# STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

**Environment department,**
**Room No. 217, 2nd floor,**
**Mantralaya, Annexe,**
**Mumbai- 400 032.**
**Date:May 7, 2019**

To,
**Deepak Fertilizers and Petrochemicals Corporation Limited**
at Plot No K1-K8, MIDC Taloja, Panvel

**Subject:** Environment Clearance for Proposed expansion of manufacturing of Iso Propyl Alcohol- Petroleum products and petrochemical based processing facility at Plot No K1-K8, MIDC Taloja, Panvel by Deepak Fertilizers and Petrochemicals Corporation Limited

Sir,

This has reference to your communication on the above mentioned subject. The proposal was considered as per the EIA Notification - 2006, by the State Level Expert Appraisal Committee-I, Maharashtra in its 159th (A) - Day-2th meeting and recommend the project for prior environmental clearance to SEIAA. Information submitted by you has been considered by State Level Environment Impact Assessment Authority in its 165th meetings.

2. It is noted that the proposal is considered by SEAC-I under screening category 5 (e)- B as per EIA Notification 2006.

**Brief Information of the project submitted by you is as below :-**

| | |
|---|---|
| **1.Name of Project** | Proposed expansion of manufacturing of Iso Propyl Alcohol- Petroleum products and petrochemical based processing facility at Plot No K1-K8, MIDC Taloja, Panvel by Deepak Fertilizers and Petrochemicals Corporation Limited |
| **2.Type of institution** | Private |
| **3.Name of Project Proponent** | Deepak Fertilizers and Petrochemicals Corporation Limited |
| **4.Name of Consultant** | Aditya Environmental Services Private Limited |
| **5.Type of project** | Not applicable |
| **6.New project/expansion in existing project/modernization/diversification in existing project** | Expansion of existing project |
| **7.If expansion/diversification, whether environmental clearance has been obtained for existing project** | Yes. |
| **8.Location of the project** | Plot No K1-K8, MIDC Taloja, Panvel |
| **9.Taluka** | Panvel |
| **10.Village** | Taloja |
| **Correspondence Name:** | Mr. Deepak Pande |
| **Room Number:** | -- |
| **Floor:** | -- |
| **Building Name:** | -- |
| **Road/Street Name:** | -- |
| **Locality:** | -- |
| **City:** | -- |
| **11.Whether in Corporation / Municipal / other area** | MIDC Taloja |

| | |
|---|---|
| **12.IOD/IOA/Concession/Plan Approval Number** | MIDC approved plot plan |
| | **IOD/IOA/Concession/Plan Approval Number:** MIDC approved plot plan |
| | **Approved Built-up Area:** 270889 |
| **13.Note on the initiated work (If applicable)** | Expansion within existing project. |
| **14.LOI / NOC / IOD from MHADA/ Other approvals (If applicable)** | MIDC approved plot plan |
| **15.Total Plot Area (sq. m.)** | 385584 sq m |
| **16.Deductions** | Not applicable |
| **17.Net Plot area** | Not applicable |
| **18 (a).Proposed Built-up Area (FSI & Non-FSI)** | **FSI area (sq. m.):** Not applicable |
| | **Non FSI area (sq. m.):** Not applicable |
| | **Total BUA area (sq. m.):** 14050 |
| **18 (b).Approved Built up area as per DCR** | **Approved FSI area (sq. m.):** 306399 |
| | **Approved Non FSI area (sq. m.):** NA |
| | **Date of Approval:** 28-08-2015 |
| **19.Total ground coverage (m2)** | Not applicable |
| **20.Ground-coverage Percentage (%) (Note: Percentage of plot not open to sky)** | Not applicable |
| **21.Estimated cost of the project** | 8437500000 |

## 22.Production Details

| Serial Number | Product | Existing (MT/M) | Proposed (MT/M) | Total (MT/M) |
|---|---|---|---|---|
| 1 | Liquid CO2 | 72,000 MT/A | 0 MT/A | 72,000 MT/A |
| 2 | Ammonia | 140,400 MT/A | 0 MT/A | 140,400 MT/A |
| 3 | Methanol | 99,996 MT/A | 0 MT/A | 99,996 MT/A |
| 4 | Weak Nitric acid | 445,500 MT/A | 0 MT/A | 445,500 MT/A |
| 5 | Concentrated nitric acid | 129,600 MT/A | 0 MT/A | 129,600 MT/A |
| 6 | Multiple grade NPK Fertilizer | 6,00,000 MT/A | 525000 MT/A | 11,25,000 MT/A |
| 7 | Technical grade ammonium nitrate" plus ammonium nitrate melt | 444,000 MT/A | 0 MT/A | 444,000 MT/A |
| 8 | Iso propyl alcohol (IPA) | 70200 MT/A | 110000 MT/A | 180200 MT/A |
| 9 | Electric power | 9.4 MW | 0 MT/A | 9.4 MW |
| 10 | Steam | 1,056 MT/day | 0 MT/A | 1,056 MT/day |
| 11 | Bentonite sulphur pastilles | 25,000 MT/A | 0 MT/A | 25,000 MT/A |
| 12 | Iso propyl alcohol (for drum filling operation (packaging operation) only) | 15,000 MT/A | 0 MT/A | 15,000 MT/A |
| 13 | Di iso propyl ether (DIPE) (for drum filling operation (packaging operation) only | 15000 MT/A | 0 MT/A | 15000 MT/A |
| 14 | Gas based power generation (excluding DG sets) | 17.9 MW | 0 MT/A | 17.9 MW |
| 15 | Propane (By product) | 33,000 MT/A | 15,000 MT/A | 48,000 MT/A |
| 16 | Calcium phosphate (By product) | 210 MT/A | 0 MT/A | 210 MT/A |
| 17 | Crude DIPE (By product) | 1,440 MT/A | 0 MT/A | 1,440 MT/A |
| 18 | Di iso propyl ether (DIPE) (By product) | 0 MT/A | 7000 MT/A | 7000 MT/A |
| 19 | Hydrogen gas (By product) | 960 MT/A | 0 MT/A | 960 MT/A |
| 20 | Crude IPA/NPA mixture (By product) | 1,080 MT/A | 1500 MT/A | 2580 MT/A |

## 23.Total Water Requirement

| | | |
|---|---|---|
| **Dry season:** | **Source of water** | MIDC Taloja |
| | **Fresh water (CMD):** | 23142 CMD |
| | **Recycled water - Flushing (CMD):** | Not applicable |
| | **Recycled water - Gardening (CMD):** | Not applicable |
| | **Swimming pool make up (Cum):** | Not applicable |
| | **Total Water Requirement (CMD) :** | 23863 CMD (23142 CMD from MIDC and 721 CMD recycle) |
| | **Fire fighting - Underground water tank(CMD):** | Not applicable |
| | **Fire fighting - Overhead water tank(CMD):** | Not applicable |
| | **Excess treated water** | Not applicable |
| **Wet season:** | **Source of water** | Not applicable |
| | **Fresh water (CMD):** | Not applicable |
| | **Recycled water - Flushing (CMD):** | Not applicable |
| | **Recycled water - Gardening (CMD):** | Not applicable |
| | **Swimming pool make up (Cum):** | Not applicable |
| | **Total Water Requirement (CMD) :** | Not applicable |
| | **Fire fighting - Underground water tank(CMD):** | Not applicable |
| | **Fire fighting - Overhead water tank(CMD):** | Not applicable |
| | **Excess treated water** | Not applicable |
| **Details of Swimming pool (If any)** | Not applicable | |

## 24.Details of Total water consumed

| Particulars | Consumption (CMD) | | | Loss (CMD) | | | Effluent (CMD) | | |
|---|---|---|---|---|---|---|---|---|---|
| Water Requirement | Existing | Proposed | Total | Existing | Proposed | Total | Existing | Proposed | Total |
| Domestic | 172 | 0 | 172 | 18.5 | 0 | 18.5 | 153.5 | 0 | 153.5 |
| Industrial Process | 2358 | 480 | 2838 | 1188.7 | 130 | 1668.7 | 1169.3 | 350 | 1169.3 |
| Cooling tower & thermopack | 18813 | 2040 | 20853 | 16004.02 | 1669 | 18044.02 | 2808.98 | 371 | 2808.98 |

| | | |
|---|---|---|
| **25.Rain Water Harvesting (RWH)** | **Level of the Ground water table:** | -- |
| | **Size and no of RWH tank(s) and Quantity:** | -- |
| | **Location of the RWH tank(s):** | -- |
| | **Quantity of recharge pits:** | -- |
| | **Size of recharge pits :** | -- |
| | **Budgetary allocation (Capital cost) :** | -- |
| | **Budgetary allocation (O & M cost) :** | -- |
| | **Details of UGT tanks if any :** | -- |
| **26.Storm water drainage** | **Natural water drainage pattern:** | -- |
| | **Quantity of storm water:** | -- |
| | **Size of SWD:** | Detailed drawing is attached as Annexure 6 |
| **27.Sewage and Waste water** | **Sewage generation in KLD:** | 153.5 cmd |
| | **STP technology:** | Sewage water is used as food to bacteria in bioreactor at ETP. |
| | **Capacity of STP (CMD):** | -- |
| | **Location & area of the STP:** | -- |
| | **Budgetary allocation (Capital cost):** | -- |
| | **Budgetary allocation (O & M cost):** | -- |

## 28.Solid waste Management

| | | |
|---|---|---|
| **Waste generation in the Pre Construction and Construction phase:** | **Waste generation:** | Ready mixed concrete will be used to avoid/minimise civil debris and dust emission. Also soil will be refilled back. |
| | **Disposal of the construction waste debris:** | Scrap generated will be sold to recycler. |
| **Waste generation in the operation Phase:** | **Dry waste:** | -- |
| | **Wet waste:** | -- |
| | **Hazardous waste:** | Spent catalyst, Residue and wastes, Discarded containers/liners, Used oil filters (non-metallic), Residues and wastes (silica gel), Date expired, discarded and off specification drugs (Ni Cd batteries), Used/Spent oil, Waste/residue containing oil, Used containers, Spray cans, spent catalyst, Used denoxed catalyst as spent catalyst, ,Used oil filters (nonmetallic), Date expired, discarded and off specification drugs (Lead acid batteries), Date expired, discarded and off specification drugs (Dry |
| | **Biomedical waste (If applicable):** | Soiled waste, Glassware |
| | **STP Sludge (Dry sludge):** | -- |
| | **Others if any:** | -- |
| **Mode of Disposal of waste:** | **Dry waste:** | -- |
| | **Wet waste:** | -- |
| | **Hazardous waste:** | Hazardous waste will be disposed of to CHWTSDF/ sale to authorized Recycler or Reuser as per Hazardous waste rule 2016. |
| | **Biomedical waste (If applicable):** | Biomedical waste will be disposed off as per Biomedical waste rule 2016. |
| | **STP Sludge (Dry sludge):** | -- |
| | **Others if any:** | -- |
| **Area requirement:** | **Location(s):** | Within plot |
| | **Area for the storage of waste & other material:** | -- |
| | **Area for machinery:** | -- |
| **Budgetary allocation (Capital cost and O&M cost):** | **Capital cost:** | -- |
| | **O & M cost:** | -- |

## 29.Effluent Charecterestics

| Serial Number | Parameters | Unit | Inlet Effluent Charecterestics | Outlet Effluent Charecterestics | Effluent discharge standards (MPCB) |
|---|---|---|---|---|---|
| 1 | pH | -- | 4 - 9 | 6 - 8.5 | 6 - 8.5 |
| 2 | Oil and grease | mg/lit | 2 - 3 | < 10 | < 10 |
| 3 | BOD | mg/lit | 200 - 300 | < 100 | < 100 |
| 4 | TDS | mg/lit | 1000-1500 | < 2100 | < 2100 |
| 5 | Ammonical nitrogen | mg/lit | 1800 – 2000 | < 50 | < 50 |
| 6 | Nitrate nitrogen | mg/lit | 150 - 200 | < 20 | < 20 |
| 7 | Phosphate | mg/lit | 80-100 | < 5.0 | < 5.0 |
| 8 | Free Ammonical nitrogen | mg/lit | 100-150 | < 4 | < 4 |
| 9 | Suspended solids | mg/lit | 70 - 80 | <100 | <100 |

| | |
|---|---|
| Amount of effluent generation (CMD): | 4131.78 + 721( from IPA expansion) = 4852.78 CMD |
| Capacity of the ETP: | 4200 CMD |
| Amount of treated effluent recycled : | 721 CMD |
| Amount of water send to the CETP: | 4131.78 CMD |
| Membership of CETP (if require): | Yes. Unit is already member of CETP. |
| Note on ETP technology to be used | 1. Existing: Low TDS effluent stream > Collection tank > Reaction tank > Ammonia stripper > Denitrification reactor I > Sec. clarifier I > Denitrification reactor II > Aeration tank > Sec. clarifier II > Final Polishing tank High TDS effluent stream > RO > Permeate recycle, 2. Proposed: Ceramic based membranes , ion exchange resins followed by bioreactor |
| Disposal of the ETP sludge | ETP sludge will be sent to CHWTSDF for landfill. |

## 30.Hazardous Waste Details

| Serial Number | Description | Cat | UOM | Existing | Proposed | Total | Method of Disposal |
|---|---|---|---|---|---|---|---|
| 1 | Spent catalyst | 18.1 | MT/Y | 48.34 | 210 | 258.34 | Sale to authorized party approved by CPCB/ MPCB |
| 2 | Residue and wastes | 31.1 | MT/Y | 10 | 115 | 125 | Sale to recycler/ CHWTSDF |
| 3 | Discarded containers/liners | 33.3 | MT/Y | 346 | 0 | 346 | Sale to authorized party for decontamination |
| 4 | Used oil filters (non metallic) | 5.2 | No/Y | 25 | 6 | 31 | CHWTSDF |
| 5 | Residues and wastes (silica gel) | 31.1 | MT/2 years | 60 MT/2 years | 0 | 60 MT/2 years | Sale to authorized party / recycler |
| 6 | Date expired, discarded and off specification drugs (Ni Cd batteries) | 28.3 | once in 5 years | 400 No once in 5 years | 60 No once in 5 years | 460 No once in 5 years | Sale to reuser |
| 7 | Used/ Spent oil | 5.1 | KL/Y | 130 | 7 | 137 | Sale to authorized party approved by CPCB/ MPCB |
| 8 | Waste/ residue containing oil | 5.2 | MT/Y | 10 | 2 | 12 | CHWTSDF |
| 9 | Used containers | 33.3 | No/Y | 3012 | 0 | 3012 | CHWTSDF |
| 10 | Spray cans | 33.3 | No/Y | 900 | 200 | 1100 | CHWTSDF |
| 11 | Platinum, Rhodium catalyst as spent catalyst | 17.2 | Kg/Y | 100 | 0 | 100 | CHWTSDF/sale to recycler |
| 12 | Used denoxed catalyst as spent catalyst | 17.2 | MT/6 years | 10 | 0 | 10 | CHWTSDF/sale to recycler |
| 13 | Used oil filters (nonmetallic) | 5.2 | No/Y | 20 | 0 | 20 | CHWTSDF |
| 14 | Date expired, discarded and off specification drugs (Lead acid batteries) | 28.3 | No/Y | 34 | 20 | 54 | Sale to reuser |
| 15 | Date expired, discarded and off specification drugs (Dry cell batteries) | 28.3 | No/Y | 300 | 50 | 350 | Sale to reuser |
| 16 | Chemical sludge from waste water treatment | 35.3 | TPM | 30 | 0 | 30 | sent to CHWTSDF |
| 17 | Ion exchange resins | 35.2 | TPM | 0 | 100 | 100 | sent to CHWTSDF |

## 31.Stacks emission Details

| Serial Number | Section & units | Fuel Used with Quantity | Stack No. | Height from ground level (m) | Internal diameter (m) | Temp. of Exhaust Gases |
|---|---|---|---|---|---|---|
| 1 | Ammonia Primary reformer (existing) | Natural Gas - 94218.5 sm3/day | -- | 30 | 1.373 | 170 deg C |
| 2 | Boiler A & B (existing) | Natural gas / Naphtha – 32400 sm3/day or 50 MTPD each | -- | 30 (common stack) | 1 | 125 deg C |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | Methanol Primary reformer (Existing) | Natural Gas - 60150 sm3/day | -- | 30 | 1.373 | 115 deg C |
| 4 | CNA Plant 1 (Existing) | -- | -- | 42 | 0.075 | 25 deg C |
| 5 | CNA Plant 2 (Existing) | -- | -- | 42 | 0.075 | 25 deg C |
| 6 | CNA Plant 3 (Existing) | -- | -- | 42 | 0.075 | 25 deg C |
| 7 | WNA-I Plants (Existing) | -- | -- | 39 | 0.953 | 38 deg C |
| 8 | WNA II Plants (Existing) | -- | -- | 39 | 0.953 | 38 deg C |
| 9 | WNA III Plants (Existing) | -- | -- | 60 | 0.953 | 38 deg C |
| 10 | WNA IV Plants(Existing) | -- | -- | 52 | 0.953 | 130 Deg C |
| 11 | ANP Prilling tower (Existing) | -- | -- | 84 | 1.5 | 50 Deg C |
| 12 | LDAN Prilling tower (Existing) | -- | -- | 84 | 1.3 | 50 Deg C |
| 13 | ANP cyclone separator (Existing) | -- | -- | 30 | 1.5 | 34 Deg C |
| 14 | ANP vacuum pump(Existing) | -- | -- | 27.8 | 0.2 | 35 deg C |
| 15 | LDAN ventury scrubber(Existing) | -- | -- | 24.5 | 1.5 | 41 deg C |
| 16 | Boiler C (Standby) (Existing) | Natural Gas - 12600 sm3/day | -- | 30.5 | 1 | 125 Deg C |
| 17 | Boiler D (Standby) (Existing) | Natural gas / FO – 54000 sm3/day or 40 MTPD | -- | 63 | 1 | 170 Deg C |
| 18 | CES – A engine exhaust boiler(Existing) | Natural Gas - 30750 sm3/day | -- | 30.75 | 1.5 | 205 deg C |
| 19 | CES – B engine exhaust boiler(Existing) | Natural Gas - 30750 sm3/day | -- | 30.75 | 1.5 | 205 deg C |
| 20 | CO2 liquifier 1 (Existing) | -- | -- | 8 | 0.025 | 24 Deg C |
| 21 | CO2 liquifier 2 (Existing) | -- | -- | 8 | 0.025 | 24 Deg C |
| 22 | Stripper 1 (Existing) | -- | -- | 5.1 | 0.511 | -60 Deg C |
| 23 | Stripper 2 (Existing) | -- | -- | 5.1 | 0.511 | -60 Deg C |
| 24 | Combined (1 Nos) (Existing) | -- | -- | 8 | 0.075 | 122 Deg C |
| 25 | Turbine - 1 (Existing) | Natural Gas - 37120 sm3/day | -- | 30 | 1.067 | 125 Deg C |
| 26 | HRSG - 1(Existing) | Natural gas/ Naphtha – 19584 sm3/day or 30 MTPD | -- | 30 | 1.067 | 125 Deg C |
| 27 | Turbine – 2 (Existing) | Natural Gas - 37120 sm3/day | -- | 30 | 1.067 | 125 Deg C |
| 28 | HRSG – 2 (Existing) | Natural gas/ Naphtha – 19584 sm3/day or 30 MTPD | -- | 30 | 1.067 | 125 Deg C |

| | | | | | | |
|---|---|---|---|---|---|---|
| 29 | Turbine - 3 (Existing) | Natural Gas - 42888 sm3/day | -- | 30 | 1.5 | 550 Deg C |
| 30 | HRSG - 3 (Existing) | -- | -- | 30 | 1.5 | 190 Deg C |
| 31 | Turbine - 4 Existing) | Natural Gas - 42888 sm3/day | -- | 30 | 1.5 | 550 Deg C |
| 32 | HRSG - 4( Existing) | -- | -- | 30 | 1.5 | 190 Deg C |
| 33 | Turbine - 5 (Existing) | Natural Gas - 45984 sm3/day | -- | 30 | 1.5 | 550 Deg C |
| 34 | HRSG - 5 (Existing) | -- | -- | 30 | 1.5 | 190 Deg C |
| 35 | G P Vent (Existing) | -- | -- | 30 | 0.64 | 110 Deg C |
| 36 | 780 weak nitric acid plant(Existing) | -- | -- | 48 | 1.3 | 131 deg C |
| 37 | 600 TPD LDAN prilling towers, dryers(Existing) | -- | -- | 2 | 1.3 | 38.5 deg C |
| 38 | 300 TPD HDAN Scrubber (existing) | -- | -- | 11 | 1.1 | 50 Deg C |
| 39 | 300 TPD HDAN prilling tower(Existing) | -- | -- | 2 | 1.2 | 50 Deg C |
| 40 | 40 TPH boiler (Existing) | Natural gas / FO- 73920 sm3/day or 49 MTPD | -- | 86 (Common stack for 40 TPH and 15 TPH boiler) | 1.8 | 180 Deg C |
| 41 | 15 TPH boiler(Existing) | Natural gas / FO – 28800 sm3/day or 26 MTPD | -- | 86 (Common stack for 40 TPH and 15 TPH boiler) | 1.8 | 180 Deg C |
| 42 | Pastillator 1 | -- | -- | 8 | 0.152 | 52 Deg C |
| 43 | Pastillator 2 | -- | -- | 8 | 0.152 | 52 Deg C |
| 44 | Batch and feed tank(Existing) | -- | -- | 10 | 0.152 | 55 Deg C |
| 45 | DG set 1 x 500 KVA (Existing) | Diesel | -- | 4.5 | 0.254 | 150 Deg C |
| 46 | DG set 1 x 500 KVA (existing) | Diesel | -- | 4.5 | 0.254 | 112 Deg C |
| 47 | DG set – 1000 KVA x 1 No (Existing) | Diesel | -- | 6.5 | 0.254 | 183 Deg C |
| 48 | DG set – 1000 KVA x 1 Nos (Existing) | Diesel | -- | 6.5 | 0.254 | 183 Deg C |
| 49 | DG set – 200 KVA (Existing) | Diesel | -- | 3 | 0.152 | 88 Deg C |
| 50 | DG set – 1500 KVA (Existing) | Diesel | -- | 6.5 | 0.152 | 170 Deg C |
| 51 | DG set – 1010 KVA (Existing) | Diesel | -- | 30 | 0.152 | 176 Deg C |
| 52 | DG set – 750 KVA (Existing) | Diesel | -- | 6.32 | 0.203 | 156 Deg C |

| | | | | | | |
|---|---|---|---|---|---|---|
| 53 | Process stack 1 (Existing) | -- | -- | 60 | 2.8 | 45 Deg C |
| 54 | Process stack 2 (Existing) | -- | -- | 60 | 2.8 | 45 Deg C |
| 55 | Boiler 36 TPH (Existing) | Coal – 166 TPD | -- | 66 (common stack for 36 TPH and 70 TPH boiler) | 1.9 | 140 |
| 56 | Boiler 70 TPH (Existing) | Coal – 320 TPD | -- | 66 (common stack for 36 TPH and 70 TPH boiler) | 1.9 | 140 |
| 57 | Flare (NH3) (existing) | -- | -- | 50 | 0.254 | -- |
| 58 | Flare (NH3 storage) (existing) | -- | -- | 40 | 0.254 | -- |
| 59 | Flare (IPA) (Existing) | -- | -- | 66 | 0.584 | -- |
| 60 | Flare (IPA) (Proposed) | -- | -- | -- | -- | -- |
| 61 | DG set (capacity- 200 KVA) (Proposed) | Diesel- 200 Lit/ Day | -- | 3 | 0.152 | 88 Deg C |

## 32.Details of Fuel to be used

| Serial Number | Type of Fuel | Existing | Proposed | Total |
|---|---|---|---|---|
| 1 | Natural gas (Ammonia primary reformer) | 94218.5 sm3/day | 0 | 94218.5 sm3/day |
| 2 | Natural gas / naphtha (Boiler A & B) | 32400 sm3/day or 50 MTPD each | 0 | 32400 sm3/day or 50 MTPD each |
| 3 | Natural gas / naphtha (Boiler A & B) | 32400 sm3/day or 50 MTPD each | 0 | 32400 sm3/day or 50 MTPD each |
| 4 | Natural gas (Methanol primary reformer) | 60150 sm3/day | 0 | 60150 sm3/day |
| 5 | Natural gas (Boiler C standby) | 12600 sm3/day | 0 | 12600 sm3/day |
| 6 | Natural gas or FO (Boiler D standby) | 54000 sm3/day or 40 MTPD | 0 | 54000 sm3/day or 40 MTPD |
| 7 | Natural Gas (CES – A engine) | 30750 sm3/day | 0 | 30750 sm3/day |
| 8 | Natural Gas (CES – B engine) | 30750 sm3/day | 0 | 30750 sm3/day |
| 9 | Natural Gas (Turbine 1) | 37120 sm3/day | 0 | 37120 sm3/day |
| 10 | Natural gas or naphtha (HRSG 1) | 19584 sm3/day or 30 MTPD | 0 | 19584 sm3/day or 30 MTPD |
| 11 | Natural Gas (Turbine 2) | 37120 sm3/day | 0 | 37120 sm3/day |
| 12 | Natural gas or naphtha (HRSG 2) | 19584 sm3/day or 30 MTPD | 0 | 19584 sm3/day or 30 MTPD |
| 13 | Natural Gas (Turbine 3) | 42888 sm3/day | 0 | 42888 sm3/day |
| 14 | Natural Gas (Turbine 4) | 42888 sm3/day | 0 | 42888 sm3/day |
| 15 | Natural Gas (Turbine 5) | 45984 sm3/day | 0 | 45984 sm3/day |

| | | | | |
|---|---|---|---|---|
| 16 | Natural gas /FO (40 TPH boiler) | 73920 sm3/day Or 49 MT/Day | 0 | 73920 sm3/day Or 49 MT/Day |
| 17 | Natural gas /FO (15 TPH boiler) | 28800 sm3/day Or 26 MT/Day | 0 | 28800 sm3/day Or 26 MT/Day |
| 18 | Diesel (DG set – 500 KVA x 2 Nos, DG set – 1000 KVA x 2 Nos, DG set – 200 KVA, DG set – 1500 KVA, DG set – 1010 KVA | 8000 Lit/day | 0 | 8000 Lit/day |
| 19 | Diesel (DG set – 750 KVA) | 250 Lit/Hr | 0 | 250 Lit/Hr |
| 20 | Coal (Boiler 36 TPH) | 166 TPD | 0 | 166 TPD |
| 21 | Coal (Boiler 70 TPH) | 320 TPD | 0 | 320 TPD |
| 22 | Natural Gas (NPK plant) | 5000 sm3/day | 0 | 5000 sm3/day |
| 23 | DG set – 515 KVA (Proposed) | 0 | 200 Lit/ Day | 200 Lit/ Day |
| 33.Source of Fuel | | Local / Imported | | |
| 34.Mode of Transportation of fuel to site | | Liquid raw material will be transported by road tankers & Natural Gas by GAIL NG pipelines | | |

## 35.Energy

| | | |
|---|---|---|
| **Power requirement:** | **Source of power supply :** | Inhouse cogeneration plant & MSEDCL |
| | **During Construction Phase: (Demand Load)** | Inhouse cogeneration plant & MSEDCL |
| | **DG set as Power back-up during construction phase** | Existing DG set |
| | **During Operation phase (Connected load):** | 7 MW |
| | **During Operation phase (Demand load):** | 4 MW |
| | **Transformer:** | 2 Nos. of 8 MVA, 2 Nos. of 2.5 MVA |
| | **DG set as Power back-up during operation phase:** | 515 KVA |
| | **Fuel used:** | Diesel |
| | **Details of high tension line passing through the plot if any:** | -- |

## Energy saving by non-conventional method:

It is proposed to install 200 KW solar energy panels.

## 36.Detail calculations & % of saving:

| Serial Number | Energy Conservation Measures | Saving % |
|---|---|---|
| 1 | -- | -- |

## 37.Details of pollution control Systems

| Source | Existing pollution control system | Proposed to be installed |
|---|---|---|

| | | |
|---|---|---|
| Air pollution sources | Scrubber for process mission, Cyclone separator, ESP | flare |
| Water pollution sources | ETP, RO | ceramic membranes, resins, bioreactor |
| Hazardous waste generation | Disposal to CHWTSDF/ Authorize recycler | Disposal through authorized recycler |

| | | |
|---|---|---|
| **Budgetary allocation (Capital cost and O&M cost):** | **Capital cost:** | -- |
| | **O & M cost:** | -- |

## 38.Environmental Management plan Budgetary Allocation

### a) Construction phase (with Break-up):

| Serial Number | Attributes | Parameter | Total Cost per annum (Rs. In Lacs) |
|---|---|---|---|
| 1 | Ambient Air | As per NAAQMS | 1.62 |
| 2 | Noise | As per NAAQMS | 0.1 |
| 3 | Dust control by water sprinking | -- | 5 |

### b) Operation Phase (with Break-up):

| Serial Number | Component | Description | Capital cost Rs. In Lacs | Operational and Maintenance cost (Rs. in Lacs/yr) |
|---|---|---|---|---|
| 1 | Air Pollution Control & Monitoring | flare | 1350 | 27 |
| 2 | Noise Pollution Control | Acoustic DG set | 125 | 2.5 |
| 3 | Water Pollution Control & monitoring | ceramic membranes, resins, bioreactor | 2600 | 52 |
| 4 | Solid and Hazardous Waste management | Solid and Hazardous Waste management | 20 | 1 |
| 5 | Green belt development | Green belt development | 312 | 40 |
| 6 | Occupational Health & Safety | fire hydrant system, sensor | 400 | 10 |
| 7 | Other Green Initiatives | Solar Power | 162 | 2 |
| 8 | Other Green Initiatives | Energy Conservation (LED) | 25 | 1 |

## 39.Storage of chemicals (inflamable/explosive/hazardous/toxic substances)

| Description | Status | Location | Storage Capacity in MT | Maximum Quantity of Storage at any point of time in MT | Consumption / Month in MT | Source of Supply | Means of transportation |
|---|---|---|---|---|---|---|---|
| Ammonia | Existing | Within plot | 16098 | 13000 | 50700 | Self production / Imported | Tanker |
| Ammonia | Existing | Within plot | 2480 | 3000 | 50700 | Self production / Imported | Tanker |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DNA | Existing | Within plot | 2 x 2093 | 2 x 1700 | 41063 | Self production | Tanker |
| CNA | Existing | Within plot | 3 x 175 | 3 x 140 | 0 | Self production | Tanker |
| CNA | Existing | Within plot | 2 x 289 | 2 x 230 | 0 | Self production | Tanker |
| Methanol | Existing | Within plot | 4498 | 3500 | 0 | Self production | Tanker |
| Liquid CO2 | Existing | Within plot | 2 x 158 | 2 x 125 | 0 | Self production | Tanker |
| Phosphoric acid | Existing | Within plot | 2 x 3059 | 2 x 2450 | 27700 | Imported | Tanker |
| Phosphoric acid | Existing | Within plot | 2 x 3086 | 2 x 2500 | 27700 | Imported | Tanker |
| Sulphuric acid | Existing | Within plot | 585 | 475 | 11000 | Local market | Tanker |
| Crude DIPE | Existing | Within plot | 43 | 35 | 0 | Self production | Tanker |
| Crude DIPE | Existing | Within plot | 64 | 50 | 0 | Self production | Tanker |
| Crude DIPE | Existing | Within plot | 45 | 36 | 0 | Self production | Tanker |
| DIPE (100 %) | Existing | Within plot | 25 | 20 | 120 | Self production | Tanker |
| Propylene | Existing | Within plot | 3 x 500 | 3 x 400 | 7200 | BPCL/GAIL/HPCL | Tanker |
| Propane | Existing | Within plot | 500 | 400 | -- | Self production | Tanker |
| IPA | Existing | Within plot | 5000 | 4000 | -- | Self production | Tanker |
| Off spec product | Existing | Within plot | 72 | 56 | -- | Self production | -- |
| Azeo product | Existing | Within plot | 72 | 56 | -- | Self production | -- |
| Dry Product | Existing | Within plot | 2 x 72 | 2 x 56 | -- | Self production | Tanker |
| Phosphoric acid(food grade) | Existing | Within plot | 20 | 16 | 3 | Imported | Tanker |
| Dil Phos acid tank | Existing | Within plot | 100 | 80 | -- | Self production | -- |
| Caustic lye | Existing | Within plot | 30 | 24 | 120 | Local Market | Tanker |
| DIPE storage tank (2 Nos) | Proposed | Within plot | 2 x 60 | 2 x 48 | -- | Self production | Tanker |
| Heavy & light weight storage tanks (2 Nos) | Proposed | Within plot | 2 x 60 | 2 x 48 | -- | Self production | Tanker |
| IPA offspec storage tank (One No) | Proposed | Within plot | 900 | 720 | -- | Self production | -- |
| IPA storage tanks (Pharma or specialty grade) (2Nos) | Proposed | Within plot | 2 x 260 | 2 x 200 | -- | Self production | Tanker |
| Day tank of heavy components(2Nos) | Proposed | Within plot | 2 x 12 | 2 x 10 | -- | Self production | -- |
| Day tank DIPE (2 Nos) | Proposed | Within plot | 2 x 22 | 2 x 16 | -- | Self-production | -- |

## 40.Any Other Information

No Information Available

| | | |
|---|---|---|
| | **CRZ/ RRZ clearance obtain, if any:** | Not applicable |
| | **Distance from Protected Areas / Critically Polluted areas / Eco-sensitive areas/ inter-State boundaries** | Not applicable |
| | **Category as per schedule of EIA Notification sheet** | 5 (e)- B |
| | **Court cases pending if any** | -- |
| | **Other Relevant Informations** | -- |
| | **Have you previously submitted Application online on MOEF Website.** | Yes |
| | **Date of online submission** | 10-10-2016 |

**3. The proposal has been considered by SEIAA in its 165th meeting & decided to accord environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions:**

**Specific Conditions:**

| | |
|---|---|
| **I** | PP to submit structural stability certificate of the exisitng buidlings on site. |
| **II** | PP to prepare and implment CER plan in consultation with the District Auhtority as per OM issued by MoEF&CC dated 01.05.2018. |
| **III** | PP to include water and carbon foot print in the monitoirng of EMP. |
| **IV** | PP to ensure completion of Zero Liquid Discharge ETP for proposed expansion before applying for the Consent to Operate. |
| **V** | PP to ensure to comply with the conditions stipulated in the Office Memorandum issued by MoEF&CC dated 9th August, 2018. |
| **VI** | PP to submit CER plan to District Collector and submit the acknowledgement to Member Secretary, SEIAA. |

**General Conditions:**

| | |
|---|---|
| **I** | (i)PP to achieve Zero Liquid Discharge ; PP shall ensure that there is no increase in the effluent load to CETP. |
| **II** | No additional land shall be used /acquired for any activity of the project without obtaining proper permission. |
| **III** | PP to take utmost precaution for the health and safety of the people working in the unit as also for protecting the environment. |
| **IV** | Proper Housekeeping programmers shall be implemented. |
| **V** | In the event of the failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieve. |
| **VI** | A stack of adequate height based on DG set capacity shall be provided for control and dispersion of pollutant from DG set. (If applicable). |
| **VII** | A detailed scheme for rainwater harvesting shall be prepared and implemented to recharge ground water. |
| **VIII** | Arrangement shall be made that effluent and storm water does not get mixed. |
| **IX** | Periodic monitoring of ground water shall be undertaken and results analyzed to ascertain any change in the quality of water. Results shall be regularly submitted to the Maharashtra Pollution Control Board. |
| **X** | Noise level shall be maintained as per standards. For people working in the high noise area, requisite personal protective equipment like earplugs etc. shall be provided. |

| | |
|---|---|
| **XI** | The overall noise levels in and around the plant are shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures, etc. on all sources of noise generation. The ambient noise levels shall confirm to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989. |
| **XII** | Green belt shall be developed & maintained around the plant periphery. Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept. |
| **XIII** | Adequate safety measures shall be provided to limit the risk zone within the plant boundary, in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warning. |
| **XIV** | Occupational health surveillance of the workers shall be done on a regular basis and record maintained as per Factories Act. |
| **XV** | (The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. |
| **XVI** | The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Waste (Management and Handling) Rules, 2003 (amended). Authorization from the MPCB shall be obtained for collections/treatment/storage/disposal of hazardous wastes. |
| **XVII** | Regular mock drills for the on-site emergency management plan shall be carried out. Implementation of changes / improvements required, if any, in the on-site management plan shall be ensured. |
| **XVIII** | A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards. |
| **XIX** | Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should reported to the MPCB & this department |
| **XX** | The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at http://ec.maharashtra.gov.in |
| **XXI** | Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year. |
| **XXII** | A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent. |
| **XXIII** | The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM. SO2, NOx (ambient levels as well as stack emissions) or critical sectorai parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain. |
| **XXIV** | The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. |
| **XXV** | The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail. |

**4. The environmental clearance is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.**

**5. In case of submission of false document and non-compliance of stipulated conditions, Authority/ Environment Department will revoke or suspend the Environment clearance without any intimation and initiate appropriate legal action under Environmental Protection Act, 1986.**

**6. The Environment department reserves the right to add any stringent condition or to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.**

**7. Validity of Environment Clearance: The environmental clearance accorded shall be valid as per EIA Notification, 2006, and amendments by MoEF&CC Notification dated 29th April, 2015.**

**8. In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.**

**9. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.**

**10. Any appeal against this Environment clearance shall lie with the National Green Tribunal (Western Zone Bench, Pune),New Administrative Building, 1stFloor, D-, Wing, Opposite Council Hall, Pune, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.**

**Shri. Anil Diggikar (Member Secretary SEIAA)**

**Copy to:**

**1.** SECRETARY MOEF & CC

**2.** IA- DIVISION MOEF & CC

**3.** MEMBER SECRETARY MAHARASHTRA POLLUTION CONTROL BOARD MUMBAI

**4.** REGIONAL OFFICE MOEF & CC NAGPUR

**5.** REGIONAL OFFICE MPCB RAIGAD

**6.** REGIONAL OFFICE MIDC RAIGAD

**7.** MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD

**8.** COLLECTOR OFFICE RAIGAD