

Standards laid by Ministry of Environment and Forests, Government of India for **Common Effluent Treatment Plants** as per, (Environment Protection Rules, 1986)

| <b>A. Primary Treatment</b>   |  |
|---|--|
| <b>Parameter for inlet effluent quality of CETP</b>   | <b>Standards (Concentration in mg/l)</b> |
| pH  | 5.5 - 9.0                                |
| Temperature °C  | 45                                       |
| Oil & Grease  | 20                                       |
| Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)  | 5.0                                      |
| Ammonical Nitrogen (as N)   | 50                                       |
| Cynide (as N)   | 2.0                                      |
| Chromium hexavalent (as Cr <sup>+6</sup> )  | 2.0                                      |
| Chromium (total) (as Cr)  | 2.0                                      |
| Copper (as Cu)  | 3.0                                      |
| Lead (as Pb)  | 1.0                                      |
| Nickel (as Ni)  | 3.0                                      |
| Zinc (as Zn)  | 15                                       |
| Arsenic (as As)   | 0.2                                      |
| Mercury (as Hg)   | 0.01                                     |
| Cadmiun (as Cd)   | 1.0                                      |
| Selenium (as Se)  | 0.05                                     |
| Fluoride (as F)   | 15                                       |
| Boron (as B)  | 2.0                                      |
| Radioactive Materials:  |  |
| Alpha emitters, Hc/mL   | 10-7                                     |
| Beta emitters, He/ml  | 10-8                                     |
| <b>Note:</b> 1. These Standards apply to the small scale industries, i.e. total discharge upto 25KL/Day   |  |
| 2. For each CETP and its constituent units, the State Board will prescribe standards as per the local needs and conditions; these can be more stringent than those prescribed above. However, in case of clusters of units, the State Board with the concurrence of CPCB in writing, may prescribe suitable limits. |  |

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**Treated Effluent Quality of Common Effluent treatment Plant**  
**[Concentration in mg/l except pH & Temperature]**

| <u>Parameters</u>  | <u>Into inland surface waters</u>   | <u>On land for irrigation</u> | <u>Into Marine Coastal areas</u>  |
|--|---|-------------------------------|---|
| pH   | 5.5-9.0   | 5.5-9.0                       | 5.5-9.0   |
| BOD [3days at 27 °C]                                     | 30  | 100                           | 100   |
| Oil & Grease   | 10  | 10                            | 20  |
| Temperature  | Shall not exceed 40 °C in any section of the stream within 15 meters down stream from the effluent outlet |                               | 45 °C at the point of discharge.  |
| Suspended Solids   | 100   | 200                           | (a) For process waste water-100<br>(b) For cooling water effluent 10 percent above total suspended matter of effluent cooling water |
| Dissolved Solids (inorganic)                             | 2100  | 2100                          | -   |
| Total residue chlorine                                   | 1.0   | -                             | 1.0   |
| Ammonical nitrogen(As N)                                 | 50  | -                             | 50  |
| Total Kjeldahl nitrogen(as N)                            | 100   | -                             | 100   |
| Chemical Oxygen Demand                                   | 250   | -                             | 250   |
| Arsenic (as As)  | 0.2   | 0.2                           | 0.2   |
| Mercury (as Hg)  | 0.01  | -                             | 0.01  |
| Lead (as Pb)   | 0.1   | -                             | 1.0   |
| Cadmium (as Cd)  | 1.0   | -                             | 2.0   |
| Total Cadmium (as Cr)                                    | 2.0   | -                             | 2.0   |
| Copper (as Cu)   | 3.0   | -                             | 3.0   |
| Zinc (as Zn)   | 5.0   | -                             | 15  |
| Selenium (as Se)   | 0.05  | -                             | 0.05  |
| Nickel (as Ni)   | 3.0   | -                             | 5.0   |
| Boron (as B)   | 2.0   | 2.0                           | -   |
| Percent Sodium   | -   | 60                            | -   |
| Cynide (as CN)   | 0.2   | 0.2                           | 0.2   |
| Chloride (as Cl)   | 1000  | 600                           | -   |
| Fluoride (as F)  | 2.0   | -                             | 15  |
| Sulphate (as SO <sub>4</sub> )                           | 1000  | 1000                          | -   |
| Sulphide (as S)  | 2.8   | -                             | 5.0   |
| Pesticides   | Absent  | Absent                        | Absent  |
| Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH) | 1.0   | -                             | 5.0   |

**Note:** All efforts should be made to remove colour and unpleasant odour as far as possible.