



Government of India  
Ministry of Environment, Forest and Climate Change  
(Impact Assessment Division)

To,

The Whole Time Director Operations  
M/S TAMILNADU PETROPRODUCTS LIMITED  
M/s Tamilnadu Petroproducts Limited, Manali Express Highway, Manali,  
Chennai,,Tiruvallur,Tamil Nadu-600068

**Subject:** Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/TN/IND3/413044/2023 dated 21 Feb 2023. The particulars of the environmental clearance granted to the project are as below.

- |  |   |
|--|---|
| 1. EC Identification No.                   | EC23A013TN173796  |
| 2. File No.                                | J-11011/20/99-IA-II(I)  |
| 3. Project Type                            | Expansion   |
| 4. Category                                | A   |
| 5. Project/Activity including Schedule No. | 4(d) Chlor-alkali industry  |
| 6. Name of Project                         | Expansion of Caustic Soda production capacity from 150 TPD to 250 TPD by bipolar membrane cell process in the existing Heavy Chemicals Division Plant (HCD Plant) |
| 7. Name of Company/Organization            | M/S TAMILNADU PETROPRODUCTS LIMITED   |
| 8. Location of Project                     | Tamil Nadu  |
| 9. TOR Date                                | N/A   |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 18/09/2023

(e-signed)  
Mr. Motipalli Ramesh  
Scientist E  
IA - (Industrial Projects - 3 sector)

*Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.*

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and Virtuous Environment Single-Window Hub)



**File No. J-11011/20/99-IA-II(I)**  
**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**Impact Assessment Division**  
**(Industry-III)**  
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Indira Paryavaran Bhawan,  
Jor Bagh Road,  
New Delhi – 110003.

Date: 18<sup>th</sup> September, 2023

To

**M/s Tamilnadu Petroproducts Limited,**  
Manali Express Highway, Manali Ambattur Taluk,  
Thiruvallur, Tamil Nadu - 600068.  
E-mail: [senthi@tnpetro.com](mailto:senthi@tnpetro.com)

**SUB.: Expansion of Caustic Soda production capacity from 150 TPD to 250 TPD by bipolar membrane cell process in the existing Heavy Chemicals Division Plant (HCD Plant) located at 266/1 (Part), 268 / 1 (Part), 267 / 2 (Part) Manali Village, Ambattur Taluk, Thiruvallur District, Tamil Nadu by M/s Tamilnadu Petroproducts Limited - Environmental Clearance**

**REF.:** Your proposal No. IA/TN/IND3/413044/2023, dated: 13<sup>th</sup> Jan. 2023, on the above subject matter.

Sir/Madam,

1. The proposal is for the environmental clearance for the Expansion of Caustic Soda production capacity from 150 TPD to 250 TPD by bipolar membrane cell process in the existing Heavy Chemicals Division Plant (HCD Plant) located at 266/1 (Part), 268 / 1 (Part), 267 / 2 (Part) Manali village, Ambattur Taluk, Thiruvallur District, Tamil Nadu State by M/s Tamilnadu Petroproducts Limited.
2. The project/activity is covered under Category 'B' of item 4(d), chlor-alkali industry. However, since the project site is located in a critically polluted area, the project attracts the general condition and considered as Category 'A' at Centre.
3. The ToR for preparation of EIA/EMP Report has been issued on 06.10.2022. The PP applied for Environment Clearance vide proposal number **IA/TN/IND3/413044/2023** on 13.1.2023 in CAF and submitted EIA /EMP Report and other documents. The PP in the CAF reported that it is an Expansion EC. Due to some shortcomings, the Project was referred back to the PP on 20.1.2023 and reply to the same was submitted on 30.1.2023 The proposal was placed in 47<sup>th</sup> EAC meeting, held on 15<sup>th</sup>-17<sup>th</sup> February, 2023, wherein the Project Proponent and an accredited Consultant, M/s. Eco Chem Sales & Services, Surat (NABET certificate no. NABET/EIA/2023/SA 0156 Validity: 15/03/2023 )made a detailed presentation on the salient features of the project and informed the following:
4. The PP reported that the existing land Area is 33.19 Acres (134315.16 m<sup>2</sup>). The proposed Expansion project will be carried out within the existing premises. Hence **no additional land** is required. The details of products and by-products are as follows:

| S. No. | Product Details     | CAS NO.   | Existing Quantity (MTPA) | Proposed Quantity (MTPA) | Total Quantity (MTPA) | Uses  |
|--------|---------------------|-----------|--------------------------|--------------------------|-----------------------|---|
| 1      | Caustic Soda        | 1310-73-2 | 49500                    | 33000                    | 82500                 | Paper & Pulp, Soap, Textiles, Aluminium Industries. |
| 2      | Liquid Chlorine     | 7782-50-5 | 49992                    | 6108                     | 56100                 | Chlorine derivatives & Disinfectant.                |
| 3      | Hydrochloric acid   | 7647-01-0 | 49500                    | 0.0                      | 49500                 | Basic Inorganic Chemical                            |
| 4      | Bottled Hydrogen    | 1333-74-0 | 1248                     | 0.0                      | 1248                  | Fuel/Glass Industries                               |
| 5      | Sodium Hypochlorite | 7681-52-9 | 4128                     | 0.0                      | 4128                  | Bleaching Agent                                     |

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and **NGT Case no: 256 of 2020 (SZ) - In progress**

- The referred case is a Suo-Moto case taken up by NGT (SZ) on 15.12.2020, based on the original article of Chennai Climate Action Group (CCAG) published in News Desk magazine dated 11-11-2020.
- Air Pollution and Industries, “These six Industries in North Chennai are polluting the air for more Than half the year, The North Chennai Thermal Power Station along Ennore Port.” - Order dated 15.12.2020.
- The Hon’ble NGT appointed a Joint Committee and they carried out inspection & sampling during Feb 2021. There were no findings unfavorable to the PP.
- Counter affidavit was filed before the Hon’ble NGT, with justifications for no exceedance in emissions and requested to discharge the PP from this case on 23-07-2021
- No final / interim order given.
- Last heard on 30.01.2023
- Judgment reserved

5a. **TNPCB Direction - 1**

- Direction received from TNPCB, imposing an interim environmental compensation of Rs.100 Lacs, based on NGT order OA 1038/2018, for non-compliance.
- PP has requested TNPCB to waive the interim environmental compensation levied and to withdraw the order.
- The above notice was issued to all industries which are present in the identified Polluted Industrial Areas (PIA).
- However, Hon’ble Supreme Court has issued order staying the compensation levied, vide Civil Appeal Diary No. 19271/2020.
- Based on the above stay order, MoEF&CC has issued an O.M. vide reference F. No. 22-23/2018-IA.III dated 28-01-2021, keeping in abeyance the two earlier

issued O. Ms vide reference F. No. 22-23/2018-IA.III dated 31-10-2019 & 30-12-2019.

- Abeyance imposed vide OM dated 28.01.2021 was lifted by MOEFCC vide OM dated 05.07.2022.
- Reply yet to receive from TNPCB.

5b. **TNPCB Direction- 2**

- Notification issued by TNPCB vide reference TNPCB/DD (L)/02151/2019 dated 20-10-2021 regarding Retrofitting of Emission Control Device in DG sets with capacity up to 800 kW, to reduce PM.
  - Retrofitting Equipment was installed in 1x500 KVA emergency DG Sets during October 2021.
  - Retrofitting Equipment will be installed in 1x437.50 KVA emergency DG sets by 2022-23.
6. The PP reported that the Ministry had issued EC earlier vide letter no. J-11011/16/97-IA.II (I) dated 10.04.1997 & J-11011/20/99-IA.II (I) dated 22.07.1999 to the existing Heavy Chemicals Division Plant project in favour of M/s. Tamilnadu Petroproducts Limited (HCD). Certified compliance report submitted by RO, MoEF&CC: F.NO. EP/12.1/2021-22/01/TN/1103 dated on 19.10.2022 and fully complied.
7. The PP reported that there are no National Parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. River/ water body such as Buckingham Canal, a navigation canal, is at a distance of ~1.27 km in East direction. A surplus channel carrying surplus water from Red Hills reservoir (a major reservoir for Chennai Drinking water source) is running nearly 390 meters away from the proposed project site on the northern direction beyond the Manali Express Highway, Periyathoppu Lake is ~2.02 km in the Western Direction, Lake near Sekkadu is ~2.40km in the WSW Direction, Kadapakkam Lake is ~3.3km in the NW Direction, Kodungaiyur Canal is ~4.45km in the SSW Direction, Captain Cotton Canal is ~5.15 km in the Southern Direction, Madavaram Eri/Retteri Lake is ~6.44 km in the WSW Direction, Ennur Creek is ~7.18 km in the NE Direction, Otteri Nala is ~7.34 km in the Southern Direction, Korattur Eri Canal is ~8.06 km in the WSW Direction, Pulal/Red Hills Lake is ~8.59 km in the Western Direction. The PP also reported that no Schedule I Species was evidenced in the 10 km study area from the project site.
8. The PP reported that **Ambient air quality** monitoring was carried out at 8 locations during Mid of January 2022 to March 2022 to and the baseline data indicates the ranges of minimum and maximum concentrations as: PM<sub>10</sub> (46.0-75.9µg/m<sup>3</sup>), PM<sub>2.5</sub> (20.4-41.3µg/m<sup>3</sup>), SO<sub>2</sub> (11.4-22.5µg/m<sup>3</sup>), NO<sub>2</sub> (16.8-37.1µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 75.93µg/m<sup>3</sup>, 22.54 µg/m<sup>3</sup> and 38.56µg/m<sup>3</sup> respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. AAQ modeling study for cumulative point and line source emissions indicates that the maximum incremental GLCs after the proposed project would be 75.97µg/m<sup>3</sup>, 22.54 µg/m<sup>3</sup> and 40.52µg/m<sup>3</sup> respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise-** In Industrial area (Project site), day time noise level was about 67.6 dB (A) and 61.8 dB(A) during night time, which is within prescribed limit by CPCB for Industrial are (75 dB(A) Day time & 70 dB(A)Night time). In Residential area day time noise levels varied from 51.8 dB (A) to 56.9 dB (A) and night time noise levels varied from 40.1dB(A) to 44.2dB(A) across the sampling stations. The field observations during the study period indicate that the ambient noise levels in Residential area are within the limit prescribed by CPCB for Residential area (55 dB (A))



Day time & 45 dB(A) Night time). In Commercial areas day time noise levels varied from 52.4 dB(A) to 57.3 dB(A) and night time noise levels varied from 45.9 dB(A) to 48.9 dB(A) across the sampling stations. The field observations during the study period indicate that the ambient noise levels are within the prescribed limit by CPCB (65 dB(A) Day time & 55 dB(A) Night time). **Surface Water-** Water sampling results are compared with Surface water standards IS 2296:1992. pH in the collected surface water samples varies between 6.7 to 8.01 which is within the limit of IS 2296:1992. pH in the collected in the Marine Sample near Ondikuppam and Ennore Creek is 8.12 and 7.93 respectively. The Total Dissolved Solids (TDS) value of collected surface water sample ranges from 590 mg/l to 4425 mg/l. TDS value of the Marine Sample near Ondikuppam and Ennore Creek is 39333 and 35316 mg/l respectively. The Total hardness value of the collected surface water sample ranges between 272.70 mg/l to 1122.3 mg/l. The Total hardness value in the Marine Sample near Ondikuppam and Ennore Creek is 6563.6 and 4586.2 mg/l respectively. BOD value of surface water varies from 3.94 mg/l to 760.89mg/l and the BOD value of Marine Sample near Ondikuppam and Ennore Creek is 29.36 and 650.45 mg/l respectively. COD value of surface water varies from 7.3 to 1249.7 mg/l and the COD value of Marine Sample near Ondikuppam and Ennore Creek is 58.7 and 1354.9 mg/l respectively. **Ground water-** The pH of the collected ground water sample ranges from 6.89 to 7.91. The concentrations of Chloride in the collected ground water sample ranges from 119.4 to 248 mg/l. Total Dissolved Solids (TDS) value of the collected ground water sample varies from 738 mg/l to 967 mg/l. Total hardness of the collected ground water sample ranges from 231 mg/l to 479 mg/l. The concentrations of Sulphate in the collected ground water sample ranges from 28.9 to 138.5 mg/l. The concentrations of Mercury in the collected ground water sample was BLQ (LOQ 0.0005). **Soil-** The pH of the soil samples ranged from 6.88 to 7.73. Conductivity of the soil samples ranged from 209 to 346  $\mu$ mho /cm. Nitrogen content ranged from 114 kg/ha to 791 kg/ha. Phosphorous ranged from 17.9 kg/ha to 72.6 kg/ha. Potassium content ranges from 79.1 kg/ha to 136.4 kg/ha.

9. The PP reported the total water requirement is **1710 m<sup>3</sup>/day** (Existing 1170 m<sup>3</sup>/day & Proposed 540 m<sup>3</sup>/day) of which fresh water requirement of **1690 m<sup>3</sup>/day** (Existing 1154 m<sup>3</sup>/day & Proposed 536 m<sup>3</sup>/day) will be met from CMWSSB-City Sewage TTRO. Effluent of **185 m<sup>3</sup>/day** (Existing 125 m<sup>3</sup>/day & Proposed 60 m<sup>3</sup>/day) quantity will be treated through ETP capacity of **350 m<sup>3</sup>/day** and is being neutralised with Acid / Alkali and treated effluent will be utilised in ECH – PO Process Sewage after treatment in STP will be used for Green Belt. Sludge will be used as manure for GB. Thus by achieving zero Liquid discharge.
10. The PP reported the power requirement after expansion will be 28000KVA (28MW) including existing 18000 KVA (18 MW) and will be met from TNEB Connection (12000KVA), Wind Power (14000 KVA) & Solar Power (2000 KVA). Existing unit has DG sets of 3 X 6.2 MW capacity was not in operation from 2014 and will be removed after expansion. Existing unit has DG sets of 1x500 & 1x 437.5 KVA capacity is being used as emergency backup, additionally Gas Engine Generator (GEG) 1X 750 KVA capacity will be installed as standby during power failure. Stack height of 8m for emergency DG Sets are provided and Stack height of 10m for GEG Set will be provided as per CPCB norms to the proposed DG sets.

#### 11. Details of Process Emissions Generation and their Management:

##### Existing Stack Emission Details-Before CEPI (2018)

| S. No. | Stack attached | APC   | Emission (g/s) |                 |                 |       |    |     |                 |        |
|--------|----------------|-------|----------------|-----------------|-----------------|-------|----|-----|-----------------|--------|
|        |                |       | PM             | SO <sub>2</sub> | NO <sub>x</sub> | CO    | Cl | HCl | NH <sub>3</sub> | Others |
| 1      | Fusion Plant   | Stack | 0.022          | 2.222           | 0.111           | 0.039 | -  | -   | -               | -      |

| S. No. | Stack attached             | APC                      | Emission (g/s) |                 |                 |             |               |               |                 |          |
|--------|----------------------------|--------------------------|----------------|-----------------|-----------------|-------------|---------------|---------------|-----------------|----------|
|        |                            |                          | PM             | SO <sub>2</sub> | NO <sub>x</sub> | CO          | Cl            | HCl           | NH <sub>3</sub> | Others   |
| 2      | Ammonium Chloride          | Wet scrubber             | 0.003          | 0               | 0               | 0           | -             | -             | -               | -        |
| 3      | Boiler (4 TPH + 5TPH)      | Stack                    | 0.12           | 2.22            | 0.6             | 0.21        | -             | -             | -               | -        |
| 4      | EMDG 500 kVA               | Stack                    | 0.014          | 0.007           | 0.069           | 0.019       | -             | -             | -               | -        |
| 5      | EMDG 437 KVA               | Stack                    | 0.013          | 0.006           | 0.066           | 0.018       | -             | -             | -               | -        |
| 6      | DG Set 6.6 MW              | Stack                    | 0.975          | 65              | 9.75            | 1.219       | -             | -             | -               | -        |
| 7      | DG Set 6.6 MW              | Stack                    | 0.975          | 65              | 9.75            | 1.219       | -             | -             | -               | -        |
| 8      | DG Set 6.6 MW              | Stack                    | 0.975          | 65              | 9.75            | 1.219       | -             | -             | -               | -        |
|        | <b>Process stack</b>       |                          |                |                 |                 |             |               |               |                 |          |
| 9      | WAD                        | Scrubber                 | -              | -               | -               | -           | 0.0006        | -             | -               | -        |
| 10     | HCl - Unit 1               | Insitu Tail gas Scrubber | -              | -               | -               | -           | -             | 0.0002        | -               | -        |
| 11     | HCl - Unit 2               | Insitu Tail gas Scrubber | -              | -               | -               | -           | -             | 0.0002        | -               | -        |
| 12     | HCl - Unit 3               | Insitu Tail gas Scrubber | -              | -               | -               | -           | -             | 0.0002        | -               | -        |
| 13     | Ammonium Chloride          | Wet scrubber             | -              | -               | -               | -           | -             | -             | 0.0011          | -        |
| 14     | Hydrogen Plant             | -                        | -              | -               | -               | -           | -             | -             | -               | Hydrogen |
| 15     | Fusion Plant               | -                        | -              | -               | -               | -           | -             | -             | -               | Steam    |
|        | <b>Total emission, g/s</b> |                          | <b>3.1</b>     | <b>199.46</b>   | <b>30.1</b>     | <b>3.94</b> | <b>0.0006</b> | <b>0.0007</b> | <b>0.0011</b>   | <b>0</b> |

**Existing Stack Emission Details-After CEPI (2018)**

| S. No. | Stack attached      | APC          | Emission (g/s) |                 |                 |       |    |     |                 |        |
|--------|---------------------|--------------|----------------|-----------------|-----------------|-------|----|-----|-----------------|--------|
|        |                     |              | PM             | SO <sub>2</sub> | NO <sub>x</sub> | CO    | Cl | HCl | NH <sub>3</sub> | Others |
| 1      | Fusion Plant        | -            | 0.003          | 0.011           | 0.111           | 0.039 | -  | -   | -               | -      |
| 2      | Ammonium Chloride   | Wet scrubber | 0              | 0               | 0               | 0     | -  | -   | -               | -      |
| 3      | Boiler 4 TPL + 5TPH | Stack        | 0.018          | 0.037           | 0.3             | 0.15  | -  | -   | -               | -      |

| S. No.               | Stack attached             | APC                      | Emission (g/s) |                 |                 |              |               |               |                 |          |
|----------------------|----------------------------|--------------------------|----------------|-----------------|-----------------|--------------|---------------|---------------|-----------------|----------|
|                      |                            |                          | PM             | SO <sub>2</sub> | NO <sub>x</sub> | CO           | Cl            | HCl           | NH <sub>3</sub> | Others   |
| 4                    | EMDG 500 kVA               | Stack                    | 0.004          | 0.007           | 0.069           | 0.006        | -             | -             | -               | -        |
| 5                    | EMDG 437 KVA               | Stack                    | 0.013          | 0.006           | 0.066           | 0.018        | -             | -             | -               | -        |
| 6                    | DG Set 6.6 MW              | Stack                    | 0              | 0               | 0               | 0            | -             | -             | -               | -        |
| 7                    | DG Set 6.6 MW              | Stack                    | 0              | 0               | 0               | 0            | -             | -             | -               | -        |
| 8                    | DG Set 6.6 MW              | Stack                    | 0              | 0               | 0               | 0            | -             | -             | -               | -        |
| <b>Process Stack</b> |                            |                          |                |                 |                 |              |               |               |                 |          |
| 9                    | WAD                        | Scrubber                 | -              | -               | -               | -            | 0.0006        | -             | -               | -        |
| 10                   | HCl - Unit 1               | Insitu Tail gas Scrubber | -              | -               | -               | -            | -             | 0.0002        | -               | -        |
| 11                   | HCl - Unit 2               | Insitu Tail gas Scrubber | -              | -               | -               | -            | -             | 0.0002        | -               | -        |
| 12                   | HCl - Unit 3               | Insitu Tail gas Scrubber | -              | -               | -               | -            | -             | 0.0002        | -               | -        |
| 13                   | Ammonium Chloride          | Wet scrubber             | -              | -               | -               | -            | -             | -             | 0               | -        |
| 14                   | Hydrogen Plant             | -                        | -              | -               | -               | -            | -             | -             | -               | Hydrogen |
| 15                   | Fusion Plant               | -                        | -              | -               | -               | -            | -             | -             | -               | Steam    |
|                      | <b>Total emission, g/s</b> |                          | <b>0.038</b>   | <b>0.0613</b>   | <b>0.547</b>    | <b>0.213</b> | <b>0.0006</b> | <b>0.0007</b> | <b>0</b>        | <b>0</b> |

#### Proposed Stack Emission Details

| S. No.             | Source       | Fuel type | Fuel Quantity (TPH) |            |                                 | Emission (g/s) |                 |                 |               |
|--------------------|--------------|-----------|---------------------|------------|---------------------------------|----------------|-----------------|-----------------|---------------|
|                    |              |           |                     | Height (m) | Flow rate (Nm <sup>3</sup> /hr) | PM             | SO <sub>2</sub> | NO <sub>x</sub> | CO            |
| 1                  | EMGEG 750KVA | NG        | 0.034               | 10         | 1148.26                         | 0.0013         | 0.0016          | 0.0638          | 0.0159        |
| 2                  | Boiler 4 TPH | NG        | 0.091               | 33         | 5242.44                         | 0.0058         | 0.0073          | 0.1456          | 0.0728        |
| <b>Total (g/s)</b> |              |           |                     |            |                                 | <b>0.0071</b>  | <b>0.0089</b>   | <b>0.2094</b>   | <b>0.0888</b> |

#### Stack Emission Details-After Expansion

| S. No. | Stack attached | APC   | Emission (g/s) |                 |                 |       |    |     |                 |        |
|--------|----------------|-------|----------------|-----------------|-----------------|-------|----|-----|-----------------|--------|
|        |                |       | PM             | SO <sub>2</sub> | NO <sub>x</sub> | CO    | Cl | HCl | NH <sub>3</sub> | Others |
| 1      | Fusion Plant   | -     | 0.003          | 0.011           | 0.111           | 0.039 | -  | -   | -               | -      |
| 2      | Boiler (4      | Stack | 0.0245         | 0.045           | 0.446           | 0.223 | -  | -   | -               | -      |

|                      |                            |                          |              |               |              |              |               |               |          |          |
|----------------------|----------------------------|--------------------------|--------------|---------------|--------------|--------------|---------------|---------------|----------|----------|
|                      | TPH + 9TPH)                |                          |              |               |              |              |               |               |          |          |
| 3                    | EMDG 500 kVA               | Stack                    | 0.004        | 0.007         | 0.069        | 0.006        | -             | -             | -        | -        |
| 4                    | EMDG 437 KVA               | Stack                    | 0.013        | 0.006         | 0.066        | 0.018        | -             | -             | -        | -        |
| 5                    | EMGEG 750 KVA              | Stack                    | 0.0013       | 0.002         | 0.064        | 0.016        | -             | -             | -        | -        |
| <b>Process Stack</b> |                            |                          |              |               |              |              |               |               |          |          |
| 6                    | WAD                        | Scrubber                 | -            | -             | -            | -            | 0.0006        | -             | -        | -        |
| 7                    | HCl - Unit 1 & 2           | Insitu Tail gas Scrubber | -            | -             | -            | -            | -             | 0.0002        | -        | -        |
| 8                    | HCl - Unit 3               | Insitu Tail gas Scrubber | -            | -             | -            | -            | -             | 0.0002        | -        | -        |
| 9                    | Hydrogen Plant             | -                        | -            | -             | -            | -            | -             | -             | -        | Hydrogen |
| 10                   | Fusion Plant               | -                        | -            | -             | -            | -            | -             | -             | -        | Steam    |
|                      | <b>Total emission, g/s</b> |                          | <b>0.045</b> | <b>0.0703</b> | <b>0.756</b> | <b>0.302</b> | <b>0.0006</b> | <b>0.0004</b> | <b>0</b> | <b>0</b> |

#### Summary of Stack Emission Details

| S. No. | Descriptions              | Emission (g/s) |                 |                 |        |        |        |                 |        |
|--------|---------------------------|----------------|-----------------|-----------------|--------|--------|--------|-----------------|--------|
|        |                           | PM             | SO <sub>2</sub> | NO <sub>x</sub> | CO     | Cl     | HCl    | NH <sub>3</sub> | Others |
| 1      | Before CEPI (Before 2018) | 3.1            | 199.46          | 30.1            | 3.94   | 0.0006 | 0.0007 | 0.0011          | 0      |
| 2      | After CEPI (After 2018)   | 0.038          | 0.0613          | 0.547           | 0.213  | 0.0006 | 0.0007 | 0               | 0      |
| 3      | Proposal                  | 0.0071         | 0.0089          | 0.2094          | 0.0888 | 0      | 0      | 0               | 0      |
| 4      | After Expansion           | 0.045          | 0.0703          | 0.756           | 0.302  | 0.0006 | 0.0004 | 0               | 0      |

**Note:**

- Fuel oil based DG Sets 6.6 MW X 3 No - Not in operation from 2014 will be removed after expansion.
- Fusion Plant - Before CEPI - fuel is FO
- Fusion Plant - After CEPI - fuel is RLNG
- Existing Boiler - Before CEPI - fuel is FO / Hydrogen
- Existing Boiler - After CEPI - fuel is RLNG / Hydrogen
- After proposal - Boiler - Fuel is RLNG / Hydrogen
- HCL Plant - Unit 1 and 2 – Common scrubber will be provided additionally and vented through common stack. Hence reduction in HCl emission
- GEG - 750 KVA proposed - Fuel - RLNG
- EMDG - 500 KVA - After CEPI - Retrofit equipment installed to reduce PM and CO level.
- EMDG - 437 KVA - After expansion - Retrofit equipment will be installed to reduce



- PM and CO level.
- PM and CO level will be reduced further upon installation of Retrofit equipment in EMDG 437 KVA
- Ammonium Chloride unit is not in operation, and will be removed after expansion

12. **Details of Solid Waste/ Hazardous Waste Generation and its Management:** As the proposed plant facilities would be installed within premises and the operation will be confined within plant premises.

#### Solid Waste Generation in Construction Phase and its Management

| S. No                               | Description | Proposed Quantity (Ton/day) | Method of Disposal          |
|-------------------------------------|-------------|-----------------------------|-----------------------------|
| <b>Construction phase: 270 No's</b> |             |                             |                             |
| 1                                   | Organic     | 0.0972                      | Disposed through local bins |
| 2                                   | Inorganic   | 0.0648                      | Send to authorized vendors  |
| <b>Total</b>                        |             | <b>0.162</b>                |                             |

#### Solid Waste Generation In Operation Phase and its Management

| S. No  | Description | Existing quantity (Ton/day) | Proposed Quantity (Ton/day) | After quantity (Ton/day) | Method of Disposal          |
|--|-------------|-----------------------------|-----------------------------|--------------------------|-----------------------------|
| <b>Operation Phase – Existing 243 No's &amp; Proposed -28 No's</b> |             |                             |                             |                          |                             |
| 1  | Organic     | 0.08748                     | 0.01008                     | 0.09756                  | Disposed through local bins |
| 2  | Inorganic   | 0.05832                     | 0.00672                     | 0.06504                  | Send to authorized vendors  |
| <b>Total</b>   |             | <b>0.1458</b>               | <b>0.0168</b>               | <b>0.1626</b>            |                             |

| Description        | Quantity (MTPA) |          |                 | Disposal Methods              |
|--------------------|-----------------|----------|-----------------|-------------------------------|
|                    | Existing        | Proposed | After Expansion |                               |
| Packaging material | 0.5             | 0.5      | 1.0             | Sold to authorized recyclers  |
| Garden waste       | 1.0             | 10       | 11.0            | Composting and used as manure |
| STP sludge         | 5.0             | 2.0      | 7.0             | Used for horticulture         |

#### Hazardous Waste Management

Hazardous waste materials will be properly disposed as per the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules 2016. Hazardous Waste Authorization vide 22HRC40393194 dated 17.10.2022 valid till 31.03.2027.

| Waste | Schedul | Uni | Existing | Propose | After | Maximu | Disposal |
|-------|---------|-----|----------|---------|-------|--------|----------|
|-------|---------|-----|----------|---------|-------|--------|----------|

| details                               | e    | t       | Quantity | d<br>Quantity | expansion<br>Quantity | m<br>Quantity<br>Allowable<br>as per<br>HWA | method                          |
|---------------------------------------|------|---------|----------|---------------|-----------------------|---|---------------------------------|
| Used/Spent oil*                       | 5.1  | TP<br>A | 10       | 0             | 10                    | 10  | Disposed to authorized recycler |
| Waste residue—oil soaked cotton waste | 5.2  | TP<br>A | 1        | 0             | 1                     | 1   | Disposed to TSDF                |
| Empty container*<br>*                 | 33.1 | TP<br>A | 1.25     | 0             | 1.25                  | 1.25  | Disposed to authorized recycler |
| Chemical sludge from ETP plant        | 35.3 | TP<br>A | 1        | 0.5           | 1.5                   | 1   | Disposed to TSDF                |
| Brine Sludge***                       | 16.3 | TP<br>A | 1485     | 990           | 2475                  | 1485  | Disposed to TSDF                |

**Note:**

- Hazardous waste authorization vide 22HRC40393194 dated 17.10.2022 valid till 31.03.2027.
- \*In ToR application, Used/Spent oil details provided as (Existing-30TPA, Proposed - (-20 TPA), after expansion- 10TPA) with reference to the previous Hazardous waste authorization.
- In ToR application, Waste residue – oil sludge details provided as (Existing-300TPA, Proposed-(-300TPA), after expansion- 0TPA) with reference to the previous Hazardous waste authorization. Removed as per the latest HW Authorization since DG sets not in operation and the same updated in new HW Authorization.
- \*\*In ToR application, Empty container details provided as (Existing-390Nos, Proposed-(-340Nos), after expansion- 50Nos.) with reference to the previous Hazardous waste authorization.
- In ToR application, Mercury bearing Brine sludge details provided as (Existing-7000MT, Proposed-(- 7000MT), after expansion-0MT) with reference to the previous Hazardous waste authorization. Removed as per the latest HW Authorization since entire quantity was disposed to TSDF and the same updated in latest HW Authorization.
- \*\*\*In ToR application, Brine Sludge details is categorized as non-hazardous and submitted under other solid waste from process. Presently, as per latest HW Authorization, it is listed under Hazardous waste.
- Hazardous waste disposal agreement to recyclers are obtained.
- Hazardous waste disposal agreement to TSDF are obtained.

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹1.65 Crores (capital) and the Recurring Cost (operation and maintenance) will be about ₹0.135 Crores per annum. Industry proposes to allocate 5 Lakh towards CER.
14. The PP proposed to set up an Environment Management Cell (EMC) by engaging whole time director operations- DGM operations- Head Environment- HOD- Tech service- HOD quality Assurance or the functioning of EMC.
15. The PP reported that Public Hearing is exempted as the project is located in the industrial area notified vide notification no. **G.O. R. No. 114 dated 20<sup>th</sup> January, 1965.**
16. Industry has already developed greenbelt within the project site in an area of 20234.3 m<sup>2</sup> i.e.15.064 % of total area of the project (134315.16 m<sup>2</sup>). Additional greenbelt area of 28328 m<sup>2</sup> (21.09% of total TPL HCD project area) was developed in TPL Polymer Plant. The total greenbelt area is 36.154% of total project area. Further, additional area of 8093.71 m<sup>2</sup> (6.02% of total TPL HCD project area) was developed as greenbelt post ToR in TPL Polymer Plant. The total greenbelt area after expansion will be 42.18% of total TPL HCD project area.
17. The PP reported that M/s. Tamilnadu Petroproducts Limited, Manali was entrusted to M/s. Hubert Enviro Care Systems Pvt Ltd, Chennai to conduct the —Carbon Footprint & Carbon Sequestration in Tamilnadu Petroproducts Limited, Manali. All the calculations were performed from the secondary data collected from M/s. Tamilnadu Petroproducts Limited, Manali. Based on the present study, the following conclusion were made. The total CO<sub>2</sub> emission in TPL-HCD Manali after expansion will be 100092.243 Ton CO<sub>2</sub> per year. Existing Power consumption - Power requirement for the existing operation (151200 MPPA) is met through TNEB power and wind power and the CO<sub>2</sub> emission from the TNEB power is 90417.6 MTA of CO<sub>2</sub>. Proposed Power consumption - Power requirement for the proposed expansion (84000 MPPA) is met through renewable energy of wind power and solar power and the CO<sub>2</sub> emission is Nil. After expansion Power consumption - The total power requirement for existing & proposed (235200 MWPA) is met through TNEB and Renewable energy of wind power and solar power. The carbon emission from the power consumption after expansion will be 90417.6 MTA of CO<sub>2</sub> and No increase in carbon emission from the proposed expansion. After expansion, 125966 MTA of CO<sub>2</sub> emissions will be eliminated due to utilisation of renewable energy of wind power (120120 MWPA) and solar power (16800 MWPA) instead of using TNEB power. Fuel – CO<sub>2</sub> footprint for the existing and proposed fuel consumption is 6422.848 TPA of CO<sub>2</sub> and 3018.79 TPA of CO<sub>2</sub>, respectively. The overall CO<sub>2</sub> footprint after expansion is 9441.638 TPA of CO<sub>2</sub>. Transportation sources – CO<sub>2</sub> footprint for the existing and proposed transportation is 200.635 TPA of CO<sub>2</sub> and 32.37 TPA of CO<sub>2</sub>, respectively. The overall CO<sub>2</sub> footprint after expansion is 233.005 TPA of CO<sub>2</sub>. The total CO<sub>2</sub> footprint emission in TPL-HCD Manali existing proposed and after expansion is 97041.083, 3051.16 and 100113.765 Ton CO<sub>2</sub> per year respectively. The greenbelt area in TPL-HCD, Manali is 14 Acre, which is 42% of the total area. There are totally 14000 trees have been planted in recent years and 2800 plants are planned in the upcoming years for 20% survival rate. Present carbon sequestration per year is 268.37 Ton CO<sub>2</sub>. The plant growth is considered for the carbon sequestered by the greenbelt development. The total carbon sequestered in MT of CO<sub>2</sub> per year is calculated as 68, 516.69, 1491.09, 2925.69, 5714.24, 9617.22, 15271.79, 22692.57, 30941.02, 41033.44 for the 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90% and 100% growth of all the plants in TPL-HCD, Manali.
18. The PP submitted the Disaster and Onsite and Offsite Emergency Plans in the EIA report.

19. The estimated project cost is Rs.355.87 Crores (Proposed project cost is Rs.165.17 Crores) including existing investment of Rs.190.7 Crores. Total Employment will be **151 persons** as direct & **120 persons** indirect after expansion.

20. **Deliberations by the EAC:**

The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members/domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

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

The EAC noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC inter-alia, deliberated on the energy consumption, utilization of renewable energy, solar panels organic waste, Greenbelt development plan, budget of EMP and advised the PP to submit the following:

- Affidavit for utilisation of the renewable energy with the timeline.
- Organic waste to be utilised for the manure preparation instead of giving to municipal bins.
- Committing solar panels should be installed within the plant for the utilisation of renewable energy.
- Greenbelt within the project site should be increased to minimum 20% from existing 15% of the project area and up to maximum extent.
- Budget of EMP.

The PP submitted the above information/documents and the EAC found it to be satisfactory.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The expert members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to

the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

21. Based on the proposal submitted by the PP and recommendations of the EAC (Industry-3 Sector), the Ministry of Environment, Forest and Climate Change hereby accords the **Environmental Clearance for “Expansion of Caustic Soda production capacity from 150 TPD to 250 TPD by bipolar membrane cell process in the existing Heavy Chemicals Division Plant (HCD Plant) located at 266/1 (Part), 268 / 1 (Part), 267 / 2 (Part) Manali village, Ambattur Taluk, Thiruvallur District, Tamil Nadu State by M/s Tamilnadu Petroproducts Limited”** under the provisions of the EIA Notification 2006 and its subsequent amendments subject to the compliance of terms and conditions as under:-

**A. Specific Conditions:**

- i. **The directions issued in the Judgement dated 20.07.2023 by the Hon’ble NGT in O.A. No. 256/2020 shall be strictly complied and the compliance to each of the direction shall be submitted to the IRO, MoEF&CC along with the six monthly reports.**
- ii. Adequate stack height as per CPCB/SPCB guidelines shall be provided. Stack emission levels shall be stringent than the existing standards in terms of the identified critical pollutants.
- iii. CEMS shall be installed and connected to SPCB/CPCB Server.
- iv. Effective fugitive emission control measures shall be adopted in the process, transportation, packing etc.
- v. Fuel (R - LNG) shall be transferred through pipeline from IOCL. Raw material and products shall be transported through dedicated road tankers, Raw material Common salt shall be shipped and transported by sea, and majority quantity of gaseous chlorine shall be transferred through pipeline.
- vi. Regasified Liquefied Natural Gas / Hydrogen shall be used as fuel in Boiler.
- vii. The best available technology shall be used and as committed by the PP, Caustic soda shall be manufactured through latest energy efficient bipolar membrane cell technology.
- viii. The PP shall develop greenbelt over an area of at least 14 acres (42.18% of total land area) by planting approx. 7000 numbers of saplings within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1<sup>st</sup> July of every year for the activities carried out during previous year.
- ix. 1400 Nos. of avenue plantation shall develop in highway median nearby plant.
- x. The transportation load on roads shall be within their carrying capacity and adequate width of roads shall be maintained inside the industrial premises.
- xi. Entire liquid Effluent generated shall be neutralized with Acid / Alkali and treated effluent shall be utilized in ECH – PO Process. Sludge shall be used as manure for Greenbelt.
- xii. As committed by the PP, zero liquid discharge shall be ensured.



- xiii. Online continuous effluent monitoring system (OCEMS) shall be provided for pH, TSS and Flow for Effluent treated water shall be connected to TNPCB and CPCB
- xiv. The roof top rain water shall be collected in the existing Rain water harvesting pits is 2 Nos and 2 Nos of water reservoir 3000 KL (72m x 25m x 1.7m) & 2000 KL (26m x 36m x 2.1m) shall be maintained and used for process purpose. Rain water percolation pit shall be provided to collect rain water from Canteen building for ground water recharge. The PP also proposed to provide roof rain water harvesting facility for 4000 sq.m. which shall be collected in the existing reservoir and will be utilized for process purpose.
- xv. 4 KLD of sewage shall be treated in Common STP of capacity 160 KLD. Sewage after treatment in STP shall be used for Green Belt.
- xvi. As committed by the PP, no Fly ash, slag, red mud, etc., shall be generated from the plant.
- xvii. All the hazardous wastes generated from HCD plant shall be handled and disposed, as per the Authorization obtained from TNPCB.
- xviii. Monitoring of the compliance of EC conditions shall be submitted with third party audit every year.
- xix. As proposed, an amount of ₹2.5 crore shall be allocated towards CER in nearby communities.
- xx. As committed by the PP, industry shall use renewable energy of 8MW from wind energy and 2MW from solar energy within 18 months from the date of EC of the project.
- xxi. As committed by the PP, industry shall use organic waste for the manure preparation and the same shall be used for Greenbelt development.
- xxii. As committed by the PP, industry shall install roof top solar panel and the power from the same shall be utilized for the plant to facilitate the renewable energy utilisation.
- xxiii. As committed by the PP, Industry shall proceed long term feasibility study for the green hydrogen generation.
- xxiv. A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage whole time director operations- DGM operations- Head Environment- HOD- Tech service- HOD quality Assurance. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1<sup>st</sup> July of every year for the activities carried out during previous year.
- xxv. The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget propose under EMP is ₹285 Lakh (Capital cost) and ₹23.5lakhs per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1<sup>st</sup> July of every year for the activities carried out during previous year.

- xxvi. The total water requirement is **1710 m<sup>3</sup>/day** (Existing 1170 m<sup>3</sup>/day & Proposed 540 m<sup>3</sup>/day) of which fresh water requirement of **1690 m<sup>3</sup>/day** (Existing 1154 m<sup>3</sup>/day & Proposed 536 m<sup>3</sup>/day) will be met from CMWSSB-City Sewage TTRO. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawn only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1<sup>st</sup> July of every year for the activities carried out during the previous year.
- xxvii. No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- xxviii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- xxix. The PP shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608(E), dated 21.7.2010 under the provisions of the Environment (Protection) Rules, 1986.
- xxx. All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.
- xxxi. The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- xxxii. The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- xxxiii. The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- xxxiv. The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- xxxv. Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.
- xxxvi. 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.
- xxxvii. The 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The

solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

- xxxviii. The PP 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 cleaning to reduce wastewater generation.

**B. General Conditions:**

- i. No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- ii. The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
- iii. The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- iv. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- v. The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- vi. The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- vii. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- viii. The project proponent shall also upload/submit six monthly reports on PARIVESH Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the

respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the company.

- ix. The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.
  - x. The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <https://parivesh.nic.in/>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
  - xi. The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
  - xii. This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
22. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.
  23. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
  24. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
  25. The above conditions shall be enforced, *inter-alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

This has issued with approval of the competent authority.

(Dr. Motipalli Ramesh)  
Scientist 'E'

**Copy to: -**

1. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (SEZ), I and II Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai-34.

2. The Principal Secretary to Government, Department of Environment, Climate Change and Forests, Government of Tamil Nadu, No. 1, Jeenis Road, Panagal Building, Ground Floor, Saidapet, Chennai-600 015.
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai - 600 032.
5. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
6. The District Collector, Thiruvallur District, Master Plan Complex NH 205, Chennai - Tiruttani Hwy, Thiruvallur, Tamil Nadu-602001.
7. Guard File/Monitoring File/PARIVESH.

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