| 4 | DiloxanideFuroate | 5 | 10 | 15 |

| S. No | Products | Existing Quantity (MT/Month) | Proposed Quantity (MT/Month) | Total (MT/Month) |
|---|---|---|---|---|
| 5 | Metformin HCL | 60 | 340 | 400 |
| 6 | Amlodipine Besilate | 0.5 | 3.5 | 4 |
| 7 | Amlodipine Maleate | 0.5 | 0.5 | 1 |
| 8 | Amlodipine Base | 1 | 1 | 2 |
| 9 | Phthaloyl Amlodipine | 5 | 1 | 6 |
| 10 | S-Amlodipine | 0.5 | 0.5 | 1 |
| 11 | 2-Furoic Acid | 0.5 | 1.5 | 2 |
| 12 | Telmisartan | 0.5 | 3.5 | 4 |
| 13 | Norfloxacin | 15 | -- | 15 |
| 14 | Carbidopa | 0.5 | -- | 0.5 |
| 15 | Fenofibrate | 0.5 | | 0.5 |
| 16 | 2-Furoyl Chloride | 0.5 | | 0.5 |
| 17 | 1-Acetyl Amine -5-Nitro- 2- Propoxy Benzene (ANPB) | 1 | -- | 1 |
| 18 | Amisulpride | 0.5 | | 0.5 |
| 19 | Losartan Potassium | 1 | -- | 1 |
| 20 | Zidovudine | 5 | -- | 5 |
| 21 | Lamivudine | 5 | -- | 5 |
| 22 | Lamotrigine | 2 | -- | 2 |
| 23 | Acyclovir | 5 | -- | 5 |
| 24 | Levodopa | 0.5 | -- | 0.5 |
| | **Total MT/M** | **123.5** | **369** | **492.5** |

**Note**: 1.From above list, only 10 products shall be manufactured, daily, as per market demand. 2. Recently, products Losartan Potassium, Zidovudine, Lamivudine, Lamotrigine, Acyclovir, Levodopa are no more being manufactured.

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

The proposal is for environmental clearance to the project for expansion of bulk drug & intermediate manufacturing unit from present capacity of 123.5 TPM to 492.5 TPM by M/s Smruthi Organics Limited in a total area of 8.81 ha (3.55 ha-MIDC land & 5.2 ha non MIDC land) at Plot No.A-27, MIDC Chincholi and Gat No. 230,231,232 & 233, Tehsil Mohol, District Solapur (Maharashtra).

The project/activity is covered under category B of item 5(f) 'Synthetic Organic chemical' of Schedule of Environmental Impact Assessment (EIA) Notification, 2006. However, due to applicability of general conditions (Notified GIB Sanctuary is at 1.95 km), the project requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 18$^{th}$ May, 2015 and public hearing was conducted by SPCB on 13$^{th}$ June, 2017.

Total water requirement after expansion will be 215 KLD of which fresh water demand of 105 KLD to be met from MIDC water supply. The remaining of 110 KLD shall be used from recycled water in the process. Total effluent of 91.3 KLD will be treated through ETP and STP plant, thus ensuring Zero liquid Discharge.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

Earlier, Ministry had granted environmental clearances vide letters dated 8th April, 2002 and 12th May, 2008 in favour of M/s Smruthi Organics Limited for Bulk drug & intermediate product of capacity 45 TPM and expansion of bulk drug manufacturing unit from 45 TPM to 123.5 TPM respectively. The monitoring report on compliance status of existing EC conditions, was forwarded by the Ministry's Regional Office at Nagpur vide letter dated 20th May, 2016 (site visit carried out 9th April, 2016). The Regional office has examined the information provided by the project proponent in response to their observations vide monitoring report vide letter dated 20th May, 2016, and forwarded the same to the Ministry on 16th January, 2018. The said report reflects non-compliance to many of their observations.

Consent to Operate for the existing products/utilities has been obtained from the State PCB, which is presently valid up to 30th April, 2017 and applied for renewal of the same.

**34.3.8.3** *The EAC, after deliberations and taking note of the compliance report dated 16th January, 2018 from the Regional Office, Nagpur, insisted for the required information in respect of all their observations, to be necessarily submitted by the project proponent. The Committee opined that the proposal in its present form, was not worth to be taken forward and was, therefore, deferred.*

**Agenda No.34.3.9**

**Expansion and introduction of new products in synthetic organic chemical Industry capacity of 510.76 MT/M and products having capacity of 3356 MT/M by M/s Innovassynth Technologies India Ltd at S.No.9-24, Wasarang 34-36, Chinchwali and Khopoli, District Raigad (Maharashtra) - Environmental Clearance**

**[IA/MH/IND2/61782/2017, J-11011/20/2017-IA-II(I)]**

**34.3.9.1** The project proponent and their accredited Consultant M/s Goldfinch Engineering Systems Private Limited**,** made a detailed presentation on the salient features of the project and informed that:

i) The proposal is for expansion and introduction of new products for manufacture syntheticorganic chemical project by Innovassynth Technologies (I) Limited for unit located at S.No. 9-24, Wasarang 34-36, Chinchwali, KhopoliDist: Raigad, Maharashtra.

ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 24th EAC meeting held on 14th June 2017 and recommended Terms of References (ToR) for the Project. The ToR has been issued by Ministry vide F.No.J-11011/20/2017-IA II (I) dated 5th January 2018.

iii) All the products are in the category of manufacturing synthetic organic chemical listed at Sr. N 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A'.

iv) Existing land area is 244872.00 $m^2$, No additional land required. Industry is already developed Greenbelt area of 80808 $m^2$ out of 244872 $m^2$ of area of the project. The total project cost is Rs.232.41 Cr, including existing investment of Rs 79.41 crores. Total capital cost

earmarked towards environmental pollution control measures is Rs. 1377.00 lacs and the Recurring cost (operation and maintenance) will be about Rs. 436.00 lacs per annum.

v) Total Employment will be 570 persons after expansion. Industry proposes to allocate Rs. 382.5 lakh @ 2.5 % of expansion cost towards ESC. As per Form-1, there is no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Patalganga river is flowing adjacent to factory in west direction.

vi) Ambient air quality monitoring was carried out at 10 locations during March 2017 to May 2017 and the baseline data indicates that ranges of concentrations of $PM_{10}$ (24.3-71.8 µg/$m^3$), $PM_{2.5}$ (10.1-31.5 µg/$m^3$), $SO_2$ (22.09-37.94 µg/$m^3$) and $NO_2$ (13.91-25.02 µg/$m^3$) respectively. Since the unit was in operation these values represent actual ambient air quality. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

vii) Total fresh water requirement is 1042 $m^3$/day and will be met from Patalganga river. Total trade effluent of 297 CMD is being treated in MEE, full-fledged ETP Plant having Primary, Secondary and Tertiary treatment and RO to achieve Zero Liquid Discharge (ZLD). Domestic waste 34 CMD water will be treating in proposed STP of capacity 41 CMD.

viii) Power requirement after expansion will be 4.0 MW including existing 2.5 MW and will be met from Maharashtra State Power Distribution Corporation Limited (MSPDCL). Existing unit has total three DG sets of 1000 KVA (2 nos.) & 500 KVA (1 no.) capacity, additionally 2 sets of 1000 KVA will be required for expansion. Stack height 6.3m will be provided as per CPCB norms to the proposed DG sets of 1000 KVA (2 nos.) in addition to the existing DG sets of 1000 KVA (2 nos.) & 500 KVA (1 no.) which will be used as standby during power failure.

ix) Existing unit has 1 no. of boiler having capacity 6 TPH fired on Briquette with stack height of 30 m. is provided. For proposed expansion two boilers of 10 TPH fired on Briquette with common stack height 48 m with bag filter. & One Thermopack of 2 lakh.kcal/hr. fired on HSD with stack height 12 m.

x) Details of Process emissions generation and its management are as follows:

| S. No. | Equipment | Control | Stack height |
|---|---|---|---|
| 1 | Process | Scrubber MPP Plant 2 nos. | 7.0 m |
| 2 | Process | Scrubber(PP1) 1 No. | 10.0 m |
| 3 | Process | Scrubber (PP 3, 4, 5) 3 Nos. | 13.0 m |
| 4 | Process | Scrubber (PP 2) 1 No. | 7.0 m |
| 5 | Process | Scrubber (PP 6) 1 No. | 7.0 m |
| 6 | Process | Scrubber for proposed PP 8 – 1 No. | Stack Height will be provided as per design |
| 7 | Process | Total Scrubbers for Proposed Production Blocks - 7 Nos. | Stack Height will be provided as per design |
| 8 | ETP | ETP Equalization tank proposed scrubber- 1 No. | Stack Height will be provided as per design |

xi) Details of Solid waste/ Hazardous waste generation and its management are as follows:

- Used / spent oil of 2.0 TPA will be Disposal to authorized reprocess.
- Distillation Residue of 665.00 TPA will be Disposal to CHWTSDF, Taloja.
- Distillation Residue from contaminated organic solvents (solid generated from MEE) of 630.00 TPA will be Disposal to CHWTSDF, Taloja.
- Chemical containing residue from decontamination of 4.0 TPA will be disposed at own ETP
- Chemical sludge from waste water treatment of 400.00 TPA will be Disposal to

CHWTSDF, Taloja.

- Discarded containers bags / liners of 70.00 TPA will be disposal to CHWTSDF, Taloja.
- Off specification chemicals of 4.00 TPA will be disposal to CHWTSDF, Taloja.

**Non Hazardous waste:**

- Ash from Briquette boiler of 10500 kg/day will be sale to brick manufacturer.
- Empty drums of 165 nos. /day will be sale to authorized dealers.

xii) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 2nd December 2017

xiii) Following are the lists of existing products, proposed products and by products:

**Existing & Proposed Product being manufactured:**

| S. No | PRODUCT | EXISTING Qty (MT/M) | EXISTING Product to be deleted (MT/M) | EXISTING Product to be Reduced (MT/M) | EXISTING Product to be Increased (MT/M) | TOTAL Product QTY (MT/M) |
|---|---|---|---|---|---|---|
| 1 | 4–FluoroIsoquinoline | 0.0084 | -- | 0.0034 | -- | 0.0050 |
| 2 | Isosulfan Blue (2,5–Disulfophenyl Isomer) | 0.0084 | -- | -- | 0.0016 | 0.0100 |
| 3 | (Diethoxy methyl)-2-Ethoxy benzene | 0.0840 | 0.0840 | -- | -- | 0.0000 |
| 4 | 2,4-Dimethoxy Aniline | 0.1670 | 0.1670 | -- | -- | 0.0000 |
| 5 | 2,6-Dimethyl phenyl isothiocyanate | 0.1670 | 0.1670 | -- | -- | 0.0000 |
| 6 | Benzoic acid,4-(4-Propyl-1-piperazinyl) | 0.1670 | 0.1670 | -- | -- | 0.0000 |
| 7 | 2-(4-Morpholinyl)-8-Phenyl-[4H-1] -benzopyran-4-one | 0.0084 | -- | -- | -- | 0.0084 |
| 8 | 9,10-Dihydro-10[2,3di(hydroxycarboxyl)propyl]-9-oxa-10-phosphaphenanthrane-10-oxide(DDP) | 0.0420 | 0.0420 | -- | -- | 0.0000 |
| 9 | Cyclopropyl Methyl Bromide (CMB) | 0.0840 | -- | -- | 0.916 | 1.0000 |
| 10 | 5'-ODMT-NiBu-deoxyguanosine-3'-(2-cyano ethyl N,N diisopropylamino) Phosphoramidite (dGAmidite) | 0.0420 | 0.0420 | -- | -- | 0.0000 |
| 11 | 5'-ODMT-NBZ-deoxyadenosine-3'-(2-cyano ethyl N,N diisopropylamino) Phosphoramidite (dAAmidite) | 0.0420 | 0.0420 | -- | -- | 0.0000 |
| 12 | 5'-ODMT-NBZ-deoxycytidine-3'-(2-cyano ethyl N,N diisopropylamino) Phosphoramidite | 0.0420 | 0.0420 | -- | -- | 0.0000 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | (dCAmidite) | | | | | |
| 13 | 5'-ODMT-NBZ-deoxythymidine-3'-(2-cyano ethyl N,N diisopropylamino) Phosphoramidite (dmt- T) | 0.0420 | 0.0420 | -- | -- | 0.0000 |
| 14 | 3'-Amino-5' OH Thymidine (Amino – T) | 0.0084 | -- | 0.0079 | -- | 0.0005 |
| 15 | Bis (n-butylcyclopentadienyl) Zirconium dichloride | 0.0420 | 0.0420 | -- | -- | 0.0000 |
| 16 | rac-Ethylene-bis(indenyl)Zirconium dichloride | 0.0420 | 0.0420 | -- | -- | 0.0000 |
| 17 | Substituted Triazine Derivative | 50.0000 | -- | -- | 25.00 | 75.0000 |
| 18 | Ethyl 2-Methyl-4-Pentenoate (EMPE) | 0.0833 | -- | 0.0750 | -- | 0.0083 |
| 19 | Ethyl-4-Pentenoate | 0.0833 | -- | 0.0750 | -- | 0.0083 |
| 20 | Norcamphor | 0.0166 | -- | -- | -- | 0.0166 |
| 21 | 5-Bromo-Indole | 0.3330 | -- | 0.3030 | -- | 0.0300 |
| 22 | 4-Pentenoic Acid | 0.8333 | -- | -- | 1.1667 | 2.0000 |
| 23 | Methyl Tiglate | 0.0166 | -- | -- | -- | 0.0166 |
| 24 | Ethyl-2-Methyl 3-4-Pentadienoate (EMPD) | 0.5000 | -- | 0.4990 | -- | 0.0010 |
| 25 | 3-3 Dimethyl Cyclohexanone (DMCH) | 0.0833 | -- | -- | 0.9167 | 1.0000 |
| 26 | 2-6 Diamino-9-(b-D-Ribo) Purine (DAP) | 0.0500 | -- | 0.0450 | -- | 0.0050 |
| 27 | DMT-MOET(4,4'-dimethoxy trityl)-(methoxyethyl-thymidine) | 0.0833 | 0.0833 | -- | -- | 0.000 |
| 28 | N-Bz-DMTMOEC (N-Benzoyl-(4,4'-dimethyoxytrityl)(methoxy ethyl)-cytidine | 0.0833 | -- | -- | -- | 0.0833 |
| 29 | N-Bz-DMT-Dc (N-Benzoyl-(4,4'-Dimethyoxytrityl)-dooxy cytidine | 0.0833 | 0.0833 | -- | -- | 0.000 |
| 30 | N-Benzoyl – 3 – Tritylamino 5 Phosphoramidite 2 – deoxy Adenosine (dA) | 0.0040 | -- | 0.0035 | -- | 0.0005 |
| 31 | 3 – Tritylamino 5 – Phosphoramidite N-Bz-Dc | 0.0040 | -- | 0.0035 | -- | 0.0005 |
| 32 | N – Isobutyryl – 3-Tritylamino 5 – Phosphoramidite 2 – deoxy Guanosine (dG) | 0.0040 | -- | 0.0035 | -- | 0.0005 |
| 33 | 3 – Tritylamino 5 – PhosphoramiditeThymidine (dT) | 0.0040 | -- | 0.0035 | -- | 0.0005 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 34 | 4-Methyl –2-Thiomethyl Pyrimidine | 0.4170 | -- | 0.3770 | -- | 0.0400 |
| 35 | 4-Hydroxy isoleucine | 3.3330 | -- | 3.2330 | -- | 0.1000 |
| 36 | 4-HEXYL RESORCINOL | 0.4160 | -- | -- | 1.584 | 2.0000 |
| 37 | $N^2$ Phenyl Acetyl Guanosine | 0.0416 | -- | 0.0376 | -- | 0.0040 |
| 38 | 5’ – ODMT, 2’ – O – Cpep, 6N – Pivaloyl Adenosine | 0.0080 | -- | 0.0070 | -- | 0.0010 |
| 39 | 5’ – ODMT, 2’ – O – Cpep, $N^2$ – Ph – Ac - Guanosine | 0.0080 | -- | 0.0070 | -- | 0.0010 |
| 40 | 5’ – ODMT, 2’ – O – Cpep, 4 – N – Bz Cytidine | 0.0080 | -- | 0.0070 | -- | 0.0010 |
| 41 | 5’ – ODMT, 2’ – O – Cpep, Uridine | 0.0080 | -- | 0.0070 | -- | 0.0010 |
| 42 | p-Nitro Phenyl Phosphate – Disodium Salt Hexahydrate | 0.0833 | -- | -- | 0.1167 | 0.2000 |
| 43 | p-Nitro Phenyl Phosphate – Ditris Salt | 0.0833 | -- | 0.0733 | -- | 0.0100 |
| 44 | 5'-ODMT-2'MOE-T[5’-0 (4,4’-DIMETHOXY TRITYL) – 2’-0-(2-METHOXYETHYL) – THYMIDINE] | 0.0580 | -- | -- | 0.942 | 1.0000 |
| 45 | N – BZ – 5’ – ODMT – 2’ – MOE – 5 – Me – C 5’-0 (4,4’-DIMETHOXY TRITYL)–2’-0-(2-METHOXYETHYL) $N^4$ – BENZOYL–5-METHYL-CYTIDINE | 0.0300 | -- | -- | 0.97 | 1.0000 |
| 46 | 2’ – FLUORO CYTIDINE 5’-0-{4,4’-DIMETHOXY TRITYL)$N^4$-ACETYL-2’FLUORO CYTIDINE-3’-[C2-CYANOETHYL)-(N,N-DI ISOPROPYL)]-PHOSPHORAMIDITE | 0.0020 | 0.0020 | -- | -- | 0.000 |
| 47 | 2’ – FU AMIDITE 5’-0-(4,4’-DIMETHOXY TRITYL)-2’-FLUORO URIDINE-3’-[(2-CYANOETHYL)-(N,N-DI ISOPROPYL)]-PHOSPHORAMIDITE | 0.0020 | -- | -- | -- | 0.0020 |
| 48 | 5'-DMT-2'-OTBDMS-RNA PHOSPHORAMIDE AND DERIVATIVES | 0.0042 | -- | -- | 0.3958 | 0.4000 |
| 49 | EURO-5031 BLS DICYCLO PENTADIENEZERCONIU M DICHORIDE | 0.0420 | 0.0420 | -- | -- | 0.000 |
| 50 | 2 CYANOPHENOL | 0.1670 | 0.1670 | -- | -- | 0.000 |
| 51 | CALONE [7-METHYL-3,4-DIHYDRO-2H-1,5-BENZO | 0.0084 | 0.0084 | -- | -- | 0.000 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | DIOXEPIN-3-1 | | | | | |
| 52 | SODIUM BETA GLYCERO PHOSPHATE | 1.6600 | -- | 0.6600 | -- | 1.0000 |
| 53 | 7-BROMO 1HEPTENE | 0.2200 | -- | -- | 3.78 | 4.0000 |
| 54 | 2,2 BIS [-(2INDENYL)BIPHENYL]ZI CRONIUM(IV) CHLORIDE | 0.0100 | -- | -- | 0.04 | 0.0500 |
| 55 | L-METHIONINE SULFOXIME | 0.0100 | -- | -- | -- | 0.0100 |
| 56 | 4,4'--DIMETHOXYTRITYL CHLORIDE (DMT-CL) | 0.1500 | -- | -- | 0.85 | 1.0000 |
| 57 | AD-Lactone | 0.3000 | 0.3000 | -- | -- | 0 |
| 58 | 1-CYANO CYCLOBUTANE-1,2-DICARBOXYLIC ACID DIMETHYL EASTER / TRANSDIACID | 0.2000 | -- | -- | 0.2 | 0.4000 |
| 59 | 5'-DMT-C-ETHYL N-PROTECTED NUCLEOSIDES AND PHOSPHORAMIDITES | 0.0100 | 0.0100 | -- | -- | 0 |
| 60 | 5'-DMT-C-ETHYL N-PROTECTED NUCLEOSIDE AND PHOSPHORAMIDITE | 0.0100 | -- | -- | 0.0204 | 0.0304 |
| 61 | NAP SUGAR | 0.0500 | -- | -- | 0.95 | 1.0000 |
| 62 | ENA -PROTECTED NUCLEOSIDE & PHOSPHORAMIDITE | 0.0100 | | 0.0090 | -- | 0.0010 |
| 63 | E-TETRACETATE | 0.0500 | -- | -- | 0.15 | 0.2000 |
| 64 | TAC PROTECTED NECLEEOSIDE & PHOSPHORAMIDITE | 0.0100 | -- | -- | 0.04 | 0.0500 |
| 65 | 5'-DMT-2'-MOE PROTECTED NUCLEOSIDE & PHOSPHORAMIDITE | 0.0200 | -- | -- | 0.38 | 0.4000 |
| 66 | 5'-DMT-2'-O-METHYL PROTECTED NUCLEOSIDE & PHOSPHORAMIDITIES | 0.0100 | -- | -- | 0.19 | 0.2000 |
| 67 | ALLOFURANOSE SUGAR | 0.0100 | -- | -- | -- | 0.0100 |
| 68 | TINUVIN -400 | 27.865 | -- | -- | 72.1352 | 100.000 |
| 69 | N-Methyl 4 chloropiperridine HCL | 1.0000 | 1.0000 | -- | -- | 0.00 |
| 70 | Syringaldehyde | 2.0000 | 2.0000 | -- | -- | 0.00 |
| 71 | Indoline | 2.0000 | 2.0000 | -- | -- | 0.00 |
| 72 | 2 methyl Sulphonyl 4,6 Dimethoxy Pyrimidine | 3.0000 | 3.0000 | -- | -- | 0.00 |
| 73 | O- Methyl Isourea Hemisulphat6e | 2.0000 | 2.0000 | -- | -- | 0.00 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 74 | Beta-Methyl Acid (BMA) | 2.0000 | 2.0000 | -- | -- | 0.00 |
| | **Total** | **100.5765** | **13.5750** | **5.4402** | **110.7451** | **192.3134** |
| **New Products to be added** | | | | | | |
| 75 | P-AnisylPropanal | 0.0000 | 0.000 | 0 | 0.000 | 4.000 |
| 76 | ANETHOL | 0.0000 | 0.000 | 0 | 0.000 | 30.00 |
| 77 | 5'-ODMT-DEOXYNUCLEOSIDES, PHOSPHORAMIDITES AND SUCCINATE SALTS | 0.0000 | 0.000 | 0 | 0.000 | 0.200 |
| 78 | DMT-LNA-NUCLEOSIDES & PHOSPHORAMIDITES | 0.0000 | 0.000 | 0 | 0.000 | 0.100 |
| 79 | GALNAC ACYCLIC SUCCINATE | 0.0000 | 0.000 | 0 | 0.000 | 0.0028 |
| 80 | NOOTKATONE | 0.0000 | 0.000 | 0 | 0.000 | 0.4000 |
| 81 | 4-AMINOBENZONITRILE | 0.0000 | 0.000 | 0 | 0.000 | 0.1660 |
| 82 | Diethyl L-(+) tartrate | 0.0000 | 0.000 | 0 | 0.000 | 0.1660 |
| 83 | DL -LACTIDE | 0.0000 | 0.000 | 0 | 0.000 | 0.0083 |
| 84 | DIETHYLAMINO MALONATE HCl | 0.0000 | 0.000 | 0 | 0.000 | 0.2500 |
| 85 | ACRYLAMIDE PURIFIED | 0.0000 | 0.000 | 0 | 0.000 | 0.4000 |
| 86 | ETHYLENEDIAMINETETRA ACETIC ACID METAL CHELATE SALTS | 0.0000 | 0.000 | 0 | 0.000 | 0.0030 |
| 87 | SODIUM SELENITE PENTAHYDRATE | 0.0000 | 0.000 | 0 | 0.000 | 0.0030 |
| 88 | 2,4Dihydroxy Benzophenone | 0.0000 | 0.000 | 0 | 0.000 | 89.237 |
| 89 | Peonile | 0.0000 | 0.000 | 0 | 0.000 | 19.000 |
| 90 | R&D Products (Intermidiate chemicals) | 0.0000 | 0.000 | 0 | 0.000 | 0.4000 |
| 91 | 4,5-Dichloro pthalic acid | 0.0000 | 0.000 | 0 | 0.000 | 0.0083 |
| 92 | 4-Tert-butylphenoxyAceticAcid | 0.0000 | 0.000 | 0 | 0.000 | 1.0000 |
| 93 | 6-Bromo-Iso-indolin-1-one | 0.0000 | 0.000 | 0 | 0.000 | 0.0083 |
| 94 | Trans aconiticAcid | 0.0000 | 0.000 | 0 | 0.000 | 0.0083 |
| 95 | 2,2 BIS [-(2INDENYL)BIPHENYL]ZIC RONIUM(IV) CHLORIDE ON SILICA SUPPORT | 0.0000 | 0.000 | 0 | 0.000 | 2.500 |
| 96 | N,N-Dimethylbenzamide (DMBA) | 0.0000 | 0.000 | 0 | 0.000 | 1.0000 |
| 97 | 4-(methylamino)pentan-2-ol dibenzoate (AB) | 0.0000 | 0.000 | 0 | 0.000 | 1.0000 |
| 98 | 9,9-bis(methoxymethyl)fluorene (FLU) | 0.0000 | 0.000 | 0 | 0.000 | 1.0000 |
| 99 | 2-AminoBenzonitrile | 0.0000 | 0.000 | 0 | 0.000 | 1.0000 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 100 | GAFL-158 | 0.0000 | 0.000 | 0 | 0.000 | 5.0000 |
| 101 | 3,5-Bis(2-Cyanoprop-2-yl)benzyl bromide Anastrazole intermediate | 0.0000 | 0.000 | 0 | 0.000 | 0.0083 |
| 102 | 3,5-Bis(2-Cyanoprop-2-yl)Toluene Anastrazole intermediate | 0.0000 | 0.000 | 0 | 0.000 | 0.0083 |
| 103 | 2,2'-Azobis(2-methylpropionamidine)dihydrochloride | 0.0000 | 0.000 | 0 | 0.000 | 0.0100 |
| 104 | CMPT | 0.0000 | 0.000 | 0 | 0.000 | 0.0400 |
| 105 | CMIMT | 0.0000 | 0.000 | 0 | 0.000 | 0.0400 |
| 106 | MTSCNE | 0.0000 | 0.000 | 0 | 0.000 | 0.1000 |
| 107 | ONT-7-D & ONT-7-L | 0.0000 | 0.000 | 0 | 0.000 | 0.1000 |
| 108 | UNA Phosphoramidites& Derivatives | 0.0000 | 0.000 | 0 | 0.000 | 0.0400 |
| 109 | MorpholinoPhosphoramidites& Derivatives | 0.0000 | 0.000 | 0 | 0.000 | 0.1000 |
| 110 | Chiral Phosphoramidites& Derivatives | 0.0000 | 0.000 | 0 | 0.000 | 0.1000 |
| 111 | 5'-ODMT-2' OMeNiBu-Guanosine O6 CE | 0.0000 | 0.000 | 0 | 0.000 | 0.0840 |
| 112 | BisTAcdG | 0.0000 | 0.000 | 0 | 0.000 | 0.0840 |
| 113 | 5'-ODMT-NiBu-deoxycytidine | 0.0000 | 0.000 | 0 | 0.000 | 0.0500 |
| 114 | 5'-Biotin Phosphoramidite | 0.0000 | 0.000 | 0 | 0.000 | 0.0010 |
| 115 | 5-Iodo dC | 0.0000 | 0.000 | 0 | 0.000 | 0.0008 |
| 116 | 2'-Fluoro-GiBu-3'-CEPA | 0.0000 | 0.000 | 0 | 0.000 | 0.0008 |
| 117 | 5'-ODMT-N6-Bz-2'-Fluoro Adenosine-3'-OCEPA | 0.0000 | 0.000 | 0 | 0.000 | 0.0008 |
| 118 | 5'ODMT-NiBu-dG (O6 CE) | 0.0000 | 0.000 | 0 | 0.000 | 0.0500 |
| 119 | Ethyl-2,2-difluoropropionate | 0.0000 | 0.000 | 0 | 0.000 | 0.0416 |
| | | | | | **Total** | **157.6866** |
| | | | | **Grand Total** | | **350.0000** |

**By-products generation:**

| Sr. No. | By-Product | Existing (MT/M) | Proposed (MT/M) | Total (MT/M) |
|---|---|---|---|---|
| **1** | Hydrochloric Acid 30% | 43.00 | 465.00 | 508.00 |
| **2** | Sulphuric Acid 66% | 85.00 | 100.00 | 185.00 |
| **3** | Mixed Solvents | 133.50 | 426.50 | 560.00 |
| **4** | Aqueous Aluminium Chloride | 303.00 | 897.00 | 1200.00 |
| | **TOTAL** | **564.50** | **1888.50** | **2453.00** |

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

The proposal is for environmental clearance to the project for expansion of synthetic organic chemicals manufacturing unit from the present capacity of 100.5767 TPM (74 number of

products) to 350 TPM (94 number of products) by M/s Innovassynth Technologies (I) Limited at S.No.9-24, Wasarang 34-36, Chinchwali, Khopoli, District Raigad (Maharashtra). Out of the total 74 products presently manufactured, 25 products are to discontinued, capacity of 21 products to be decreased, capacity of 21 products to be increased, whereas 7 products are to be continued. Total 45 new products of capacity 157.6866 TPM are to be added.

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

The ToR for the project was granted on 5th January, 2018. Public hearing was conducted by the SPCB on 2nd December, 2017.

Total fresh water requirement is 1042 $m^3$/day proposed to be met from Patalganga river. The project proponent has signed an agreement dated 21st March, 2014, with the Irrigation Department of the State Government of Maharashtra to supply 1.20 MLD to meet the water requirement.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

The unit was established in the year 1960 i.e. prior to EIA Notification, 1994 and thus not requiring any prior EC.

Consent to Operate for the existing products/utilities has been obtained from the Maharashtra PCB, which is presently valid up to 31st August, 2018.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows :*

*(i) Reactor shall be connected to chilled brine condenser system.*
*(ii)Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
*(iii) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 98% recovery.*
*(iv) Solvents shall be stored in a separate space specified with all safety measures.*
*(v) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*

*(vi) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*

*(vii) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*

- *Total fresh water requirement shall not exceed 1042 cum/day to be met from Patalganga river. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
  - *(a) Metering and control of quantities of active ingredients to minimize waste.*
  - *(b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  - *(c) Use of automated filling to minimize spillage.*
  - *(d) Use of Close Feed system into batch reactors.*
  - *(e) Venting equipment through vapour recovery system.*
  - *(f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made regarding issues raised during the public hearing/ consultation meeting held on 2nd December, 2017 shall be satisfactorily implemented.*
- *At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on public hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
- *The energy sources for lighting purposes shall preferably be LED based. A minimum of 10-20% of the total power requirement for the industrial operations shall be met from non-conventional energy resources/solar supply.*
- *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. In case of the treated effluent to be*

*utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.*

**Agenda No.34.3.10**

**Expansion of Existing Sugar Unit & Co-Generation Power Plant with existing Distillery by M/s Nandi Sahakari Sakkare Karkhane Niyamitat Sy. No 90, 92, Krishnailagar, Hosur Post, Taluk & District Vijayapur (Karnataka) - Reconsideration of Environmental Clearance**

**[IA/KA/IND2/71136/2017, J-11011/110/2017-IA II (I)]**

**34.3.10.1** The project proponent and their accredited Consultant M/s Ultra-Tech (Environmental Consultancy & Laboratory) made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for Expansion of Sugar Unit from 6500 TCD to 14000 TCD & Co-Generation Power Plant from 18.14 MW to 62.14MW in existing Distillery of 50 KLPDby M/s Nandi Sahakari Sakkare Karkhane Niyamitat Sy. No 90, 92, Krishnanagar, Hosur post, Taluk & District Vijayapur (Karnataka).

(ii) All Molasses based distilleries are listed at S.No.5(g) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC) and all the sugar industry and Co-generation listed under 5(j) and 1(d) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'B' and are appraised at State Level by Expert Impact Appraisal Authority (SEIAA). The proposed project was earlier appraised at SEIAA. The State authority after discussion opined that the proposed expansion requires environmental clearance from the MoEF&CC, Government of India and hence, applied.

(iii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 24$^{th}$ EAC meeting held during 15$^{th}$ June 2017 and recommended Terms of Reference (ToR) for the Project. The ToR has been granted by Ministry vide letter no. J-11011/110/2017-IA. II-(I) dated 19$^{th}$ July 2017.

(iv) Ministry has issued EC earlier vide letter no. J-11011/644/2007-IA-II(I) dated 2$^{nd}$ September 2008 for expansion of production capacity of sugar unit from 3500 TCD to 6500 TCD and Installation of new 50 KLPD distillery at Sy. No 90, 92, Krishnanagar, Hosur post, Taluk & District Vijayapur (Karnataka) to M/s Nandi SahakariSakkareKarkhaneNiyamit.

(v) Existing land area is 240 acres and no additional land will be used for proposed expansion. Industry has already developed greenbelt area more than 33 % i.e., 84 acres out of 240 acres of area of the project. As per Form-1, there are no national Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc within 10 km of the project site. Krishna river is flowing at 1.5 km in the East.

(vi) The estimated project cost is Rs 35,500 lakhs, the existing investment of Rs.104. 2 crores. Total capital cost earmarked for pollution control measures is Rs.500 lakhs and the recurring cost (operation and maintenance) will be about Rs.75 lakhs per annum.

(vii) The existing manpower in the industry is 697 (Sugar Co-gen and Distillery), 627 persons all alone for Sugar Co-Gen. The additional direct man power to the industry after expansion will

be 150 & there will be more than 2,000 persons indirect after expansion. It has been proposed to allocate Rs.1780.0 lakhs @ 5% towards Corporate Social Responsibility.

(viii) Ambient air quality monitoring was carried out at 8 locations during 15th December 2016 to 15th March 2017 and submitted baseline data indicates that ranges of concentrations of PM10, $SO_2$ and $NO_2$ are in respectable Limits. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.48 µg/$m^3$, 0.38 µg/$m^3$ and 0.38 µg/$m^3$ with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(ix) Total water requirement is estimated to be 11200 cum/day of which fresh water of 1400 cum/day is proposed to be met from Krishna river. Permission has been obtained from Karnataka Nigam Ltd – Biligi for lifting water from Krishna river.Treated effluent of 1473 cum/day will be treated through Effluent Treatment Plant of capacity 1500 cum/day, based on Zero Liquid discharge system.

(x) Power requirement after expansion will be 16 MW including existing 6 MW and will be met from in-house Power generation, the surplus power of 46.14 MW produced will be exported to the public power grid. Existing unit has 2 numbers of DG sets of capacity 1250 kVA (Sugar and Co-gen) & 500 kVA for (Distillery), additionally 1250 kVA DG sets are used as standby during power failure. Stack (height 8 m & 7 m) is provided as per CPCB norms is for existing DG sets, additional 8 m height stack is proposed for the new DG sets which will be used as standby during power failure.

(xi) Existing 105 TPH boiler and proposed 240 TPH boiler in co-gen sugar unit. During crushing season and during off season, the boiler is operated on bagasse, 24 TPH boiler of distillery unit will be operated on mixed fuel consisting of bio-mass, coal and CSW. ESP and Bag filter, Stack of height of 65 m is installed for Co-Gen sugar unit, and stack of 77m AGL is provided for Distillery unit for controlling the Particulate emissions (within statutory limit of 115 mg/$Nm^3$).

(xii) Details of Process emissions generation. and its management is as follows:

| S. No. | Air pollution source | Fuel consumption | Stack height | APC measure | Emission |
|---|---|---|---|---|---|
| 1 | Existing 105 TPH boiler, (co-gen sugar unit) During season and Off season | Bagasse: 1050T/d | 65 m, AGL | ESP | SPM, SO2 and NOx |
| | Additional 240 TPH boiler (co-gen sugar unit) During season and Off season | Bagasse: 2400T/d | 77 m, AGL | ESP | SPM, SO2 and NOx |
| | 24 TPH boiler, (Distillery unit) | Coal and CSW | 60 m, AGL | ESP | SPM, SO2 and NOx |
| 2 | Existing D.G. sets:<br>• 1250 kVA (Sugar Co-gen)<br>• 500 kVA (Distillery)<br><br>Proposed D.G. sets:<br>• 1250 kVA | Diesel,<br>150 kg/h<br>67 kg/h<br><br>150 kg/h | 8 m, ARL<br>7 ARL<br><br>Proposed:<br>8 m, ARL | Acoustic enclosure | SPM, SO2 and NOx |

(xiii) Details of solid waste/ hazardous waste generation and its management is as follows:

| Parameters | Bagasse | Press mud | Molasses | Boiler Ash | Lime sludge |
|---|---|---|---|---|---|
| Moister content % | 50 | 75 | 20 | - | 50 |
| % of cane | 30 | 4 | 4.5 | 2.0 | - |
| Quantity, T/d | 4200 | 560 | 630 | 69 | 0.6 |
| Storage | Closed yard | Prepared yard | Steel Storage Tanks with water cooling arrangement | Prepared yard | Prepared yard |
| Utilization | As fuel in boiler | As manure preparation or as soil nutrients | As raw material in distillery | Cane growers use as manure. | In road preparation or as soil nutrients |

(xiv) Public hearing for the proposed expansion project was been conducted by SPCB on 7th October 2017.

(xv) List of existing and proposed products is as follows:

| S.No. | Item | Units | Quantity | | Storage facility | Transportation |
|---|---|---|---|---|---|---|
| | | | Before | After Expansion | | |
| 1 | Raw Material | | | | | |
| | Sugarcane | T/d | 6500 | 14000 | Cane yard | Lorry, tractors & bullock carts |
| 2 | Consumable chemicals | | | | | |
| | Lime | T/d | 13 | 28 | Go-down | Lorry |
| | Sulphur | T/d | 3.2 | 7 | Go-down | |
| | Caustic Soda Flakes | T/d | 0.25 | 0.5 | Go-down | Lorry |
| | Sodium Hydro Sulphate | T/d | 0.02 | 0.04 | 50 kg Carboys | Lorry |
| | Bleaching Power | T/d | 0.008 | 0.018 | Go-down | Lorry |
| | Boiler chemicals | Kg/d | 0.008 | 0.018 | Go-down | Lorry |
| 3 | Oil, grease and oil coolant | Kl/month | 14 | 28 | 200 kg drums | Lorry |
| 4 | Product, Sugar | T/d | 780 | 1680 | Go-down, 50 kg bags | Lorry |
| 5 | By products | | | | | |
| | Bagasse, 50% moisture | T/d | 1950 | 4200 | Yard | Belt conveyor |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Press mud, 75 % moisture | T/d | 260 | 560 | Yard | Tractors |
| | Molasses, 20 % moisture | T/d | 292.5 | 630 | M.S. tank | Lorry tanker |

**34.3.10.2** The proposal was earlier considered in 32nd EAC meeting, held on 20th December 2017, after deliberations, the EAC committee noted that the issues relating to water balance and traffic management plan were not addressed properly, and more details were required for actual impact assessment and to arrive at adequacy of the EMP. The Committee insisted for the same, more as a matter of compliance of the conditions stipulated in the ToR in this regard. The proposal was, therefore, deferred.

The additional details sought by the EAC, were uploaded on the Ministry's portal on 6thJanuary, 2018.

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

The proposal is for environmental clearance to the project for expansion of integrated sugar & distillery plant involving increase in sugar manufacturing from 6500 TCD to 14000 TCD & Co-Generation Power Plant from 18.14 MW to 62.14MW by M/s Nandi Sahakari Sakkare Karkhane Niyamit, in a total area of 240 acres at Sy. No 90, 92, Krishnanagar, Hosur post, Taluk & District Vijayapur (Karnataka). Presently, the unit is engaged in manufacturing sugar (6500 TCD) and distillery of 45 KLPD.

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

The ToR for the project was granted on 19th July 2017. Public hearing was conducted by the SPCB on 7th October, 2017.

Total water requirement is estimated to be 1534 cum/day, of which fresh water of 1134 cum/day is proposed to be met from Krishna river. Permission has been obtained from Karnataka Nigam Ltd - Biligi for withdrawing water from the river Krishna. Total industrial effluent of 1182 cum/day will be treated in Effluent Treatment Plant, thus ensuring Zero Liquid Discharge.

Earlier, the Ministry had granted EC vide letter dated 2nd September 2008 followed by amendment on 18th November, 2014, for expansion of sugar unit from 3500 TCD to 6500 TCD and installation of 50 KLPD distillery at Sy. No.90, 92, Krishnanagar, Hosur post, Taluk & District Vijayapur (Karnataka) by M/s Nandi Sahakari Sakkare Karkhane Niyamit. The monitoring report on compliance status of existing EC conditions, was forwarded by the Ministry's Regional Office at Bangalore vide letter dated 8th May, 2017 (site visit carried out 18th April, 2017).

Consent to Operate for the existing products/utilities (Sugar unit and 50 KLPD distillery) has been obtained from the Karnataka PCB, which is presently valid up to 30th June, 2021.

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

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

- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 1400 cum/day proposed to be met from Krishna* river*. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.*
- *Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in the ETP and then through RO system.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
  a) *Metering and control of quantities of active ingredients to minimize waste.*
  b) *Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  c) *Use of automated filling to minimize spillage.*
  d) *Use of Close Feed system into batch reactors.*
  e) *Venting equipment through vapour recovery system.*
  f) *Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly least 2.5% along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *All the commitments made regarding issues raised during the public hearing/ consultation meeting held on 7$^{th}$October, 2017 shall be satisfactorily implemented.*
- *At of the total project cost shall be allocated for Enterprise Social Commitment based on public hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24X7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the*

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

- *There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
- *The energy sources for lighting purposes shall preferably be LED based. A minimum of 10-20% of the total power requirement for the industrial operations shall be met from non-conventional energy resources/solar supply*
- *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. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.*

**27th February 2018 (Day 2)**

**Agenda No.34.3.11**

**Expansion of pesticide intermediates & Technicals by M/s Gujarat Agrochem Ltd at Plot No.2901 to 2906, GIDC Panoli, DIistrict Bharuch (Gujarat) - Environmental Clearance**

**[IA/GJ/IND2/62032/2017, IA-J-11011/82/2017-IA-II(I)]**

**34.3.11.1** The project proponent and the accredited Consultant M/s Aqua-Air Environmental Engineers Pvt Ltd made a detailed presentation on the salient features of the project and informed that:

i. The proposal is for proposed expansion of Pesticide Technicals & Intermediates at 110 MT/Month to 1195 MT/Month by M/s. Gujarat Agrochem Pvt. Ltd. and located at plot No.2901 to 2906, GIDC, Panoli, District Bharuch (Gujarat).

ii. The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 21st meeting held during 28th March 2017 and recommended Terms of References (TORs) for the Project. The TOR has been issued by Ministry vide letter No.J-11011/82/2017-IA.II (I); dated 31st May, 2017

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

iv. Ministry has issued EC earlier vide letter no. J-11011/4/2005-IA II dated 11th August 2005 for Pesticide Technical Products unit to M/s. Gujarat Agrochem Ltd. in Expansion case

v. Existing land area is 30,000 $m^2$, no additional land will be required for proposed expansion.

vi. Industry has already developed Greenbelt in an area of 9281.18 m2 out of total area of the project.

vii. The estimated project cost is Rs. 61.8 Crores including existing investment of Rs.45.68 Crores. Total capital cost earmarked towards environmental pollution control measures is

Rs.15.07 Crores and the Recurring cost (operation and maintenance) will be about Rs.9.3 Crores per annum.

viii. Total Employment will be 410 persons as direct & 150 persons indirect after expansion. Industry proposes to allocate Rs 70 Lakhs (approx.) in next 5 years @ of 5/2.5 % (4.34%) towards Corporate Social Responsibility.

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

x. Ambient air quality monitoring was carried out at 9 locations during March, 2017 to May, 2017 and the baseline data indicates the ranges of concentrations as: $PM_{10}$ (73.09-96.39 µg/m3), PM2.5 (43.45-51.28 µg/m3), SO2 (15.75-26.72 µg/m3) and NO2 (18.63-28.53 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.32 µg/m3, 0.56 µg/m3 and 0.20 µg/m3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

xi. Total water requirement is 764.56 $m^3$/day, of which fresh water requirement of 532.56 $m^3$/day will be met from GIDC Water Supply.

xii. Effluent of 431.88 m3/day will be treated through ETP consisting of primary, secondary and tertiary treatment facility followed by MEE & RO Unit. Part of Final Treated Effluent i.e. (148.98 KL/Day) shall be discharged to deep sea via FETP of M/s. NCT (BEAIL) pipeline, remaining 282.9 KL/Day effluent will be sent for RO treatment, out of which 232 KL/Day of RO Permeate will be reused back in Boiler and Utility and 50.9 KL/Day of RO Reject will be sent to MEE & ATFD.

xiii. Power requirement after expansion will be 5000 including existing 2300 KVA and will be met from DGVCL/State power distribution corporation limited. Existing unit has 3 Nos. DG sets of 1000 KVA, 625 KVA & 320 KVA capacity, additionally 6 Nos. DG Sets of Capacity 1010 KVA*3, 725 KVA*3 & 625 KVA*1 DG sets are used as standby during power failure. Stack (height 10 m) will be provided as per CPCB norms to the proposed DG sets of 1010 KVA*3, 725 KVA*3 & 625 KVA*1 in addition to the existing DG sets of 1000 KVA, 625 KVA & 320 which will be used as standby during power failure**(**Existing 1000 KVA & 320 KVA will be replaced by new DG Sets of 1010 KVA*3 Nos & 725 KVA*3 Nos. 625 KVA DG Set remains as it is).

xiv. Existing unit has 2 Nos. of 8 TPH & 2 Nos. of 10 TPH & 1 No. of 16 TPH (stand-by) Coal fired boiler will be installed. Multi cyclone separator/ bag filter/ESP with a stack of height of 30 m will be installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm3).

xv. Details of Process emissions generation and its management.

**FLUE GAS EMISSION**

| **S. NO** | **SOURCE OF EMISSION** | **AIR POLLUTION CONTROL SYSTEM** | **HEIGHT (m)** | **STACK DIAMETER (mm)** | **EXPECTED POLLUTANTS** |
|---|---|---|---|---|---|
| 1. | 1) Boiler- 4 (8 TPH-2 Nos. & 10 TPH-2 Nos.) (One Boiler 16 TPH standby) | Bag Filter/ESP | 30 | 600 | SPM ≤ 150 mg/$Nm^3$<br>$SO_2$ ≤ 100 ppm<br>NOx ≤ 50 ppm |

| | | | | | |
|---|---|---|---|---|---|
| | 2) Thermo pack-2 Nos. (10.0 million kcal/hr)<br><br>(One Thermo pack 10.0 million kcal/hr standby) | | | | |
| 2. | D.G. Sets | Stack | 10 | - | SPM ≤ 150 mg/$Nm^3$<br>$SO_2$ ≤ 100 ppm<br>NOx ≤ 50 ppm |

**PROCESS GAS EMISSION**

| S. NO. | PROCESS STACK ATTACHED TO | HEIGHT FROM GROUND (m) | DIAMETER (mm) | AIR POLLUTION CONTROL SYSTEM | EXPECTED POLLUTANTS |
|---|---|---|---|---|---|
| 1. | Process Plant-1 & Plant-2 Reactors Vent attached to recovery Plant-3 | 20 | 50 | Water Scrubber, Caustic Scrubber | $SO_2$ ≤ 40 mg/$Nm^3$<br>HCl ≤ 20 mg/$Nm^3$<br>$NH_3$ ≤ 175 mg/$Nm^3$ |
| 2. | Bromine recovery plant | 20 | 50 | Water Scrubber, Caustic Scrubber | $Cl_2$ ≤ 09 mg/$Nm^3$<br>Hbr ≤ 20 mg/$Nm^3$<br>HCl ≤ 20 mg/$Nm^3$ |

xvi. Details of Solid waste/ Hazardous waste generation and its management.
Twelve Categories of Hazardous/Solid Wastes shall be generated from this Unit. Used Lube Oil @ 50 Ltr/M shall be Collected, Stored, Transported and Sold to GPCB Authorized Reprocessors. Spent Solvents: Toluene @ 200 MT/M shall be Collected, Stored, Transported and reused within Factory Premises or co-processing in cement industries or incineration at CHWIF. Process Distillation Residue @ 71 MT/M & Residual Waste (After Effluent Treatment) @ 150 MT/M shall be Collected, Stored, Transported & Incinerated at CHWIF or Sent to Cement Industries for Co-Processing. MEE Salt @ 1200 MT/M shall be Collected, Stored, Transported & disposed to TSDF. Packing Materials a) Empty Bags @ 1100 Nos/M b) Barrels @ 1350 Nos/M shall be Collected, Stored, Transported & Sold to GPCB Authorized Reprocessors. ETP Sludge @ 10 MT/M shall be Collected, Stored, Transported and Final Disposal at TSDF. Spent Carbon from ETP @ 0.4 MT/M shall be Collected, Stored, Transported and Final Disposal at TSDF or Sent to Cement Industries for Co-Processing. Aluminum Chloride (30%) @ 1031 KL/M, Hydrochloric Acid (30%) @ 202 MT/M, Spent Sulphuric Acid @ 528 MT/M, NaCl Solution (18%) @ 1091 MT/M & Cu (OH)2 Powder @ 2.63 MT/M shall be Collected, Stored, Transported & sold to end user.

xvii. Public Hearing is exempted for this expansion project vide letter no. J-11011/82/2017-IA-II (I) dated 22nd June 2017

xviii. Certified Compliance Report was given by RO, MoEF&CC Bhopal on 04/10/2017 & Compliance Status w.r.t. report was submitted on 06/12/2017.

xix. No litigation is pending against the proposal.

xx. Following are the list of existing and proposed products:

| S. No. | Product | Category | Existing Capacity (TPM) | Total Capacity after Expansion(TPM) | CAS Nos. | $LD_{50}$ (mg/kg) |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| **PESTICIDES INTERMEDIATES & TECHNICAL** | | | | | | |
| 1 | DV Acid Chloride | 5(b) | 110 | 250 | 52314-67-7 | N.A. |
| 2 | Meta Phenoxy Benzaldehyde | 5(b) | | 250 | 39515-51-0 | 1222 |
| 3 | Cypermethrin (Tech.) | 5(b) | | 200 | 52315-07-8 | 250 |
| 4 | Permethrin (Tech.) | 5(b) | | 100 | 52645-53-1 | 430 to 4000 |
| 5 | Alphamethrin (Tech.) | 5(b) | | 50 | 67375-30-8 | >50 |
| 6 | Metamitron (Tech.) | 5(b) | | 150 | 41394-05-2 | >4000 |
| 7 | MBB Forcut | 5(b) | | 45 | | >5000 |
| 8 | Ethofumesate (Tech.) | 5(b) | | 100 | 26225-79-6 | >8743 |
| 9 | Hydroxy Benzo Furan (HBF) | 5(b) | | | 7473-98-5 | N.A. |
| 10 | Lambda Cyhalothrin (Lambamethrin) | 5(b) | -- | | 91465-08-6 | 15 |
| 11 | Diethyl Phenyl Acetamide (Tech.) (DEPA) | 5(b) | -- | | 2431-96-1 | 4300 |
| 12 | Pyriproxypane | 5(b) | -- | 50 | 95737-68-1 | >5000 |
| 13 | Tefluthrin | 5(b) | -- | | 79538-32-2 | 21.8 |
| 14 | TransFluthrin | 5(b) | -- | | 118712-89-3 | >5000 |
| | **Total** | | **110** | **1195** | | |
| | | | | | | |
| **INORGANIC PRODUCTS (NOT COVERED UNDER EIA NOTIFICATION, 2006)** | | | | | | |
| 15 | Sodium Sulfite | - | 200 | 487 | 7757-83-7 | 820 |
| 16 | Ammonium Chloride | - | 60 | 217 | 12125-02-9 | 1300 |
| 17 | Potassium Chloride | - | 60 | 140 | 7447-40-7 | 3020 |
| 18 | PAC/Aluminium Chloride (30%) | - | 289 | 1031 | 1327-41-9 | 2000 |
| | **Total** | | **609** | **1875** | | |
| | | | | | | |
| **BY-PRODUCTS** | | | | | | |
| 1 | Hydrochloric Acid (30%) | - | 180 | 202 | 7647-01-0 | 238-277 |
| 2 | Spent Sulphuric Acid | - | 140.76 | 528 | 7664-93-9 | 2140 |
| 3 | NaCl Solution (18%) | - | 600 | 1091 | 7647-14-5 | 3000 |
| 4 | $Cu(OH)_2$ Powder | - | - | 2.63 | 20427-59- | 200 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | 2 | |
| | **Total** | | **920.76** | **1823.63** | | |
| | | | | | | |
| 1 | D.G. Sets | - | 1,000 KVA x 1, 625 KVA x 1, 320 KVA x 1 = **1,945 KVA** | 1,010 KVA x 3, 725 KVA x 3, 625 KVA x 1 = **5,830 KVA** | - | - |

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

The proposal is for environmental clearance to the project for expansion of Pesticide Technical & Intermediates manufacturing unit from 110 TPM to 1195 TPM by M/s Gujarat Agrochem Pvt Ltd in a total area of 30,000 sqm at Plot No.2901 to 2906, GIDC Panoli, District Bharuch (Gujarat). The expansion of other products included inorganic compounds (Sodium Sulfite, Ammonium Chloride, Potassium Chloride and Poly Aluminium Chloride) from the present capacity of 609 TPM to 1875 TPM) and by-products namely, HCl, Spent Sulphuric Acid, NaCl solution, $Cu(OH)_2$ powder of capacity from 920.76 TPM to 1823.63 TPM, requiring no environmental clearance.

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

The ToR for the project was granted on 31$^{st}$ May, 2017 and amended on 22$^{nd}$ June, 2017 exempting public hearing.

Total water requirement is estimated to be 764.56 cum/day, which includes fresh water demand of 532.56 cum/day. The same would be reduced to 480 cum/day by increasing the efficiency of the cooling tower, and proposed to be met from the GIDC water supply. Necessary permission in this regard was obtained from GIDC.

Total effluent of 431.88 cum/day will be treated through ETP followed by RO and MEE. Treated effluent of 148.98 cum/day shall be discharged to deep sea through GIDC pipeline after being treated in final effluent treatment plant (FETP) of M/s Narmada Clean Technology. Whereas, 282 cum/day will be sent for RO treatment. The RO permeate of 232 cum/day will be reused for meeting the process requirements (boiler and other utilities) and 50.9 KL/Day of RO reject will be sent to MEE & ATFD.

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

Ministry had earlier issued EC vide letter dated 11$^{th}$ August 2005 for Pesticide Technical Products unit of 110 TPM to M/s Gujarat Agrochem Ltd. The monitoring report on compliance status of EC conditions forwarded by the Regional Office at Bhopal vide their letter dated 4$^{th}$ October, 2017, found to be satisfactory.

Consent to Operate for the present capacity of 110 TPM Pesticides has been obtained from the Gujarat PCB vide letter dated 10$^{th}$ May, 2015, which is presently valid up to 4$^{th}$ January, 2020.

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

- *Total production of pesticides shall include manufacturing at least 10% of bio-pesticides.*
- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *Treatment of effluent of 148.98 cum/day, shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, to take it to the FETP followed by discharge through GIDC pipeline to deep sea.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
  - *(a) Reactor shall be connected to chilled brine condenser system.*
  - *(b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
  - *(c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
  - *(d) Solvents shall be stored in a separate space specified with all safety measures.*
  - *(e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
  - *(f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
  - *(g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed 480 cum/day to be met from GIDC supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy*

*season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.*

- *The company shall undertake waste minimization measures as below:-*
  - *(a) Metering and control of quantities of active ingredients to minimize waste.*
  - *(b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  - *(c) Use of automated filling to minimize spillage.*
  - *(d) Use of Close Feed system into batch reactors.*
  - *(e) Venting equipment through vapour recovery system.*
  - *(f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Raw material storage shall not exceed 7 days at any point of time.*
- *Continuous online (24X7) monitoring system for stack emissions and the effluent, shall be installed for measurement of flow/discharge and the pollutants concentration, and the emission and effluent monitoring data to be transmitted to the CPCB and SPCB server as per the directions of CPCB in this regard.*

**Agenda No.34.3.12**

**Expansion of Agrochemicals (Pesticides), Intermediates and Polymers Unit by M/s Gujarat Insecticides Limited at Plot No. 805/806, GIDC Estate, Ankleshwar, District Bharuch (Gujarat) - Environmental Clearance**

**[IA/GJ/IND2/61482/2017, IA-J-11011/3/2017-IA-II(I)]**

**34.3.12.1** The project proponent and the accredited Consultant M/s Siddhi Green Excellence Pvt. Ltd made a detailed presentation on the salient features of the project and informed that:

i. The proposal is for expansion of agrochemicals (Pesticides), Intermediates and Polymers Unit at Plot No.805/806, GIDC Estate, Ankleshwar, District Bharuch (Gujarat) M/s Gujarat Insecticides Limited.
ii. The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 18th meeting held during 24th January, 2017 and recommended Terms of References (ToRs) for the project. The ToR has been issued by Ministry vide letter dated 10th July, 2017.
iii. All projects are listed at S.No.5 (b) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

iv. Ministry has issued EC earlier vide letter no. J-11011/1287/2007-IA II (I); dated 17-04-2008 for expansion of Meta Phenoxy Benzyldehyde (MPB) from 1500 MTA to 2400 MTA unit to M/s. Gujarat Insecticides Limited in Expansion case.

v. Existing land area is 73084 sqm, and no additional land will be used for proposed expansion.

vi. Industry has already developed Greenbelt in an area of ~16.17 % i.e 11786.73 sq. m out of 73084 sq.m. of area of the project. After proposed expansion M/s. Gujarat Insecticides limited has planned to enhance greenbelt within the premises with total area 12700.87 sq. m (~17.38%) & shall develop greenbelt on GIDC allotted land such that total area developed as greenbelt by unit within the premises and on GIDC allotted land is minimum 33% of plot area.

vii. The estimated project cost for expansion is Rs.193.02 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs 55.75 Crore and the Recurring cost (operation and maintenance) will be about Rs 3750.35 lakh per annum.

viii. Total Employment will be 610 nos. persons as direct & 300 nos. persons indirect after expansion. Industry proposes to allocate Rs 4.83Crore @ of **2.5 %** towards Corporate Social Responsibility.

ix. There are noNational parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife corridors etc. within 10 km from the project site. Amravati river is flowing at a distance of 6.49 km in E direction.

x. Ambient air quality monitoring was carried out at 13(including project site) locations during February 2017 to April 2017 and the baseline data indicates the ranges of concentrations as: PM10 (75-91 µg/$m^3$), PM2.5 (24-33 µg/$m^3$), $SO_2$ (18-27 µg/$m^3$) and $NO_x$ (22-33 µg/$m^3$) ($98^{th}$ percentile values) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.62 µg/$m^3$, 3.45 µg/$m^3$ and 1.68 µg/$m^3$ with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). (In case of EC Proposal).
For GLCs details please refer page no. 206 – 214 of the final report of EIA.

xi. Total water requirement is 2152 $m^3$/day, of which fresh water requirement of 2152 $m^3$/day will be met from GIDC.

xii. At present 820 KLD of effluent (750 KLD industrial + 70 KLD domestic sewage) is treated in own ETP (Primary, Secondary and Tertiary treatment). Treated effluent from ETP is discharged into u/g pipeline connected to FETP of M/s. NCT (formerly known as BEAIL). Unit has membership of NCT for treated effluent quantity upto 820 KLD for discharge into u/g pipeline connected to FETP of M/s. NCT for final disposal in deep sea.

Boiler blowdown and cooling tower blowdown (72 + 90 = 162 KLD) shall be reused for washing and then sent to ETP, hence no GIDC water consumption for washing.

- Additional 1027 KLD of industrial effluent generated from expansion shall be treated in ETP and further subjected to RO. RO permeate @ 842 KLD shall be recycled back to process thereby reducing GIDC water requirement. And RO reject shall be sent to MEE for further treatment.
- In this manner, there shall be no increase in consented discharge quantity of effluent i.e 750 KLD for discharge into NCT pipeline conveying treated effluent into deep sea via FETP. 95 KLD domestic effluent shall be treated in STP (110 KLD) & treated water shall be utilized for green belt maintenance

xiii. **Continuous Power**

At present Electricity power is supplied from DGVCL. Existing requirement of electricity @1800 KVA.
For proposed expansion additional power requirement will be @ 1200 KVA.
Total after proposed expansion will be @ 3000 KVA*

*After the commencement of 3 MW Power Plant the power supply from DGVCL shall be used only when required.

**Standby Power**

There are existing two D.G set - capacity: 1250 KVA & 700 KVA

Additional Two (2) nos. of DG sets (1500 KVA) are proposed as standby source of electricity in case of power supply failure.

xiv.

| Stack No. | Stack ID / Stack Attached to | Capacity / Remarks | Name of fuel | Quantity of fuel used | Air Pollution Control Measures (APCM) | Stack Height in Meter (From G.L.) | Parameters | Permissible Limits | Unit |
|---|---|---|---|---|---|---|---|---|---|
| **As per Existing CTO** | | | | | | | | | |
| 1. | 60825 - Fuel Heater (Thermic) | Thermopack TP-01 ( 2 lakh kcal/h) | H.S.D. | 45 Lit/Hr | Not Applicable | 15 | PM<br>$SO_2$<br>$NO_x$ | 150<br>100<br>50 | mg/Nm3<br>ppm<br>ppm |
| 2. | 60826 – Fuel Heater (Thermic) | Thermopack TP-02 ( 2 lakh kcal/h) | Natural Gas | 25 $Nm^3/Hr$ | Not Applicable | 15 | PM<br>$SO_2$<br>$NO_x$ | 150<br>100<br>50 | mg/Nm3<br>ppm<br>ppm |
| 3. | 9153 – Fuel Heater | HAIZA Hot Oil Unit ( 2 lakh kcal/h) | Natural Gas | 25 $Nm^3/Hr$ | Not Applicable | 30 | PM<br>$SO_2$<br>$NO_x$ | 150<br>100<br>50 | mg/Nm3<br>ppm<br>ppm |
| 4. | 36250 - Boiler | Boiler (10TPH) | Coal | 1500 kg/hr or Briquette: 1500 kg/hr | Electrostatic Precipitator (ESP) + water scrubber | 30 | PM<br>$SO_2$<br>$NO_x$ | 150<br>100<br>50 | mg/Nm3<br>ppm<br>ppm |
| **EC applied for New Additional stacks** | | | | | | | | | |
| 5. | Fuel Heater (Thermic) | Hot oil unit (2 lakh kcal/h) | Natural Gas H.S.D. | 75 $Nm^3/h$<br>70 L/h | -- | 30 | PM<br>$SO_2$<br>$NO_x$ | 150<br>100<br>50 | mg/Nm3<br>ppm<br>ppm |
| 6. | Fuel Heater (Thermic) | Hot oil unit (2 lakh kcal/h) | | | | 30 | | | |
| 7. | Fuel Heater (Thermi | Hot oil unit (2 lakh | | | | 30 | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | c) | kcal/h) | | | | | | | |
| 8. | Fuel Heater (Thermic) | Hot oil unit (4 lakh kcal/h) | Natural Gas H.S.D | 100 $Nm^3/h$<br>95 L/h | -- | 30 | PM<br>$SO_2$<br>$NO_x$ | 150<br>100<br>50 | mg/ Nm3<br>ppm<br>ppm |
| 9. | Fuel Heater (Thermic) | Hot oil unit (4 lakh kcal/h) | | | | 30 | | | |
| 10. | Boiler | Coal Fired Boiler (25 TPH) (for 3 MW Power Plant) | Coal | 5000 kg/h (Note 3) | Electro static Precipitator (ESP) + water scrubber | 33 | PM<br>$SO_2$<br>$NO_x$ | 100<br>100<br>50 | mg/ Nm3<br>ppm<br>ppm |
| 11. | DG set | DG Set (1500 kVA)-Standby | H.S.D. | 350 L/h | -- | 33 | PM<br>$SO_2$<br>$NO_x$ | 150<br>100<br>50 | mg/ Nm3<br>ppm<br>ppm |
| 12. | DG set | DG Set (1500 kVA)-Standby | H.S.D. | 350 L/h | -- | 33 | PM<br>$SO_2$<br>$NO_x$ | 150<br>100<br>50 | mg/ Nm3<br>ppm<br>ppm |

**Note:**

1. Steam from proposed 25 TPH boiler shall be utilized for 3 MW Captive Power plant as well as for process.
2. Ready-to-use imported crushed coal is used in coal fired boiler.
3. Proponent is committed to follow all the guidelines given by solid fuel policy (Office order no. GPCB/ANK-C992/215695 DATED 07/06/2014)

xv.

| **Stack No.** | **Stack Id / Stack attached to** | **Name of Process / Plant** | **Air Pollution Control System** | **Stack Height in Meter (From G.L.)** | **Air Emission** | |
|---|---|---|---|---|---|---|
| | | | | | **Pollutant** | **Permissible Limit** |
| **Existing as per CTO** | | | | | | |
| 1. | 9155 – Process Emission Vessel | Meta Phenoxy Benzaldehyde Plant (MPB Plant) | Alkali Scrubber | 20 | $SO_2$<br>HCl<br>$Cl_2$<br>$Br_2$ | 40 mg /$Nm^3$<br>20 mg /$Nm^3$<br>09 mg /$Nm^3$<br>02 mg /$Nm^3$ |
| 2. | 36236 - Process Emission Vessel | Quinalphos Plant | Alkali Scrubber | 18 | HCl<br>$Cl_2$<br>$SO_2$ | 20 mg /$Nm^3$<br>09 mg /$Nm^3$<br>40 mg /$Nm^3$ |
| 3. | 36239 - Chlorination | Fenevalerte Plant (PCT Chlorinator & Acid Chloride Preparation | Alkali Scrubber | 18 | $SO_2$<br>HCl<br>$Cl_2$ | 40 mg /$Nm^3$<br>20 mg /$Nm^3$<br>09 mg /$Nm^3$ |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | Vessel) | | | | |
| 4. | 36251 – Gas Exits | Bromine recovery | Alkali Scrubber | 20 | HBr<br>$Br_2$ | 30 mg /$Nm^3$<br>02 mg /$Nm^3$ |
| **Proposed additional** | | | | | | |
| 5. | Process Emission Vessel | Meta Phenoxy Benzaldehyde Plant (MPB Plant) | Water+ Alkali Scrubber | 20 | HCl<br>$SO_2$<br>$Cl_2$<br>$Br_2$ | 20 mg /$Nm^3$<br>40mg /$Nm^3$<br>09 mg /$Nm^3$<br>02 mg /$Nm^3$ |
| 6. | Gas Exits | Bromine recovery | Alkali Scrubber | 20 | HBr<br>$Br_2$ | 30 mg /$Nm^3$<br>02 mg /$Nm^3$ |
| 7. | Process Emission Vessel | Profenophos Plant (Quinalphos plant) | Water+ Alkali Scrubber | 20 | HBr<br>$Br_2$ | 30 mg /$Nm^3$<br>02 mg /$Nm^3$ |
| 8. | Process Emission Vessel | Azole Plant (Hexaconazole + Metalaxyl) | Water+ Alkali Scrubber | 20 | HCl<br>$SO_2$ | 20 mg /$Nm^3$<br>40mg /$Nm^3$ |
| 9. | Process Emission Vessel | Azole Plant (Propiconazole + Metalaxyl) | Two stage Water Scrubber | 20 | HCl | 20 mg /$Nm^3$ |
| 10. | Process Emission Vessel | Azole Plant (Propiconazole) | Water+ Alkali Scrubber | 20 | HCl<br>HBr | 20 mg /$Nm^3$<br>30 mg/ $Nm^3$ |
| 11. | Process Emission Vessel | Diafenthiuron Plant (Fenevalerte Plant) | Water+ Alkali Scrubber | 20 | HBr<br>$Br_2$ | 30 mg /$Nm^3$<br>02 mg /$Nm^3$ |
| 12. | Process Emission Vessel | Diafenthiuron Plant (Fenevalerte Plant) | Two stage Water Scrubber | 20 | $NH_3$ | 30 mg/$Nm^3$ |
| 13. | Process Emission Vessel | Polymer Plant (PEK,PEKK, ABPBI) | Water+ Alkali Scrubber | 20 | HCl<br>$SO_2$ | 20 mg /$Nm^3$<br>40mg /$Nm^3$ |

xvi. Details of Solid waste/ Hazardous waste generation and its management. **Annexure-1**

xvii. M/s. Gujarat Insecticides Limited is an existing unit located in the Notified industrial estate GIDC Ankleshwar. Hence Public hearing is exempted under the provisions as per Para 7 Stage III (3)(i)(b) of the EIA notification, 2006

xviii. Six monthly compliance reports are submitted to MoEF&CC. EC compliance report for month of October 2016 to March 2017 is already submitted at RO-MoEFCC, Bhopal dated 12-04-2017. Inspection by RO-MoEFCC, Bhopal completed, certificate issued.

xix. No litigation Pending against the proposal

xx. Following are the list of existing and proposed products: **Annexure-2**

## Annexure: 1

## DETAILS OF SOLID/ HAZARDOUS WASTE GENERATION & MANAGEMENT

| Sr. No. | Type of Waste | Sch. | Category (As Per Schedule) Rules 2016 | Generation MT Per Annum | | | Source of generation | Facility | Mode of disposal & Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Existing as per CTO | EC additional | Total after EC expansion | | | |
| 1. | Spent Solvent | I | 20.2 | 12 MT | 24 MT | 36 MT | From Process | Collection, incineration, disposal, Storage, transportation | Sent to CHWIF for Incineration approved by GPCB |
| 2. | Distillation Residues | I | 20.3 | 420 MT | 5928 MT | 6348 MT | From Process | Co-processing, Collection, Incineration, Disposal, Storage, transportation | Sent to CHWIF for incineration OR Selling to M/s. Ultra tech Cement Ltd. and M/s. Ambuja Cement Ltd. for Co-processing |
| 3. | Process Waste Sludge/ Residue containing acid, Toxic metals, organic compounds | I | 26.1 | 252 MT | 564 MT | 816 MT | From Process | Co-processing, Collection, Incineration, Disposal, Storage, transportation | Sent to CHWIF for incineration OR Selling to M/s. Ultra tech Cement Ltd. and M/s. Ambuja Cement Ltd. for Co-processing |
| 4. | Process wastes or residues | I | 29.1 | 360 MT | 360 MT | 720 MT | From detoxification of effluent | Collection, Incineration, Disposal, Storage, Transportation | Sent to CHWIF for Incineration approved by GPCB |
| 5. | Sludge | I | 29.2 | 2760 MT | 6240 | 9000 | From | Collection, Disposal, | Sent to common TSDF |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | containing residual pesticides | | | | MT | MT | ETP | Treatment, Storage, Transportation | site approved by GPCB |
| 6. | Date-expired and off specification pesticides | I | 29.3 | 60 MT | 60 MT | 120 MT | From Process | Collection, Incineration, Disposal, Storage, Transportation | Sent to CHWIF for Incineration approved by GPCB |
| 7. | Spent Catalysts | I | 29.5 | 12 MT | 60 MT | 72 MT | From Process | Collection, Incineration, Disposal, Reuse, Storage, Transportation | Sent to incineration or sell it to authorized re-refiners/ recycler. |
| 8. | Empty barrels/ containers/liners contaminated with hazardous chemicals/wastes | I | 33.1 | 344.68 | 734.4 | 1079.08 MT | From Process & maintenance | Collection, Decontamination, Disposal, Reuse, Storage, Transportation | Disposal by send it to authorized decontamination facility/recycler or reuse or send back to supplier or send it to Common TSDF approved by GPCB. |
| 9. | Oil and Grease skimming | I | 35.4 | 12 MT | 36MT | 48 MT | From ETP | Collection, Disposal, Storage, Transportation | Disposal to common TSDF site approved by GPCB |
| 10. | Spent Carbon or filter medium | I | 36.2 | 24 MT | 48 MT | 72 MT | From Tertiary treatment in ETP | Co-processing, Collection, Incineration, Disposal, Storage, transportation | Sent to CHWIF for incineration OR Selling to M/s. Ultra tech Cement Ltd. and M/s. Ambuja Cement Ltd. for Co-processing |
| 11. | Used or Spent Oil | I | 5.1 | 12 MT | 24 MT | 36 MT | From Machinery | Collection, Incineration, Disposal, Reuse, Storage, Transportation | Disposal by reuse in plant & machinery as lubricant or sell it to authorized re-refiners/ recycler or Sent to CHWIF for incineration approved by GPCB. |
| 12. | Wastes or | I | 5.2 | 6 MT | 6 MT | 12 MT | From | Collection, Incineration, | Disposal by reuse in |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | residues containing oil | | | | | | Machinery | Disposal, Reuse, Storage, Transportation | plant & machinery as lubricant or sell it to authorized re-refiners/ recycler or Sent to CHWIF for incineration approved by GPCB. |
| 13. | Ammonia | II | A10 | 420 MT | 336 MT | 756 MT | By-product from scrubber | Collection, Generation, Disposal,Storage, Transportation | Aqueous ammonia solution (15 %) - Disposal by sell out to authorized users who are having authorization with valid CTO and rule 9 permission to receive this waste. |
| 14. | Halogen-Containing compounds which produce acidic vapours on contact with humid air or water e.g. slicon tetrachloride, aluminium chloride, titanium tetrachloride | II | B10 | 864.00 | 2436 MT | 3300 MT | By-product from process | Collection, generation, Disposal, Storage, Transportation | KCl Powder- Disposal by sell out to authorized users who are having authorization with valid CTO and rule 9 permission to receive this waste. |
| 15. | Halogen-Containing compounds which produce acidic | II | B10 | 14400 | 46824 | 61224 | By-product from process | Collection, Disposal, Storage, Transportation | Potassium chloride solution & Aluminum chloride solution - Disposal by sell out to authorized users who are having authorization with |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | vapours on contact with humid air or water e.g. slicon tetrachloride, aluminium chloride, titanium tetrachloride | | | | | | | | valid CTO and rule 9 permission to receive this waste. |
| 16. | Inorganic acids | II | B15 | 4320 | 27540 MT | 31860 MT | By-product from process | Collection, Disposal, Storage, Transportation | Spent Sulphuric acid - Disposal by sell out to authorized users who are having authorization with valid CCA and rule 9 permission to receive this waste. |
| 17. | Calcium Chloride (35%) | II | B10 | 0 | 6396 | 6396 | By-product from process | Collection, Disposal, Storage, Transportation | Calcium chloride (35%) - Disposal by sell out to authorized users who are having authorization with valid CTO and rule 9 permission to receive this waste. |
| 18. | Sodium bisulfite (20-25%) | II | B23 | 0 | 15590 MT | 15590 MT | By-product from scrubber | Collection, Disposal, Storage, Transportation | Sodium bisulfite (20-25%) - Disposal by sell out to authorized users who are having authorization with valid CTO and rule 9 permission to receive this waste. |
| 19. | Calcium Sulfate (92%) | -- | -- | 0 | 1992 MT | 1992 MT | By-product from scrubb | Collection, Disposal, Storage, Transportation | Calcium Sulfate (92%) - Disposal by sell out to authorized users who are having authorization with |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | er | | valid CTO and rule 9 permission to receive this waste. |

- Unit has membership of M/s. Bharuch Enviro Infrastructure Ltd. (BEIL) – Ankleshwar site for disposal of ETP sludge and Incinerable waste. Letter of acceptance is obtained from M/s. BEIL for accepting landfill waste at their Ankleshwar TSDF site and incinerable waste at CHWIF site at Ankleshwar. Copy is annexed in EIA report
- Letter of Intent is obtained from M/s. Ultra tech Cement Ltd. and M/s. Ambuja Cement Ltd. unit for co-processing at their plant at P.O Ambujanagar, Taluka Kodinar, District Gir-Somnath, Gujarat. Copy is annexed in EIA report.

**Annexure: 2**

**Existing & proposed new Products and their capacity (Sr. No. as per CTO)**

| SN | Name of Product | CAS No. | CTO Available | | Remarks | EC Applied for additional production in | | Total After EC Expansion | | End uses | Category as per EIA Notification, 2006 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MT/month | MT/annum | | MT/month | MT/annum | MT/month | MT/annum | | |
| 1 | Bromine Recovery* | 7726-95-6 | 58.33 | 700 | Total Production shall not exceed 700 MT/Year | 465.83 | 5590 | 524.16 | 6290 | Raw material for MPB | -- |
| 2 | Captive power plant – Gas based** | - | 0.95 MW | -- | Captive power plant of capacity of 0.95 MW will be surrendered after | -- | -- | -- | -- | -- | -- |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | proposed expansion | | | | | | |
| 3 | Fenvalerate OR | 51630-58-1 | 8.33 | 100 | Either individual or total production of sr. no. 3 to 8 shall not exceed 100 MT/Year | 191.67 | 2300 | 200 | 2400 | Agriculture | 5(b) |
| 4 | Lambda Cyhalothrin OR | 91465-08-6 | 8.33 | 100 | | 191.67 | 2300 | 200 | 2400 | Agriculture | 5(b) |
| 5 | Bifenthrin OR | 82657-04-3 | 8.33 | 100 | | 191.67 | 2300 | 200 | 2400 | Agriculture | 5(b) |
| 6 | Deltamethrin OR | 52918-63-5 | 8.33 | 100 | | 191.67 | 2300 | 200 | 2400 | Agriculture | 5(b) |
| 7 | Thiamethoxam OR | 153719-23-4 | 8.33 | 100 | | 191.67 | 2300 | 200 | 2400 | Agriculture | 5(b) |
| 8 | Buprofezin | 95303-84-7 | 8.33 | 100 | | 191.67 | 2300 | 200 | 2400 | Agriculture | 5(b) |
| 9 | Quinalphos OR | 13593-03-8 | 100 | 1200 | Either individual or total production of sr. no. 9 to14 shall not exceed 1200 MT/Year | 100 | 1200 | 200 | 2400 | Agriculture | 5(b) |
| 10 | Triazophos OR | 24017-47-8 | 100 | 1200 | | 100 | 1200 | 200 | 2400 | Agriculture | 5(b) |
| 11 | Chlorpyriphos OR | 2921-88-2 | 100 | 1200 | | 100 | 1200 | 200 | 2400 | Agriculture | 5(b) |
| 12 | Temephos OR | 3383-96-8 | 100 | 1200 | | 100 | 1200 | 200 | 2400 | Agriculture | 5(b) |
| 13 | Methyl Chlorpyriphos OR | 5598-13-0 | 100 | 1200 | | 100 | 1200 | 200 | 2400 | Agriculture | 5(b) |
| 14 | Profenophos | 41198-08- | 100 | 1200 | | 100 | 1200 | 200 | 2400 | Agriculture | 5(b) |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 7 | | | | | | | | | |
| 15 | Meta Phenoxy Benzaldehyde (MPB) OR | 39515-51-0 | 200 | 2400 | Either individual or total production of sr. no. 15 & 16 shall not exceed 2400 MT/Year | 300 | 3600 | 500 | 6000 | Intermediate | 5(b) |
| 16 | Dichloro Phenol (DCP) | 583-78-8 | 200 | 2400 | | 300 | 3600 | 500 | 6000 | Intermediate | 5(b) |
| 17 | Indoxacarb OR | 173584-44-6 | 10.83 | 130 | Either individual or total production of sr. no. 17 to 21 shall not exceed 130 MT/Year | 189.17 | 2270 | 200 | 2400 | Agriculture | 5(b) |
| 18 | Tricyclazole OR | 41814-78-2 | 10.83 | 130 | | 189.17 | 2270 | 200 | 2400 | Agriculture | 5(b) |
| 19 | Hexaconazole OR | 79983-71-4 | 10.83 | 130 | | 189.17 | 2270 | 200 | 2400 | Agriculture | 5(b) |
| 20 | Propiconazole OR | 60207-90-1 | 10.83 | 130 | | 189.17 | 2270 | 200 | 2400 | Agriculture | 5(b) |
| 21 | Metalaxyl | 57837-19-1 | 10.83 | 130 | | 189.17 | 2270 | 200 | 2400 | Agriculture | 5(b) |
| 22 | Crude Pigment Violet-23 OR | 215247-95-3 | 25 | 300 | Either individual or total production of sr. no. 22 to 27 shall not exceed | 58.33 | 700 | 83.33 | 1000 | Paint and Ink | 5(f) |
| 23 | Poly Ether Ketone (PEK) OR | 27380-27-4 | 25 | 300 | | 58.33 | 700 | 83.33 | 1000 | Engineering plastics | 5(f) |
| 24 | Poly (2,5 Benzamidazole) (ABPBI) OR | 25928-81-8 | 25 | 300 | | 58.33 | 700 | 83.33 | 1000 | Engineering plastics | 5(f) |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | Poly Ether Ketone Ketone (PEKK) OR | 74970-25-5 | 25 | 300 | 300MT/ Year | 58.33 | 700 | 83.33 | 1000 | Engineering plastics | 5(f) |
| 26 | Polybenzoxazole (ABPBO) OR | 89718–41-2 | 25 | 300 | | 58.33 | 700 | 83.33 | 1000 | Engineering plastics | 5(f) |
| 27 | Poly Ether Imide (PEI) | 61128-46-9 | 25 | 300 | | 58.33 | 700 | 83.33 | 1000 | Engineering plastics | 5(f) |
| 28 | N-Acetoacetyl Aminobenzimidazolone (NAA) | 26576-46-5 | 4.16 | 50 | Total production shall not exceed 50 MT/year | -- | -- | 4.16 | 50 | Raw material for pigment | 5(f) |
| 29 | Formulation of Technical Product | | 116.66 KL | 1400 KL | Total Production shall not exceed 1400 KL/Year | 300 | 3600 KL | 416.66 | 5000 KL | Agriculture | -- |
| 30 | Dicamba | 1918-00-9 | -- | -- | -- | 416.66 | 5000 | 416.66 | 5000 | Agriculture | 5(b) |
| 31 | Diafenthiuron | 80060-09-9 | -- | -- | -- | 100 | 1200 | 100 | 1200 | Agriculture | 5(b) |
| 32 | Carbendazim | 10605-21-7 | -- | -- | -- | 100 | 1200 | 100 | 1200 | Agriculture | 5(b) |
| 33 | DG Set (1500 kVA)-(Standby) | -- | -- | -- | -- | 1500 KVA x 2 | -- | 3000 KVA | 3000 KVA | -- | -- |
| 34 | 3 MW – Coal based Power plant | -- | -- | | -- | 3 MW | -- | 3 MW | 3 MW | -- | -- |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **TOTAL (excluding Formulation and CPP)** | | | **4880** | | | **23060** | | **27940** | | |

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

The proposal is for environmental clearance to the project for expansion of agrochemicals (Pesticides), intermediates and polymers unit from the present capacity of 4880 TPA to 27940 TPA by M/s Gujarat Insecticides Limited in a total area of 73084 sq.m at Plot No.805/806, GIDC Estate Ankleshwar, District Bharuch (Gujarat).

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

The ToR for the project was granted on 10th July, 2017. Public hearing is exempted under the provisions as per Para 7 Stage III (3) (i) (b) of the EIA Notification, 2006, as plant is located in notified Industrial Estate.

Total water requirement is estimated to be 2994 cum/day, of which fresh water requirement is 2152 cum/day proposed to be met from GIDC water supply.

Ministry had earlier issued EC vide letter dated 17th April, 2008 for expansion of Insecticides Manufacturing Unit (Meta Phenoxy Benzyldehyde (MPB)) from 1500 MTA to 2400 MTA in favour of M/s Gujarat Insecticides Limited. The monitoring report on compliance status of EC conditions forwarded by the Regional Office at Bhopal vide their letter dated 19th January, 2018, states that out of 40 conditions, 26 are complied, 6 partly complied, 4 complied subject to acceptance, one complied subject to condition, two not complied and one not applicable. The project proponent has submitted action taken report to the Ministry's Regional Office.

Consent to Operate for the present capacity of 4880 TPA has been obtained from the Gujarat PCB vide letter dated 29th April, 2017, which is presently valid up to 13th March, 2022.

**34.3.12.3** *The EAC, after deliberations, deferred the project for want of clarification/inputs and documentation in respect of the following:-*

- *Compliance of Zero Liquid Discharge condition in the ToR.*
- *Revised layout plan with 5-10 m green belt covering 33% of total area.*
- *Action taken report/replies submitted by the project proponent in response to the earlier observations of the Regional Office, to be examined for their comments.*

**Agenda No.34.3.13**

**Expansion of Pesticide & Intermediates manufacturing unit by M/s UPL Limited at Plot No. 3-11, A-2/1, A-2/2, A-2/6 & A-1/2, Phase-I, GIDC Industrial Estate, Vapi, District Valsad (Gujarat) - Environment Clearance**

**[IA/GJ/IND2/71396/2016 J-11011/330/2016-IA-II (I)]**

**34.3.13.1** The project proponent and the accredited Consultant M/s. Eco Chem Sales & Services (ECSS), made a detailed presentation on the salient features of the project and informed that:

i. The proposal is for Expansion in Existing Production Capacity & Addition of New Pesticides & Intermediates including Pesticide formulation at GIDC Notified Industrial area, Vapi by M/s. UPL Ltd. and located at Plot No. 3–11, A–2/1, A–2/2, A–2/6 & A–1/2, Phase – I, GIDC Notified Industrial Area, Vapi 396195, Dist: Valsad, Gujarat.

ii. The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 24$^{th}$ EAC meeting held during 14 - 16$^{th}$ June, 2017 for Amendment in ToR and recommended Terms of References (TORs) for the Project. The Amended TOR (exempting Public Consultation and Zero Liquid Discharge condition) has been issued by Ministry vide letter No. J-11011/330/2016-IA-II(I); dated 9$^{th}$October, 2017. MoEF&CC issued Standard ToR letter dated 09.12.2016.

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

iv. Ministry has issued EC earlier vide letter no. J-11011/32/2007- IA-II (I) dated 23$^{rd}$ July, 2007 for GIDC Notified Industrial Area, Vapi unit to M/s. United Phosphorous Limited.

v. Existing land area is 69,639 $m^2$ and expansion will be developed within existing plant premises hence no additional land area will be used for proposed expansion.

vi. Industry has already developed Greenbelt/plantation in an area of 33% of the project area *i.e.* 22,999 $m^2$ out of which 2,691 $m^2$ area at project site and 20,308 $m^2$ at Vikram Farm, Nahuli Village.

vii. The estimated project cost is INR 28,563.13 Lakhs excluding existing investment of INR 23,800 Lakhs. Total capital cost earmarked towards environmental pollution control measures is INR 3414.11 Lakhs and the Recurring cost (operation and maintenance) will be about INR 949.2 Lakhs per annum.

viii. Total Employment will be 679 persons as direct & 100 persons indirect after expansion. Industry proposes to allocate Rs. 714.1 Lakhs @ of 2.5% towards Corporate Social Responsibility.

ix. There are no National parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife corridors *etc.* within 10 km from the project site. River Daman Ganga, Kolak and Darotha is flowing at a distance of 1.30 km, 6.39 km and 3.89 km in S, NE and SW direction respectively.

x. Ambient air quality monitoring was carried out at 9 locations during 1$^{st}$ December, 2016 to 28$^{th}$ February, 2017 and the baseline data indicates the ranges of concentrations as: $PM_{10}$ (68.9 – 98.7 µg/$m^3$), $PM_{2.5}$ (34.8 - 53.7 µg/$m^3$), $SO_2$ (10.3 – 18.3 µg/$m^3$) and $NO_2$ 15.6 – 24.7 µg/$m^3$). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.22 µg/$m^3$, 2.1 µg/$m^3$ and 0.74 µg/$m^3$ with respect to $PM_{10}$, $SO_x$ and $NO_x$. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

xi. Total fresh water requirement will be 5239.21 $m^3$/day after expansion (Existing: 3815.24 m3/day, Proposed: 1424 m3/day) and is being/will be met from GIDC water supply.

xii. Effluent of industrial process will be segregated into three streams as high TDS stream, high COD and toxic concentrated stream and normal stream. High COD and toxic concentrated effluent is/will be treated in to Incinerator of BEIL, Ankleshwar. High TDS effluent is/will be treated in existing Multiple Effect Evaporation (MEE) System and proposed Multiple Effect Evaporation (MEE). Normal Effluent will be treated in existing ETP and Final treated effluent from the ETP confirming the CETP norms is being/will be sent for further treatment in CETP, Vapi.

xiii. Power requirement after expansion will be 19786.27 kW including existing 9082.34 kW KVA and will be met from Dakshin Gujarat Vij Company Ltd (DGVCL). Existing unit has 1 DG set of

1250 kVA and 2 DG sets of 500 kVA each capacity, additionally 2 DG sets of 500 kVA each will be used as standby during power failure. Stack (height 15.5 m) will be provided as per CPCB norms.

xiv. Existing unit has 10 TPH, 8 TPH, 5 TPH and 23 TPH FO/NG, FO/NG, FO/NG and Imported coal fired boiler, respectively. Electrostatic precipitator with a stack height of 55 m as per CPCB norms has been installed to Coal fired boiler for controlling flue gas emission *i.e* PM, $SO_2$ and $NO_x$ within the statutory limit of 150 mg/$Nm^3$, 100 ppm and 50 ppm.

xv. Details of Process emissions generation and its management given below:

**Existing Process Emission**

| S.No. | Stack attached to | Stack height (m) | Stack Dia. (mm) | Air Pollution Control system | Parameter & Permissible limit |
|---|---|---|---|---|---|
| **EXISTING** | | | | | |
| 1. | Pesticide plant – 1 reactor | 12 | 100 | Water scrubber followed by Caustic scrubber | HCl < 20 mg/$Nm^3$<br>$Cl_2$ < 5 mg/$Nm^3$<br>PM < 20 mg/$Nm^3$ |
| 2. | Pesticide plant – 2 reactor | 12 | 100 | Water scrubber followed by Caustic scrubber | HCl < 20 mg/$Nm^3$<br>$Cl_2$ < 5 mg/$Nm^3$ |
| 3. | Pesticide plant – 2 & Permerthrin (Stand by scrubber) | 12 | 100 | Water/Alkali Scrubber | |
| 4. | ALP plant firing chamber | 30 | 150 | Mist Eliminator & Water scrubber | PM < 20 mg/$Nm^3$<br>$P_2O_5$ as $H_3PO_4$ < 5 mg/$Nm^3$ |
| 5. | MPBAD plant reaction vessel & Bromine recovery system | 22 | 150 | Sodium Thiosulphate absorber for $Br_2$ recovery and Caustic scrubber | HCl < 20 mg/$Nm^3$<br>$Cl_2$ < 5 mg/$Nm^3$<br>HBr < 5 mg/$Nm^3$ |
| 6. | DVACL PLANT (TCBACl reactor) | 22 | 150 | Alkali Scrubber | HCl < 20 mg/$Nm^3$<br>$PCl_3$< 9 mg/$Nm^3$ |
| 7. | DVACL plant (DVACl reactor) | 22 | 100 | Water scrubber followed by Alkali Scrubber | HCl < 20 mg/$Nm^3$<br>$PCl_3$ < 9 mg/$Nm^3$<br>$SO_2$ < 40 mg/$Nm^3$ |
| 8. | DVACl plant (Storage and Recovery System) | 22 | 80 | Alkali Scrubber | |
| 9. | DVACl plant (Fugitive emission) | 22 | 100 | Alkali Scrubber | HCl < 20 mg/$Nm^3$<br>$Cl_2$ < 5 mg/$Nm^3$<br>$SO_2$ < 40 mg/$Nm^3$ |
| 10. | ASAM | 12 | 100 | Water scrubber followed by Alkali Scrubber | HCl < 20 mg/$Nm^3$<br>$Cl_2$ < 5 mg/$Nm^3$ |
| 11. | ZnP plant reactor | 12 | 200 | Mist Eliminator with Koch Filter | PM < 20 mg/$Nm^3$<br>$P_2O_5$< 5 mg/$Nm^3$ |
| 12. | Lambda Cyhalothrin | 12 | 100 | Alkali Scrubber | HCl < 20 mg/$Nm^3$<br>$SO_2$ < 40 mg/$Nm^3$ |

| S.No. | Stack attached to | Stack height (m) | Stack Dia. (mm) | Air Pollution Control system | Parameter & Permissible limit |
|---|---|---|---|---|---|
| 13. | Metribuzin | 12 | 100 | Water/Alkali scrubber (Sodium Thiosulphate absorber) | HBr < 5 mg/$Nm^3$ |

**Additional Process emission after expansion**

| S.No. | Stack attached to | Stack height (m) | Stack Dia. (mm) | Air Pollution Control system | Parameter & Permissible limit |
|---|---|---|---|---|---|
| 1. | ALP plant firing chamber | 30 | --- | Vet Scrubber with Mist Eliminator | PM < 20 mg/$Nm^3$<br>$P_2O_5$ < 5 mg/$Nm^3$ |
| 2. | DVACL PLANT (TCBACL reactor) | 30 | 150 | Alkali Scrubber | HCl < 20 mg/$Nm^3$<br>$PCl_3$ < 9 mg/$Nm^3$ |
| 3. | DVACL plant (DVACL reactor) | 30 | 80 | Water/Alkali Two stage Scrubber | HCl < 20 mg/$Nm^3$<br>$PCl_3$ < 9 mg/$Nm^3$<br>$SO_2$ < 40 mg/$Nm^3$ |
| 4. | DVACL plant (storage and Recovery System) | 30 | 80 | Alkali Scrubber | |
| 5. | ZnP plant reactor | 30 | 200 | Mist Eliminator with Koch filter | PM < 20 mg/$Nm^3$<br>$P_2O_5$ < 5 mg/$Nm^3$ |
| 6. | Pesticides Plant-1 reactor | 30 | 100 | Water /Alkali Two stage Scrubber | HCl < 20 mg/$Nm^3$<br>$SO_2$ < 40 mg/$Nm^3$<br>$Cl_2$ < 5 mg/$Nm^3$ |
| 7. | MPBAD plant Bromine recovery & plant reactor | 30 | 150 | Water /alkali Scrubber | HCl < 20 mg/$Nm^3$<br>$Cl_2$ < 5 mg/$Nm^3$<br>HBr < 5 mg/$Nm^3$<br>$Br_2$ < 9 mg/$Nm^3$ |
| 8. | ETP scrubber | 30 | 150 | Caustic Scrubber | HCl < 20 mg/$Nm^3$<br>$Cl_2$ < 5 mg/$Nm^3$ |
| 9. | MPBAL flare and scrubber | 30 | 100 | Caustic Scrubber | HCl < 20 mg/$Nm^3$ |
| 10. | Metribuzin | 30 | 100 | Caustic Scrubber | Methyl bromide as Br < 5 mg/$Nm^3$ |
| 11. | Kresoxim Methyl | 30 | 100 | Caustic Scrubber | HCl < 20 mg/$Nm^3$<br>$SO_2$ < 40 mg/$Nm^3$ |
| 12. | Multiproduct plant stack | 30 | 100 | Caustic Scrubber | HCl < 20 mg/$Nm^3$ |

xvi. Details of Solid waste/ Hazardous waste generation and its management as listed below:

| S.No. | Waste Type | Quantity | Proposed | Total | Category | Mode of Disposal |
|---|---|---|---|---|---|---|
| | | Waste Generation | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. | ETP waste | 544.417 TPM | 144.00 TPM | 688.417 TPM | 35.3 | Collection, storage, transportation, disposal at Vapi Green Enviro Limited /BEIL-Ankleshwar. |
| 2. | Used oil | 4.197 kl/m | 6.356 kl/m | 10.553 kl/m | 5.1 | Collection, storage, transportation, disposal by selling to registred reprocessors. |
| 3. | Discarded Bag/ Containers | 42052 Nos./Month | 63724 Nos./Month | 105776 Nos./Month | 33.1 | Collection, storage, Decontamination & recycle or sold to scrap operators |
| 4. | Oil/ Grease from ETP | 0.468 TPM | 0.709 TPM | 1.177 TPM | 35.4 | Collection, storage, transportation, disposal by incineration at Vapi Green Enviro Limited / BEIL-Ankleshwar. |
| 5. | Spent Filter Material | 3 TPM | 4.546 TPM | 7.546 TPM | 36.2 | Collection, storage, transportation, disposal at Vapi Green Enviro Limited / BEIL-Ankleshwar. |
| 6. | MEE Salt | 760 TPM | 714 TPM | 1474 TPM | 35.3 | Collection, storage, transportation, disposal at TSDF- Vapi Green Enviro Limited / BEIL-Ankleshwar. |
| 7. | Sludge of wet Scubber | 4.197 kl/m | 6.36 kl/m | 10.557 kl/m | 37.1 | Collection, storage, transportation, disposal at TSDF- Vapi Green Enviro Limited / BEIL-Ankleshwar. |
| 8. | Used Batteries | 3 Nos./Month | 5 Nos./Month | 8 Nos./Month | B1(B1020) | Collection, storage, transportation, disposal by selling to registred reprocessors. |
| 9. | Process Inorganics waste | 30.8 TPM | 30 TPM | 60.8 TPM | 29.1 | Collection, storage, transportation, disposal at TSDF- Vapi Green Enviro Limited / BEIL-Ankleshwar. |
| 10. | Al,Mg,Zn Hydroxide waste | 2.608 TPM | 9.000 TPM | 11.608 TPM | Schedule-II | Collection, storage, transportation, disposal at TSDF- Vapi Green Enviro Limited / BEIL-Ankleshwar. |
| 11. | Distillation residue | 681.343 TPM | 710.540 TPM | 1391.880 TPM | 29.1 | Collection, storage, transportation, disposal by incineration at TSDF- Vapi |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | Green Enviro Limited / BEIL-Ankleshwar. |
| 12. | Spent Solvent | 22.917 TPM | 34.730 TPM | 57.647 TPM | 29.4 | Collection, storage, transportation, disposal by incineration at TSDF- Vapi Green Enviro Limited / BEIL-Ankleshwar. |
| 13. | Waste/Residue Containing Pesticide | 0.795 TPM | 1.205 TPM | 2.000 TPM | 29.2 | Collection, storage, transportation, disposal by incineration at TSDF- Vapi Green Enviro Limited / BEIL-Ankleshwar. |
| 14. | Aqueous High COD Effluent | 500 KL/M | 800 KL/M | 1300 KL/M | 29.1 | Sent to BEIL Incinerator for Incineration. |
| 15. | Expired or off specification products | 2.400 TPM | 3.636 TPM | 6.036 TPM | 29.3 | Collection, storage, transportation, disposal by incineration at TSDF- Vapi Green Enviro Limited / BEIL-Ankleshwar. |
| 16. | Fly Ash | 550.000 TPM | 2000.000 TPM | 2550.000 TPM | Non-Hazardous | Send to authorized End User and brick manufacturers. |
| 17. | STP Sludge | --- | 10.00 TPM | 10.00 TPM | --- | Will be used as manure within the premises. |

xvii. Public Consultation was exempted considering the project site being in Industrial area.

xviii. The Status of compliance of earlier EC was obtained from Regional Office Bhopalvide Letter No. 5-4/2010(Parya)/945 dated 28.08.2017 and submitted to MoEF&CC, Delhi.

xix. No any litigations pending against the expansion project.

xx. The existing and proposed products:

**Existing Product List**

| S. No. | Products | Quantity (TPA) |
|---|---|---|
| | **Pesticide Technical** | |
| 1. | Cypermethrin (Insecticide) | 3960 |
| 2. | Permethrin (Insecticide) | 1200 |
| 3. | Propanil (Herbicide) | 1296 |
| 4. | Safener (UPH-203 S) (Herbicide) | 60 |
| 5. | Alpha Cypermethrin (Insecticide) **OR** | 360 |
| | Beta Cypermethrin (Insecticide) **OR** | |
| | Imidacloprid (Insecticide) | |
| 6. | Bifenthrin (Insecticide) **OR** | 384 |
| | Lambda Cyhalothrin (Insecticide) **OR** | |
| | Clodinafop Propargyl (UPH – 203) (Herbicide) **OR** | |
| | Thiomethoxam (STAR) (Insecticide) | |
| 7. | Desmedipham (DMP) (Herbicide) **OR** | 1080 |
| | Phenmedipham (PMP) (Herbicide) **OR** | |

| S. No. | Products | Quantity (TPA) |
|---|---|---|
| | **Pesticide Technical** | |
| | Metribuzin **OR** | |
| | Metamitron | |
| 8. | Aluminum Phosphide | 2400 |
| 9. | Magnesium Phosphide | 96 |
| 10. | Zinc Phosphide | 480 |
| | **Pesticide Intermediates** | |
| 1. | 2-Chloroimidazo [1,2-a] pyridine-3-sulfamide (ASAM) | 24 |
| 2. | Dichloro Vinyl Acid Chloride (DVACL) | 3600 |
| 3. | Metaphenoxy Benzaldehyde (MPBAD) | 3300 |
| 4. | Hydrazide | 240 |
| 5. | Denatonium Benzoate | 12 |
| | **Pesticide Formulation and inorganic products (does not cover under EIA notification)** | |
| 1. | Liquids and/or Solids Formulation | 3600 |
| 2. | Red Phosphorus | 960 |

**Proposed Products and their Capacities for Expansion**

| S. No. | Products | Quantity (TPA) |
|---|---|---|
| | **Pesticide Technical** | |
| 1. | Cypermethrin (Insecticide) | 2040 |
| 2. | Permethrin (Insecticide) | 600 |
| 3. | Propanil (Herbicide) | 5904 |
| 4. | Safener (UPH-203 S) (Herbicide) | 540 |
| 5. | Alpha Cypermethrin (Insecticide) **OR** | 600 |
| | Beta Cypermethrin (Insecticide) **OR** | |
| | Imidacloprid (Insecticide) | |
| 6. | Bifenthrin (Insecticide) **OR** | 1416 |
| | Lambda Cyhalothrin (Insecticide) **OR** | |
| | Clodinafop Propargyl (UPH – 203) (Herbicide) **OR** | |
| | Thiomethoxam (STAR) (Insecticide) | |
| 7. | Desmedipham (DMP) (Herbicide) **OR** | 1800 |
| | Phenmedipham (PMP) (Herbicide) **OR** | |
| | Metribuzin **OR** | |
| | Metamitron | |
| 8. | Aluminum Phosphide | 7200 |
| 9. | Magnesium Phosphide | 504 |
| 10. | Zinc Phosphide | 960 |
| 11. | Azoxystrobin **OR** | 1200 |
| | Trifloxystrobin **OR** | |
| | Kresoxim Methyl | |
| 12. | Sulfosulfuron | 120 |
| | **Pesticide Intermediates** | |
| 1. | Dichloro Vinyl Acid Chloride (DVACL) | 600 |
| 2. | Metaphenoxy Benzaldehyde (MPBAD) | 900 |

| S. No. | Products | Quantity (TPA) |
|---|---|---|
| 3. | Denatonium Benzoate | 48 |
| 4. | Meta Phenoxy Benzyl Alcohol (MPBAL) | 1800 |
| 5. | Triphenyle Phosphate (TPPA) | 480 |
| 6. | 2,4 Hydroxy Phenyl Propionic Acid **OR** L-2 Chloro Propionic Acid | 480 |
| 7. | 2- Chloro Propionic Acid Chloride | 480 |
| 8. | Amino Aceto Nitrile Sulphate (AANS) | 600 |
| 9. | Ammonium Carbamate (MR 17) | 2400 |
| | **Pesticide Formulation and inorganic products (does not cover under EIA notification)** | |
| 1. | Liquids and/or Solids Formulation | 8400 |

**List of By-Products**

| S.No. | By Products | CAS Number | Exiting | Proposed | Total | Status /End use |
|---|---|---|---|---|---|---|
| | | | TPM | | | |
| 1. | Phosphoric Acid (100% basis) | 7664-38-2 | 40 | 98.40 | 138.40 | Is/will be sell to authorized end user |
| 2. | Hydrochloric Acid 30% | 7647-01-0 | 2048 | 239.90 | 2287.90 | |
| 3. | Spent Sulfuric Acid (46%) | 7664-93-9 | 1025 | 140.15 | 1165.15 | |
| | OR | | | | | |
| | Ammonium Sulfate | 7783-20-2 | 600 | 86.38 | 686.38 | |
| 4. | Phosphorous Oxychloride | 10025-87-3 | 640 | 58.55 | 698.55 | |
| 5. | Ammonium Chloride | 12125-02-9 | 34.80 | Nil | 34.80 | |
| 6. | Sodium Bromide solution | 7647-15-6 | 720 | 570.19 | 1290.19 | |
| 7. | Sodium Sulfite Solution | 7757-83-7 | 930 | 218.66 | 1148.70 | |
| | OR | | | | | |
| | Sodium Sulfite salt | 7757-83-7 | 190 | 41.92 | 231.92 | |
| | OR | | | | | |
| | Sodium Bi sulfite Solution | 7631-90-5 | 930 | 240.69 | 1170.69 | |
| | OR | | | | | |
| | Sodium Bi Sulfite (solid) | 7631-90-5 | 190 | 48.14 | 238.14 | |
| 8. | KCl salt | 7440-09-7 | 160 | 28.00 | 188.00 | |
| | OR | | | | | |

| S.No. | By Products | CAS Number | Exiting | Proposed | Total | Status /End use |
|---|---|---|---|---|---|---|
| | | | TPM | | | |
| | KCl Sol | 7440-09-7 | 900 | 158.00 | 1058.00 | |
| 9. | $Cu(OH)_2/CuSO_4$ | 20427-59-2 / 7758-99-8 | 10 | 1.66 | 11.66 | |
| 10. | Sodium Sulfate | 7757-82-6 | 160 | 23.00 | 183.00 | |
| 11. | MPBAD distillation Cut | 67-36-7 | 20 | 2.25 | 22.25 | |
| 12. | $AlCl_3$ 20%/ Poly $AlCl_3$ | 7446-70-0 | 1130 | 319.27 | 1449.27 | |
| 13. | Mono Chloro Benzene | 68411-45-0 | Nil | 29.85 | 29.85 | will be sell to authorized end user |
| 14. | Methyl Benzate | 93-58-3 | Nil | 15.00 | 15.00 | |
| 15. | Formic Acid | 64-18-6 | Nil | 108.68 | 108.68 | |
| 16. | Dimethoxy methane | 109-87-5 | Nil | 36.11 | 36.11 | |
| 17. | Methoxy Propanol | 107-98-2 | Nil | 15.16 | 15.16 | |
| | | **Total** | **9,727.80** | **2,479.90** | **12,208.00** | |

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

The proposal is for environmental clearance to the project for expansion of pesticides and pesticide specific intermediates manufacturing unit from the present capacity of 1541 TPM to 4477 TPM by M/s UPL Ltd in a total area of 69,639 sqm at Plot No.3-11, A-2/1, A-2/2, A-2/6 & A-1/2, Phase-I, GIDC Notified Industrial Area Vapi, District Valsad (Gujarat).

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

The standard ToR for the project was granted on 9th December, 2016, followed by amendment dated 9th October, 2017 in respect of exemption from public hearing and the treated effluent to be discharged to the CETP in place of ZLD envisaged earlier.

Total water requirement is estimated to be 5880.21 $m^3$/day, of which estimated fresh water demand is 5239.21 $m^3$/day (Existing-3815.21 $m^3$/day, Proposed-1424 $m^3$/day), which will be further reduced to 3640 m3/day is to be met from GIDC water supply

Industrial effluent will be segregated into high TDS stream, high COD and toxic concentrated stream and normal stream. High COD and toxic concentrated effluent will be treated the Incinerator of BEIL, Ankleshwar. High TDS effluent will be treated in Multiple Effect Evaporation. Normal

effluent will be treated in existing ETP, and the effluent from the ETP of 2647 m3/day will be sent for further treatment in the CETP at Vapi.

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

Ministry had earlier issued EC vide letter dated 23rd July, 2007 for expansion of pesticides unit up to the production capacity of 1539.83 TPM (Technical grade-942.83 TPM, Pesticide intermediates-597 TPM) to M/s United Phosphorous Limited. The monitoring report on compliance status of EC conditions has been forwarded by the Regional Office at Bhopal vide their letter dated 28th August, 2017.

Consent to Operate for has been obtained from the Gujarat PCB vide letter dated 3rd March, 2014, which is presently valid up to 5th February, 2019.

**34.3.13.3** *The EAC, at the outset, expressed their concerns over higher $PM_{10}$ & $PM_{2.5}$ values and thus existing baseline air quality not conducive to allow proposed expansion of the unit. Also, there being no adequate space for green belt/plantation within the plant, effluent treatment not adhering to the ZLD condition and the action taken report on the observations of the Regional Office not examined by the RO for its adequacy/efficacy, the Committee was not agreed to take the proposal forward for the present.*

*The Committee, after deliberations, preferred for a site visit by 2-3 of its members to examine admissibility of the proposed expansion of the project.*

**Agenda No.34.3.14**

**Expansion of grain based distillery from 50 KLPD to 125 KLPD by M/s Oasis Distilleries Limited at Village Boralli, Tehsil Badnawar, District Dhar (MP) - Environment Clearance**

**[IA/MP/IND2/31002/2015, J-11 011/2571 2015-IA-II(I)]**

**34.3.14.1** The project proponent and the accredited Consultant M/s J.M. EnviroNet Pvt. Ltd made a detailed presentation on the salient features of the project and informed that:

i. The proposal is for expansion of grain based distillery from 50 to 125 KLPD at Village Borali, Tehsil Badnawar, District Dhar, Madhya Pradesh by M/s. Oasis Distilleries Limited and located at Village Borali, Tehsil Badnawar, District Dhar, Madhya Pradesh.
ii. The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 6th Meeting held during 30th March to 2nd April, 2016 and recommended Terms of References (TORs) for the Project. The ToR was issued by Ministry vide letter No. J/11011/257/2015-IA II (I); dated 11th May, 2016. Revised Application was submitted for the ToR amendment and project was reconsidered for ToR amendment in its 22nd EAC meeting held during 17-18 April, 2017 and recommended Terms of References (TORs) for the Project. The amended TOR letter was issued by Ministry vide letter No. J/11011/257/2015-IA II (I); dated 17th July, 2017.
iii. All grain based distilleries are listed at S.N. 5(g) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

iv. Existing distillery (50 KLPD) is operating on the basis of NOC & Consent to operate obtained from Madhya Pradesh Pollution Control Board (MPPCB). Renewed Consolidated Consent to Operate under Section 25 of Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 vide MPPCB Letter No.:- AW-47486/MPPCB/DHR dated 24.10.2017 & valid up to 31.12.2020.

v. Existing land area is 35 Ha (86.48 acres), no additional land will be used for proposed expansion.

vi. Industry has already developed Greenbelt in an area of 33 % i.e., 11.6 ha (28.66 acres) Ha out of 35 Ha (86.48 acres) of area of the project.

vii. The estimated project cost for expansion is Rs 80 Crores. Total capital cost earmarked towards environmental pollution control measures for expansion is Rs 10 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1 Crores per annum.

viii. Total Employment will be 375 persons as direct & 400-500 persons indirect after expansion. Industry proposes to allocate Rs 200 lakhs @ of 2.5 % towards Corporate Social Responsibility.

ix. There are no National parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife corridors etc. within 10 km distance from the project site. Balwant river is flowing at a distance of 3.5 km in North direction, Chamla River is flowing at a distance of 5.5 Km in ESE, Bageru River is flowing at a distance of 5.5 km in West, Ganga (Gangi) River is flowing at a distance of 7.7 km in SSE and Harkajhar Dam is flowing at a distance of 6.0 km in NW. All Rivers within 10 km radius study area are seasonal.

x. Ambient air quality monitoring was carried out at 8 locations during March to May, 2017 and the baseline data indicates the ranges of concentrations as; $PM_{10}$ (60.6 to 87.3 µg/$m^3$), $PM_{2.5}$ (28.1 to 42.3 µg/$m^3$), $SO_2$ (5.1 to 10.8 µg/$m^3$) and $NO_2$ (13.6 to 25.0 µg/$m^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the project would be 0.71 µg/$m^3$, 2.51 µg/$m^3$ and 3.79 µg/$m^3$ with respect to $PM_{10}$, $SO_x$ and $NO_x$. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

xi. Total water requirement for first run is 4060 $m^3$/day of which fresh water requirement of 1115 $m^3$/day will be met from groundwater.

xii. Effluent will be treated in Effluent treatment plant through Condensate Polishing unit and unit /will be based on zero liquid discharge system.

xiii. Power requirement after expansion will be 2.8 MW including existing 1 MW and will be met from proposed 3.0 MW co-generation power plant. Existing unit has 1 DG set of 500 kVA capacity, additionally 1 DG set of 1000 kVA is proposed and are /will be used for emergency power backup.

xiv. Existing unit has 10 & 6 TPH coal fired boiler and proposed 35 TPH biomass/coal fired boiler will be installed. Electrostatic precipitator with a stack of height of 50 m will be installed for controlling the Particulate emissions (within statutory limit of 50 mg/$Nm^3$) for Proposed 35 TPH coal or biomass fired boiler.

xv. Details of Process emissions generation and its management.

- The existing boiler is equipped with Cyclone and bag filter along with adequate stack height. ESP along with proper stack height (50m) will be installed with the proposed boiler (35 TPH).
- $CO_2$ generated during the fermentation process is being/ will be collected by utilizing $CO_2$ scrubbers and sold to vendors.
- Online stack monitoring system is being/will be installed.

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

- Solid waste from the Grain based operations generally comprises of fibres and proteins in the form of DDGS, which are being / will be ideally used as Cattle Feed.
- Ash from the boiler is being / will be supplied to brick manufacturers and used in-house for brick manufacturing.
- Yeast sludge is being / will be added to the wet cake.
- Used oil & grease generated (60 litres /year) from plant machinery/gear boxes as hazardous waste is being / will be sold out to the authorized recycler.

xvii. Public Hearing for the expansion project has been conducted by the Madhya Pradesh Pollution Control Board on 23rd Nov., 2017.

xviii. No litigation is pending against the proposal.

xix. Following are the list of existing and proposed products.

**Existing & proposed product list (In case of Expansion proposals)**

| Units | Existing and proposed products | Existing Quantity | Proposed additional quantity | Total quantity after expansion |
|---|---|---|---|---|
| Grain Based Distillery | ***Products***: - Rectified Spirit & Extra Neutral Alcohol and Country liquor & IMFL. | 50 KLPD | 75 KLPD | 125 KLPD |
| Co-Generation Power Plant | Power | NIL | 3 MW | 3 MW |
| **By products**- DDGS & $CO_2$ | | | | |

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

The proposal is for environmental clearance to the project for expansion of grain based distillery from 50 KLPD to 125 KLPD by M/s Oasis Distilleries Limited in a total area of 35 ha at Village Boralli, Tehsil Badnawar, District Dhar (Madhya Pradesh).

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

The ToR for the project was granted on 11th May, 2016 and amended on 17th July, 2017 for reducing the production capacity to 125 KLD from the 250 KLD envisaged earlier. Public hearing was conducted by the Madhya Pradesh Pollution Control Board on 23rd November, 2017.

Initial total water requirement is 4060 cum/day, and thereafter the regular fresh water requirement will be 1115 $m^3$/day, which is proposed to be met from groundwater. Although necessary permission has been obtained from Central Ground Water Authority vide letter dated 7th February, 2018 to abstract 2269 cum/day of ground water, yet in view of the project site being in over-exploited area, the Committee insisted for reducing the water requirement and also the dependability on ground water.

The EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing have been duly addressed by the project proponent.

The distillery of capacity 20 KLPD is reported to have established after obtaining consent to establish from the MP State Pollution Control Board vide their letter dated 9th August, 1995. The production capacity was later expanded to 50 KLPD. Madhya Pradesh Pollution Control Board (MPPCB) vide letter dated 26th October, 2005 has granted Consent to operate for production capacity of 50 KLPD of Rectified Spirit. As such, there is no requirement of prior EC.

Latest CTO has been obtained from the SPCB vide letter dated 31st October, 2017 which is valid up to 31st December, 2020.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Total fresh water requirement shall not exceed 1115 cum/day proposed to be met from groundwater. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.*
- *In view of the project site in over exploited area, fresh water requirement shall be reduced from the presently proposed of 1115 cum/day and reported to CGWA. Further, the project proponent shall take all necessary measures for increasing the ground water availability in the area and provide evidence for their efforts and contribution in this regard, which may be monitored by the Regional Office and subsequently reviewed by the EAC.*
- *Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in the ETP and then through RO system.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
- *Sulphur content in the coal (if used as fuel) shall not exceed 0.5 %.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*

- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*
  *(a) Metering and control of quantities of active ingredients to minimize waste.*
  *(b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
  *(c) Use of automated filling to minimize spillage.*
  *(d) Use of Close Feed system into batch reactors.*
  *(e) Venting equipment through vapour recovery system.*
  *(f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on public hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24X7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*
- *There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.*
- *Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.*
- *The energy sources for lighting purposes shall preferably be LED based. A minimum of 10-20% of the total power requirement for the industrial operations shall be met from non-conventional energy resources/solar supply*

**Agenda No.34.3.15**

**BS VI Fuel Quality project of Guru Gobind Singh Refinery Limited by M/s HPCL-Mittal Energy Limited (HMEL) - Environment Clearance**

**[IA/PB/IND2/61343/2016, J- 11011/386/2016-IA.II(I)]**

**34.3.15.1** 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:

i. The proposal is for BS-VI Fuel Quality Project at Guru Gobind Singh Refinery by M/s Hindustan-Mittal Energy Limited (HMEL) and located at village Pullo Khari, Tehsil Talwandi Saboo, Bhatinda district, Punjab.

ii. The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 18th EAC meeting held during 23rd-25th January, 2017 and recommended Terms of References (ToRs) for the Project. The TOR has been issued by Ministry vide letter no. J-11011/386/2016-IA II (I); dated 29th April, 2017.

iii. All Petroleum Refinery projects are listed at S.N. 4(a) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

iv. Ministry has issued EC earlier vide letter No.J-11011/275/2007-IA-II(I) dated 22nd June, 2015 for expansion of refinery from 9 MMTPA to 11.25 MMTPA at village Phulo Kheri, Tehsil Talwandi Saboo, District Bhatinda, Punjab by M/s HPCL-Mittal Energy Limited in Expansion case. Further EC was issued for the proposed Polymer Addition Project vide letter No.J-11011/266/2017-IA-II(I) dated 12th December, 2017.

v. Existing land area is 787 Ha (GGSRL area), additional no land will be required for proposed expansion.

vi. Industry will develop greenbelt in an area of 33% i.e. 193 ha out of 594 ha area of the project.

vii. The estimated project cost is Rs.1100 crores excluding existing investment of Rs zero crores. Total capital cost earmarked towards environmental pollution control measures is Rs 0.6 Crores and the Recurring cost (operation and maintenance) will be about Rs 0.05 crores per annum.

viii. Additional Employment will be 16 as direct (during operation) & 200-300 persons indirect during construction phase. Industry proposes to allocate Rs 50 crores towards Corporate Social Responsibility.

ix. There are no National parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife corridors etc. within 10 km distance from the project site. No river/ water body is present within 10 km radius from the refinery.

x. Ambient air quality monitoring was carried out at 8 locations during October to December 2017 and the baseline data indicates the ranges of concentrations as: $PM_{10}$ (249-307 µg/m3), $PM_{2.5}$ (147-171 µg/m3), $SO_2$ (4.6-16.8 µg/m3) and $NO_x$ (15.1-24.6 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs due the proposed project would be 26.2 µg/m3 and 9.5 µg/m3 with respect to SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

xi. Additional water requirement for proposed project is 32 $m^3$/hr. Total water requirement will be 5952 m3/day (Existing refinery + Polymer addition project + Proposed BSVI fuel quality Project) and will be met from existing raw water system from Kotla canal.

xii. Additional wastewater generation is 5 $m^3$/hr which will be treated through existing ETP Plant.

xiii. Power requirement for BS-VI Fuel Quality project will be 6.9 MW and will be met from existing CPP.

xiv. Details of Process emissions generation and its management.

Total $SO_x$ emission from the proposed BS-VI Fuel Quality project is 0.16 TPD and the overall $SO_x$ emission from the Guru Gobind Singh Refinery will be 23.8 TPD.

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

Hazardous waste will be disposed off in secured landfill inside refinery/nearby authorized landfill agency. Spent catalysts will be sent back to the original supplier/approved recycler for reprocessing.

xvi. Public Hearing was exempted as per provisions contained as clause no. 7(ii) in EIA Notification 2006.

xvii. Regional Office, Chandigarh submitted certified copy on 20/07/2017 after site visit of Guru Gobind Singh Refinery.

xviii. There is no litigation pending against the proposal.

xix. The following proposed units are envisaged in BS-VI Fuel Quality Project :

- New DHDT unit (1.9 MMTPA)
- HGU unit revamp (capacity enhancement by 2X11KTA)

XX. Following are the list of existing and proposed products:

| S No. | Products | Configuration @ 11.25MMTPA, KTPA | Proposed Configuration post BS-VI, KTPA |
|---|---|---|---|
| 1 | LPG | 963.9 | 963.9 |
| 2 | Naphtha | 871.7 | 369 |
| 3 | Gasoline | Bharat IV REG 1306.4 | Bharat VI 1540 |
| | | Bharat IV PRE 25 | |
| 4 | ATF | 500 | 250 |
| 5 | Kerosene | 200 | 200 |
| 6 | Diesel | Bharat IV 4842.6 | Bharat VI 5018 |
| 7 | Sulphur | 227 | 245.5 |
| 8 | Coke | 991.5 | 943.5 |
| 9 | Hexane | 5 | 5 |
| 10 | Motor Turpentine Oil | 25 | 25 |
| 11 | Polypropylene | 500 | 500 |
| 12 | Bitumen | 520 | 520 |

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

The proposal is for environmental clearance to the 'BS-VI Fuel Quality Project' by M/s Hindustan-Mittal Energy Limited (HMEL) in a total area of 787 ha at Guru Gobind Singh Refinery at village Pullo Khari, Tehsil Talwandi Saboo, District Bhatinda (Punjab).

The project/activity is covered under category A of item 4(a) 'Petroleum refining industry' of the Schedule to the Environmental Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

The ToR for the project was granted on 29th April, 2017 providing exemption from public hearing as per the provisions contained in para 7(ii) in EIA Notification 2006.

Base line air quality parameters in respect of PM10 & PM2.5 were found to be 249-307 ug/$m^3$ & 147-171 ug/$m^3$ respectively, and thus much exceeding the prescribed standards. Water requirement for the proposed project is 32 m3/hr. Total water requirement will be 5952 m3/day (Existing refinery + Polymer addition project + Proposed BSVI fuel quality Project) and will be met from existing raw water system from Kotla canal.

The Ministry had earlier issued EC vide letter dated 22nd June, 2015 for the expansion project of refinery from 9 MMTPA to 11.25 MMTPA. The monitoring report on compliance status of conditions for the EC dated 22nd June, 2015, forwarded by the Regional Office at Chandigarh vide letter dated 20th July, 2017 reflects date of commencement of construction as 9th September, 2014 i.e. prior to grant of environmental clearance, which amounts to violation of the EIA Notification, 2006.

**34.3.15.3** *The EAC, after deliberations, noted that the project is for fuel quality upgradation from BS-IV to BS-VI for reduction in Sulphur content from 50 to 10 ppm, which would finally result in lower $SO_2$ emissions from automobiles and thus improving the air quality significantly.*

*The Committee, while examining the proposal within the frame work this Ministry's Notification dated 23rd November, 2016, observed that although there shall be no contribution to $PM_{10}$ & $PM_{2.5}$ levels, but there would be minimal increase of 0.16 TPD in respect of $SO_2$ emissions, even with the best design and engineering practices. The Committee still preferred the proposal to be taken forward in terms of the said Notification, requiring no EC and/or amendment in the existing EC.*

*Further, the EAC, taking cognizance of the alarming baseline air quality (especially in terms of much higher $PM_{10}$ & $PM_{2.5}$) and the observations of Regional Office in their compliance monitoring report, recommended for the following:-*

- *Action plan for improvement in ambient air quality to be prepared by the State Government of Punjab/SPCB in consultation with the CPCB, and implemented in letter and spirit and in time bound manner.*
- *Adequate clarifications regarding commencement of the project before the issue of EC dated 22nd June, 2015, which needs to be first examined by the Regional Office vis-à-vis their observations and then forwarded to the Ministry for necessary action in this regard.*
- *The Ministry may examine the matter in complete perspective including the environmental clearance granted recently by the Ministry vide letter dated 12th December, 2017 to the*

*Polymer Addition project in the same complex and the conditions stipulated therein, to allow or regulate more industrial operations in the area (including the said project).*

**Agenda No.34.3.5**

**Expansion of storage capacity by adding 2 x 900MT capacity LPG Plant by M/s IOCL at Gata No.17,18,19,36,37,38,42,43,44,53,54,59,61, village Jabalpur, Tehsil & District Haridwar (Uttarakhand) - Environmental Clearance**

**[IA/UK/IND2/57495/2016, J-11011/184/2016- IA II(I)]**

*The proposal was listed for consideration on 26th February, 2018. However, on the request by the project proponent, it was taken up on 27th February, 2018.*

**34.3.5.1** The project proponent and their accredited Consultant M/s SV Enviro Labs & Consultants, made a detailed presentation on the salient features of the project and informed that:-

(i) The proposal is for storage of LPG in 2 x 900 MT MSVs at Haridwar by M/s Indian Oil Corporation Ltd and located at Gata No: 17,18,19,36,37,38,42,43,44,53,54,59,61**,** Village Jamalpur, Tehsil Haridwar, District Haridwar (Uttarkhand).

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 12thEAC meeting held during 23-24th August, 2016 and recommended Terms of Reference (ToR) for the project. The ToR has been issued by Ministry vide letter no. J-11011/184/2016-IA II (I) dated 25th October, 2016 and ToR amendment meeting is held during 26th EAC meeting during 27-28 July, 2017 and recommend the ToR with public hearing exemption.

(iii) All Category B projects are listed at S.N 6(b) of schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC), due to application of general conditions. General conditions are applied to the project as Rajaji National Park is at 4.75 km from Project site.

(iv) Not applicable as the plant was commissioned in 1989 which is prior to the year 2006.

(v) Existing land area is 13.0 acres, no additional land will be used for proposed expansion. Industry is already/will be developed Greenbelt in an area of 4.94 acres, thus covering an area of 33% of the total project area. The estimated project cost is Rs.28.54 crores. Total capital cost earmarked for pollution control measures is Rs.61 lakhs and the recurring cost (operation and maintenance) will be about Rs.10.35 lakhs.

(vi) Total employment will be same as existing 35 nos of regular employees, 16nos of technicians/helpers per shift, 6 Nos of security staff per shift. It has been proposed to allocate Rs.0.71crores @ 5/2.5% towards corporate social responsibility.

(vii) It is reported that as per Form-1, Rajaji National park lies at a distance of 4.75 km. Haridwar Roorkee Canal is flowing at 533.18 m.

(viii) Ambient air quality monitoring was carried out at 8 locations during December' 16 to February' 2017 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (52.9 to 76.2µg/$m^3$), $PM_{2.5}$ (16.6 to 25.7µg/$m^3$), and $NO_2$ (12.0 to 19.1µg/$m^3$) respectively.

(ix) Total water requirement is 10.1 $m^3$/day fresh water requirement after expansion and will be met from bore wells.

(x) Power requirement after expansion contracted demand will be as existing 291 kVA and will be met from Uttrakhand Power Corporation Limited, (UKPCL). Existing unit has 1 x 500 kVA and 1x 125 kVA DG Capacity used as standby during power failure. Additionally, DG sets are not required. Stack height: (3.0 m from roof top for 500 kVA DG sets and 250 kVA DG sets) is provided as per UKPCB norms used as standby during power failure.

(xi) Details of solid waste/Hazardous waste generation and its management:

| S.No | Hazardous waste generation | Generation Quantity | It's Management |
|---|---|---|---|
| 1 | Waste oil | 50 LPM | Used/ waste lube oil stored in barrels and disposed off through TSDF registered party |
| 2 | Unused batteries | 06nos | Disposed off through TSDF approved party. |
| 3 | Lubricating oil | 60LPM | |
| 4 | Paint sludge | Nil no painting is done in plant | |

(xii) Public hearing was exempted as the ToR amendment meeting held on 27-28 July, 2017

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

**Existing product list**

| S.No | Product | Quantity |
|---|---|---|
| 1 | Storage of LPG | 2 x 110MT<br>1 x 150MT (To be demolished)<br>(Above ground bullets/storage tanks) |
| 2 | Bottling capacity | 230 MT/Day |

**Proposed products**

| S.No | Product | Quantity |
|---|---|---|
| 1 | Storage of LPG | 2x900 MT Mounded Storage Vessels |
| 2 | Bottling capacity | Will be same as existing 230 MT/Day |

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

The proposal is for environmental clearance to the project for storage of LPG (2 x 900 MT MSV) at the existing LPG bottling plant (present capacity 2x110 MT & 1x150 MT) by M/s Indian Oil Corporation Ltd, located at Gata No.17,18,19,36,37,38,42,43,44,53,54,59,61**,** Village Jamalpur, Tehsil Hardwar, District Hardwar (Uttarkhand).

The project/activity is covered under category B of item 6(b) 'Isolated storage & handling of hazardous chemicals' of schedule to the Environment Impact Assessment (EIA) Notification. However, due to applicability of General condition (Rajaji National Park at 4.75 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The ToR for the project was granted on 25th October, 2016, followed by amendment (recommended by EAC in its meeting held on 27-28 July, 2017), providing exemption from public hearing.
Total water requirement is 10.1 $m^3$/day proposed to be met from bore wells.

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 plant with the present capacity 2x110 MT & 1x150 MT was established in the year 1989 i.e. prior to the enforcement of the EIA Notification, 1994/2006. Therefore, there is no requirement of prior EC.

Consent to Operate for the present industrial operations has been obtained from the State PCB, which is presently valid up to 31st March, 2016 and applied for renewal of the same.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *During construction phase, air pollution and the solid waste management aspects need to be properly addressed ensuring compliance of the Construction and Demolition Waste Management Rules, 2016.*
- *The green belt of 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines and in consultation with the State Forest Department.*
- *At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment and the details along with time bound action plan shall be submitted to the Ministry's Regional Office.*
- *Regular monitoring of VOC and HC in the work zone area in the plant premises should be carried out and data to be submitted to Ministry's Regional Office, CPCB and State Pollution Control Board. Quarterly monitoring for fugitive emissions should be carried out as per the guidelines of CPCB and reports submitted to Ministry's Regional Office.*
- *The project proponent shall conduct a traffic density survey on the approach road to be used for transportation of LPG tankers and LPG cylinders.*

- *Necessary approvals from Chief Controller of Explosives, as applicable, shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans shall be prepared and implemented.*
- *Emergency Response Plan should be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill should be conducted once a month.*
- *Additional safety measures should be taken by using remote operated shut off valve, Double Block &Bleed valve (DBB), impervious dyke wall and un-bonded flexible roof drain pipe, if applicable.*
- *Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.*
- *The norms/guidelines of Oil Industry Safety Directorate (OISD) for installation and design of equipment and operation of the LPG Bottling Plants shall be strictly followed. Safety audit to be carried out and report submitted to the Regional Office.*
- *No packing/loading/unloading of LPG cylinders shall be made on road/outside factory premises. Vehicles loaded/unloaded with LPG cylinders shall be parked inside the plant premises only and not on road sides.*
- *Road tankers should be equipped to the standard specified in national regulations reputable code. Vehicles should be mobilized during transfer operations and equipped to prevent untimely movement. Loading/unloading bays should be protected against impact. Fire-resistant coatings shall be provided to tanks/vessels.*
- *Sections of pipeline and storage systems that can be isolated with valves or blinds should be equipped with safety valves to protect against possible damage as liquid LPG expands with increases in temperature.*
- *High and low-level alarms shall be fitted to plant storage tanks which can detect overfilling. However, proper supervision shall be done every time.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *Water sprinkling has to be undertaken on regular basis to control the polluting particles.*

**Agenda No.34.5.4**

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

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

*The proposal was listed for consideration on 28th February, 2018. However, on the request by the project proponent, it was taken up on 27th February, 2018.*

**34.5.4.1** The project proponent and the accredited Consultant, M/s Ramans Enviro Services Pvt. Ltd, made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for expansion in manufacturing capacity of epoxy hardeners from 1000 MT/month upto 2000 MT/month by M/s Admark Polycoats Pvt Ltd in the existing premises at Sy. Nos.206 & 207, Village Luna, Taluka Padra, District Vadodara (Gujarat).
(ii) All Synthetic Organic Chemicals Industry located outside the notified industrial area are

listed at S.N. 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under Category 'A' and appraised at Central level by Expert Appraisal Committee (EAC).

(iii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 4th meeting held during 11-12 February, 2016 and recommended Terms of Reference (ToRs) for the project. The ToR has been issued by Ministry vide letter No. J-11011/15/2016-IA II (I); dated 31st March, 2016.

(iv) Ministry has issued EC earlier vide letter no. J-11011/91/2009-IA-II (I) on 1st September, 2009 for expansion of Epoxy Hardeners Plant 35 MT/month to 1000 MT/month at Sr. No.207, Village Luna, Taluka Padra, District Vadodara (Gujarat).

(v) Existing land area is 14,215 sq.m, no additional land will be used for proposed expansion. Industry has already developed greenbelt in an area of 33 % i.e., 5010 $m^2$ out of 14215 $m^2$ of area of the project.

(vi) The estimated project cost is Rs 250 lacs including existing investment of Rs 510 lacs. Total capital cost earmarked towards environmental pollution control measures is Rs. 35 lacs and the Recurring cost (operation and maintenance) will be about Rs. 5 Lacs per annum. Total Employment will be 10 persons as direct & 10 persons indirect after expansion. Industry proposes to allocate Rs 6.25 lacs @ of 2.5% towards Corporate Social Responsibility.

(vii) It is reported that no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. River Mahisagar is flowing at a distance of 4.6 km in North-West direction.

(viii) Ambient air quality monitoring was carried out at 6 locations during 7th March, 2016 to 27th May, 2016 and submitted baseline data indicates that ranges of concentrations of PM10 (81.2 - 112.3 µg/m3), PM2.5 (39.5 - 53.8 µg/m3), SO2 (12.8 - 15.3 µg/m3) and NO2 (17.0 - 25.8 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.03 µg/m3, 7.61 µg/m3 and 0.58 µg/m3 with respect to PM10, SOx and NOx, impact of which will be limited to within the site premises. Hence the resultant concentrations in the baseline area would not increase due to the proposed expansion project.

(ix) Total water requirement is 41 $m^3$/day, of which fresh water requirement is of 41 $m^3$/day and will be met from existing borewell on site.

(x) Power requirement after expansion will be 300 kVA including existing 200 kVA and will be met from Gujarat Electricity Board (GEB). Existing unit has 1 DG set of 320 kVA capacity; no additional DG sets are used as standby during power failure. Stack (height 5 m) will be provided as per CPCB norms for the existing DG sets of 320 kVA which will be used as standby during power failure.

(xi) Details of Solid waste/ Hazardous waste generation and its management are as under:

| Sr. No. | Waste Description | Category | Quantity (Per Annum) | | Disposal |
|---|---|---|---|---|---|
| | | | Consented | Ultimate | |
| 1 | Used Oil | 5.1 | 250 L | 500 L | Collection, storage and sale to registered recyclers or re-users. |
| 2 | Polymerized Solid Waste* | 23.1 | 5 MT | 15 MT | To Common Hazardous Waste Incineration facility of NECL. |
| 3 | Discarded Containers | 33.3 | 2000 nos. | 400 MT | Collection, storage and transportation to registered / |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | authorized recyclers - M/s Maruti Enterprise. |

(xii) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 19th April, 2017.
(xiii) Certified compliance report submitted by RO, MoEF&CC dated 9th January, 2018 are submitted to the Ministry.
(xiv) There are no litigations pending against the project.
(xv) List of existing and proposed product is as under:

| S. No. | Name of Product | Quantity in MT/month | | |
|---|---|---|---|---|
| | | Existing | Proposed | Ultimate |
| 1 | Epoxy Hardeners | 1000 | 1000 | 2000 |

**34.5.4.2** The proposal was last considered by the EAC in its meeting held on 28-29 August, 2017, wherein it was deferred for inputs and clarifications in respect of the following:-

(a) The base line air quality data indicates that $PM_{10}$ values are already exceeding the prescribed standards of 100 ug/m3. The same is bound to increase further with the implementation of the project.
(b) Monitoring report on compliance status of EC conditions.
(c) Details in respect of Epoxy hardeners.

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

The proposal is for expansion of epoxy hardeners manufacturing unit from 1000 MT/month to 2000 MT/month by M/s Admark Polycoats Pvt Ltd in the existing premises of area 14215 sqm at Sy. Nos.206 & 207, Village Luna, Taluka Padra, District Vadodara (Gujarat).

The project/activity is covered under category A of item 5(f) 'Synthetic Organic Chemicals' of the Schedule to Environmental Impact Assessment Notification, 2006, and requires appraisal at Central Level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The ToR for the project was granted on 31st March, 2016, and the public hearing was conducted by SPCB on 19th April, 2017.

The Ministry had earlier granted EC vide letter dated 1st September, 2009 for expansion of epoxy hardeners plant. Certified compliance report forwarded by RO, MoEF&CC vide letter dated 9th January, 2018 showed that, out of 30 conditions, there are 17 conditions fully complied, 5 partly complied, 1 not complied, 6 complied subject to additional information and 1 deemed complied.

**34.5.4.4** *The EAC, after deliberations, insisted for the action taken report/replies submitted by the project proponent in response to the earlier observations of the Regional Office, to be examined for their comments. The proposal was, therefore, deferred.*

**34.4 Any Other**

**Agenda No.34.4.1**

**Expansion of Dye Intermediates Unit at Sy. No.576-568, Village Dudhwada, Taluka Padra, District Vadodara, Gujarat by M/s IS-Dyestuff Industries Ltd - Amendment and extension of validity of Environmental Clearance**
**[IA/GJ/IND2/72388/2011, J-11011/801/2008 - IA II (I)]**

**34.4.1.1** The proposal is for amendment and extension of validity of Environmental Clearance granted vide Letter No.J-11011/801/2008-IA II (I) dated 25th April, 2011 for the expansion project of Dyes Intermediates manufacturing unit located at Survey No. 576-568, Village Dudhwada, Taluka Padra, District Vadodara (Gujarat) in favour of M/s IS-Dyestuff Industries Ltd.

**34.4.1.2** The project proponent has sought the amendment in the EC, along with extension of its validity with the details as under:-

| Sr. No. | Para of EC issued by MoEF&CC | Details as per the EC | To be revised as/ read as | Justification/ reasons |
|---|---|---|---|---|
| 1. | Para 3 | Multi-cyclone followed by bag filter along with adequate stack height will be provided to boilers to control particulate emissions. Adequate stack height will be provided to Thermic fluid heater (1 No.), DG set (2 Nos. of 1.0 MW) and process vents (7 Nos.). Process emissions will be controlled by providing proper scrubbing system having primary, secondary and tertiary scrubbers. Total fresh water requirement from Narmada canal will be 2,322 m3/day. Industrial effluent generation will be increased from 3.8 m3/day to 2,322 m3/day after expansion and segregated into two streams i.e. high COD/high TDS and low COD/low TDS. High COD/ high TDS effluent stream will be evaporated in Multiple Effect Evaporator (MEE) followed by incineration. Low COD/ low TDS effluent stream will be treated in the effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment facility. The treated effluent conforming | Multi-cyclone followed by bag filter along with adequate stack height will be provided to boilers to control particulate emissions. Adequate stack height will be provided to Thermic fluid heater (1 No.), DG set (2 Nos. of 1.0 MW) and process vents (7 Nos.). Process emissions will be controlled by providing proper scrubbing system having primary, secondary and tertiary scrubbers. Total water requirement from Narmada canal will be 3,660 m3/day (Out of which fresh water requirement is 1,544 m3/day + Recycled water is 2,116 m3/day). Industrial effluent generation will be increased from 3.8 m3/day to 2,322 m3/day after expansion and segregated into two streams i.e. high COD/high TDS and low COD/low TDS. High COD/ high TDS effluent stream will be evaporated in Multiple Effect Evaporator | We propose to go for Zero Liquid Discharge since ECPL is not permitted by SPCB for accepting additional effluent load. |

| | | | | |
|---|---|---|---|---|
| | | GPCB standards will be discharged into underground pipeline of M/s ECPL and finally meeting into Gulf of Cambay. Used Oil will be sold to registered recyclers/ re-processors. ETP Sludge and incineration ash will be sent at the nearest hazardous waste treatment, storage and disposal facility (TSDF). Process residue and iron sludge will be sold to the actual users (i.e. cement mfg. Industries) or disposed off at nearest TSDF site. Dilute Sulfuric Acid (30%) and HCl will be sold to authorized recyclers. Glauber Salt will be sold to the actual users. | (MEE) followed by incineration. Low COD/ low TDS effluent stream will be treated in the effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment facility. The treated effluent will be then further treated into RO followed by MEE & Spray Dryer and ultimately confirming to reuse standards. Used Oil will be sold to registered recyclers/ re-processors. ETP Sludge and incineration ash will be sent at the nearest hazardous waste treatment, storage and disposal facility (TSDF). Process residue and iron sludge will be sold to the actual users (i.e. cement mfg. Industries) or disposed off at nearest TSDF site. Dilute Sulfuric Acid (30%) and HCl will be sold to authorized recyclers. Glauber Salt will be sold to the actual users. | |
| 2. | **Specific Condition No. xii** | Total fresh water requirement from Narmada canal shall not exceed 2,322 m3/day and prior permission shall be obtained from the concerned agency and a copy submitted to the Ministry's Regional Office at Bhopal. No ground water shall be used. | Total fresh water requirement from Narmada canal shall not exceed 1,544 m3/day and prior permission shall be obtained from the concerned agency and a copy submitted to the Ministry's Regional Office at Bhopal. No ground water shall be used. | In the obtained EC, the total fresh water requirement mentioned was 2322 m3/day which was typographical error, actually we applied for 3660 m3/day (Out of which fresh water requirement is 1,544 m3/day + Recycled water is 2,116 m3/day). |
| 3. | **Specific Condition** | As proposed, industrial effluent shall be segregated into two | As proposed, industrial effluent shall be | We propose to go for Zero Liquid |

| | | | | |
|---|---|---|---|---|
| | **No. xiii** | streams i.e. high COD/high TDS and low COD/low TDS. High COD/ high TDS effluent stream shall be evaporated in Multiple Effect Evaporator (MEE) followed by incineration. Low COD/ low TDS effluent stream shall be treated in the effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment facility. The treated effluent after conforming to GPCB standards shall be collected in the central collection tank before discharging into underground pipeline of ECPL meeting at estuarine zone of River Mahi, finally meeting into Gulf of Cambay. Water quality of treated effluent shall be monitored regularly. Domestic effluent shall be disposed through septic tank/soak pit. | segregated into two streams i.e. high COD/high TDS and low COD/low TDS. High COD/ high TDS effluent stream shall be evaporated in Multiple Effect Evaporator (MEE) followed by incineration. Low COD/ low TDS effluent stream shall be treated in the effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment facility. The treated effluent will be then further treated into RO followed by MEE & Spray Dryer and ultimately confirming to reuse standards. Water quality of treated effluent shall be monitored regularly. Domestic effluent shall be disposed through septic tank/soak pit. | Discharge since ECPL is not permitted by SPCB for accepting additional effluent load. |

**34.4.1.3** During deliberations, the EAC, noted that the proposed amendment is to achieve Zero Liquid Discharge instead of the existing disposal system i.e. discharge into Gulf of Cambay through pipeline, which is actually being promoted and also being stipulated as conditions invariably in the ECs to such units based on its recommendations.

The project proponent has sought extension of validity of the environmental clearance, beyond its expiry on 24th April, 2018 due to financial constraints. The proposal was found admissible vis-a-vis the present regulations and statutory provisions in this regard.

**34.4.1.4** *The Committee, after deliberations, recommended for amendment in the environmental clearance dated 25th April, 2011 as proposed by the project, and also extension of validity of the EC for a period of three years i.e. till 24th April, 2021.*

**Agenda No.34.4.2**

**Expansion of grain based distillery (80 to 160 KLPD) & Co-generation Power Plant (2 MW to 5 MW) within existing plant premises at Village & Tehsil Hathin, District Palwal, Haryana by M/s Ashoka Distillers & Chemicals Private Limited - For amendment in EC**

**[IA/HR/IND2/50750/2016, J-11011/23/2016-IA II (I)]**

**34.4.2.1** The proposal is for amendment in the Environment Clearance (EC) granted by the Ministry vide letter number J-11011/23/2016-IA-II(1) dated 28th September 2017 for the project 'Expansion of Grain Based Distillery & Co-generation Power Plant with in the existing premises at Village & Tehsil Hathin, District Palwal (Haryana) by M/s Ashoka Distillers & Chemicals Pvt. Ltd.

**34.4.2.2** The project proponent has sought amendment in the EC with the details as under:

<table>
<tr><th>S. No</th><th>Para of EC</th><th>Details as per the EC</th><th>To be revised / read as</th><th>Justification / Reasons</th></tr>
<tr>
<td>1</td>
<td>3</td>
<td>
<table>
<tr><th>S. No.</th><th>Product</th><th>Existing</th><th>After expansion</th></tr>
<tr><td>1</td><td>Distillery (Extra Neutral Alcohol / Rectified Spirit)</td><td>80 KLPD</td><td>160 KLPD</td></tr>
<tr><td>2</td><td>Co-generation Power Plant</td><td>2.0 MW</td><td>5 MW</td></tr>
<tr><td colspan="4">By-Products: Cattle feed (DWGS / DDGS) and $CO_2$</td></tr>
</table>
</td>
<td>
<table>
<tr><th>S. No.</th><th>Product</th><th>Existing</th><th>After expansion</th></tr>
<tr><td>1</td><td>Distillery (Extra Neutral Alcohol / Rectified Spirit) and IMFL & CL</td><td>80 KLPD</td><td>160 KLPD</td></tr>
<tr><td>2</td><td>Co-generation Power Plant</td><td>2.0 MW</td><td>5 MW</td></tr>
<tr><td colspan="4">By-Products: Cattle feed (DWGS / DDGS) and $CO_2$</td></tr>
</table>
</td>
<td>The company has its own bottling plant of IMFL & CL within plant premises and does bottling of ENA in the form of IMFL and CL.<br>The same products were also mentioned in our various submissions viz., Final EIA/EMP Report, Brief write up submitted during Final EC PPT and also in our Final EC PPT (for EC) in front of EAC. These products are also mentioned in the minutes of meeting of Expert Appraisal committee held on 28-29 August 2017.</td>
</tr>
<tr>
<td>2.</td>
<td>12 (xxi)</td>
<td>Continuous online (24X7) monitoring system, both for emissions and the effluent, shall be installed within the plant site for measurement of discharge and pollutants concentration. Data shall be uploaded on the company's website and provided to the respective RO of MoEFCC, CPCB and SPCB.</td>
<td>Continuous online (24X7) monitoring system for stack emissions shall be installed within the plant site for measurement of pollutants concentration. Data shall be uploaded on the company's website and provided to the respective RO of MoEFCC, CPCB and SPCB.</td>
<td>The company has been and will comply with all MoEFCC/CPCB/ SPCB directions issued time to time. As per CPCB directions, continuous online (24X7) monitoring system for stack emissions has already been installed by the company. The distillery is based on Zero Effluent Discharge and all the effluent generated is being/ will be</td>
</tr>
</table>

| | | | | |
|---|---|---|---|---|
| | | | | recycled in the process. Since no effluent is being/ will be discharged outside the plant premises, thus, the installation of Continuous Online (24X7) monitoring system for effluent is not applicable. For monitoring of effluent online cameras and flow meter has already been installed by the company. Online instruments data is being regularly sent to CPCB & SPCB online portal. Company will comply with all directions of MoEF/CPCB/SPCB |
| 3. | 12 (xv) | The green belt of at least 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., As many as 25000 trees to be planted per year during first five years. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. | The company shall maintain greenbelt in 33% of the total plant area as per CPCB guidelines to mitigate the effect of fugitive emissions. | The proposal is for expansion of existing unit and 3.9 hectares (9.63 acres) i.e. 33% of total project area is already under greenbelt & plantation. |
| 4. | 12(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. | Not Applicable | The standards are for emissions from incinerator boiler and in our unit no incinerator boiler is installed or proposed to be installed.<br>All the guidelines issued by CPCB (applicable to our plant) are being/ will be followed strictly. |

**34.4.2.3** *The EAC, after deliberations, recommended the proposed amendments in the environmental clearance dated 28th September, 2017 as proposed by the project and on the above lines. Accordingly, the details of products and the conditions would be as under:-*

*(a) Para 3 to be revised as*

| ***S.No.*** | ***Product*** | ***Existing*** | ***After expansion*** |
|---|---|---|---|
| *1* | *Distillery (Extra Neutral Alcohol / Rectified Spirit) and IMFL & CL* | *80 KLPD* | *160 KLPD* |
| *2* | *Co-generation Power Plant* | *2.0 MW* | *5 MW* |
| *By-Products: Cattle feed (DWGS / DDGS) and $CO_2$* | | | |

*(b) Specific conditions 12 (iv), (xv) & (xxi) to be read as under:-*

*(iv) To be deleted.*

*(xv) The company shall maintain greenbelt in 33% of the total plant area as per CPCB guidelines to mitigate the effect of fugitive emissions.*

*(xxi) Continuous online (24X7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*

**Agenda No.34.4.3**

**Molasses based Distillery (45 KLPD) at Gat No.74 and 79 Village Mangrul, Tehsil Tuljapur, District Osmanabad, Maharashtra by M/s Kancheshwar Sugar Ltd - For Amendment in EC**

**[IA/MH/IND2/60405/2016, J-11011/224/2013- IA II (I)]**

**34.4.3.1** The proposal is for amendment in the Environmental Clearance (EC) granted by the Ministry vide letter dated 29th September, 2016 for the 45 KLPD Molasses based Distillery at Gat No.74 and 79, village Mangrul, tehsil Tuljapur, District Solapur (Maharashtra) in favour of M/s Kancheshwar Sugar Ltd.

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

| S. No. | Para of EC issued by MoEF&CC | Details as per the EC | To be Revised / Read as | Justification/ reasons |
|---|---|---|---|---|
| 1. | Page No. 1, Paragraph – 2 | The Ministry of Environment, Forests and Climate Change has examined the application. It is noted that proposal is for setting up of Proposed Molasses based | The Ministry of Environment, Forests and Climate Change has examined the application. It is noted that proposal is for setting up of Proposed Molasses based | Initially the cost towards Proposed Distillery Project was *Rs.26.94 Crore.*<br><br>Now, the |

<table>
<tr><th>S. No.</th><th>Para of EC issued by MoEF&CC</th><th>Details as per the EC</th><th>To be Revised / Read as</th><th>Justification/ reasons</th></tr>
<tr><td></td><td></td><td>Distillery (45 KLPD) at Gat No. 74 and 79 village Mangrul, Tehsil Tuljapur, District Osmanabad, Maharashtra by M/s Kancheshwar Sugar Ltd. (I). Plot area is 24.28 Ha. Cost of the project is Rs. 30.48 Crore. Total plot area is 24.28 Ha, of which, greenbelt will be developed in 9.51 Ha. The cost of project is Rs. 26.94 Crore. Out of which, Rs. 30.48 Crore and Rs. 3.95 Crore/annum are earmarked towards capital cost and recurring cost per annum for implementation EMP.<br>Distillery will be operated for 240 days</td><td>Distillery (45 KLPD) at Gat No. 74 and 79 village Mangrul, Tehsil Tuljapur, District Osmanabad, Maharashtra by M/s Kancheshwar Sugar Ltd. (I). Plot area is 24.28 Ha. Cost of the distillery project is Rs. 75 Crore. Total plot area is 24.28 Ha, of which, greenbelt will be developed on 9.51 Ha.<br><br>Rs. 78.54 Crore and Rs. 8.45 Crore/annum earmarked towards capital cost and recurring cost per annum for implementation of EMP (Under Sugar, Co-gen and Distillery unit)<br>Distillery will be operated for 330 days</td><td>management has decided to change the Spentwash treatment and disposal from Composting to Incineration.<br>Thereunder, additional Rs. 48.06 Crore shall be invested towards installation of Incinerator facility comprising of 20 TPH Boiler.<br><br>Hence, the total investment of proposed Distillery project shall be of Rs. 75 Crore</td></tr>
<tr><td>2.</td><td>Page No. 2, Item No. III of Byproduct in product table</td><td>Quantity of By- products –<br><br><table><tr><th>No.</th><th>By product</th><th>Quantity</th></tr><tr><td>1.</td><td>Fusel Oil</td><td>0.09 KLPD</td></tr><tr><td>2.</td><td>Compost</td><td>24,812 MT/Year</td></tr><tr><td>3.</td><td>Carbon di Oxide</td><td>2 T/Day</td></tr></table></td><td>Quantity of By- products –<br><br><table><tr><th>No.</th><th>By product</th><th>Quantity</th></tr><tr><td>1.</td><td>Fusel Oil</td><td>0.09 KLPD</td></tr><tr><td>2.</td><td>Carbon di Oxide</td><td>35 T/Day</td></tr></table></td><td>In EC letter the quantity of $CO_2$generated was reflected as 2 T/Day. Actual quantity generated would be35 T/Day. Same was reflected in Final EIA Report submitted on 30.09.2015 and presentation given during 8th EAC meeting on 26.05.2016 and also was reflected in MoM of the EAC.<br><br>Due to spentwash incineration; composting shall not be done.</td></tr>
<tr><td>3.</td><td>Page No. 2,<br>Point No. 2</td><td>The total water requirement for distillery will be 442 $m^3$/day. Out of which fresh water requirement from Harni river will be 217 $m^3$/day; from rain water harvesting will be 8 m3/day and remaining</td><td>The total water requirement for proposed project would be 497 $M^3$/Day. Out of which fresh water requirement from Harni river will be 217 $M^3$/day; and remaining 280 $M^3$/day water</td><td>Additional 55 $M^3$/day water would be required for the incineration boiler of 20 TPH. The same would be taken from treated water from</td></tr>
</table>

| S. No. | Para of EC issued by MoEF&CC | Details as per the EC | To be Revised / Read as | Justification/ reasons |
|---|---|---|---|---|
| | | water requirement (217 $m^3$/day) will be met from treated effluent of condensate polishing unit. | requirement will be met from the treated effluent of condensate polishing unit. | distillery CPU. Hence, the quantity of total water required will change from **442 $M^3$/day to 497 $M^3$/Day.** There is no fresh water requirement for distillery operations. |
| 4. | Page No. 2, Point No. 2 | Spentwash generation will be 335 $M^3$/Day and treated in bio-methanation reactor followed by MEE (five effect). 200 $m^3$/day concentrated and bio-methanated spentwash will be biocomposted with Pressmud. MEE condensate and spentlees will be treated in Distillery Condensate Polishing Unit (CPU). Cooling blowdown, boiler blowdown, lab & washing effluents will be treated in sugar factory of ETP. | Raw spent wash to the tune of 335 $M^3$/Dayshall be concentrated in MEE and blended with **bagasse of 170 MT/D (5100MT/M)**for burning in proposed 20 TPH Incineration Boiler. MEE Condensate (200 KL) and Spentlees (90 KL) and other effluent viz. cooling blowdown (5 KL), lab & washing effluent (5 KL)and boiler blowdown (5 KL) will be treated togetherly in Distillery Condensate Polishing Unit (CPU) and recycled in to process for dilution of molasses, cooling & boiler make up, lab & washing and domestic flushing purpose..<br>Domestic effluent generated about 8.5 KL shall be treated in STP and treated effluent shall be used for gardening.<br>Moreover, the steam generated from 20 TPH Boiler shall be passed through 2 MW capacity turbine for power generation which shall be used for distillery operations. | For spentwash treatment from proposed distillery instead of Bio-methanation followed by bio-composting process; our management has decided to go for S**pentwash Concentration and Incineration.**Thereby achieving ZLD for distillery project. |
| 5. | Page No. 2, Point No. 2 | Yeast Sludge and CPU Sludge will be consumed during spentwash composting process. | **Yeast sludge (300 MT/M) and CPU Sludge (0.5 MT/M) would be burnt in incineration boiler.** | Same as in Sr. No. 4 above |
| 6. | Page No. 2, | Boiler ash will be used as filler material for spent wash | **Total incineration boiler ash generated about 765** | Bagasse (ash content 3%) and |

| S. No. | Para of EC issued by MoEF&CC | Details as per the EC | To be Revised / Read as | Justification/ reasons |
|---|---|---|---|---|
| | Point No. 2 | and sold to farmers for use as manure. | **MT/Month would be given to farmers as manure/ sold to brick manufacturers.** | conc. spentwash (ash content 12% to 15%) shall be used as fuel for the proposed 20 TPH incineration boiler under distillery. |

***34.4.3.3*** *The EAC, after deliberations, noted that the proposal for amendment in the environmental clearance dated 29th September, 2016, does not fit for amendment as such, instead the Committee opined that the project proponent shall submit a proposal for fresh ToR.*

**Agenda No.34.4.4**

**Molasses based Distillery (30 KLPD) at Survey No.384, 386, 389 at Village-Kacherwadi, Taluk Mangalwedha, Solapur (Maharashtra) by at M/s Utopian Sugars Ltd - For Amendment in ToR**

**[IA/MH/IND2/30081/2015, J-11011/223/2015-IA II (I)]**

**34.4.4.1** The proposal is for amendment in the Terms of Reference (TOR) granted by the ministry vide letter no. J-11011/223/2015-1A11(1) dated 28th December 2015and the amendment as per the minutes of 26th meeting of Expert Appraisal Committee held on 27th-28th July 2017of Industry-II for the project Molasses based Distillery (30 KLPD) at Survey no. 384, 386,389, Village Kocharewadi, Taluka Mangalwedha,Maharashtra by M/S Utopian Sugars Ltd.

**34.4.4.2** The project proponents requested for amendment in the amended ToR with the details are as under:-

| S. No. | Para of ToR | Details as per the ToR | To be Revised/ Read as | Justification/ Reasons |
|---|---|---|---|---|
| 1 | | Amended TOR is to be issued by the Ministry which is approved in 26th meeting of the Expert Appraisal Committee held during | Distillery shall be established at Gat No-385 which is recently purchased by the Industry to establish the proposed Distillery (30 KLPD), adjacent to Gat no- 386 and 381 which belongs to the Industry. (Layout Map attached). All the other amendments made in the 26th Expert Appraisal Committee shall remain | Would help for future expansion and setting up Ancillary Industries. |

| | | | | |
|---|---|---|---|---|
| | | 27th-28th July 2017. Deletion is not required. | same. | |

**34.4.4.3** During deliberations, the Committee noted that earlier the proposal for amendment in the ToR dated 28th December 2015 was considered by the EAC in its meeting held on 27-28 July, 2017. During that meeting, the amendment was recommended as: '*In para 3.0, the following shall be substituted* '*These 'TORs' should be considered for the preparation of EIA/EMP for molasses based distillery (30 KLPD) and 1 MW of co-generation power plant'.*

*The present proposal is for addition of Survey* No.385 to the existing Survey Nos.

**34.4.4.4** *The EAC, after detailed deliberations, recommended for the amendment proposed on the above lines.*

**Agenda No.34.4.5**

**Modernization with Change in Product Mix of Synthetic Organic Chemicals and Specialty Chemicals Plot at No.1-7 & 26-31, MIDC Industrial Area Dhatav, Taluk Roha, District Raigad (Maharashtra) by M/s Deepak Nitrite Limited - For Amendment in EC**

**[IA/MH/IND2/72778/2018, J-11011/363/2016/IA-II(I)]**

**34.4.5.1** The proposal is for amendment in the environmental clearance granted by the Ministry vide letter dated 3rd January, 2018 to the project 'Modernization with Change in Product Mix of Existing Manufacturing Facility for Synthetic Organic Chemicals and Specialty Chemicals' at Plot No. 1-7 & 26-31, MIDC Industrial Area Dhatav, Taluka Roha, District Raigad (Maharashtra) in favour of M/s Deepak Nitrite Limited.

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

| S. No. | Condition/ Line/ Paragraph | Details mentioned in EC | Corrigendum/ amendment required In EC Letter | Clarification /justification |
|---|---|---|---|---|
| **1** | Point 3 on page no.1 & 2 | Product list has been given but **byproducts** details are not mentioned. | List of **byproducts** to be added after product list is as below. | Details of Byproducts are already mentioned in 25th MOM immediately below list of products page no.171 of 202 |

| Sr. NO. | Name of Existing by Product | Existing Capacity TPM | Name of Proposed by Product Mix | Proposed Capacity TPM |
|---|---|---|---|---|
| **1.** | Ortho Nitro Cumene (from p- cumidiene) | 150 | Ortho Nitro Cumene (from p-cumidiene) | 150 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | **2.** | PPO (Poly phenylene Oxide) from product tri methyle hydro quinine | 201 | 2 NBTF(2 Nitro BTF) / 2 ABTF (2 Amino BTF) / 4 ABTF (4 Amino BTF) from 3 Amino BTF | 41 | |
| | **3.** | Ortho Toludine (OT) | 20 | PPO (Poly phenylene Oxide) | 135 | |
| | **4.** | -- | -- | OHBTF/OA BTF from TFMAP | 20 | |
| | **5.** | -- | -- | Ortho Toludine (OT) | 25 | |
| | | **Total** | **371** | **Total** | **371** | |

| | | | | |
|---|---|---|---|---|
| **2** | Point 3 on page no.1 & 2 | Details of **hazardous waste** generation and its management are not mentioned. | Details of **hazardous waste** generation and its management need to be added.<br>Following is to be written in EC.<br>xiii. **Details of Solid waste/Hazardous waste generation and its management**.<br>(i). Used spent oil of 91 MTPM will be sale to Authorized re processor.<br>(ii). Spent Chemical / Acid of 836 MTPM will be sale to Authorized re processor.<br>(iii). Spent Chemicals of 91 MTPA will be Sale to Authorized re processor<br>(iv). Discarded containers/barrels/liner of 25 Nos. will be dispose to CHWTSDF, Taloja/Sale to Authorized<br>(v). Chemical sludge from waste water treatment of 50 MTPM will be dispose to CHWTSDF, Taloja<br>(vi). Spent catalyst of 0.07 MTPM will be send back to Authorized party<br>(vii). Distillation residue from contaminated organic solvents of 28 MTPM will be dispose to CHWTSDF, Taloja<br>(viii). MEE Salts of 1778 MTPM will be disposed to CHWTSDF, Taloja / Sale. | Details of **hazardous waste** generation and its management are already mentioned in 25th EAC MoM. page no.169 of 202<br>However, the quantities are mentioned as MTPA but it should be MTPM.<br><br>It was a typographical mistake .This needs to be corrected .Now, same has been corrected in FORM-1 attached herewith. |
| **3** | Point 3 on page no. 1 & 2 | Details of **process emissions** generations and its management are not mentioned. | Details of **process emissions** generations and its management to be added is as below table. | It is already mentioned in 25th EAC MOM page no.169 of 202 |

| | Equipment | Fuel | Control | Emission | Stack height |
|---|---|---|---|---|---|
| **Particulate emissions** | Boiler -1 (8-TPH) | Coal | Cyclone with Bag filter | 9.88 TPD | 34 m Common |
| | Thermopac 6 lac Kcal/hr | Coal | | | |
| | Boiler-1(8-TPH) Standby | FO | stack | Nil | 24.5 m |
| | Thermopac 4 lac Kcal/hr | FO | | | |
| | Thermopac 4 lac Kcal/hr | FO | stack | Nil | 20 M |
| **$SO_2$ emission** | Boiler -1 | Coal | | 0.65 TPD | |
| | Boiler -1 Standby | F O | | 0.72 TPD | |
| | Thermopac 6 lac Kcal/hr | Coal | stack | 0.16 TPD | 34 m |
| | Thermopac 4 lac Kcal/hr | F O | stack | 0.16 TPD | |
| | Thermopac 4 lac Kcal/hr | F O | | 0.16 TPD | |
| **Process Emissions** | Nitration | | Scrubber-1 | | 8.5 m |
| **D G set** | 750 KVA 2 nos, 500 KVA 1 no | | Stack | 1 Kg/hr,1 kg/hr 0.65 kg/hr | 4.5 m |

| | | | | |
|---|---|---|---|---|
| **4** | Point 6 on page no.2 | The existing power requirement is **2100 KW** and additional power requirement is envisaged due to the proposed project. | Power requirement after modernization will **be 2625 KVA** and will be met from Maharashtra state power distribution corporation limited (MSPDCL) | Power requirement details are already mentioned in 25th MOM point no. iX. page no.169 of 202 |
| **5** | Point 6 on page no.2 | Existing unit has 3 DG sets (**750 KVA, 640 KVA and 500 KVA**) as standby. | Existing unit has 3 DG sets (**750 KVA, 750 KVA and 500 KVA**) as standby. | It is already mentioned in 25th EAC MOM point no. X page no.169 of 202 |
| 6 | Point 10 Sub point (Vi) on page no.4 | 25% of the total power requirement shall be produced from solar power/renewable energy sources | 25% of the total lighting power requirement shall be produced from solar power/renewable energy sources | In the specific conditions point no.(vi) in 25th MOM page no.172 of 202, 25 % of the total lighting power is mentioned. |

**34.4.5.3** The EAC, after verifying the facts from the records available, found discrepancies and inconsistencies in project details informed earlier (in EIA/EMP reports) by the project proponent, and those presented/reported to the EAC and the Ministry at subsequent stages. These included details in respect of boilers, power supply, DG sets, etc. The EAC took a serious note of the same, and cautioned the project proponent for casual reporting and misleading the Committee and the Ministry.

Regarding inclusion of the details of by-products, emissions and solid/hazardous waste management in the environmental clearance dated 3rd January, 2018, the Committee opined that such details already an integral component of the EIA/EMP report for the project, need not to be necessarily reflected in the EC. The Committee was of the view that the EC has to be read with the EIA/EMP report for the project, and all details contained therein, need not be mentioned in the ECs to meet the requirements of SPCBs and/or to facilitate their working.

**34.4.5.4** *The EAC, after deliberations and for the present, suggested for inclusion of details of by-products, process emissions and solid/hazardous waste management, and thus amending the environmental clearance dated 3rd January, 2018 to that extent only.*

**Agenda No.34.4.6**

**Modernization with change in product mix of Existing manufacturing Facility for Synthetic Organic Chemicals and Allied products manufacturing unit M/s Deepak Nitrite Limited at Plot No. K-9 and K-10, MIDC Industrial Area, Taloja, District Raigad (Maharashtra) - For Amendment in EC**

**[IA/MH/IND2/61070/2016, J-11011/367/2016-IA.II(I)]**

**34.4.6.1** The proposal is for amendment in the environmental clearance granted by the ministry vide letter dated 3rd January, 2018 for Modernization of existing project with change in product mix for manufacture of synthetic organic chemicals and allied products at Plot No.K-09 and K-10, MIDC Industrial Area Taloja, District Raigad (Maharashtra) in favour of M/s Deepak Nitrite Limited.

**34.4.6.2** The project proponent have requested for amendment in the EC with the details as under:-

<table>
<tr><th>S. No.</th><th>Condition / Line/ Paragraph</th><th>Details mentioned in EC</th><th>Corrigendum/ amendment required In EC Letter</th><th>Clarification /justification</th></tr>
<tr><td>1</td><td>Point 3 on page no.1 & 2</td><td>Product list has been given but byproducts details are not mentioned.</td><td>List of byproducts to be add after product list;
<table>
<tr><th>S. No.</th><th>By products</th><th>Quantity (TPM)</th></tr>
<tr><td>1.</td><td>2 Aminobenzotrifluroirde (2ABTF)</td><td>24</td></tr>
<tr><td>2.</td><td>4 Aminobenzotrifluroirde (4ABTF)</td><td>36</td></tr>
<tr><td></td><td>Total</td><td>60</td></tr>
</table></td><td>Details of Byproducts are already mentioned in 25thMOM on page no 173 of 203 immediately below list of products.</td></tr>
<tr><td>2</td><td>Point 3 on page no. 1 & 2</td><td>Details of hazardous waste generation and its management are not mentioned.</td><td>Details of hazardous waste generation and its management need to be added<br>• Spent Lube oil of 21 TPA will be Sale to Authorized recycler<br>• Distillation residue of 70 TPA will be Disposal to MWML<br>• Spent Chemicals of 5 TPA will be Disposal to MWML<br>• ETP Sludge of 4 TPA will be Disposal to MWML</td><td>Details of hazardous waste generation and its management are already mentioned in 25th MOM on page no 173 of 203.</td></tr>
</table>

<table>
<tr><td></td><td></td><td></td><td>• Flue gas cleaning residue of 8 TPA will be Disposal to MWML</td><td></td></tr>
<tr><td>3</td><td>Point 3 on page no. 1 & 2</td><td>Details of process emissions generations and its management are not mentioned.</td><td>Details of process emissions generations and its management need to be added.
<table>
<tr><th>Sr. No.</th><th>Equipment</th><th>Control</th><th>Stack height</th></tr>
<tr><td>1</td><td>Hydrogenator 1</td><td>Scrubber -1</td><td>25 m</td></tr>
<tr><td>2</td><td>Hydrogenator 2</td><td>Scrubber -2</td><td>25 m</td></tr>
<tr><td>3</td><td>Hydrogenator 3</td><td>Scrubber -3</td><td>25 m</td></tr>
</table></td><td>Details of process emissions generations and its management are already mentioned in 25th MOM on page no 173 of 203.</td></tr>
</table>

**34.4.6.3** The EAC, after verifying the facts from the records available, found discrepancies and inconsistencies in project details informed earlier (in EIA/EMP reports) by the project proponent, and those presented/reported to the EAC and the Ministry at subsequent stages. These included details in respect of boilers, power supply, DG sets, etc. The EAC took a serious note of the same, and cautioned the project proponent for casual reporting and misleading the Committee and the Ministry.

Regarding inclusion of the details of by-products, emissions and solid/hazardous waste management in the environmental clearance dated 3rd January, 2018, the Committee opined that such details already an integral component of the EIA/EMP report for the project, need not to be necessarily reflected in the EC. The Committee was of the view that the EC has to be read with the EIA/EMP report for the project, and all details contained therein, need not be mentioned in the ECs to meet the requirements of SPCBs and/or to facilitate their working.

**34.4.6.4** *The EAC, after deliberations and for the present, suggested for inclusion of details of by-products, process emissions and solid/hazardous waste management, and thus amending the environmental clearance dated 3rd January, 2018 to that extent only.*

**Agenda No.34.4.7**

**Setting up of molasses based 60 KLPD Distillery within existing sugar plant by M/s Krantiagrani Dr G D Bapu Lad Sahkari Sakhar Karkhana Ltd at Village Kundal, Tehsil Palus, District Sangli (Maharashtra) - Amendment in EC**

**[IA/MH/IND2/42689/2016, J-11011/117/2016- IA II(I)]**

**34.4.7.1** The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated 20th July, 2017 for setting up molasses based 60 KLPD Distillery within existing sugar plant at village Kundal, Tehsil Palus, District Sangli, Maharashtra in favour of M/s Krantiagrani Dr. G. D. Bapu Lad Sahakari Sakhar Karkhana Ltd.

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

| S. No. | Para of EC issued by MoEF&CC | Details as per the EC | To be revised read as | Justification / reasons |
|---|---|---|---|---|
| 1. | Page No. 3, 1st para | i) Clearance from Standing Committee of NBWL shall be obtained prior to commencement of work. | With reference to the notification published by the MoEF&CC, vide SO 1565(E) dated 15th May 2017, the specific condition A(i) of earlier environmental clearance order (dated 20th July, 2017 becomes void as Yashwantrao Chavan Sagareshwar sanctuary is situated at a distance of 1.71 Km from the boundary of the existing sugar factory. | Notification published by the Ministry of Environment, Forest and Climate Change in an official gazette no. S.O. 1565(E) dated 15th May 2017 that declares the eco-sensitive zone of the Yashwantrao Chavan Sagareshwar Wildlife Sanctuary is restricted to 100 m from the core area (existing boundaries) of the sanctuary. Copy of the published notification is enclosed for reference. |

***34.4.7.3*** *The EAC after deliberation and verification of the documents, noted that the amendment sought by the project proponent in the EC dated 20th July, 2017, is based on factual information and recommended for deleting the condition for obtaining clearance from the Standing Committee of NBWL.*

**Agenda No.34.4.8**

**Expansion of Molasses based Distillery unit from 90 KLPD to 200 KLPD, Organic Chemical Products & 12 MW New Captive Power Plant (EC dtd 23 Dec 2008) and Amendment (Acetic Anhydride Plant under product mix) on 21 Dec 2010 by M/s Jubilant Life Sciences Limited at Nimbut Nira, Baramati, Pune (Maharashtra) - Amendment in EC**

**[IA/MH/IND2/72003/2008, F.No. J-11011/745/2007-IA II (I)]**

**34.4.8.1** The proposal is for amendment in Environmental Clearance (EC) dated 23rd December, 2008 for the project for expansion of Molasses based Distillery unit from 90 KLPD to 200 KLPD, Organic Chemical Products & 12 MW New Captive Power Plant and amendment dated 21.12.2010 for Acetic Anhydride Plant under product mix in favour of M/s Jubilant Organosys Ltd (now M/s Jubilant Life Sciences Ltd.)

**34.4.8.2** The project proponent has sought amendment in the EC with the details as under:-

| **S. No.** | **Para of EC issued by MoEF** | **Details as per EC** | **To be revised/read as** | **Justification /reason** |
|---|---|---|---|---|
| 1 | Para 3 of EC -2008 | Details of product | 1. Ethyl Alcohol : 200 KLD | We propose to manufacture Anhydrous Alcohol (Ethyl alcohol - 99.8%) from in- |

| | | | | |
|---|---|---|---|---|
| | and 2010 | 1. Ethyl Alcohol - 200 KLD | Ethyl Alcohol (94%) &Anhydrous Alcohol (Ethyl alcohol - 99.8%) | house generation of ethyl alcohol and purchased from open market. Total quantity within the EC limit. (Manufacturing of Anhydrous Alcohol (99.8%); through Molecular Sieve Bed Technology, does not increase the effluent load) |
| 2 | Para 3 of EC -2008 and 2010 | Details of product : Unit:TPD | Unit:TPA | • Due to inbuilt features of any continuous operating chemical plant, the net production of the unit on a daily basis fluctuates.<br>• This cannot be made up using the margins of capacity in the design of the plant or improved operational efficiencies of the facility, in case of Consent conditions stipulating Tons Per Day (TPD) resulting in completely losing the opportunity to produce.<br>• The amendment to EC from TPD to TPA would facilitate us to operate the plant at most optimum conditions of Energy efficiency and resource efficiency without any increase in pollution loads.<br>• This also facilitates the unit to take appropriate length of time through shutdown for periodic maintenance thus improve the asset life and reliability. |

**34.4.8.3** *The EAC after deliberations and verification of the documents, noted that the environmental clearance dated 23rd December, 2008 was granted in favour of M/s Jubilant Organosys Ltd. However, the present proposal for amendment was submitted by M/s Jubilant Life Sciences Ltd, without changing the EC in their favour. The Committee, noted that the proposal is not admissible and preferred to defer the proposal till needful is done by the project proponent.*

## 28th February 2018 (Day 3)

### 34.5 Environmental Clearance

**Agenda No.34.5.1**

**Capacity expansion of Drug manufacturing unit from 2 existing products to 12 proposed products of M/s Alka Laboratories Private Limited at BH-1124, RIICO Industrial Area, Phase III, Bhiwadi, District Alwar-19 (Rajasthan) - Environment Clearance**

**[IA/RJ/IND2/66213/2017, IA-J-11011/376/2017-IA-II (I)]**

**34.5.1.1** The project proponent and the accredited consultant M/s Vardan Environet, made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance for expansion of Drug manufacturing unit located at Plot no. B-1124 RIICO industrial area, phase-III Bhiwadi, Tehsil-Tijara, District- Alwar, State- Rajasthan by M/s Alka Laboratories Pvt. Ltd.

(ii) The Standard ToR has been issued by Ministry vide letter No. J-11011/376/2017-IA-II(I) dated 24th August, 2017 later the application submitted for TOR amendment for getting the exemption from public hearing as the location of the project is in the notified industrial area, and the amendment in TOR issued by Ministry vide letter No. J-11011/376/2017-IA-II(I) dated 08th December, 2017.

(iii) The project/activity is covered under category B of item 5(f) 'Synthetic Organic Chemicals industry' of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal by the concerned SEAC/SEIAA. However, due to applicability of general conditions (inter-state boundary within 5 km of the project site), the project appraised at central level by the sectoral Expert Appraisal Committee in the Ministry.

(iv) The project was set up in 1998 and was in operation before September 2006. Hence it was not covered under EIA notification 14th September, 2006.

(v) Existing land area is 1.39 Ha and no additional land will be required for proposed expansion. Greenbelt will be developed in an area of 33 % i.e., 0.464 Ha out of 1.39 Ha area of the project.

(vi) The estimated project cost is Rs 13.39 crore, including existing investment of Rs 11.89 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 116 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 50 Lakhs per annum. Total Employment will be 290 persons as direct & many persons gets indirect employment after expansion. Industry proposes to allocate Rs 33.4 Lakhs @ of 2.5 % towards Corporate Social Responsibility.

(vii) There are No National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Indori nala is flowing at a distance of 5.8 km in East direction.

(viii) Ambient air quality monitoring was carried out at eight locations during 1st Oct 2017 to 31st Dec 2017 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$ (68.3 to 100.5 µg/m3), $PM_{2.5}$ (24.1 to 59.7 µg/m3), SO2 (6.7 to 25.6 µg/m3) and NO2 (16.3 to 42.6 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 100.552 µg/m3, 25.804 µg/m3 and 42.67 µg/m3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS) permissible limit except at the monitoring station Balaheri ($PM_{10}$ – 100.4), value are high at this monitoring location due to cluster of different industry setup here in the industrialized area.

(ix) Total water requirement is 90 $m^3$/day will be met from bore well. Application for ground water withdrawal of 90 m3/day (Existing-21 m3/day and Proposed-69 m3/day) is applied on dated

23.01.2018 vide an application no 21-4/9265/RJ/IND/2018. Effluent of approx 33 m3/day will be treated through ETP/MEE & proposed R.O Plant. Proposed expansion will be based on Zero Liquid discharge system.

(x) Power requirement after expansion will be 800 KVA including existing 400 KVA and will be met from Jaipur vidyut vitran nigam ltd (JVVNL). Existing unit has one DG sets of 500 KV capacity, additionally one 500 KV DG set are used as standby during power failure. Stack (height of the building (meter) + 3.5 meter) will be provided as per CPCB norms to the proposed DG sets of 500 KV in addition to the existing DG set of 500 KV which will be used as standby during power failure.

(xi) Existing unit has 2 TPH coal fired boiler with Multi cyclone separator is installed. Multi cyclone separator/ bag filter with a stack of height of 33 m will be installed for controlling the Particulate emissions (within statutory limit of 50 mg/$Nm^3$) for Proposed 2 TPH coal fired boilers respectively.

(xii) Flue gas emission for boiler, Multiple Cyclone & Bag Filter will be used & for D.G set Stack of adequate height will be provided.

(xiii) ETP sludge (15 TPA) and Boiler ash will be sent to TSDF. Hazardous Waste will be stored in HDPE bag at separate storage area and finally transfer it to TSDF site Udaipur for final disposal. Used oil (15 liters/month) will be generated as hazardous waste and the same shall be sold to the registered recyclers.

(xiv) Public Hearing for the proposed project is exempted with the amendment in ToR dated 8th Dec. 2017, as the present project is located within the notified industrial area of Rajasthan (RIICO Industrial area, Phase-3).

(xv) No litigation pending against the proposal.
(xvi) List of existing and proposed product is as under:

| **S. No** | **Existing** | **Quantity (MTPA)** |
|---|---|---|
| 1 | 6-Aminopenicillin (150MTPA ) | 150 |
| 2 | Trimethoprim | 75 |
| **Total** | | **225** |
| **S. No** | **Proposed** | **Quantity (MTPA)** |
| 3 | Nimesulide | 600 |
| 4 | Pentaperazole sodium | 120 |
| 5 | Diclofence sodium | 420 |
| 6 | Diclofence potassium | 180 |
| 7 | Ornidzole | 360 |
| 8 | Mometasone Furote | 1.2 |
| 9 | Aceclofence | 360 |
| 10 | Mefanamic acid | 420 |
| 11 | Disulfirm | 36 |

| | | |
|---|---|---|
| 12 | Ofloxacin | 180 |
| 13 | Deflazacort | 1.2 |
| 14 | Mecobalamin | 1.2 |
| **Total** | | **2679.6 (MTPA)** |
| **Total Capacity after expansion** | | **2904.6 (MTPA)** |

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

The proposal is for environmental clearance to the project for expansion of drug manufacturing unit from 225 TPA (2 No. of products) to 2904.6 TPA (14 No. of products) by M/s Alka Laboratories Pvt Ltd in an area of 1.39 ha at plot No.B-1124, RIICO industrial area, phase-III Bhiwadi, Tehsil Tijara, District Alwar (Rajasthan).

The project/activity is covered under category B of item 5(f) 'Synthetic Organic Chemicals industry' of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal by the concerned SEAC/SEIAA. However, due to applicability of general conditions (interstate boundary of Rajasthan and Haryana at 1.6 km), the project was appraised at central level by the sectoral Expert Appraisal Committee in the Ministry.

The ToR for the project was granted on 24$^{th}$ August, 2017 followed by amendment dated 8$^{th}$ December, 2017, providing exemption from public hearing.

Total estimated fresh water requirement will be 90 cum/day (existing - 21 cum/day and proposed - 69 cum/day), is to be met from ground water. The project proponent has submitted application to the CGWA to obtain the desired permission.

Consent to Operate for the present capacity of 225 TPA bulk drugs has been obtained from the State PCB vide letter dated 23$^{rd}$ February, 2018, which is presently valid up to 31$^{st}$ May, 2022.

**34.5.1.3** *The EAC, at the outset, was not agreed with the proposed steep expansion of the drug manufacturing unit, mainly due to higher $PM_{10}$ values reflecting poor baseline air quality which would further deteriorate with the proposed coal fired boiler. The Committee further noted that the proposed expansion involves increase in water requirement from 21 to 90 cum/day, for which the required permission from the concerned regulatory authority (CGWA) is yet to be obtained.*

*After deliberations, the project proponent agreed for reducing the proposed production by 50%, which would require restructuring of the proposal accordingly.*

*The proposal was, therefore, deferred.*

**Agenda No.34.5.2**

**Proposal for Bulk Drug manufacturing unit by M/s Sri Krishna Pharmaceuticals limited at Plot No. B-14/1, MIDC, Chincholi, Taluka Mohol, District Solapur (Maharashtra) - Environmental Clearance**

**34.5.2.1** The project proponent and the accredited consultant M/s Pridhvi Envirotech Private Limited made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is for environmental clearance for proposed Bulk drugs manufacturing facility at Plot No. B-14/1, MIDC, Chincholi (V), Mohol (Taluk), Solapur (D), Maharastra by M/s Sri Krishna Pharmaceuticals Limited.

(ii) The project proposal was granted Standard ToR issued automatically by system. The ToR has been issued by Ministry vide letter no. J- 11011/342/2016-IA II (I); dated 9th December 2016.

(iii) The project/activity is covered under category B of item 5(f) 'Synthetic Organic Chemicals industry' of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal by the concerned SEAC/SEIAA. However, due to applicability of general conditions (ESZ of GIB Nanaj Sanctuary is situated at a distance of 1.12 km), the project appraised at central level by the sectoral Expert Appraisal Committee in the Ministry.

(iv) The total land area is 8.39 acres. Greenbelt will be developed in an area of 38.7 % i.e., 3.25 acres out of 8.39 acres of area of the project.

(v) The estimated project cost is Rs.95 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.6.92 crores and the recurring cost (operation and maintenance) will be about Rs. 96 lakhs per annum. Total Employment will be 150 persons as direct & 50 persons indirect for the proposed project. Industry proposes to allocate Rs. 57.5 lakhs @ 5/2.5 % towards Corporate Social Responsibility.

(vi) It is reported that as per Form-I there is GIB Nanaj Sanctuary within 10 km distance and there are no National Parks, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Sina River is located at a distance of 4.91 Km in SE direction from the site.

(vii) Ambient air quality monitoring was carried out at 8 locations during January to March 2017 and submitted baseline data indicates that ranges of concentration of $PM_{10}$ (44.5-75.4 µg/$m^3$), $PM_{2.5}$ (17.3-35.3 µg/$m^3$), $SO_2$ ( 10.2-19.5 µg/m3) and $NO_2$ ( 12-25.4 µg/$m^3$) respectively. AAQ modeling study for point source emissions indicated that the maximum incremental GLCs after the proposed project would be 0.760 µg/$m^3$, 2.163 µg/$m^3$ and 2.659 µg/$m^3$ with respect to $PM_{10}$, Sox and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(viii) Total water requirement is 739 $m^3$/day of which fresh water requirement of 376.5 $m^3$/day and will be met from MIDC Water Supply.

(ix) Effluent of 326.5 KLD will be reused out of total effluent of 462.0 KLD which will be treated through Stripper, MEE and ATFD for high TDS Stream and Low TDS will be treated in Biological ETP followed by RO system. The plant will be based on Zero Liquid discharge system.

(x) Power requirement for the proposed project will be 3000 KW and will be met from Maharashtra State Electricity Distribution company limited (MSEDCL). 2 X 1000 KVA DG Sets will

be used as standby during power failure. Stack (height 6.3 m) will be provided as per CPCB norms to the proposed DG set which will be used as standby during power failure.

(xi) 20 TPH coal fired boiler and 10 TPH Coal fired stand by boiler will be installed. Bag filter with a stack of height of 30 m will be installed for controlling the Particulate emissions (within statutory limit of 115mg/Nm3). Two stage scrubbers will be used to control process emissions.

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

| S. No | Type of waste | Schedule No. | Quantity in TPM | Disposal |
|---|---|---|---|---|
| | **Hazardous waste** | | | |
| 1 | ETP Sludge | 34.3 | 30.0 | CHWTSDF |
| 2 | MEE salts and inorganic residue* | 34.3 | 870.6 | CHWTSDF |
| 3 | Spent carbon | 28.2 | 308.4 | CHWTSDF/Authorised cement industries |
| 4 | Distillation bottom Residue/process sludge | 20.3 | 775.6 | Authorized cement Industries/ CHWTSDF |
| 5 | Spent solvents | 28.5 | 40.0 | Authorised re-processors |
| 6 | Iron sludge | 28.1 | 72.5 | Authorized cement Industries |
| 7 | oil from process | 5.1 | 20.0 | Authorized recyclers/ CHWTSDF |
| 8 | Waste oil | 5.1 | 0.2 | Authorized recyclers/ CHWTSDF |
| 9 | E- Waste | 31.1 | As and when generated | Send to E- waste Recycler |
| 10 | Used Lead acid batteries | - | As and when generated | Return to supplier for replacement in exchange |
| | **Biodegradable waste** | | | |
| 1 | ETP Bio sludge | - | 10.0 | Composting and used as manure for gardening |
| | **Non Biodegradable waste** | | | |
| 1 | Waste paper | - | 100.0 Kgs/month | Sale |

| | | | | |
|---|---|---|---|---|
| 2 | Corrugated boxes | - | 500.0 Kgs/month | Sale |
| 3 | Broken glass | - | 100.0 Kgs/month | Sale |
| 4 | Decontaminated used drums | - | 500.0 Kgs/month | Sale |
| 5 | Decontaminated HDPE Bags | - | 500.0 Kgs/month | Sale |
| 6 | Coal ash | - | 570.0 TPM | Sale |

(xiii) Public Hearing is not applicable as the unit is located in Notified Industrial Estate.

(xiv) List of product is as under:

| S.No | Product Name | Production Capacity TPM | Production Capacity TPA | Product Description |
|---|---|---|---|---|
| 1A | Paracetamol ( starting from PNCB- 4 stages) | 50.0 | 600.0 | Bulk Drug |
| 1B | Paracetamol ( starting from PAP- 2 stages) | 950.0 | 11400.0 | Bulk Drug |
| 2 | Ibuprofen | 200.0 | 2400.0 | Bulk Drug |
| 3 | Domeperidone | 10.0 | 120.0 | Bulk Drug |
| 4 | OMEGA 3 (Docosa Hexaenoic Acid (DHA)) | 20.0 | 240.0 | Bulk Drug |
| 5 | Lovastatin | 20.0 | 240.0 | Bulk Drug |
| | **Total** | **1250.0** | **15000.0** | |
| | **By Products** | | | |
| 1 | Acetic acid | 1192.0 | 14304.0 | |
| 2 | Soap | 80.0 | 960.0 | |

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

The proposal is for environmental clearance to the project for setting up bulk drug manufacturing unit of capacity 1250 TPM by M/s Sri Krishna Pharmaceuticals limited in a total area of 8.39 acres at Plot No.B-14/1, MIDC, Chincholi, Taluka Mohol, District Solapur (Maharashtra).

The project/activity is covered under category B of item 5(f) 'Synthetic Organic Chemicals industry' of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal by the concerned SEAC/SEIAA. However, due to applicability of general conditions (ESZ of GIB Nanaj Sanctuary is situated at 1.12 km), the project was appraised at central level by the sectoral Expert Appraisal Committee in the Ministry.

The standard ToR for the project was granted on 9th December 2016. Public consultation is not required as project site is located in notified industrial area.

Total estimated water requirement is 7390 m3/day, of which fresh water requirement of 376.5 m3/day would be met from MIDC water supply.
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.

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

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.*
- *Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.*
- *National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21$^{st}$ July, 2010 and amended from time to time shall be followed.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Solvent management shall be carried out as follows:*
  a) *Reactor shall be connected to chilled brine condenser system.*
  b) *Reactor and solvent handling pump shall have mechanical seals to prevent leakages.*
  c) *The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.*
  d) *Solvents shall be stored in a separate space specified with all safety measures.*
  e) *Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.*
  f) *Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.*
  g) *All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.*
- *Total fresh water requirement shall not exceed* 376.5 *cum/day proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.*
- *Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.*
- *Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.*
- *The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The company shall undertake waste minimization measures as below:-*

a) *Metering and control of quantities of active ingredients to minimize waste.*
b) *Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.*
c) *Use of automated filling to minimize spillage.*
d) *Use of Close Feed system into batch reactors.*
e) *Venting equipment through vapour recovery system.*
f) *Use of high pressure hoses for equipment clearing to reduce wastewater generation.*

- *The green belt of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- *At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- *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.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24X7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.*

**Agenda No.34.5.3**

**Installation of Gas Turbine Generator and Heat Recovery Steam Generator under energy reduction Scheme by M/s Rashtriya Chemicals and Fertilizers Ltd at Trombay, Mumbai (Maharashtra) - Environment Clearance**

**[IA/MH/IND2/58082/2016, J-11011/193/2016- IA II(I)]**

**34.5.3.1** The project proponent and the accredited Consultant M/s PDIL made a detailed presentation on the salient features of the project and informed that:

(i) The proposal is environmental clearance for Installation of Gas Turbine Generator and Heat Recovery Steam Generator under energy reduction Scheme by M/s Rashtriya Chemicals and Fertilizers Ltd at Trombay, Mumbai (Maharashtra).

(ii) The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 15$^{th}$ EAC meeting held on 10$^{th}$ November, 2016 and recommended Terms of References (TORs) for the Project. The TOR was issued vide dated 28$^{th}$ February, 2017.

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

(iv) Ministry has issued EC earlier vide letter no. J-11011/2838-IA; dated 08/02/1990 for Suphala and Ammonia Plant Rehabilitation unit to M/s. Rashtriya Chemicals & Fertilizers Ltd.

(v) Existing land area is 1.36 acres for the project out of 560 acres and no additional new land will be used for proposed expansion. Green belt has already developed in an area of 33 % out of 194 acres of open land of the project site.

(vi) The estimated modernization project cost is Rs 481.61 crores for energy savings. Total capital cost earmarked towards environmental pollution control measures is included in the turnkey project for the above mentioned modernization project.

(vii) Total Employment will be selected from existing plants and no extra employment will be generated & only during construction phase temporary construction workers will be engaged. Industry proposes to allocate 2.5 % towards Corporate Social Responsibility.

(viii) There are No National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance.

(ix) Ambient air quality monitoring was carried out at 8 locations during January-2017 to March-2017 and submitted baseline data indicates that ranges of concentrations of $PM_{10}$, $PM_{2.5}$, $SO_2$ and $NO_x$ as enclosed in executive summary respectively. AAQ modelling study conducted for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.62 $\mu g/m^3$ of NOx, but the resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

(x) Total additional water requirement not envisaged for this project and there will be saving of 1270 $m^3$/day of which fresh water. Treated effluent of the proposed project will be treated through existing Effluent Treatment Plant will be based on Zero Liquid discharge system.

(xi) Power requirement after expansion will be Nil. As it will be generated by this project and as details given in EIA report page no. 15 for power balance Table 2.5.

(xii) Existing unit has 170 TPH x3 nos. of Gas fired boiler is already installed. for Proposed HRSG of 65 TPH x2 nos. will be provided and one boiler will be stopped. Process emissions generation will be released through 30 m GTG-HRSG stack and for $NO_x$ control Dry $NO_x$ burner will be installed for emission management.

(xiii) Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 19th July, 2017 under the Chairmanship of District Magistrate and Collector of Mumbai Sub-urban.

(xiv) Certified compliance report submitted by RO, MoEF&CC dated 9th January, 2018 are submitted to the Ministry.

(xv) Status of Litigation Pending against the proposal, if any. –NIL

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

The proposal is for environmental clearance to the project for modernization of fertilizer plant by installation of Gas Turbine Generator (GTG) of 2x 32 MW and Heat Recovery Steam Generator (HRSG) of 2x 65TPH under energy saving scheme by M/s Rashtriya Chemicals and Fertilizers Ltd at their Trombay Fertilizer Complex, Mumbai (Maharashtra). Present industrial operations within the complex include manufacturing of products namely Ammonia-1250 TPD, Urea-1300 TPD, Nitric Acid-1130 TPD, Suphala-1100 TPD, Ammonium Nitrophosphate-1200 TPD etc, for which consent for operation was earlier granted by Maharashtra PCB vide letter dated 30th March, 1989.

The project actually involves revamping of existing steam generation plant, and installation of GTG and HRSG, resulting overall energy saving of 86.05 GCal/hr to meet the target envisaged under the new urea policy of the Government of India. With the proposed energy savings measures, the power requirement of 40.7 MW, presently being supplied from the external source, shall be met from the inhouse GTG. The details are as under:-

| S. No. | Item | Existing case | Revamp case | Savings | |
|---|---|---|---|---|---|
| | | | | Gas | Energy (GCal/hr) |
| Natural Gas consumption $Nm^3$/hr | | | | | |
| 1. | Steam generation in NSGP | 16736 | 7524 | 9212 | 76.0 |
| 2. | GTG & HRSG | - | 12900 | -12900 | -106.43 |
| Power (KWh/hr) | | | | | |
| 3. | Power | Tata Power (40.7 MW) | 2x32 MW GTG | 40727 Kwh/hr | 116.48 |
| Net saving in energy | | | | | 86.05 |

The project/activity is covered under category A of item 5(a) 'Chemical Fertilizer' of the Schedule to the Environmental Impact Assessment Notification, 2006 and requires appraisal at central level by the sectoral Expert Appraisal Committee in the Ministry.

The ToR for the project was granted on 28th February, 2017. Public hearing was conducted by SPCB on 19th July, 2017.

The Ministry had earlier issued EC vide letter dated 8th February, 1990 in favour of the Department of Chemicals & Petro-chemicals for the project 'Suphala & Ammonia Plant' Rehabilitation. The monitoring report on compliance status of EC conditions has been forwarded by the Regional Office at Bhopal vide their letter dated 23rd January, 2018. The project proponent has submitted the action taken on the non-complied/partially complied points observed by the RO during site visit conducted on 11th January, 2018. It was reported that the same has been examined by the Regional Office and forwarded to this Ministry.

Consent to operate for the present industrial operations has been obtained from the State PCB vide letter dated 16th February,2017, which is presently valid up to 31st July, 2021.

**34.5.3.3** *The EAC, at the outset, observed that the project actually involves implementation of energy saving measures, without any increase in production capacity of the fertilizer plant, and thus may not be admissible for its consideration vis-à-vis the provisions of the EIA Notification, 2006.*

*The Committee, however, in view of the ToR already issued for the project and the public hearing conducted by SPCB, preferred to recommend the project for grant of environmental clearance, subject to compliance of terms and conditions as under:-*

- *Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.*
- *The effluent discharge, if any, shall meet the standards for 'Nitrogenous Fertilizer Industry' prescribed under the Environment (Protection) Rules, 1986.*
- *To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms of 50 mg/Nm$^3$ for particulate matter and/or the NAAQS, The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.*
- *Process effluent/any wastewater shall not be allowed to mix with storm water.*
- *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.*
- *The project proponent shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.*
- *The project proponent shall undertake waste minimization measures such as: -*
  *(a) Metering and control of quantities of active ingredients to minimize waste.*
  *(b) Use of high pressure hoses for equipment clearing to reduce wastewater generation.*
- *The green belt 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.*
- *All the commitment made regarding issues raised during the Public Hearing/consultation meeting held on 19$^{th}$ July, 2017 shall be satisfactorily implemented*
- *At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on Public Hearing issues and item-wise details.*
- *For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines, Acoustic enclosure shall be provided to DG set for controlling the noise pollution.*
- *The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.*
- *Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.*
- *Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server.*
- *In case of the unit adopting ZLD and to ensure 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. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.*

**Agenda No.34.5.4**

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

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

*The proposal was listed for consideration on 28th February, 2018. However, on the request by the project proponent, it was taken up on 27th February, 2018.*

**34.6 Any Other**

**Agenda No.34.6.1**

**Developmental Drilling of additional 37 no. of onshore wells in Tanot, Dandewala & Bagitibba Mining Lease Block of 250 sq km by M/s Oil India Ltd at village Tanot, Tehsil Ramgarh, District Jaisalmer (Rajasthan) - Amendment in ToR**

**[IA/RJ/IND2/67524/2017, IA-J-11011/430/2017-IA-II(I)]**

**34.6.1.1** The Proposal is for amendment in the Terms of Reference granted by the Ministry vide letter dated 16.10.2017 for the project Developmental Drilling of additional 37 no. of onshore wells in Tanot, Dandewala & Bagitibba Mining Lease Block of 250 sq Km area, at village Tanot, Tehsil Ramgarh in District Jaisalmer (Rajasthan).

**34.6.1.2** The project proponent has requested for amendment in the TOR with the details are as under;

| S.No. | Para of TOR | Details as per the TOR | To be revised/ read as | Justification/ reasons |
|---|---|---|---|---|
| 1. | NIL | In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed **with public consultation as follows** | In this regard, under the provisions of the EIA Notification 2006 as amended, the Standard TOR for the purpose of preparing environment impact assessment report and environment management plan for obtaining prior environment clearance is prescribed **with exemption in public consultation as follows** | As per the extant norms/guidelines, public hearing for the block/ area is within 3 years at the time of submission of the proposal for EC. (EC proposal no. IA/RJ/IND2/67524/2017 dated 21.08.2017). |

**34.6.1.3** *The Committee, after deliberations, noted that earlier public hearing conducted by SPCB on 28th January, 2015 was for a different project involving development drilling of 20 wells only. Whereas, the present project envisages development drilling of additional 37 wells in the same*

*block and thus amounts to different scope of the project. As such, the public hearing conducted by SPCB at that time shall not be applicable in the present case.*

*The proposal was, therefore, not recommended.*

**Agenda No.34.6.2**

**Proposed exploratory/appraisal wells (4 nos.) by M/s Oil and Natural Gas Corporation Ltd in existing NELP Block AA-ONN-2001/2, Mizoram - Extension of validity of ToR**

**[IA/MZ/IND/24370/2014, J-11011/305/2014 IA II (I)]**

**34.6.2.1** The proposal is for extension of validity of the ToR dated 6th January, 2015 for the project 'Exploratory/Appraisal drilling of 4 wells' in NELP Block AA-ONN02001/2, Mizoram by M/s ONGC Ltd.

**34.6.2.2** The EAC was informed that the request for extension of validity of ToR was submitted on 3rd January, 2018 i.e. before expiry of its initial validity of 3 years. The Committee noted that the proposal doesn't involve any technical intervention, and should have been taken up by the Ministry without referring to the Committee.

**34.6.2.3** *The EAC, after deliberations, however recommended for extension of validity of the ToR for a period of one year i.e. up to 6th January, 2019.*

**Agenda No.34.6.3**

**Expansion of Synthetic organic chemicals by M/s Jesons Industries Limited at Plot No.32/2, 32/2(a) A4/2 (Part B) Thervoykandigai SIPCOT Industrial Park, Gummiddipondi Taluka, Thiruvallur District (Tamil Nadu) - Amendment in ToR**

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

**34.6.3.1** The proposal is for amendment in Standard ToR dated 16th November, 2017 for the project 'Expansion of Synthetic organic chemicals' by M/s Jesons Industries Limited at Plot No.32/2, 32/2(a) A4/2(Part B) Thervoykandigai SIPCOT Industrial Park, Gummiddipondi Taluka, Thiruvallur District (Tamil Nadu).

**34.6.3.2** The amendment in the ToR has been sought for exemption from public hearing. The EAC was informed that the project site is located in Thervoykandigai SIPCOT Industrial Park, which is the notified industrial area, and thus in view of the extant norms/provisions, public hearing is not required.

**34.6.3.3** *The EAC, after deliberations, recommended for amendment in the ToR in respect of exemption from public hearing as proposed by the project proponent, with all other terms and conditions remaining the same.*

**Agenda No.34.6.4**

**Expansion of Grain based Distillery from 100 KLPD to 120 KLPD by M/s Privilege Industries Ltd at B-1 MIDC Lomand, Khandala, District Satara (Maharashtra) - Amendment in ToR**

**[IA/MH/IND2/67657/2017, IA-J-11011/433/2017-IA-II(I)]**

**34.6.4.1** *The project proponent did not attend the meeting. The proposal was, therefore, not considered.*

**Agenda No.34.6.5**

**Proposed expansion in production of pigments and pigment related products by M/s Supreme Dyechem Pvt Ltd at Plot No.A-6/3, SIPCOT Industrial Complex, Village Pachayakuppam, District Cuddalore, (Tamil Nadu) - Amendment in ToR**

**[IA/TN/IND2/63665/2017, IA-J-11011/172/2017-IA-II (I)]**

**34.6.5.1** The proposal is for amendment in the ToR granted by the Ministry vide letter dated 30th May, 2017 for the proposed expansion in production of pigments and pigment related products by M/s Supreme Dyechem Private Limited at plot No.A-6/3, SIPCOT Industrial Complex, Pachayakuppam village, Cuddalore district, Tamil Nadu.

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

<table>
<tr><th>S. No.</th><th>Para of ToR</th><th>Details as per the ToR</th><th>To be revised/read as</th><th>Justification/ Reasons</th></tr>
<tr><td>1.</td><td>6.</td><td>The existing and proposed products are
<table>
<tr><th rowspan="2">S. No</th><th rowspan="2">Description</th><th colspan="2">Prod. Cap (MTPM)</th></tr>
<tr><th>Existing</th><th>Proposed</th></tr>
<tr><td>1</td><td>Alpha Blue</td><td>5.25</td><td>150</td></tr>
<tr><td>2</td><td>Beta Blue</td><td>5.0</td><td>100</td></tr>
<tr><td>3</td><td>CPC Crude Blue</td><td>-</td><td>300</td></tr>
<tr><td>4</td><td>Blue Additives</td><td>-</td><td>90</td></tr>
<tr><td></td><td>Total</td><td>10.25</td><td>640</td></tr>
</table></td><td>The existing and proposed products are
<table>
<tr><th rowspan="2">S. No</th><th rowspan="2">Description</th><th colspan="2">Prod. Cap (MTPM)</th></tr>
<tr><th>Existing</th><th>Proposed</th></tr>
<tr><td>1</td><td>Alpha Blue</td><td>5.25</td><td>150</td></tr>
<tr><td>2</td><td>Beta Blue</td><td>5.0</td><td>5.0</td></tr>
<tr><td>3</td><td>CPC Crude Blue</td><td>-</td><td>300</td></tr>
<tr><td>4</td><td>Blue Additives</td><td>-</td><td>75</td></tr>
<tr><td></td><td>Total</td><td>10.25</td><td>530</td></tr>
<tr><td></td><td>By products</td><td></td><td></td></tr>
<tr><td>1.</td><td>Ammonium Carbonate</td><td>--</td><td>255</td></tr>
<tr><td>2.</td><td>Ammonium Sulphate</td><td>--</td><td>150</td></tr>
<tr><td>3.</td><td>Copper Sulphate</td><td>--</td><td>6</td></tr>
</table></td><td>To restrict the effluent generation within the quantity permitted by M/s Cuddalore SIPCOT Industries Common Utilities Limited (CUSECS) for marine disposal. CUSECS is an organization got approval for common discharge of effluent generated from small industrial</td></tr>
</table>

| S. No. | Para of ToR | Details as per the ToR | To be revised/read as | Justification/ Reasons |
|---|---|---|---|---|
| | | | 4. Spent Acid (Dil) -- 6750 | units located in SIPCOT, Cuddalore. |
| 2 | **5.** | Total water requirement of 1455 KLD will be met from SIPCOT Water supply, Cuddalore. The effluent generated is treated in Effluent Treatment Plant unit and excess treated effluent is discharged to CUSECS. Power requirement after expansion will be 1500 KVA will be met from Tamil Nadu Electricity Board, existing unit has a DG set of 65 KVA capacity. Stack (height 15.0 m) provided as per CPCB norms. Three stage scrubbers are attached to process vessel of CPC crude Plant with a stack height of 15 m as per CPCB norms. | Total Water requirement of 768 KLD will be met from SIPCOT Water supply, Cuddalore. The effluent generation of 448.4 KLD will be treated in Effluent Treatment Plant and part of it (60 KLD) will be recycled in process and remaining treated effluent (344 KLD) will be discharged to CUSECS. Power requirement after expansion will be 1500 KVA which will be met from Tamil Nadu Electricity Board, existing unit has a DG set of 65 KVA capacity. Stack (height 15 m) provided as per CPCB norms. Three stage scrubbers will be provided to process vessel of CPC crude Plant with a stack height of 15 m as per CPCB norms. | The reduction in production capacity would bring down the water requirement and effluent generation. |
| 3. | **Additional ToR, iv.** | A plan for implementation of Zero Liquid Discharge shall be submitted | Permission for disposal of treated effluent into common disposal facility provided by CUSECS. | As CUSECS is providing service of discharge of treated effluent through its marine disposal facility for small industrial units, we propose to dispose the treated effluent through their pipeline. Moreover, the available land area of 0.5 ha is not adequate for the ZLD system. |

**34.6.5.3** *The EAC, after deliberations, recommended for amendment in said ToR dated 30th May, 2017 on the above lines.*

**Agenda No.34.6.6**

**Proposed Distillery, Sugar and Co-Gen Unit by M/s. G M Sugars & Energy Ltd at Sy. No. 40/2, 40/3, 40/4, 40/5, 40/6, 41/2, 41/3, 41/4, 41/5, 41/6, 47(P), 50/1 (P) of Chatnahalli Village, Hirekerur Taluk, District Haveri (Karnataka) - Amendment in ToR**

**[ IA/KA/IND2/63010/2017, IA-J-11011/77/2017-IA-II(I)]**

**34.6.6.1** The proposal is for amendment in terms of reference (ToR) granted by the Ministry vide letter dated 7th July, 2017 to M/s GM Sugars & Energy Ltd for the proposed Distillery, Sugar and Co-Gen Unit at Sy. No. 40/2, 40/3, 40/4, 40/5, 40/6, 41/2, 41/3, 41/4, 41/5, 41/6, 47(P), 50/1 (P) of Chatnahalli Village, Hirekerur Taluk, District Haveri (Karnataka).

**34.6.6.2** The project proponent has requested for amendment in the ToR with the details as under;

| S. No. | Para of ToR | Details as per the ToR | To be revised/ read as | Justification/ reasons |
|---|---|---|---|---|
| 1 | 1.0 | It is noted that the proposal is for setting up of a Distillery, Sugar and Co-Gen Unit at Sy. No. 40/2, 40/3, 40/4, 40/5, 40/6, 41/2, 41/3, 41/4, 41/5, 41/6, 47(P), 50/1 (P) of Chatnahalli Village, Hirekerur Taluk, Haveri District, Karnataka State by M/ s G M Sugars & Energy Ltd | It is noted that the proposal is for setting up of a Distillery, Sugar and Co-Gen Unit at Sy. No. 40/2, 40/3, 40/4, 40/5, 40/6, 41/2, 41/3, 41/4, 41/5, 41/6, 42, 47(P), 50/1(P), 41/1, 47/2, 49/1, 49/2, 53/5a/1, 62/2 of Chatnahalli Village and Sy No 50/1 and 51 of Kirigeri Village, Hirekerur Taluk, Haveri District, Karnataka State | We have been allotted some more KIADB land and we have made agreement with some patta land owners near our proposed site which has increased our project land extent but the production capacity will remain same as earlier proposed |
| 2 | 2.0 | Total 178 acres of land has been acquired for installation of Sugar Plant. Capital cost of proposed Project is ~ 350 Cr. | Total 256.11 acres of land has been acquired for installation of Sugar Plant. Capital cost of proposed Project is ~ 350 Cr. | By the addition of Sy Nos. 42, 41/1, 47/2, 49/1, 49/2, 53/5a/1, 62/2 Chatnahalli & Sy No 50/1 & 51 Kirigeri village the total extent will increase to 256.11 acres |
| 3 | 5.0 | These 'ToRs' should be considered for the preparation of EIA/EMP for proposed Distillery, Sugar and Co-Gen Unit at Sy. No. 40/2, 40/3, 40/4, 40/5, 40/6, 41/2, 41/3, 41/4, 41/5, 41/6, | These 'ToRs' should be considered for the preparation of EIA/EMP for proposed Distillery, Sugar and Co-Gen Unit at Sy. No. 40/2, 40/3, 40/4, 40/5, 40/6, 41/2, 41/3, 41/4, 41/5, 41/6, 42, 47(P), 50/1(P), 41/1, 47/2, 49/1, 49/2, | Sy Nos. 42, 41/1, 47/2, 49/1, 49/2, 53/5a/1, 62/2 Chatnahalli & Sy No 50/1 & 51 Kirigeri village to be added |

| | | | | |
|---|---|---|---|---|
| | | 47(P), 50/1 (P) of Chatnahalli Village, Hirekerur Taluk, Haveri District, Karnataka State by M/s G M Sugars & Energy Ltd, in addition to all the relevant information as per the 'General Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. | 53/5a/1, 62/2 of Chatnahalli Village and Sy No 50/1 and 51 of Kirigeri Village, Hirekerur Taluk, Haveri District, Karnataka State by M/s G M Sugars & Energy Ltd, in addition to all the relevant information as per the 'General Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. | |
| 4 | Subject | Proposed Distillery, Sugar and Co-Gen Unit at Sy. No. 40/2, 40/3, 40/4, 40/5, 40/6, 41/2, 41/3, 41/4, 41/5, 41/6, 47(P), 50/1 (P) of Chatnahalli Village, Hirekerur Taluk, Haveri District, Karnataka State by M/s GM Sugars & Energy Ltd. - Terms of References - reg. | Proposed Distillery, Sugar and Co-Gen Unit at Sy. No. 40/2, 40/3, 40/4, 40/5, 40/6, 41/2, 41/3, 41/4, 41/5, 41/6, 42, 47(P), 50/1(P), 41/1, 47/2, 49/1, 49/2, 53/5a/1, 62/2 of Chatnahalli Village and Sy No 50/1 and 51 of Kirigeri Village, Hirekerur Taluk, Haveri District, Karnataka State by M/s GMSugars & Energy Ltd. - Terms of References - reg. | Sy Nos. 42, 41/1, 47/2, 49/1, 49/2, 53/5a/1, 62/2 Chatnahalli & Sy No 50/1 & 51 Kirigeri village to be added |

**34.6.6.3** *The EAC, after deliberations, recommended the proposed amendment in said ToR dated 7th July, 2017, for addition of Sy. Nos.42, 41/1, 47/2, 49/1, 49/2, 53/5a/1, 62/2 of Chatnahalli village and Sy No.50/1 & 51 of Kirigeri village, resulting in increase in total project area from 178 to 256.11 acres.*

*****