

THE ENVIRONMENT (PROTECTION) RULES, 1986

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SCHEDULE

THE ENVIRONMENT (PROTECTION) RULES, 1986

1. Short title and commencement. -(i) These rules may be called the Environment (Protection) Rules, 1986.

(ii) They shall come into force on the date of their publication in the Official Gazette.

2. Definitions .-In these rules, unless the context otherwise requires,-

(a) "Act" means the Environment (Protection) Act, 1986 (29 of 1986);

(aa) "areas" means all areas where the hazardous substances are handled;

(b) "Central Board" means the Central Board for the Prevention and Control of Water Pollution constituted under Sec. 3 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);

(e) "Form" means a form set forth in Appendix A to these rules;

(d) "Government Analyst" means a person appointed or recognized

as such under Sec. 13;

(e) "person" in relation to any factory or premises means a person or occupier or his agent who has control over the affairs of the factory or premises and includes in relation to any substance. the person in possession of the substance;

4[(ee) "prohibited substance" means the substance prohibited for handling;]

(j) "recipient system" means the part of the environment, such as soil, water, air or other which receives the pollutants;

(ff) "restricted substance" means the substance restricted for handling;

(g) "section" means a section of the Act;

(h) "schedule" means a schedule appended to these rules;

(i) "standards" means standards prescribed under these n (j) "State Board" means a State Board for the Prevention Control of Water Pollution constituted under Sec. 4 of the (Prevention and Control of Water Pollution) Act, 1974 (6 of 1974) or Board for the Prevention and Control of Air Pollution constitute under Sec. 5 of the Air (Prevention and Control of Pollution) Act, 1981 9(14 of 1981)

3. Standards for emission for discharge of environmental pollutants.-

(1) For the purposes of protecting and improving th(of the environment and preventing and abating environmental pi the standards for emission or discharge of environmental pc from the industries, operations or processes shall be as specified in [Schs 1toIV]

(2) Notwithstanding anything contained in sub-rule (1), the Central Board or a State Board may specify more stringent standards from those provided in [Schedules] in respect of any specific industry, operation or process depending upon the quality of the recipient system and after recording reasons, therefore, in writing.

(3) The standards for emission or discharge of environmental pollutants specified under sub-rule (1) or sub-rule (2) shall be complied with by an industry, operation or process within a period of one year of being so specified.

(3A) (i) Notwithstanding anything contained in sub-rules (1) and (2), on and from the 1st day of January, 1994, emission or discharge of environmental pollutants from the [industries, operations or processes other than those industries, operations or processes for which standards have been specified in Schedule I shall] not exceed the relevant parameters and standards specified in Schedule VI:

Provided that the State Boards may specify more stringent standards for the relevant parameters with respect to specific industry or locations after recording reasons thereof in writing;

(ii) The State Board shall while enforcing the standards specified in Schedule VI follow the guidelines specified in Annexures I and II in that Schedule.]

[(3B) The combined effect of emission or discharge of environmental pollutants in an area, from industries, operations, processes, automobiles and domestic sources, shall not be permitted to exceed the relevant concentration in ambient air as specified in against each pollutants in columns (3) to (5) of schedule VII.]

(4) Notwithstanding anything contained in sub-rule (3),--

(a) the Central Board or a State Board, depending on the local conditions or

nature of discharge of environment pollutants, may, by order, specify a lesser period than period specified under sub-rule (3) within which the compliance of standards shall be made by an industry, operation, or process;

- (b) the Central Government in respect of any specified industry, operation or process, by order, may specify any period other than a period specified under sub-rule (3) within which the compliance of standards shall be made by such industry, operation or process.

(5) Notwithstanding anything contained in sub-rule (3), the standards for emission or discharge of environmental pollutants specified under sub-rule (1) or sub-rule (2) in respect of an industry, operation or process before the commencement of the environment (Protection) Amendment Rules, 1991, shall be complied with by such industry, operation or process by the 31st day of December, 1991.]

(6) Notwithstanding anything contained in sub-rule (3), an industry, operation or process which has commenced production on or before 16th May, 1981 and has shown adequate proof of at least commencement of physical work for establishment of facilities to meet the specified standards within a time-bound programme, to the satisfaction of the concerned, State Pollution Control Board, shall comply with such standards latest by the 31st day of December, 1993.

(7) Notwithstanding anything contained in sub-rule (3) or sub-rule (6) an industry, operation or process which has commenced production after the 16th day of May, 1981 but before the 31st day of December, 1991 and has shown adequate proof of at least commencement of physical work for establishment of facilities to meet the specified standards within a time-bound programme, to the satisfaction of the concerned State Pollution Control Board, shall comply with such standards latest by the 31st day of December, 1992.]

[(8) [On and from the 1st day of June 2002], the following coal based thermal power plants shall use [raw or blended or beneficiated coal with an ash content not exceeding thirty-four percent on an annual average basis], namely:-

(a) any thermal power plant located beyond one thousand kilometers from the pit-head; and

(b) any thermal power plant located in urban area or sensitive area or critically polluted area irrespective of their distance from pit-head except any pit-head power plant:

[Provided that any thermal power plant using Fluidised Bed Combustion or circulating Fluidised Bed Combustion or Atmospheric Fluidised Bed Combustion or Pressurised Fluidised Bed Combustion or Integrated Gasification Combined Cycle technologies or any other clean technologies as may be notified the Central Government in the Official Gazette shall be exempted from clauses (a) and (b)].

Explanation.- For the purpose of this rule-

(a) 'beneficiated coal' means coal containing higher calorific value but lower ash than the original ash content in the raw coal obtained through physical separation or washing process;

(b) 'pit-head power plant' means power stations having captive

transportation system for its exclusive use for transportation of coal from the loading point at the mining end up to the unloading point at the power station without using the normal public transportation system;

(c) 'sensitive area' means an area whose ecological balance is prone to be easily disturbed;

(d) 'critically polluted area' means the area where pollution level has reached or likely to reach to the critical level and which has been identified as such by the Central Government or Central Pollution Control Board or a State Pollution Control Board.]

(e) 'urban area' means an area limit of a city having a population of more than 1 million according to 1991 census.

4. Directions. -(1) Any direction issued under section 5 shall be in writing.

(2)The direction can specify the nature of action to be taken and the time within which it shall be complied with by the person, officer or the authority to whom such direction is given.

² [(3-a)] The person, officer or authority to whom any direction is sought to be issued shall be served with a copy of the proposed direction and shall be given an opportunity of not less than fifteen days from the date of service of a notice to file with an officer designated in this behalf the objections, if any, to the issue of the proposed direction.

³ [(3-b) Where the proposed direction is for the stoppage or regulation of electricity of water or any other service affecting the carrying on any industry, operation or process and is sought to be issued to an officer or an authority, a copy of the proposed direction shall also be endorsed to the occupier of the industry operation or process, as the case may be and objections, if any filed by the occupier with an officer designated in this behalf shall be dealt with in accordance with the procedures under sub-rules (3-a) and (4) of this rule.

Provides that no opportunity of being heard shall be given to the occupier if he had already been heard earlier and the proposed direction referred to in subrule (3-b) above for the stoppage or regulation of electricity or water of any other service was the resultant decision of the central government after such earlier hearing

(4) The Central Government shall within a period of 45 days from the date of receipt of the objections, if any, or from the date up to which an opportunity is given to the person, officer or authority to file objections whichever is earlier after considering the objections if any received from the person officer or authority sought to be directed and for reasons to be records in writing, confirm, modify or decide no to issue the proposed direction.

(5) In a case where the Central Government is of the opinion that in view of the likelihood of a grave injury to the environment it is not expedient to provide an opportunity to file objections against the proposed direction, it may for reasons to be recorded in writing, issue directions without providing such an opportunity

(6) Every notice or direction required to be issued under this rule shall be deemed to be duly served

(a) Where the person to be served is a company, if the document is addressed in the name of the company at its registered office or at its principal office or place of business and is either

- (i) sent by registered post; or
- (ii) delivered at its registered office or at the principal office or place of business

(b) where the person to be served is an officer serving Government, if the document is addressed to the person and a copy thereof is endorsed to the Head of the Department and also to the Secretary to the Government, as the case may be in charge of the Department in which for the time being the business relating to the Department in which the officer is employed is transacted and is either

- (i) sent by registered post; or
- (ii) is given or tendered to him

(c) in any other case, if the document is addressed to the person to be served and

- (i) is given or tendered to him or
- (ii) if such person cannot be found is affixed on some conspicuous part of his last known place of residence or business or is given or tendered to some adult member of his family or is affixed on some conspicuous part of the land or building, if any, to which it relates or
- (iii) is sent by registered post to that person

Explanation – For the purpose of this sub rule

(a) “company” means any body corporate and includes a firm or other association of individuals

(b) “a servant” is not a member of the family

5. Prohibition and restriction on the location of industries and the carrying on processes and operation in different arrears – (1) The central Government may take into consideration the following factors while prohibiting or restricting the location of industries and carrying on processes and operations in different areas

- (i) Standards for quality of environment in its various aspects laid down for an area
- (ii) The maximum allowable limits of concentration of various environment pollutants (including noise) for and area
- (iii) The likely emission or discharge of environmental pollutants from an industry, process or operation proposed to be prohibited or restricted
- (iv) The topographic and climatic features of an area
- (v) The biological diversity of the area which in the opinion of the Central Government, needs to be preserved.
- (vi) Environmentally compatible land use.
- (vii) Net adverse environmental impact likely to be caused by an industry, process or operation proposed to be prohibited or restricted

(viii) Proximity to a protected area under the Ancient Monuments and Archaeological Site and Remains Act, 1958 or a sanctuary, National Park, game reserve or closed area notified, as such under the Wild Life (protection) Act, 1972, or places protected under any treaty, pursuance of any decision made in any international conference association or other body.

(ix) Proximity to human settlements

(x) Any other factors as may be considered by the Central Government to be relevant to the protection of the environment in an area.

(2) While prohibition or restricting the location of industries and carrying on of processes and operations in an area, the Central Government shall follow the procedure hereinafter laid down.

(3) (a) Whenever it appears to the Central Government that it is expedient to impose prohibition or restrictions on the location of an industry or the carrying on of processes and operations in an area, it may, be notification in the Official Gazette and in such other manner as the Central Government may deem necessary from time to time, given notice of its intention to do so.

(b) Every notification under clause (a) shall give a brief description of the area, the industries operations processes in that area about which such notification pertains and also specify the reasons for the impositions of prohibition or restrictions on the location of the industries and carrying on of processes or operation in that area.

(c) Any person interested in filing an objection against the imposition of prohibition or restriction on carrying on of processes or operations as notified under clause (a) may do so in writing to the Central Government within sixty days from the date of publication of the notification in the Official Gazette.

(d) The Central Government shall, within a period of one hundred and twenty days from the date of publication of the notification in the Official Gazette, consider all the objections received against such notification and may ¹[within ²[three hundred and sixty-five days] from such date of publication,] impose prohibition or restriction on location of such industries and the carrying on of any process or operation in an area.

³[(4) Notwithstanding anything contained in sub-rule(3), whenever it appears to the Central Government that it is in public interest to do so, it may dispense with the requirement of notice under clause(a) of sub-rule (3)]

⁴**[6. Procedure for taking samples-** The Central Government or the officer empowered to take samples under section 11 shall collect the sample in sufficient quantity to be divided into two uniform parts and effectively seal and suitably mark the same and permit the person from whom the sample is taken to add his own seal or mark to all or any of the portions so sealed and marked. In case where the sample is made up in containers or small volumes and is likely to deteriorate or be otherwise damaged if exposed, the Central Government or the officer empowered shall take two of the said samples without opening the containers and suitably seal and mark the same. The Central Government or the officer empowered shall dispose of the samples so collected as follows.

(i) one portion shall be handed over to the person from whom the sample is taken under acknowledgement; and

(ii) the other portion shall be sent forthwith to the environmental laboratory for analysis

7. Service of notice – The Central Government or the officer empowered shall serve on the occupier or his agent or person in charge of the place a notice then and there in form I of his intention to have the sample analyzed

8. Procedure for submission of samples for analysis, and the form of laboratory report thereon – (1) Sample taken for analysis shall be sent by the Central Government or the officer empowered to the environmental laboratory by registered post or through special messenger along with form II.

(2) Another copy of Form II together with specimen impression of seals of the officer empowered to take samples along with the seals/Marks, if any of the person from whom the sample is taken shall be sent separately in a sealed cover by registered post or through a special messenger to the environmental laboratory.

(3) The findings shall be records in Form III in triplicate and signed by the Government Analyst and sent to the officer from whom the sample is received for analysis.

(4) On receipt of the report of the findings of the Government Analyst, the officer shall send on copy of the report to the person from whom the sample was taken for analysis, the second copy shall be retained by him for his records and the third copy shall be kept by him to be produced in the Court before which proceedings, if any are, instituted.

9. Functions of environmental laboratories- The following shall be the type of environmental laboratories:-

(i) to evolve standardized methods for sampling and analysis of various types of environmental pollutants.

(ii) to analyse samples sent by the Central Government or the officers empowered under sub-section (1) of section 11

(iii) to carry out such investigations as may be directed by the Central Government to lay down standards for the quality of environment and discharge of environmental pollutants, to monitor and to enforce the standards laid down.

(iv) To send periodical reports regarding its activities to the Central Government

(v) To carry out such other functions as may be entrusted to it by the Central Government from time to time.

10. Qualification of Government Analyst – A person shall not be qualified for appointment or recognized as a Government Analyst unless he is a

(a) graduate in science from a recognized university with five years experience in a laboratory engaged in environmental investigations, testing or analysis or

(b) post-graduate in science or a graduate in engineering or a graduate in medicine or equivalent with two years' experience in a laboratory engaged in environmental investigations, testing or analysis; or

(c) post-graduate in environmental science from a recognized university with two years'

experience in a laboratory engaged in environmental investigations, testing or analysis.

11. Manner of giving notice- The manner of giving notice under clause (b) of section 19 shall be as follows, namely.

1. The notice shall be in writing in form IV

2. The person giving notice may send notice to

(a) if the alleged offence has taken place in a Union territory.

(A) the Central Board; and

(B) the Ministry of Environment and Forests (represented by the Secretary of the Government of India.)

b) if the alleged offence has taken place in a State:

(A) the State Board; and

(B) the Government of the State (represented by the Secretary of the State Government incharge of environment); and

(C) the Ministry of Environment and Forests (represented by the Secretary of the Government of India.)

(3) The notice shall be sent by registered post-acknowledgement due.

(4) The period of sixty days mentioned in clause(b) of section 19 of the Environment(Protection) Act, 1986 shall be reckoned from the date it is first received by one of the authorities mentioned above.

¹[12. Furnishing of information to authorities and agencies in certain cases- Where the discharge of environmental pollutant is excess of the prescribed standard occurs or is apprehended to occur due to any accident or other unforeseen act or event, the person in charge of the place at which such discharge occurs or is apprehended to occur shall forthwith intimate the fact of such occurrence or apprehension of such occurrence to all the following authorities or agencies, namely:-

(i) The officer-in charge of emergency or disaster relief operation in a district or other region of a state or Union territory specified by whatever designation, by the Government of the said State or Union territory, and in whose jurisdiction the industry, process or operation is located.

(ii) The Central Board or a State Board as the case may be and its regional officer having local jurisdiction who have been delegated powers under sections 20, 21, 23 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), and section 24 of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981);

(iii) The statutory authorities or agencies specified in column 3 in relation to places mentioned in column 2 against thereof of] ²[Schedule V]

³[13. Prohibition and restriction on the handling of hazardous substances in different areas-(1) The Central Government may take into consideration the following factors while

prohibiting or restricting the handling of hazardous substances in different areas:-

(i) the hazardous nature of the substance (either in qualitative or quantitative terms) as far as may be in terms of its damage causing potential to the environment, human beings, other living creatures plants and property;

(ii) the substances that may be or likely to be or readily available as substitutes for the substances proposed to be prohibited or restricted;

(iii) the indigenous availability of the substitute, or the state of technology available in the country for developing a safe substitute; (iv) the gestation period that may be necessary for gradual introduction of a new substitute with a view to bringing about a total prohibition of the hazardous substance in question; and (v) any other factor as may be considered by the Central Government to be relevant to the protection of environment.

(2) While prohibiting or restricting the handling of hazardous substances in an area including their imports and exports the Central Government shall follow the procedure hereinafter laid down:—

(i) Whenever it appears to the Central Government that it is expedient to impose prohibition or restriction on the handling of hazardous substances in an area, it may, by notification in the Official Gazette and in such other manner as the Central Government may deem necessary from time to time, give notice of its intention to do so. (ii) Every notification under clause (i) shall give a brief description of the hazardous substances and the geographical region or the area to which such notification pertains and also specify the reasons for the imposition of prohibition or restriction on the handling of such hazardous substances in that region or area.

(iii) Any person interested in filing an objection against the imposition of prohibition or restrictions on the handling of hazardous substances as notified under clause (i) may do so in writing to the Central Government within thirty days from the date of publication of the notification in the Official Gazette.

(iv) The Central Government shall within a period of sixty days from the date of publication of the notification in the Official Gazette consider all the objections received against such notification and may impose prohibition or restrictions on the handling of hazardous substances in a region or an area.]

[1][14. **Submission of environment** ²[statement].—Every person carrying on an industry, operation or process requiring consent under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) or under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) or both or authorisation under the Hazardous Waters (Management and Handling) Rules, 1989 issued under the Environment (Protection) Act, 1986 (29 of 1986) shall submit an environmental ²[statement] for the financial year ending on the 31st March in Form V to the concerned State Pollution Control Board on or before the [2][thirtieth day of September] every year, beginning 1993.]

SCHEDULE [3] [I]

(See rule 3)

| Sl. No. | Industry | Parameter | Standards |
|---------|-----------------------|---|--|
| 1 | 2 | 3 | 4 |
| 1. | Caustic soda industry | Total concentration of mercury in the final effluent* Mercury bearing waste-water generation (flow) pH | Concentration not to exceed, milligramme per litre (except for pH and flow) 0.01 10 kilolitres/tonne of caustic soda produced 5.5 to 9.0 |
| | | *Final effluent is the combined effluent from (a) cell house, (b) brine plant, (c) chlorine handling, (d) hydrogen handling, (e) hydrochloric acid plant. | |
| 2. | Man-made fibres | Suspended solids ² [Bio-chemical oxygen demand, (3-days at 27°Q)] pH | Concentration not to exceed, milligramme per litre (except for pH) 100 30 5.5 to 9.0 |
| 3. | Oil-refinery industry | Concentration, not to exceed, milligramme per litre (except for pH) Oil and grease Phenol | 10 7 1 0.7 |

| | | |
|--|----------|------|
| Sulphide | 0.5 | 0.35 |
| | .15 | 10.5 |
| [4] [Bio-chemical oxygen demand, (3-days at 27°Q)] | 20 | 10.5 |
| | 6 to 8.5 | |
| Suspended solids | | |
| PH | | |

- | | | | |
|----|---|--|--|
| 4. | Sugar industry | <p>[Bio-chemical oxygen demand, (3-days at 27°Q)]</p> <p>Suspended solids disposal in surface waters</p> | <p>Concentration not to exceed, milligramme per litre</p> <p>100 for disposal on land 30 for disposal in surface waters</p> <p>100 for disposal on land 30 for</p> |
| 5. | <p>Thermal power plants</p> <p>Condenser cooling waters</p> <p>pH</p> | | <p>Maximum, limiting concentration, milligramme per litre (except for pH and temperature)</p> <p>6.5 - 8.5</p> |

| SI. No. | Industry | Parameter | Standards |
|---------|------------------------------|-------------------------|--|
| 1 | once through cooling system) | Temperature | Not more than 5°C higher than the intake water temperature |
| | Boiler blow downs | Free available chlorine | 0.5 |
| | Special: | Suspended solids | 100 |
| | | Oil and grease | 20 |
| | | Copper (total) | 1.0 |
| | | Iron (total) | 0.5 |
| | | | 1.0 |
| | | | 0.2 |

| | | | |
|---------|---|-------------------------------------|--|
| 6. | Cooling-tower | Free available chlorine | 5.0 |
| | | Zinc | Limit to be established on case by case basis by Central Board in case of Union territories and State Boards in case of States |
| | | Chromium (total) | 6.5 - 8.5 |
| | | Phosphate | 100 - 20 |
| | | Other corrosion inhibiting material | |
| | Ash-pond effluent | pH | |
| | | Suspended solids | |
| | | Oil and grease | |
| | Cotton textile industries (composite and processing) | pH | Concentration not to exceed, milligramme per litre (except for pH and bio-assay) |
| | Common: | Suspended solid | 5.5 to 9 |
| | [5][BOD (3 days at 27"Q] | 100 | |
| | Oil and grease | 150 | |
| | Bio-assay test | 10 | |
| | | 90% survival of fish after 96 hours | |
| Special | Total chromium (as Cr) | 2 | |
| | Sulphide (as S) | 2 | |
| | Phenolic compounds (asC ₆ H ₅ OH) | 5 | |

The special parameters to be stipulated by the Central Board in case of Union territories and State Boards in case of States depending upon the dye used in the industry. Where the industry uses chrome dyes, sulphur dyes and/or phenolic compounds in the dyeing/printing process, the limits on chromium of 2 mg/litre, sulphides of 2 mg/litre, and phenolic compounds of 5 mg/litre, respectively shall be imposed.

Where the quality requirement of the recipient system so warrants, the limit of BOD should be lowered up to 30 according to the requirement by the State Boards for the States and the

Central Board for the Union territories.

A limit on sodium absorption ratio of 26 should be imposed by the State Boards for the States and the Central Board for the Union territories if the disposal of effluent is to be made on land.

| SI. No. | Industry | Parameter | Standards |
|---------|-------------------------|--|--|
| 1 | Composite woollen mills | | Concentration not to exceed, milligramme per litre (except for pH and bio-assay) |
| | Common: | Suspended solids | |
| | | pH | 100 |
| | | [6][BOD (3-days at 27°C)] | 5.5 to 9.0 |
| | | Oil and Grease | 100 |
| | Special: | Bio-assay | 90% survival of fish after 96 hours |
| | | Total chromium (as Cr) | 2 |
| | | Sulphide (as S) | 2 |
| | | Phenolic compound (as C₆H₅OH) | 5 |

The special parameters to be stipulated by the Central Board in case of Union territories and State Boards in case of States depending upon the dye used in the industry. Where the industry uses chrome dyes, sulphur dyes and/or phenolic compounds in the dyeing/printing process, the limits on chromium of 2 mg/litre, sulphide of 2 mg/litre and phenolic compounds of 5 mg/litre, respectively shall be imposed.

Where the quality requirement of the recipient system so warrants, the limit of BOD should be lowered up to 30 according to the requirement by the State Boards for the State and the Central Board for the Union territories.

A limit on sodium absorption ratio of 26 should be imposed by the State Boards for the States and the Central Board for the Union territories if the disposal of effluent is to be made on land.

| | | | |
|------|---|------------------|---|
| [7]8 | Dye and Dye Intermediate Concentration not to exceed Industries | Suspended Solids | milligrammes per litre (except for pH, temperature and bio-assay) |
| | | pH | 100 |
| | | Temperature | 6 to 8.5 |
| | | Mercury (as Hg) | Shall not exceed 5°C above the ambient temperature of the |

| | | | |
|-----------------------------|----------------|------|-----|
| Hexavalent Chromium (as Cr) | receiving body | 0.01 | 0.1 |
| Total Chromium (as Cr) | | 2.0 | 3.0 |
| Copper (as Cu) | | 5.0 | 3.0 |
| Zinc (as Zn) | | 2.0 | |
| Nickel (as Ni) | | | |
| Cadmium (as Cd) | | | |

| SI. No. | Industry | Parameter | Standards |
|--|----------------|--|--|
| 1 | 2 | 3 | 4 |
| | | Chloride (as Cl) Sulphate (as SO ₄) Phenolic Compounds (as C ₆ H ₅ O) H) Oil and Grease Bio-assay Test (with 1 : 8 dilution of effluents) | 1000 1000 10 90% survival of test animals after 96 hours |
| <p>The standards of chlorides and sulphates are applicable for discharge into inland and surface water-courses. However, when discharged on land for irrigation, the limit for chloride shall not be more than 600 milligrammes per litre and the sodium absorption ratio shall not exceed 26.</p> | | | |
| 9. | Electroplating | pH Temperature Oil and Grease Suspended Solids Cyanides (as CN) Ammoniacal Nitrogen (as N) Total Residual Chloride (as Cl) Cadmium (as Cd) Nickel (as Ni) Zinc (as Zn) Hexavalent Chromium (as Cr) Total Chromium (as Cr) | Concentration not to exceed, milligrammes per litre (except for pH and temperature) 6.0 to 9.0 Shall not exceed 5°C above, the ambient |

| | | Copper (as Cu) Lead (as Pb) Iron (as Fe) Total metal | temperature of the receiving body |
|----|--|---|--|
| | | | 10 100 0.2 50 1.0 2 .0 3 .0 5 .0 0 .1 1 2.0 3.0 0.1 3.0 10.0 |
| 10 | Cement Plants <i>Plant Capacity:</i> 200 tonnes per day Greater than 200 tonnes per day | Total dust (All sections) Total dust (All sections) | 400 250 |

The Central and State Pollution Control Boards may fix stringent standards, not exceeding 250 milligrammes per normal cubic metre for smaller plants and 150 milligrammes per normal

cubic metre for larger plants if the industry is located in an area which, in their

| SI. No. | Industry | Parameter | Standards |
|---|--|---|--|
| 1 | 2 | 3 | 4 |
| <p>opinion, requires more stringent standards.</p> <p>Where continuous monitoring integrators are provided on dust emission lines, the integrated average values over a period, to be fixed by the Central and State Boards but not exceeding 72 hours shall be considered instead of momentary dust emission values for conformity to standards.]_____</p> | | | |
| | <p>[1][II- Stone-crushing unit</p> <p>[2][12. Coke ovens</p> | <p>Suspended particulate matter</p> <p>PH</p> <p>[BOD (3 days at 27°C)]</p> <p>Suspended Solids</p> <p>Phenolic Compounds (asC₆H₅OH)</p> <p>Cyanides (as CN)</p> <p>Oil & Grease</p> | <p>The suspended particulate matter measured between 3 metres and 10 metres from any process equipment of a stone-crushing unit shall not exceed 600 micro-grammes per cubic metre.]</p> <p>Concentrations in the effluents when discharged into inland surface waters not to exceed milligramme per litre (except for pH) 5.5 - 9.0 30</p> <p>100</p> <p>5</p> <p>0.2</p> <p>10</p> <p>50</p> |

| | | | |
|----|-------------------------------|--|---|
| 13 | Synthetic Rubber | Colour pH [3] [BOD Demand (3 days at 27°C)] Chemical Oxygen Demand Oil & Grease | Concentration in the effluents when discharged into inland surface waters not to exceed milligramme per litre (except for colour, and pH) Absent 5.5 - 9.0 50 250 10.0 |
| 14 | Small Pulp and Paper Industry | | Concentration not to exceed milligramme per litre (except for pH and sodium absorption ratio) |

| SI. No. | Industry | Parameter | Standards |
|--|--|--|---|
| 1 | 2 | 3 | 4 |
| | *Discharge into inland surface water Disposal on land | pH Suspended Solids BOD pH Suspended Solids [1]BOD (3 days at 27°C) Sodium absorption Ratio | 5.5-9.0 100 30 5.5-9.0 100 100 26 |
| [2][Note.- Waste water generation shall not exceed 250 cubic metre per tonne of paper produced.] | | | |

| | | | |
|-------------------------------------|---|---|---|
| 15. | Fermentation Industry (Dis-tilleries, Maltries and Breweries) | <p>pH</p> <p>Colour & odour</p> <p>Suspended Solids</p> <p>[3]BOD (3 days at 27°C) — disposal into inland surface water/river/stream — "Disposal on land or for irrigation</p> | <p>Concentration in the effluent not to exceed milligramme per lit-re (except for pH and colour & odour) 5.5 - 9.0</p> <p>[4][A11 efforts should be made to remove colour and unpleasant odour as far as practicable]</p> <p>100</p> <p>30 mg / l.]</p> |
| [5][* * *] 16. Leather Tanneries | | <p>Concentration in the effluents not to exceed milligramme per litre (except for pH and per cent sodium)</p> <p>Inland Marine Waters</p> <p>Public Land for Sewers Coastal areas</p> | |

| | (a) | (b) | (c) | (d) |
|---------------------------|---------------------|---------------------|-------------|----------------|
| Suspended Solids | | | | |
| [BOD (3 days at 27°Q)] | 100 | 600 | 200 | 100 |
| pH | 30 | | 0 | |
| Chlorides (as Cl) | 6.0- 9.0 1000 | 350 | | 100 6.0-9.0 |
| | | 6.0- 9.0 1000 | | |
| | | | 100 | |
| | | | 6.0- 9.0 | |
| | | | 6.0- 9.0 | |

| SI. No. | Industry | Parameter | Standards |
|---------|--|---------------------|-----------|
| 1 | 2 | 3 | 4 |
| | *Discharge into inland surface water | pH | 5.5-9.0 |
| | Disposal on land | Suspended Solids | 100 |
| | | BOD | 30 |
| | | pH | 5.5-9.0 |
| | | Suspended | 100 |

| | | | |
|--|--|-------------------------|-----|
| | | Solids | 100 |
| | | [1]BOD (3 days at 27°C) | 26 |
| | | Sodium absorption | |
| | | Ratio | |

[2][Note.- Waste water generation shall not exceed 250 cubic metre per tonne of paper produced.]

| | | | |
|-----|---|--|---|
| 15. | Fermentation Industry (Dis-tilleries, Maltries and Breweries) | <p>pH</p> <p>Colour & odour</p> <p>Suspended Solids</p> <p>[3]BOD (3 days at 27°C) — disposal into inland surface water/river/stream — "Disposal on land or for irrigation</p> | <p>Concentration in the effluent not to exceed milligramme per lit-re (except for pH and colour & odour) 5.5 - 9.0</p> <p>[4][A11 efforts should be made to remove colour and unpleasant odour as far as practicable]</p> <p>100</p> <p>3</p> <p>0</p> <p>m</p> <p>g</p> <p>l</p> <p>.</p> <p>l</p> <p>0</p> <p>0</p> <p>m</p> <p>g</p> <p>/</p> <p>l</p> <p>.]</p> |
|-----|---|--|---|

| | | |
|--|---|--|
| <p>[5][* * *]</p> <p>16. Leather Tanneries</p> | <p>Suspended Solids [BOD (3 days at 27°Q)] pH Chlorides (as Cl)</p> | <p>Concentration in the effluents not to exceed milligramme per litre (except for pH and per cent sodium)</p> <p>Inland Marine Public Land for Marine</p> <p>Surface Irrigation Waters Coastal areas Sewers</p> |
|--|---|--|

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