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BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
WESTERN ZONE BENCH, PUNE

ORIGINAL APPLICATION NO. 102/2022(WZ)

IN THE MATTER OF:-

SAGAR K. DEVRE		APPLICANT(S)
	VERSUS	
STATE OF MAHARASHTRA & ORS		RESPONDENT(S)

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(Pratik D. Bharne)
Regional Director

Place: Pune

Date: 05/03/2024



**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
WESTERN ZONE BENCH, PUNE
ORIGINAL APPLICATION NO. 102/2022 (WZ)**

IN THE MATTER OF: -

SAGAR K. DEVRE

APPLICANT

VERSUS

STATE OF MAHARASHTRA & ORS.

RESPONDENT(S)

SURJOINDER ON BEHALF OF CENTRAL POLLUTION CONTROL BOARD

TO REJOINDER FILED BY RESPONDENT NO 6 TO 12 & 14

I, Pratik Dinkarrao Bharné, S/o Shri Dinkarrao Bharné, aged 50 years, working as Scientist 'E' and Regional Director in the Regional Directorate, Central Pollution Control Board, Pune, do hereby solemnly affirm and declare as under:

That I am presently working in the capacity of Regional Director at Central Pollution Control Board (hereinafter referred to as "CPCB"), and have been authorized to file the present affidavit on behalf of the CPCB. I have read and understood the contents of the Petition and I am conversant with the facts and circumstances of the present case.

1. Central Pollution Control Board (hereinafter referred as "CPCB") is a statutory Board, which has been constituted under Section 3 of the Water (Prevention and Control of Pollution) Act, 1974. It performs the functions assigned to it under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 and The Environment (Protection) Act, 1986.
2. That the averments made in para no. 1 are about the details of parties involved in filing of rejoinder. Hence needs no comments from this answering respondent.



3. That the averments made in para no. 2 and 3 are related to the disapproval of the respondents with Central Pollution Control Board (hereinafter referred as CPCB) regarding methodology for classification of industrial sectors into red, orange, green and white categories.

In this regard, it is humbly submitted that CPCB has a defined methodology for classification of industrial sectors, which was developed after series of deliberations and was finalized after public consultation by a Working Group comprising members from State Pollution Control Boards (hereinafter referred as SPCBs) and CPCB. The final document on categorization of industrial sectors into red, orange, green and white was issued on 07.03.2016. CPCB categorizes industries on the basis of Pollution Index (PI) which is a function of water pollution, air pollution, and hazardous waste generation. Based on the methodology, CPCB has categorized 257 industrial sectors (63 under red, 91 under orange, 65 under green and 38 under white category). Methodology for classification is applied uniformly on all the sectors while computing pollution index.

4. That the averments made in para nos. 4 and 5 are related to the constitution of Hon'ble NGT and appeal before Hon'ble Supreme Court. Hence needs no comments from this answering respondent.
5. That the averments made in para nos. 6 to 10 are related to classification of Ready- Mix Concrete Plants under green category.

In this regard, it is humbly submitted that there is no concept of negative marking in CPCB methodology for classification of industrial sectors. It is worth to mention again that the Pollution Index (PI) of any industrial sector, which is a rational number between 0 and 100, is function of water pollution score, air pollution score and hazardous waste generation score. The water pollution score is a number ranging between 0 to 40, depending upon the quality & quantity of the effluents from that industrial sector. The air pollution score is a number ranging between 0 to 40, depending upon the quality &



quantity of the emission from that industrial sector. The hazardous waste generation score is a number ranging between 0 to 20, depending upon the types of hazardous waste(s) generated from that industrial sector. As the scale of scores of three pollutants i.e. air, water and hazardous waste is different, to bring the scores to common scale of 0 to 100, wherever a particular sector is not generating all three types of pollutants, standard data processing technique i.e. normalization is applied. The normalization is done based on following formulas:

- a) Any of the industrial sector having only either air pollution (A) or water pollution (W), the score will be normalized to 100 as per the following formula- $\text{Normalized Score} = \{100 \times W \text{ (or A)}\} / 40$.
- b) Any of the industrial sector having air pollution (A) and water pollution (W) both but no hazardous waste generation (H), the joint score of air & water pollution will be normalized to 100 as per the following formula- $\text{Normalized Score} = \{100 \times (W+A)\} / 80$.
- c) Any of the industrial sector having air pollution (A) and hazardous waste generation (H) but no water pollution (W), the joint score of air pollution and hazardous waste generation will be normalized to 100 as per the following formula- $\text{Normalized Score} = \{100 \times (A+H)\} / 60$.
- d) Any of the industrial sector having water pollution (W) and hazardous waste generation (H) but no air pollution (A), the joint score of water pollution & hazardous waste generation will be normalized to 100 as per the following formula- $\text{Normalized Score} = \{100 \times (W+H)\} / 60$ Concept of normalization is to proportionate the score of individual sectors in scale of 0-100 and the same has been applied uniformly on all the sectors categorized by CPCB, including ready mix concrete plants. The major source of pollution in a "Ready mix cement concrete plants" is fugitive dust emission due to inherent dry and dusty nature of raw materials stored in the premises and due to transportation of raw material and final product. Additionally, these plants mostly use diesel generators

as source of regular/auxiliary power supply. Air pollution score for the sector is 10. As Water pollution score and Hazardous waste score is zero, the normalized score/pollution index is $(10/40) \times 100 = 25$. Thus, based on the Pollution Index the sector is categorized under green category of industries.

A copy of CPCB document dated 07.03.2016 regarding "Classification of industrial sectors into red, orange, green and white categories" is attached as **Annexure-I**.

It may also be noted that to encourage the shift towards less polluting industries and cleaner technology options, resulting in improvement in environmental performance of industries, CPCB is in the process of revision of methodology for classification of industrial sectors. During July-August 2023, CPCB has circulated the draft report for public comments. Copy of CPCB draft report on "Classification of Industrial Sectors into Red, Orange, Green and White Categories: A Tool for Progressive Environmental Management" is attached as **Annexure-II**.

It is humbly submitted that, as per this draft report, ready-mix concrete plant is categorized under green category. However, the said draft is under examination in view of comments received from public/stake holders.

6. That the averments made in para no. 11 is related to status of affidavit not filed by other parties in this matter. Hence needs no comments from this answering respondent.
7. That the averments made in para no. 12 is related to the prayer made to Hon'ble NGT to direct CPCB officials to be present in hearing and provide speaking clarification.

In this regard, it is humbly submitted that CPCB has a defined methodology for classification of industrial sectors which is

available in public domain and there is no ambiguity in concept of calculation of pollution index. The methodology is applied uniformly on all the industrial sectors, including ready mix concrete plants. It is again humbly submitted that based on the pollution potential, the ready-mix concrete plants fall under green category of industries.

- 8. That in light of the above submissions, it is respectfully submitted that this answering respondent i.e. CPCB shall abide by any order(s) or direction(s) passed by this Hon'ble Tribunal in the instant OA.

Prakash
DEPONENT

VERIFICATION

क्षेत्रीय निदेशक / Regional Director
केंद्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
क्षेत्रीय निदेशालय, पुणे / Regional Directorate, Pune
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
M/o Env't. Forest & Climate Change, Govt. of India
सर्वे नं. ११०, हीराबाई धनकुडे हॉल, बाणेर रोड, बाणेर, पुणे - ४११०४५
Sr. No. 110, Hirabai Dhankude Hall, Baner Road, Baner, Pune-411045

Verified at PUNE on this...^{5th}...day of March, 2024 that the contents of the above reply affidavit are correct and true on the basis of the record of the case as maintained in the day-to-day affairs of the CPCB. Nothing has been concealed therein.

Prakash
DEPONENT - CPCB

COUNSEL OF DEPONENT- CPCB

क्षेत्रीय निदेशक / Regional Director
केंद्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
क्षेत्रीय निदेशालय, पुणे / Regional Directorate, Pune
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
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Sr. No. 110, Hirabai Dhankude Hall, Baner Road, Baner, Pune-411045



Noted & Registered
At.Sr.No. 214/2024

BEFORE ME

Manisha Sameer Chitnis

MANISHA SAMEER CHITNIS
NOTARY
GOVERNMENT OF INDIA

05 MAR 2024





केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
(पर्यावरण एवं वन मंत्रालय, भारत सरकार)
(MINISTRY OF ENVIRONMENT & FORESTS, GOVT. OF INDIA)

No.B-29012/ESS(CPA)/2015-16/

March 07, 2016

To

The Chairman
All the State Pollution Control Boards / Pollution Control Committees
(List Attached)

SUB: MODIFIED DIRECTIONS UNDER SECTION 18(1)(b) OF THE WATER (PREVENTION & CONTROL OF POLLUTION) ACT, 1974 and THE AIR (PREVENTION & CONTROL OF POLLUTION) ACT, 1981 REGARDING HARMONIZATION OF CLASSIFICATION OF INDUSTRIAL SECTORS UNDER RED / ORANGE / GREEN / WHITE CATEGORIES.

WHEREAS, under section 16 (2)(b) of the Water (Prevention and Control of Pollution) Act, 1974 and under Section 16 (2)(c) of the Air (Prevention & Control of Pollution) Act, 1981, one of the functions of the Central Pollution Control Board (CPCB), constituted under the Water (Prevention and Control of Pollution) Act, 1974, is to coordinate activities of the State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs); and

WHEREAS, under section 16 (2)(c) of the Water (Prevention and Control of Pollution) Act, 1974 and under Section 16 (2)(d) of the Air (Prevention & Control of Pollution) Act, 1981, one of the functions of the CPCB is to provide technical assistance and guidance to SPCBs and PCCs; and

WHEREAS, it was brought to the notice of CPCB, that different SPCBs /PCCs were following different criteria for classification of industrial sectors under Red/Orange/ Green category and that classification was being used by the SPCBs/PCCs for grant of consents to industries and for Inventorization / surveillance of industries.

WHEREAS, the issue regarding classification of industries was deliberated upon in the 56th Conference of Chairmen & Member Secretaries of CPCB & SPCBs/PCCs held on August 31, 2010 and a working group comprising of representatives from SPCBs & CPCB was constituted to prepare a consolidated list of industrial sectors falling under Red/Orange/Green category to bring uniformity in classification of industrial sectors across the country;

'परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली-110032

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ई-मेल/e-mail : cpcb@nic.in वेबसाइट/Website : www.cpcb.nic.in

WHEREAS, the report prepared by the Working Group was discussed in the 57th Conference of Chairmen & Member Secretaries of CPCB & SPCBs/PCCs held in Delhi on September 15, 2011, wherein some modifications were proposed;

WHEREAS, the final report of the working group was prepared, incorporating the suggestions/observations made in the 57th Conference of Chairmen and Member Secretaries of CPCB & SPCBs/PCCs and in exercise of the powers delegated to the Chairman, CPCB under Section 18(1)(b) of the Water Act, 1974, following directions were issued for compliance to all SPCBs/PCCs to maintain uniformity in categorization of industries as red, orange and green as per list finalized by CPCB, which identified 85 types of industrial sectors as 'Red', 73 industrial sectors as 'Orange' and 86 sectors as 'Green':

a). To maintain uniformity in categorization of industries under Red/ Orange/Green category, the SPCBs /PCCs shall adopt the list as finalized by CPCB based on the recommendations of that Working Group for grant of Consent, inventorization of industries under Red, Orange and Green categories and other related activities.

(b). The SPCBs/PCCs shall revise the list of Red, Orange and Green categories of industries operating in their jurisdiction based on the criteria specified in the final report of that Working Group and submit the same to CPCB within 90 days in hard copy as well as soft copy;

WHEREAS, later-on, it was observed that the process of categorization thus far was primarily based on the size of the industries and consumption of resources and pollution due to discharge of emissions and effluents and its likely impact on health was not considered as primary criteria;

WHEREAS, there have been proposals from the SPCBs / PCCs and industrial associations for categorization of the industrial sectors in a more pragmatic manner. The issue was discussed during the national level conference of the Environment Ministers of the States, held in New Delhi during April 06-07, 2015 and also during the Conference of the Chairmen and Member Secretaries of CPCB and SPCBs/PCCs held in New Delhi on April 08, 2015. Accordingly, a 'Working Group' comprising of the Members from Central Pollution Control Board and State Pollution Control Boards representing the States of Andhra Pradesh, Punjab, Tamilnadu, West Bengal, Madhya Pradesh and Maharashtra, was constituted to revisit the criteria of categorization of industries and suggest rationale based on pollution potential for categorization of industrial sectors and adopting it for implementation of pollution control plan;

WHEREAS, the Working Group has developed the criteria of categorization of industrial sectors based on the concept of Pollution Index which is a function of the emissions (air pollutants), effluents (water pollutants), hazardous wastes generated and consumption of resources. For this purpose the references are taken from the the Water (Prevention and Control

of Pollution) Cess (Amendment) Act, 2003, Standards so far prescribed for various pollutants under Environment (Protection) Act , 1986 and Doon Valley Notification, 1989 issued by MoEFCC. The Pollution Index (PI) of any industrial sector is a number from 0 to 100 and the increasing value of PI denotes the increasing degree of pollution load from the industrial sector;

WHEREAS , based on the series of consultations with SPCBs, different Government / Non-government Institutions including industries and MoEFCC , the following criteria on 'Range of Pollution Index 'for the purpose of categorization of industrial sectors has been finalized:

- Industrial Sectors having Pollution Index score of 60 and above - Red category
- Industrial Sectors having Pollution Index score of 41 to 59 -Orange category
- Industrial Sectors having Pollution Index score of 21 to 40 -Green category
- Industrial Sectors having Pollution Index score incl. & upto 20 -White category

WHEREAS, based on the revised criteria, the 'Final Report on Revised Categorization of Industrial Sectors under Red/Orange/Green/White' has been evolved. The 'Categorization' is based on the relative pollution potential of the industrial sectors and grouping of the industrial sectors based on the use of raw materials, manufacturing process adopted and pollutants likely to be generated;

WHEREAS, based on relative Pollution Index, the number of industries in various categories are as under :

- i. The Red category of industrial sectors: 60
- ii. The Orange category of industrial sectors: 83
- iii. The Green category of industrial sectors: 63 and
- iv. The Newly introduced White category: 36

WHEREAS, there shall be no necessity of obtaining the Consent to Operate" for White category of industries and an intimation to concerned SPCB / PCC shall suffice;

WHEREAS, the purpose of categorization is to ensure that the industry is established in a manner consistent with the environmental objectives and to prompt industrial sectors to adopt cleaner technologies, ultimately resulting in generation of no or minimum pollutants.

WHEREAS the new categorization system shall also facilitate in self-assessment by industries;

Now, therefore, in exercise of the powers delegated to the Chairman, CPCB under Section 18(1)(b) of the Water (Prevention & Control of Pollution) Act, 1974 and Section 18(1)(b) of the Air (Prevention & Control of Pollution), Act , 1981 the earlier Directions issued in June 2012 in the context of categorisation of industries as Red, Orange & Green are withdrawn with immediate effect and following '**Directions**' are hereby issued for compliance by all SPCBs and PCCs :

Classification of Industrial Sectors into Red, Orange, Green and White Categories: A Tool for Progressive Environmental Management

The Central Pollution Control Board, in the year 2016, developed methodology for classifying industrial sectors and other polluting activities as Red, Orange, Green and White, primarily to facilitate uniformity and objectivity in streamlining enforcement mechanism.

In order to encourage the shift towards less polluting industries and cleaner technology options, resulting in improvement in their environmental performance, methodology for classification has been revised, by addressing the issues such as scoring methodology as well as the formula for computation of pollution index, weightages assigned to the scale of operations, consideration to cleaner technologies/fuels etc.

Comments/Suggestions on this draft report may be sent to the Divisional Head, IPC-VI, CPCB, Delhi, preferably through email- ipc6.cpcb@gov.in, with the subject title: “Comments on draft report on classification”, latest by 30.09.2023



**Central Pollution Control Board
“Parivesh Bhawan”, East Arjun Nagar
Delhi-110032**

(July, 2023)

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Classification of industrial sectors into red, orange, green and white categories- A tool for progressive environmental management

1. Introduction

The notifications issued by the Ministry of Environment and Forest during 1989 for Doon Valley, Uttarakhand introduced the concept of classification of industries as red, orange and green. The purpose of this classification was to facilitate decisions related to location of these industries. Subsequently, the application of this concept was extended to other parts of the country not only for the purpose of location of industries, but also for the purpose of consent management and formulation of norms related to surveillance/inspection of industries. As the State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) were following different categorization of industries, in order to maintain the uniformity across the country, during 2012, CPCB issued a list of 244 industrial sectors, classified under red (85), orange (73) and green (86) categories.

In order to harmonize the criteria for categorization, during the year 2016, CPCB developed the scoring methodology to classify the industries based on the Pollution Index (PI) which was a function of water pollution, air pollution, hazardous waste generation, fuel consumption and amount of waste water generation. Based on this methodology, CPCB classified 254 industrial sectors under red (61), orange (90), green (65) and white (38) categories, and directed SPCBs/PCCs to adopt the same. This time CPCB also introduced white category as a new category, which included “practically non-polluting industries”. SPCBs/PCCs were also empowered to categorize any new/left-out sector at their own level, following the methodology prescribed by CPCB.

The concept of categorization is based on the “Precautionary Principle”, which focuses on potential of industries to pollute the environment. The purpose of categorization is to ensure that the industry is established in a manner consistent with the environmental objectives and to prompt industrial sectors to adopt cleaner technologies, ultimately resulting in generation of minimum pollutants.

2. Need and scope for revision of methodology

The classification methodology of 2016 had scope of improvement in the following areas:

i. Assessment of Pollution Index:

The category of any industrial sector depends on the Pollution Index (PI), which comprises of scores of three pollutant groups i.e. air pollution, water pollution and hazardous waste. As per the classification methodology of 2016, in case of absence of any pollutant group, pollution index was normalized to 100. In some cases, the normalization led to inconsistency while comparing pollution potential among sectors, as it disproportionately increased the value of pollution index. It was also observed that in some sectors normalization involved subjectivity based on perception.

ii. Size of operations of industrial activities:

The classification methodology of 2016 considered scale of operations with the help of variables namely, quantity of water discharge and fuel consumption. However, it could not give appropriate weightage to micro, small, medium and large industries by capturing large variations in size of operations.

iii. Consideration to segregated industrial activities:

Although there were differences in pollution potential of integrated and segregated unit operations in a particular sector, the classification methodology (2016) did not consider their individual pollution indices. For example, standalone cement grinding units will have less pollution potential than integrated cement plants, but both were classified under red category.

iv. Consideration of cleaner fuels:

In industrial operations requiring fuels, the amount of emissions is governed by many factors such as the type of fuel and its calorific value, combustion efficiency, emission factors, etc. Use of biomass and cleaner gaseous fuels such as Piped Natural Gas (PNG), Liquefied Petroleum Gas (LPG), Compressed Natural Gas (CNG), bio-CNG etc. have increased significantly in recent years. Variation in pollution potential due to type of fuel used was not given adequate weightage in classification methodology of 2016.

v. Motivation to industries for progressive environmental management:

In the previous classification regime, there was no effective provision for change in category of industries based on the variation in pollution potential of a sector, even if the industries adopt

cleaner technologies or switch over to cleaner raw material/cleaner fuel etc., resulting into reduction in pollution index.

3. Modified methodology for classification of industrial sectors

Considering the above issues, the classification methodology was modified on the basis of the presence of three pollutant groups, namely, water pollution, air pollution and hazardous waste generation, which have been given scores out of 100, each. These scores are used for computation of pollution index for deciding the category of industrial sector. The details of scoring criteria for water polluting, air polluting and hazardous waste generating industries are as follows:

3.1. Scoring criteria for water polluting industries

The water pollution score is the addition of three sub-scores which are based on oxygen demand of wastewater (W1), presence of type of pollutants (W2) and quantum of wastewater (W3). The weightages of W1, W2 and W3 in the water pollution score are 35%, 30% and 35%, respectively.

The higher scores are given to the sectors generating effluent of high BOD/COD, heavy metals/toxic compounds and large volume of wastewater as it has the high potential for creating the damage to the environment. The scoring criteria for water polluting industries is given at **Annexure-I**.

3.2. Scoring criteria for air polluting industries

The air pollution score is the addition of three sub-scores which are based on the presence of type of pollutants in emissions (A1), fugitive emissions & odour nuisance (A2), and, fuel type & quantity (A3). The weightages of A1, A2 and A3 in air pollution score are 35%, 30% and 35%, respectively.

The higher scores are given to the sectors generating emissions with hazardous air pollutants, process-based fugitive emissions and polluting fuels, as it has the high potential for creating the damage to the environment. The scoring criteria for air polluting industries is given at **Annexure-II**.

3.3. Scoring criteria for hazardous waste generating industries

For industries generating hazardous waste, as per the Hazardous and Other Wastes (Management & Trans-boundary Movement) Rules, 2016, the score for hazardous waste

generation comprises of two sub-scores H1 and H2, which are based on desirable/required waste management/disposal method and amount of hazardous waste, respectively. Both the sub-scores are given weightages 50% each. The scoring criteria for hazardous waste generating industries is given at **Annexure-III**.

4. Computation of pollution index and criteria for deciding category of industrial sector

In the modified methodology of classification (2023), all three pollution scores due to water pollution, air pollution and hazardous waste generation are taken into account while computing pollution index. The formula for computing pollution index is as follows:

$$PI = i_{max} + (100 - i_{max}) \left(\frac{i_2 + i_3}{200} \right)$$

Where,

- i_{max} , is the maximum score among water (W), air (A), and Hazardous (H) pollution scores.
- i_2 and i_3 are the remaining pollution scores.

The category of the industrial sector will be decided based on the pollution index ranges given at **Table-4**.

Table-4: Ranges of pollution index for different categories

Pollution Index (PI)	Category of industrial sector
$PI \geq 80$	Red
$55 \leq PI < 80$	Orange
$25 \leq PI < 55$	Green
$PI < 25$	White

Modified methodology also considers the variation in pollution potential due to various type of activities and scale of operations in a particular sector.

5. Sub-classification based on the measures for better environmental management

The modified methodology of classification (2023) includes the provision for modification/change in category of any sector based on the measures taken by that industry, such as cleaner production technology, **cleaner raw material**, cleaner fuel etc., for better environmental management, resulting into overall reduction of pollution index.

This provision will guide and motivate industries to reduce their pollution load. For example, if coffee seeds processing industries use eco-pulping technology, which generates less water pollution, the pollution index of the said sector reduces and category changes from orange to green.

Similarly, use of cleaner/gaseous fuel also results in reduction of overall pollution potential. For example, sectors like (i) Chlor-alkali units and (ii) Power generation by generator sets (more than 5 MVA), using cleaner/gaseous fuels are classified as orange, as compared to the units which are using other fuels such as coal, biomass, liquid fuel etc., which are classified as red category.

6. Types of sectors based on their activities

On the basis of type of operational activities, the sectors are divided into two groups, namely, (i) Industrial operations and (ii) Non-industrial operations. The sectors which are involved in production of goods are considered under industrial operations. On the other hand, sectors which do not involve any manufacturing/production process but have pollution potential, are kept under non-industrial operations. These non-industrial operations may include infrastructure projects, service sector, and environmental management facilities.

The infrastructure projects may include projects, such as, airports, ports & harbours, highway projects, building & construction projects, oil and gas pipelines etc. The service sector may include sectors like healthcare establishments, mechanized laundries, automobile fuel stations, etc. Environmental management facilities are required for treatment and disposal of waste in order to protect the environment, such as, sewage treatment plants, common bio-medical waste treatment facilities, construction & demolition waste processing plants, municipal solid waste sanitary landfills etc.

Further, if any industry/activity has potential for ecological damage or grave injury to environment but cannot be given score based on the above methodology, then by following the “precautionary principle”, CPCB/SPCB may categorize the sector, accordingly.

Based on the modified methodology, the list of sectors and sector specific sub-classification is given as **Annexure-IV**. Summary of classified sectors is given in **Table-5**.

Table-5. Number of sectors classified under different categories

Sl. No.	Type of sector	Total number of sectors classified	Red	Orange	Green	White
1.0	Industrial operations	199	53	62	47	37
2.0	Non-Industrial operations					
2.1	Environment management facilities	4	3	1	0	0
2.2	Infrastructure facilities	7	2	2	3	0
2.3	Service sector	9	3	3	3	0
3.0	Special category projects	3	3	0	0	0
	Total	222	64	68	53	37

7. Usage of classification of industrial sectors

The classification of industrial sectors may be used for the following purposes:

- i. **Consent management:** SPCBs/PCCs may grant Consent to Operate (CTO) to red, orange and green categories of industries for validity up to 5 years, 10 years and 15 years, respectively. White category of industries may not require consent and only an intimation to SPCB/PCC shall suffice.
- ii. **Inspection frequency:** SPCBs/PCCs may prioritize their environmental surveillance for industries on the basis of their categories. SPCBs/PCCs are required to ensure inspection of red, orange and green category of industries at least once in six-months, one-year and two-years, respectively. Common facilities and 17 categories of industries are to be inspected at least once in every three-months.
- iii. **Siting criteria:** The categorization may be used as a tool for deciding the location/siting of an industry in a particular location.
- iv. **Sector specific plans for pollution control:** The plans for control of pollution may be prepared and implemented on priority for the sectors having higher pollution index and overall higher pollution load.

- v. **Levying environmental compensation:** Pollution index may be used for determining and levying environmental compensation on industries violating the environmental norms.
- vi. **A tool for progressive environmental management:** Industrial units may adopt cleaner technologies, cleaner fuels, etc. which may result in reduction of pollution index, thus, moving to lower pollution potential category. It will provide incentives to industries in terms of less consent renewal fees, less environmental surveillance/compliance burden, more validity period for consents/authorizations, etc.

8. Implementation of methodology for classification of industrial sectors

The modified classification methodology (2023) and list of sectors classified by CPCB is required to be adopted and implemented by all SPCBs/PCCs. In case of any new or left-out sector, the SPCB/PCC may categorize the sector at its own level. For this purpose, a committee headed by the Member Secretary, SPCB/PCC and comprising of at least two senior cadre engineers/scientists of the SPCB/PCC will examine the matter and classify the sector in accordance with the methodology prescribed by CPCB.

In case, any industrial sector/unit adopts measures such as cleaner production technology, cleaner raw material, cleaner fuel etc., for better environmental management resulting into overall reduction of pollution index and change in category, then the request in this regard may be made to concerned SPCB/PCC. The state level committee for categorization of new/left-out industrial sector will evaluate the matter and take decision regarding change in category of the industrial sector, accordingly.

Annexure-I

Scoring criteria for water polluting industries

Water Pollutant Group	Description	Score
Score W1: Score based on the oxygen demand of wastewater. (Maximum of the following scores to be considered)		
W11	BOD ≥ 5,000 mg/l or COD ≥ 10,000 mg/l	35
W12	1000 ≤ BOD < 5,000 mg/l or 5000 ≤ COD < 10,000 mg/l	30
W13	500 ≤ BOD < 1,000 mg/l or 1000 ≤ COD < 5,000 mg/l	25
W14	100 ≤ BOD < 500 mg/l or 250 ≤ COD < 1,000 mg/l	20
W15	BOD < 100 mg/l or COD < 250 mg/l	10
Score W2: Score based on presence of pollutants in the wastewater. (Maximum of the following scores to be considered)		
W21	Presence of pesticides, heavy metals and toxic compounds: Aluminium, Ammonia, Anionic detergents, Barium, Chloramines, Copper, Fluoride, Total residual chlorine, Iron, Manganese, Mineral oil, Phenolic compounds, Selenium, Silver, Sulphide, Cadmium, Cyanide, Lead, Zinc, Mercury, Tin, Vanadium, Antimony, Benzene, Benzo-a-pyrene, Molybdenum, Nickel, Phosphates, Free ammonia, Polychlorinated biphenyls, Polynuclear aromatic hydrocarbons, Arsenic, Total/Hexavalent Chromium, Trichloroethane, Trichloroethylene, Adsorbable Organic Halogens (AOx), Pesticides compounds, Antimicrobial resistance, Radioactive materials, etc.	30
W22	Nitrate Nitrogen, Nitrate, Amonical Nitrogen, Total Kjeldahl Nitrogen (TKN), Oil & grease, pH<5.5 or > 9	25
W23	Wastewater with high TDS generated from fresh-water RO rejects, boiler blow-downs and brine solution rejects	20
W24	Wastewater from cooling towers and cooling-re-circulation processes	15
Score W3: Score based on quantity of raw wastewater generation (Maximum of the following scores to be considered)		
W31	Wastewater ≥ 500 KLD	35
W32	100 KLD ≤ Wastewater < 500 KLD	30
W33	50 KLD ≤ Wastewater < 100 KLD	25
W34	10 KLD ≤ Wastewater < 50 KLD	20
W35	Wastewater < 10 KLD	15
Water Pollution Score (W) = W1+W2+W3		

Annexure-II

Scoring criteria for air polluting industries

Air Pollutant Group	Description	Score
Score A1: Score based on presence of pollutants in the emissions. (Maximum of the following scores to be considered)		
A11	Presence of Hazardous Air Pollutants (HAPs), and heavy metals: HAPs (Phosgene, Benzene, Benzo[a]pyrene, Butadiene, Toluene Diisocyanate, Methylenediphenyl Diisocyanate, Ethylene Oxide, Ethylene Di Chloride, Acrylonitrile, Propylene Oxide), Dioxins & Furans, Asbestos, Polycyclic Aromatic Hydrocarbons (PAHs), HCN, Cd, Th, Hg, Sb, As, Pb, Co, Cr, Cu, Mn, Ni, V, etc.	35
A12	Presence of halogens, acids and pesticides based pollutants: H ₂ S, HF, HBr, P ₂ O ₅ as H ₃ PO ₄ , NH ₃ , TOC, Cl, HCl, SO ₃ , CH ₃ Cl, Total Fluoride, PM having pesticide compounds/other organic compounds, Acid mist, etc.	30
A13	Presence of pollutants due to combustion of fuel: PM, CO ₂ , CO, NO _x , SO ₂ , etc.	25
A14	Presence of Volatile Organic Compounds (VOCs): Ethyl benzene, Styrene, Toluene, Xylene, Aromatics, Propylene Glycol, Ethylene Glycol, etc.	20
Score A2: Score based on fugitive emissions and odour nuisance. (Maximum of the following scores to be considered)		
A21	Fugitive emissions of Particulate Matters (PM) due to process operations	30
A22	Fugitive emissions due to handling of materials, etc.	25
A23	Odour nuisance, including odour due to use of binding gums, cements, adhesives, enamels etc.	20
Score A3: Score based on the fuel quantity. (Maximum of the following scores to be considered)		
	Coal or liquid fuels	
A31	Fuel consumption ≥ 24 TPD	35
A32	12 TPD ≤ Fuel consumption < 24 TPD	30
A33	Fuel consumption < 12 TPD	25
	Biomass-based fuels	
A34	Fuel consumption ≥ 48 TPD	25
A35	24 TPD ≤ Fuel consumption < 48 TPD	20
A36	Fuel consumption < 24 TPD	15
	Cleaner/gaseous fuels, such as, PNG, CNG, LPG, Compressed Bio-gas (CBG), propane, butane etc.	
A37	Fuel consumption ≥ 120 TPD	20
A38	60 TPD ≤ Fuel consumption < 120 TPD	15
A39	Fuel consumption < 60 TPD	10
Air Pollution Score (A) =A1+A2+A3		
Note: In case, any sector/unit is using more than one type of fuel, the most polluting fuel category, will be consider		

Annexure-III

Scoring criteria for hazardous waste generating industries

Waste Pollutant Group	Description	Score
Score H1: Score based on the hazardous waste management/disposal method. (Maximum of the following scores to be considered)		
H11	Hazardous waste requiring disposal in secured landfill after stabilization	50
H12	Hazardous waste requiring disposal through incineration	40
H13	Hazardous waste requiring disposal in secured landfill without stabilization	30
H14	High volume and low effect hazardous wastes	20
Score H2: Score based on quantity of hazardous waste generation (Maximum of the following scores to be considered)		
H21	Hazardous Waste \geq 5000 TPA	50
H22	1000 TPA \leq Hazardous Waste $<$ 5000 TPA	40
H23	200 TPA \leq Hazardous Waste $<$ 1000 TPA	30
H24	10 TPA \leq Hazardous Waste $<$ 200 TPA	20
H25	Hazardous Waste $<$ 10 TPA	10
Hazardous Waste Generation Score (H) = H1+H2		

Annexure-IV

List of sectors classified under red, orange, green and white categories

Sl. No.	Sector	W1	W2	W3	W	A1	A2	A3	A	H1	H2	H	Pollution Index (PI)	New Category	Old Category
1. Industrial Operations															
1.0	Automobile manufacturing (integrated facilities)	20	30	25	75	0	25	0	25	50	20	70	86.9	Red	Red
2.0	Diesel Generator (DG) Set														
2.1	DG Set of capacity \geq 5 MVA, using liquid fuel	0	15	15	30	25	20	35	80	40	10	50	88.0	Red	Red
2.2	DG Set of capacity \geq 5 MVA, using cleaner/gaseous fuel	0	15	15	30	25	0	20	45	40	10	50	68.8	Orange	
2.3	DG Set of capacity \geq 1 MVA but < 5 MVA, using liquid fuel	0	0	0	0	25	20	25	70	40	10	50	77.5	Orange	Orange
2.4	DG Set of capacity \geq 1 MVA but < 5MVA, using cleaner/gaseous fuel	0	0	0	0	25	0	10	35	40	10	50	58.8	Orange	
3.0	Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black														Red
3.1	Carbon black manufacturing	20	15	20	55	25	30	30	85	40	20	60	93.6	Red	
3.2	Industrial carbon including electrodes & graphite blocks and calcined pet coke	20	15	20	55	25	25	25	75	30	20	50	88.1	Red	
3.3	Activated carbon manufacturing (with steam activation)	20	15	15	50	25	25	15	65	0	0	0	73.8	Orange	
4.0	Power generation plants														Red

4.1	Power plants based on coal	10	25	35	70	35	25	35	95	20	50	70	98.5	Red	
4.2	Power plants based on liquid fuels	10	25	35	70	25	20	35	80	40	20	60	93.0	Red	
4.3	Waste to energy power plants	10	25	30	65	35	25	35	95	20	50	70	98.4	Red	
4.4	Biomass based power plants	10	25	35	70	25	25	25	75	20	40	60	91.3	Red	
4.5	Gas based power plants	10	25	35	70	25	0	20	45	40	20	60	85.8	Red	
5.0	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under Schedule IV of H&OW(M & TBM) Rules, 2016 - Items, namely, Spent catalyst containing nickel, cadmium, zinc, copper, arsenic, vanadium and cobalt, including cleared metal catalyst.														Red
5.1	Hydro & pyro metallurgy	0	30	15	45	35	0	25	60	50	10	60	81.0	Red	
5.2	Hydro & pyro metallurgy (using cleaner/gaseous fuels & without crushing of materials)	0	30	15	45	35	0	10	45	50	10	60	78.0	Orange	
5.3	Pyro metallurgy (using coal/liquid fuels)	0	0	0	0	35	0	25	60	30	10	40	68.0	Orange	
5.4	Pyro metallurgy (using cleaner/gaseous fuels)	0	0	0	0	35	0	10	45	30	10	40	56.0	Orange	
5.5	Hydro metallurgy	0	30	15	45	30	0	0	30	50	10	60	75.0	Orange	
6.0	Sugar (excluding khandsari/jaggery)	30	25	35	90	25	0	25	50	40	10	50	95.0	Red	Red
7.0	E-Waste Dismantling / Recycling														

7.1	Industry engaged in recycling of e-waste generated from the electrical and electronic Equipment (EEE) listed in the E-Waste (Management) Rules 2022 using pyro/ hydro/ electro metallurgical processing and recycling of plastic separated from Waste EEE	30	30	20	80	35	25	15	75	50	20	70	94.5	Red	Red
7.2	Industry engaged in recycling of e-waste generated from the electrical and electronic equipment (EEE) listed in the E-Waste (Management) Rules 2022 (PCB processing limited to only mechanical processing and separation without pyro/ hydro/ electro metallurgical processing), production of Al, Cu and other metals from non PCB sources and/or recycling of plastic separated from Waste EEE.	0	15	15	30	20	25	15	60	50	10	60	78.0	Orange	Red
7.3	Industry engaged in dismantling (only) of e-waste generated from the electrical and electronic equipment (EEE) listed in the E-Waste (Management) Rules 2022	0	0	0	0	0	25	0	25	50	10	60	65.0	Orange	
8.0	Milk processes and dairy products (integrated project)														Red
8.1	Milk processes and dairy products(integrated project) using coal as fuel	30	25	30	85	25	20	30	75	0	0	0	90.6	Red	
8.2	Milk processes and dairy products(integrated project) using biomass as fuel	30	25	30	85	25	20	20	65	0	0	0	89.9	Red	
8.3	Milk processes and dairy products(integrated project) using cleaner/gaseous fuels	30	25	30	85	25	20	10	55	0	0	0	89.1	Red	

9.0	Inorganic chemicals														
9.1	Basic inorganic chemicals and electro chemicals and its derivatives including manufacturing of acid	10	30	25	65	30	25	20	75	30	20	50	89.4	Red	Red
9.2	Phosphorous and its compounds	20	30	20	70	35	25	10	70	20	30	50	88.0	Red	Red
9.3	Chlorates, per-chlorates & peroxides	20	30	20	70	30	20	25	75	30	20	50	90.0	Red	Red
9.4	Chlorine, fluorine, bromine, iodine and their compounds	10	30	25	65	35	20	10	65	30	20	50	85.1	Red	Red
10.0	Pulp & Paper (Agro & Wood)														Red
10.1	Bleached grades of chemical pulp, papers and paperboards	30	30	35	95	30	0	35	65	40	30	70	98.4	Red	
10.2	Unbleached grades of chemical pulp, papers and paperboards	30	20	35	85	30	0	35	65	20	30	50	93.6	Red	
10.3	Bleached grades of chemical pulp, paper, paperboard having TCF bleaching	30	20	35	85	30	0	35	65	20	30	50	93.6	Red	
11.0	Coke making, liquefaction, coal tar distillation and fuel gas making	30	30	30	90	25	30	35	90	50	40	90	99.0	Red	Red
12.0	Manufacturing of paints, varnishes (excluding blending/mixing)														Red
12.1	Manufacturing of solvent based paints / varnish	25	30	20	75	25	20	25	70	50	30	80	94.5	Red	
12.2	Manufacturing of water based paints	35	30	20	85	25	20	25	70	30	20	50	94.0	Red	
12.3	Manufacturing of powder coatings	0	15	15	30	20	30	25	75	20	20	40	83.8	Red	
13.0	Organic chemicals including halogenated hydrocarbons														Red
13.1	Organic chemicals	30	30	25	85	35	25	30	90	40	20	60	97.3	Red	

13.2	Organic chemicals (using cleaner fuel)	30	30	25	85	35	25	10	70	40	20	60	94.8	Red	
14.0	Asbestos and asbestos based industries	10	30	25	65	35	30	30	95	50	30	80	98.6	Red	Red
15.0	Cement plants														Red
15.1	With co-processing with CPP (Captive Power Plant)	20	25	35	80	35	30	35	100	20	40	60	100.0	Red	
15.2	With co-processing without CPP	0	0	0	0	35	30	35	100	40	20	60	100.0	Red	
15.3	Without co-processing with CPP	20	25	35	80	35	30	35	100	20	40	60	100.0	Red	
15.4	Without co-processing without CPP	0	0	0	0	25	30	35	90	40	20	60	93.0	Red	
15.5	Stand-alone grinding units with CPP	20	25	35	80	25	30	35	90	20	40	60	97.0	Red	
15.6	Stand-alone grinding units without CPP	0	0	0	0	25	30	0	55	40	20	60	71.0	Orange	
16.0	Dyes, Dye Intermediates and Pigments productions														Red
16.1	Dyes, Dye Intermediates and Pigments produced by chemical synthesis	35	30	25	90	30	20	25	75	40	20	60	96.8	Red	
16.2	Natural Dye and Pigments requiring acidic/ alkaline/ solvent extraction	30	30	20	80	25	20	25	70	30	10	40	91.0	Red	
16.3	Natural Dye and Pigments not requiring acidic/ alkaline/ solvent extraction	30	20	20	70	25	0	25	50	0	0	0	77.5	Orange	
17.0	Manufacturing of glue and gelatin														Red
17.1	Manufacturing of glue and gelatin using coal/liquid fuel	25	20	15	60	25	20	25	70	20	10	30	83.5	Red	
17.2	Manufacturing of glue and gelatin by using biomass	25	20	15	60	25	20	15	60	20	10	30	78.0	Orange	
17.3	Manufacturing of glue and gelatin by using cleaner/gaseous fuel	25	20	15	60	25	20	10	55	20	10	30	77.0	Orange	
18.0	Mining and ore beneficiation														Red

18.1	Open cast coal mining	10	25	35	70	25	30	35	90	20	50	70	97.0	Red	
18.2	Underground coal mining	10	25	35	70	25	30	35	90	0	0	0	93.5	Red	
18.3	Ferrous & non-ferrous mining and ore beneficiation	20	30	35	85	25	30	35	90	50	50	100	100.0	Red	
18.4	Minor minerals mining	10	0	20	30	25	25	25	75	0	0	0	78.8	Orange	
19.0	Pesticide industries														Red
19.1	Pesticide technical (organic chemicals based)	30	30	20	80	30	25	25	80	40	30	70	95.0	Red	
19.2	Pesticide technical (inorganic chemicals based like Zinc Phosphide and Aluminum Phosphide)	20	30	20	70	30	25	25	80	30	20	50	92.0	Red	
19.3	Pesticide formulation industries (Liquid formulation only) having boiler / thermopack	20	30	20	70	25	0	25	50	30	20	50	85.0	Red	
19.4	Pesticide formulation industries (Liquid formulation only) without having boiler / thermopack	20	30	20	70	0	0	0	0	30	20	50	77.5	Orange	
19.5	Pesticide formulation industries (having both liquid and dry formulation or dry formulation only) without having boiler / thermopack	20	30	20	70	30	30	0	60	30	20	50	86.5	Red	
19.6	Pesticide formulation industries (having both liquid and dry formulation or dry formulation only) having boiler / thermopack	20	30	20	70	30	30	25	85	30	20	50	94.0	Red	
20.0	Yarn/ Textile processing involving any effluent/emission generating processes including bleaching, dyeing, printing and colouring														Red

20.1	Yarn / Textile processing involving any effluent/emission generating processes including bleaching, dyeing, printing and colouring (wastewater generation $\geq 100\text{KLD}$)	30	30	30	90	25	0	35	60	50	30	80	97.0	Red	-
20.2	Yarn / Textile processing involving any effluent/emission generating processes including bleaching, dyeing, printing and colouring (wastewater generation $\geq 100\text{KLD}$ & cleaner fuel)	30	30	30	90	25	0	20	45	50	30	80	96.3	Red	-
20.3	Yarn / Textile processing involving any effluent/emission generating processes including bleaching, dyeing, printing and colouring (wastewater generation $< 100\text{KLD}$ & cleaner fuel)	30	30	20	80	25	0	20	45	50	30	80	92.5	Red	-
20.4	Yarn / Textile processing involving any effluent/emission generating processes including bleaching, dyeing, printing and colouring (wastewater generation $< 100\text{KLD}$)	30	30	20	80	25	0	35	60	50	30	80	94.0	Red	-
21.0	Chlor Alkali														Red
21.1	Chlor alkali	10	20	25	55	30	25	25	80	30	20	50	90.5	Red	
21.2	Chlor alkali using washed salt	10	20	15	45	30	25	25	80	30	10	40	88.5	Red	
21.3	Chlor alkali using cleaner/gaseous fuel	10	20	25	55	30	25	10	65	30	20	50	83.4	Red	
21.4	Chlor alkali using cleaner/gaseous fuel and washed salt	10	20	15	45	30	25	10	65	30	10	40	79.9	Orange	
22.0	Oil and gas extraction (offshore & on-shore extraction through drilling wells), CBM and shale gas	25	30	15	70	20	25	0	45	40	10	50	84.3	Red	Red
23.0	Industry or process involving metal surface treatment or process														Red

23.1	Industry or process involving metal surface treatment or process such as pickling/ electroplating/paint stripping/ heat treatment using cyanide bath/ phosphating or finishing and anodizing / enamellings/ galvanizing	25	30	20	75	30	0	0	30	50	30	80	90.5	Red	
23.2	Plasma electrolytic polishing (electroplating)	25	30	20	75	0	0	0	0	0	0	0	75.0	Orange	
24.0	Tanneries														Red
24.1	Tanneries (Raw to finish)	35	30	25	90	0	0	0	0	50	30	80	94.0	Red	
24.2	Tanneries (Raw to wet blue)	35	30	25	90	0	0	0	0	50	30	80	94.0	Red	
24.3	Tanneries (Wet blue to finish)	35	30	20	85	0	0	0	0	50	30	80	91.0	Red	
24.4	Vegetable tanning	20	25	25	70	0	0	0	0	0	0	0	70.0	Orange	
25.0	Synthetic fibers manufacturing														Red
25.1	Synthetic fibers including rayon, tyre cord, viscose filament yarn/staple fiber, acrylic fibers	25	20	25	70	30	20	25	75	30	10	40	88.8	Red	
25.2	Synthetic fibers including rayon, tyre cord, viscose filament yarn/staple fiber, acrylic fibers using cleaner/gaseous fuel	25	20	25	70	30	20	10	60	30	10	40	85.0	Red	
25.3	Synthetic fibers-PSF & PFY, generated from petrochemical	35	30	35	100	30	25	35	90	40	20	60	100.0	Red	
25.4	Synthetic fibers-PSF& PFY, generated from petrochemical, using cleaner/gaseous fuel	35	30	35	100	30	25	10	65	40	20	60	100.0	Red	-

26.0	Slaughter house (integrated) and meat processing industries, bone mill, processing of animal horns, hoofs and other body parts														Red
26.1	Slaughter house (integrated plants)	30	25	30	85	25	20	25	70	0	0	0	90.3	Red	
26.2	Meat processing units without rendering plant	30	25	30	85	25	0	25	50	0	0	0	88.8	Red	
27.0	Aluminium processing														Red
27.1	Aluminium Refinery	10	30	35	75	25	25	35	85	20	50	70	95.9	Red	
27.2	Aluminium Smelter	10	30	35	75	30	25	35	90	50	40	90	98.3	Red	
28.0	Copper Smelter	10	30	35	75	30	25	35	90	20	50	70	97.3	Red	Red
29.0	Zinc smelter	10	30	35	75	30	25	35	90	50	40	90	98.3	Red	Red
30.0	Fertilizers production														Red
30.1	Fertilizers (Urea)	10	30	35	75	30	30	20	80	30	30	60	93.5	Red	
30.2	Fertilizers (Calcium Ammonium Nitrate / Ammonium Nitrate)	10	30	25	65	30	25	25	80	30	20	50	91.5	Red	
30.3	Fertilizers (NPK)	10	30	25	65	30	25	25	80	30	20	50	91.5	Red	
30.4	Fertilizers (Straight Phosphatic Fertilizers)	10	30	25	65	30	25	25	80	30	20	50	91.5	Red	
30.5	Fertilizer (granulation /formulation / blending) generating wastewater through floor washings, cooling towers etc.	10	30	15	55	30	30	0	60	20	10	30	77.0	Orange	
30.6	Fertilizer (granulation /formulation / blending) not generating wastewater	0	0	0	0	30	30	0	60	20	10	30	66.0	Orange	Orange

31.0	Iron & steel (primary processing from ore, integrated steel plants and Sponge Iron units)														Red
31.1	Integrated iron and steel plants	25	30	35	90	25	30	35	90	50	40	90	99.0	Red	
31.2	Stand-alone sintering / pelletisation	0	0	0	0	25	30	35	90	0	0	0	90.0	Red	
31.3	Sponge iron with CPP (Captive Power Plant)	20	25	35	80	25	30	35	90	20	40	60	97.0	Red	
31.4	Sponge iron without CPP	20	15	30	65	25	30	35	90	20	40	60	96.3	Red	
31.5	Stand-alone coke oven gas plants	25	30	30	85	25	30	35	90	50	40	90	98.8	Red	
32.0	Pulp and Paper (Recycled fibre/Waste paper based)														Red
32.1	Pulp & Paper (With bleaching)	30	15	35	80	25	0	25	50	20	30	50	90.0	Red	
32.2	Pulp & Paper (Without bleaching, capacity \geq 15 TPD)	25	15	35	75	25	0	25	50	20	30	50	87.5	Red	
32.3	Pulp & Paper (Without bleaching; plant capacity <15 TPD)	25	15	20	60	25	0	15	40	20	10	30	74.0	Orange	
33.0	Petroleum oil refineries	35	30	30	95	35	20	35	90	30	20	50	98.5	Red	Red
34.0	Petrochemicals														Red
34.1	Petrochemicals (Naphtha cracker.)	30	30	30	90	35	25	35	95	40	20	60	98.8	Red	
34.2	Petrochemicals (Gas cracker)	30	30	30	90	35	25	25	85	40	20	60	97.3	Red	
34.3	Petrochemicals (without cracker)	25	30	20	75	25	25	15	65	30	20	50	89.4	Red	
34.4	Petrochemicals (without cracker and using cleaner/gaseous fuel)	25	30	20	75	25	25	10	60	30	20	50	88.8	Red	
35.0	Pharmaceutical industry														Red

35.1	Pharmaceuticals manufacturing	35	30	30	95	35	25	35	95	30	20	50	98.6	Red	
35.1	Pharmaceutical R&D facilities	20	15	15	50	25	0	25	50	20	10	30	70.0	Orange	
35.2	Pharmaceuticals manufacturing using cleaner/gaseous fuel	35	30	30	95	35	25	10	70	30	20	50	98.0	Red	
35.3	Pharmaceuticals (Formulation)	20	15	15	50	25	0	25	50	20	10	30	70.0	Orange	
35.4	Pharmaceuticals (Formulation) using cleaner/gaseous fuel	20	15	15	50	25	0	10	35	20	10	30	66.3	Orange	
35.5	Vaccine manufacturing	20	15	15	50	25	0	35	60	20	10	30	76.0	Orange	
35.6	Vaccine manufacturing using cleaner/gaseous fuel	20	15	15	50	25	0	10	35	20	10	30	66.3	Orange	
35.7	Ayurvedic or unani medicines manufacturing	20	15	15	50	25	0	25	50	20	10	30	70.0	Orange	
35.8	Ayurvedic or unani medicines manufacturing using cleaner fuel	20	15	15	50	25	0	10	35	0	0	0	58.8	Orange	
35.9	Ayurvedic or unani medicines manufacturing (Without boiler)	20	15	15	50	0	0	0	0	0	0	0	50.0	Green	
36.0	Food and food processing including fruits and vegetable processing														Orange
36.1	Waste Water generation \geq 500 KLD	25	15	35	75	25	0	25	50	0	0	0	81.3	Red	

36.2	Waste Water generation ≥ 100 to 500 KLD	25	15	30	70	25	0	25	50	0	0	0	77.5	Orange	
36.3	Waste Water generation 10 to 100 KLD	25	15	25	65	25	0	25	50	0	0	0	73.8	Orange	
36.4	Waste Water generation 10 to 100 KLD and using cleaner/gaseous fuel	25	15	25	65	25	0	10	35	0	0	0	71.1	Orange	
37.0	Manufacturing of silica gel	10	25	20	55	30	0	20	50	50	10	60	81.0	Red	Orange
38.0	Refractories	10	30	25	65	25	25	25	75	0	0	0	83.1	Red	Orange
39.0	Coal washeries	20	25	35	80	0	25	0	25	0	0	0	82.5	Red	Orange
40.0	Mineral processing, industries involving ore sintering, pelletisating, grinding & pulverization	0	0	0	0	25	30	35	90	0	0	0	90.0	Red	Orange
41.0	Distilleries and fermentation industries														Red
41.1	Distillery (molasses based)	35	25	35	95	25	20	35	80	0	0	0	97.0	Red	
41.2	Distillery (Grain based)	35	25	30	90	25	0	25	50	0	0	0	92.5	Red	
41.3	Distillery (Grain based) with DDGS as by product	25	25	20	70	25	0	25	50	0	0	0	77.5	Orange	

41.4	Standalone yeast manufacturing units	35	25	35	95	25	20	25	70	0	0	0	96.8	Red	
41.5	Breweries and malteries industry	30	15	25	70	25	0	25	50	0	0	0	77.5	Orange	
41.6	Potable alcohol by blending, bottling of alcohol products	20	0	25	45	0	0	0	0	0	0	0	45.0	Green	
42.0	Ferrous and Non-ferrous metal secondary processing/reprocessing units involving different furnaces through melting, refining, casting, alloy-making	20	15	20	55	25	25	25	75	15	10	25	85.0	Red	Orange
43.0	Non-alcoholic beverages (soft drink)	-	-	-		-	-	-		-	-			-	Orange
43.1	Waste Water generation \geq 100 KLD	25	20	30	75	25	0	25	50	0	0	0	81.3	Red	
43.2	Waste Water generation < 100 KLD	25	20	25	70	25	0	25	50	0	0	0	77.5	Orange	
44.0	Rolling mills														Orange
44.1	Rolling and pickling	25	30	15	70	25	0	25	50	50	10	60	86.5	Red	
44.2	Rolling mills (oil and coal fired)	0	15	15	30	25	0	25	50	0	0	0	57.5	Orange	
44.3	Rolling mills (gas fired)	0	15	15	30	25	0	10	35	0	0	0	44.8	Green	
44.4	Cold rolling mill (without heat treatment)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	
45.0	Edible oil mills														
45.1	Vegetable oil manufacturing including solvent extraction and refinery /hydrogenated oils	25	25	25	75	25	0	20	45	30	10	40	85.6	Red	Orange
45.2	Oil mills Ghani and extraction without boiler (no refining/ hydrogenation)	10	25	15	50	0	0	0	0	0	0	0	50.0	Green	Green
46.0	Battery manufacturing														Orange
46.1	Lead acid	0	15	20	35	35	25	25	85	50	30	80	93.6	Red	Red
46.2	Nickel-Cadmium	10	30	15	55				0			0	55.0	Orange	

46.4	Lithium ion	20	30	20	70				0			0	70.0	Orange	
46.5	Zinc carbon	20	30	20	70	0	0	0	0	30	20	50	77.5	Orange	
46.6	Other batteries	20	30	20	70				0			0	70.0	Orange	
47.0	Synthetic resins														Orange
47.1	Synthetic resins manufacturing	20	15	15	50	25	20	25	70	30	10	40	83.5	Red	
47.2	Blending of melamine resins & different powder, additives by physical mixing, including phenolic resin	0	15	15	30	20	0	10	30	30	10	40	58.0	Orange	Green
48.0	Industries engaged in recycling /reprocessing/ recovery/reuse of Hazardous Waste under schedule IV of H&OW(M & TBM) Rules, 2016 - Items namely - "Used Oils"														Orange
48.1	Re-refining of used oil by hydro-treating	20	25	25	70	25	0	25	50	30	20	50	85.0	Red	
48.2	Re-refining of used oil using solvent extraction	20	25	25	70	25	0	25	50	30	20	50	85.0	Red	
48.3	Re-refining of used oil using thin film evaporation	20	25	15	60	25	0	15	40	30	10	40	76.0	Orange	
48.4	Re-refining of used oil by vaccume distillation with clay treatment	20	25	15	60	25	0	15	40	30	10	40	76.0	Orange	
49.0	Producer gas plant using conventional coal gasification (generally linked to rolling mills glass and ceramic industry refectories for dedicated fuel supply)	20	30	15	65	25	0	25	50	20	20	40	80.8	Red	Orange
50.0	Compressed Biogas (CBG)/Bio-CNG plants														
50.1	CBG plants based on Municipal Solid Waste (MSW) as feed	30	25	25	80	0	20	0	20	0	0	0	82.0	Red	Orange

50.2	CBG plants based on crop residue (paddy straw /wheat straw /corn sweet sorghum/ napier grass, etc.) as feed	30	25	25	80	0	20	0	20	0	0	0	82.0	Red	Green
50.3	CBG plants based on process waste (industrial/ process liquid effluent & solid waste like press mud, organic sludge, molasses, etc.) as feed	30	25	25	80	0	20	0	20	0	0	0	82.0	Red	Orange
50.4	CBG plants based on animal waste (dairy farms, poultry farms, and other animal waste) as feed	30	25	20	75	0	20	0	20	0	0	0	77.5	Orange	Green
50.5	CBG plants (irrespective of the type of feed) producing Fermented Organic Manure (FOM) & Liquid Fermented Organic Manure (LFOM) as by-products	0	0	0	0	0	20	0	20	0	0	0	20.0	White	White
51.0	Semiconductor manufacturing														
51.1	Semiconductor fabs manufacturing	25	30	35	90	35	30	25	90	50	20	70	98.0	Red	
51.2	Assembly and packaging of OSAT/ATMP	0	0	0	0	0	25	0	25	50	20	70	73.8	Orange	
52.0	Display fabs manufacturing	25	30	35	90	35	30	25	90	50	20	70	98.0	Red	
53.0	Compound semiconductors/ silicon photonics	25	30	35	90	35	30	25	90	50	20	70	98.0	Red	
54.0	Isolated storages (as defined under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended)														Red
54.1	Isolated storage for storing petroleum/ petroleum derived and other liquid chemical products that are in liquid state at normal temperature and pressure	0	25	15	40	0	25	0	25	40	10	50	66.3	Orange	

54.2	Isolated storage for storing petroleum products that are stored under high pressure like LPG, NG etc. and Volatile Organic Compounds (VOCs)	0	0	0	0	0	25	0	25	40	10	50	56.3	Orange	
54.3	Isolated storages of inorganic gases such as ammonia, chlorine, hydrogen, oxygen, nitrogen, CS2 etc.	0	15	15	30	0	25	0	25	0	0	0	38.8	Green	
55.0	Manufacturing of lubricating oils, grease and petroleum based products	20	15	15	50	20	20	10	50	40	10	50	75.0	Orange	Red
56.0	Fibre glass (Fibre reinforced plastic) production														Red
56.1	Fibre glass (containing lead) production and processing (excluding moulding)	0	0	0	0	35	0	25	60	50	20	70	79.0	Orange	
56.2	Fibre glass (without lead) production and processing (excluding moulding)	0	0	0	0	25	0	25	50	50	20	70	77.5	Orange	
57.0	Fire crackers manufacturing														Red
57.1	Fire crackers manufacturing and bulk storage facilities	0	0	0	0	0	25	0	25	50	20	70	73.8	Orange	
57.2	Green crackers manufacturing	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	
58.0	Manufacturing of explosives, detonators, fuses including management and handling activities	25	30	15	70	0	0	0	0	40	10	50	77.5	Orange	Red

59.0	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule IV of H&OW(M & TBM) Rules, 2016 - Items namely - Lead acid battery plates and other lead scrap/ashes/residues not covered under Batteries (Management and Handling) Rules, 2001. [* Battery scrap, namely: Lead battery plates covered by ISRI, Code word "Rails" Battery lugs covered by ISRI, Code word "Rakes". Scrap drained/dry while intact, lead batteries covered by ISRI, Code word "rains".														Red
59.1	Lead Recycling (Lead Acid Batteries with Acids; Lead Scrap Recycling) Rotary Furnace	0	30	15	45	35	0	25	60	30	20	50	79.0	Orange	
59.2	Lead Recycling (Lead Acid Batteries with Acids; Lead Scrap Recycling) Pit Furnace (Mandir/Canopy Bhatti)	0	30	15	45	35	0	15	50	30	20	50	73.8	Orange	
59.3	Lead Recycling (Drained Lead Acid Batteries; Lead Scrap Recycling) Rotary Furnace/Mandir Bhatti on Cleaner Fuel	0	0	0	0	35	0	25	60	30	20	50	70.0	Orange	
59.4	Lead Recycling (Drained Lead Acid Batteries; Lead Scrap Recycling) Pit Furnace (Mandir/Canopy Bhatti) on Biomass	0	0	0	0	35	0	15	50	30	20	50	62.5	Orange	
59.5	Lead Recycling Standalone (Battery Breaking unit)	0	30	15	45	0	0	0	0	30	10	40	56.0	Orange	
60.0	Photographic film and its chemicals	20	20	15	55	30	0	25	55	20	10	30	74.1	Orange	Red
61.0	Ship breaking industries	0	0	0	0	0	25	0	25	50	20	70	73.8	Orange	Red
62.0	Synthetic rubber excluding molding	20	15	15	50	20	0	25	45	30	10	40	71.3	Orange	Orange

63.0	Bakery, confectionery and sweets products														Orange
63.1	Bakery, confectionery, sweets with production capacity \geq 1 TPD	25	0	20	45	25	0	25	50	0	0	0	61.3	Orange	
63.2	Bakery, confectionery, sweets with production capacity \geq 1 TPD. (using cleaner/gaseous fuel)	25	0	20	45	25	0	10	35	0	0	0	54.6	Green	
63.4	Bakery /confectionery/sweets products (with production capacity < 1 TPD)	20	0	15	35	25	0	20	45	0	0	0	54.6	Green	Green
63.5	Bakery /confectionery/sweets products (with production capacity < 1 TPD (using cleaner/gaseous fuels)	20	0	15	35	25	0	10	35	0	0	0	46.4	Green	
64.0	Compact disc computer (CD/DVD) / cassette manufacturing / reel manufacturing	10	30	15	55	30	0	0	30	0	0	0	61.8	Orange	Orange
65.0	Jute processing														Orange
65.1	Jute processing (with dyeing and with boiler)	25	20	25	70	25	0	25	50	0	0	0	77.5	Orange	
65.2	Jute processing (without dyeing and without boiler)	20	0	25	45	0	0	0	0	0	0	0	45.0	Green	
66.0	Manufacturing of tooth powder, toothpaste, talcum powder and other cosmetic items														Orange
66.1	Manufacturing of toothpaste and other cosmetic items	20	25	20	65	25	0	25	50	0	0	0	73.8	Orange	
66.2	Manufacturing of tooth powder, talcum powder	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	
67.0	Printing or etching of glass sheet using hydrofluoric acid	20	0	15	35	30	0	0	30	50	10	60	73.0	Orange	

68.0	Saree/fabric printing by screen / wooden block /hand block														Orange
68.1	Saree/fabric printing by screen / wooden block/hand block	25	0	25	50	25	0	20	45	40	10	50	73.8	Orange	
68.2	Hand block printing without effluent generation	0	0	0	0	25	0	20	45	0	0	0	45.0	Green	
69.0	Synthetic detergent and soaps														Orange
69.1	Synthetic detergents and soaps	20	20	20	60	25	0	20	45	0	0	0	69.0	Orange	
69.2	Synthetic detergents and soaps (only formulation)	0	0	0	0	25	0	25	50	0	0	0	50.0	Green	
70.0	Thermometer manufacturing														Orange
70.1	Glass (mercury based) thermometer manufacturing	10	30	15	55	25	0	10	35	50	10	60	78.0	Orange	
70.2	Digital thermometer manufacturing	0	0	0	0	0	0	0	0	0	0	0	0.0	White	
71.0	Cotton spinning and weaving mills (medium and large scale)	10	20	20	50	25	0	15	40	0	0	0	60.0	Orange	Orange
72.0	Aluminium & copper extraction from scrap using oil fired furnace (dry process only)	0	0	0	0	25	25	25	75	0	0	0	75.0	Orange	Orange
73.0	Brick manufacturing														Orange
73.1	Brick kilns using coal as fuel	0	0	0	0	25	25	25	75	0	0	0	75.0	Orange	
73.2	Brick kilns using biomass as fuel	0	0	0	0	25	25	15	65	0	0	0	65.0	Orange	
73.3	Tunnel brick kilns (gas fired)	0	0	0	0	25	25	10	60	0	0	0	60.0	Orange	
74.0	Ceramics														Orange
74.1	Ceramics/ Glass /Earthen potteries and tile manufacturing (using coal/oil fired kilns)	0	0	0	0	25	25	25	75	0	0	0	75.0	Orange	

74.2	Ceramics/ Glass /Earthen potteries and tile manufacturing (using gas fired kilns)/tunnel kiln	0	0	0	0	25	25	10	60	0	0	0	60.0	Orange	
74.3	Ceramics/ Glass /Earthen potteries and tile manufacturing (using electrical kiln or not involving fossil fuel kiln)	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green
75.0	Manufacturing of mirror from sheet glass	0	0	0	0	30	20	0	50	50	10	60	70.0	Orange	Orange
76.0	Dairy and dairy products (small scale)														Orange
76.1	Dairy and dairy products, using coal as fuel	25	25	20	70	25	0	25	50	0	0	0	77.5	Orange	
76.2	Dairy and dairy products, using biomass as fuel	25	25	20	70	25	0	15	40	0	0	0	76.0	Orange	
76.3	Dairy and dairy products, using PNG as fuel	25	25	20	70	0	0	10	10	0	0	0	71.5	Orange	
77.0	Fish feed, poultry feed and cattle feed	0	0	0	0	25	20	25	70	0	0	0	70.0	Orange	Orange
78.0	Fish processing and packing (excluding chilling of fishes)	25	25	20	70	0	20	0	20	0	0	0	73.0	Orange	Orange
79.0	Forging of ferrous and non-ferrous metals	0	0	0	0	25	25	25	75	0	0	0	75.0	Orange	Orange
80.0	Formulation/pelletization of camphor tablets, naphthalene balls from camphor/ naphthalene powders.	0	0	0	0	35	20	0	55	0	0	0	55.0	Orange	Orange
81.0	Gravure printing, digital printing on flex /vinyl	25	0	15	40	20	0	0	20	40	20	60	72.0	Orange	Orange
82.0	Hot mix plants														Orange
82.1	Hot mix plants using oil as fuel	0	0	0	0	25	25	25	75	0	0	0	75.0	Orange	

82.3	Hot mix plants using gaseous as fuel	0	0	0	0	25	25	10	60	0	0	0	60.0	Orange	
83.0	Ice cream														Orange
83.1	Ice cream using coal as fuel	25	25	20	70	25	0	25	50	0	0	0	77.5	Orange	
83.2	Ice cream using biomass as fuel	25	25	20	70	25	0	15	40	0	0	0	76.0	Orange	
83.3	Ice cream using PNG as fuel	25	25	20	70	25	0	10	35	0	0	0	75.3	Orange	
84.0	Industries engaged in recycling reprocessing/recovery/reuse of Hazardous Waste under schedule IV of HW Rules, 2016 - Items namely -Paint and ink Sludge/residues	20	25	15	60	0	20	0	20	40	10	50	74.0	Orange	Orange
85.0	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule IV of H&OW(M & TBM) Rules, 2016 - Items namely - Brass Dross, Copper Dross, Copper Oxide Mill Scale, Copper everts, Cake & Residues, Waste Copper and copper alloys in dispersible form, Slags from copper processing for further processing or refining, Insulated Copper Wire, Scrap/copper with PVC sheathing including ISRI-code material namely "Druid" Jelly filled Copper cables, Zinc Dross-Hot dip Galvanizers SLAB,, Zinc Dross-Bottom Dross,, Zinc ash/Skimming arising from galvanizing and die casting operations, Zinc ash/Skimming/other zinc bearing wastes arising from smelting and refining,, Zinc ash and residues including zinc alloy residues in dispersible form.	0	30	15	45	35	0	25	60	30	10	40	77.0	Orange	Orange
86.0	Foundry operations														Orange

86.1	Induction furnace/arc furnace	0	0	0	0	25	30	0	55	0	0	0	55.0	Orange	
86.2	Cupola furnace	0	0	0	0	25	0	25	50	0	0	0	50.0	Green	
Green	Lime manufacturing (using lime kiln)	0	0	0	0	25	25	25	75	0	0	0	75.0	Orange	Orange
88.0	Liquid floor cleaner, black phenyl, liquid soap, glycerol mono-stearate manufacturing	25	30	15	70	0	0	0	0	20	10	30	74.5	Orange	Orange
89.0	Manufacturing of glass														Orange
89.1	Manufacturing of glass (Oil/coal fired)	0	15	15	30	25	25	25	75	0	0	0	78.8	Orange	
89.2	Manufacturing of glass (gas fired)	0	15	15	30	25	25	10	60	0	0	0	66.0	Orange	
90.0	Manufacturing of iodized salt from crude/ raw salt	10	0	15	25	25	0	25	50	0	0	0	56.3	Orange	Orange
91.0	Manufacturing of mosquito repellent & coil	0	0	0	0	30	0	25	55	0	0	0	55.0	Orange	Orange
92.0	Manufacturing of Starch/Sago	30	0	25	55	25	0	25	50	0	0	0	66.3	Orange	Orange
93.0	Modular wooden furniture manufacturing														Orange
93.1	Modular wooden furniture from particle board, MDF, swan timber etc, Ceiling tiles/ partition board from saw dust, wood chips etc., and other agricultural waste using synthetic adhesive resin, wooden box making (With boiler)	0	0	0	0	25	25	25	75	0	0	0	75.0	Orange	
93.2	Modular wooden furniture from particle board, MDF, swan timber etc, Ceiling tiles/ partition board from saw dust, wood chips etc., and other agricultural waste using synthetic adhesive resin, wooden box making (Without boiler)	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	

94.0	Paint and varnishes (blending and mixing)	20	30	15	65	0	20	0	20	40	20	60	79.0	Orange	Orange
95.0	Ply-wood/board manufacturing (including Veneer and laminate) with biomass fired boiler / thermic fluid heater (without resin plant)	0	0	0	0	25	20	15	60	0	0	0	60.0	Orange	Orange
96.0	Printing ink manufacturing	20	30	15	65	0	20	10	30	40	10	50	79.0	Orange	Orange
97.0	Printing press	25	0	15	40	20	0	0	20	40	20	60	72.0	Orange	Orange
98.0	Spray painting, paint baking, paint shipping	0	0	0	0	0	25	0	25	40	10	50	56.3	Orange	Orange
99.0	Surgical and medical products including prophylactics and latex	10	25	15	50	25	0	10	35	0	0	0	58.8	Orange	Orange
100.0	Teflon based products	10	0	15	25	25	25	25	75	0	0	0	78.1	Orange	Orange
101.0	Thermocol manufacturing (with boiler)	0	20	15	35	25	0	25	50	0	0	0	58.8	Orange	Orange
102.0	Tobacco products including cigarettes and tobacco processes	20	25	15	60	25	20	25	70	0	0	0	79.0	Orange	Orange
103.0	Transformer repairing/ manufacturing (dry process only)	0	0	0	0	0	25	0	25	40	10	50	56.3	Orange	Orange
104.0	Rubber products manufacturing														Orange
104.1	Tyre and tube manufacturing	0	15	15	30	25	25	25	75	0	0	0	78.8	Orange	
104.2	Tyres and tubes vulcanization/ hot retreading	0	15	15	30	25	0	25	50	0	0	0	57.5	Orange	
104.3	Rubber goods industry (with boiler)	0	15	15	30	25	0	20	45	0	0	0	53.3	Green	
105.0	Wire drawing and wire netting														Orange
105.1	Wire drawing and wire netting (with pickling)	25	30	15	70	0	0	0	0	0	0	0	70.0	Orange	

105.2	Wire drawing and wire netting (without pickling)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	
106.0	Cashew nut processing	20	0	15	35	25	20	15	60	0	0	0	67.0	Orange	Orange
107.0	Coffee seeds processing industry														Orange
107.1	Coffee seeds processing (wet process)	35	0	20	55	25	0	15	40	0	0	0	64.0	Orange	
107.2	Coffee seeds processing with eco-pulper	20	0	15	35	25	0	15	40	0	0	0	50.5	Green	
108.0	Rice Mills														Orange
108.1	Parboiled Rice Mill (with soaking and steam)	25	0	20	45	25	0	25	50	0	0	0	61.3	Orange	
108.2	Raw rice Mill (Without soaking and steam)/ hullers	0	0	0	0	0	30	0	30	0	0	0	30.0	Green	
109.0	Industries engaged in recycling / reprocessing/recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely -"Waste Oils"	20	25	15	60	25	0	15	40	30	10	40	76.0	Orange	Orange
110.0	Scraping facilities for end-of-life vehicles, wagons and coaches														Orange
110.1	Collection, Depollution and Dismantling Centers (Without shredding)	0	30	15	45	0	30	0	30	50	10	60	75.0	Orange	
110.2	Collection, Depollution, Dismantling and shredding Centers	0	30	15	45	0	30	0	30	50	10	60	75.0	Orange	
110.3	Common Shredders (Standalone)	0	0	0	0	0	30	0	30	50	10	60	66.0	Orange	
110.4	Collection Centers (Without Depollution, Dismantling and shredding)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	
111.0	Dairy Farm														Orange

111.1	Dairy Farm (having more than 500 animals)	30	25	25	80	0	20	0	20	0	0	0	82.0	Red	
111.2	Dairy Farm (having 101 to 500 animals)	30	25	20	75	0	20	0	20	0	0	0	77.5	Orange	
111.3	Dairy Farm (having 26 to 100 animals)	30	25	15	70	0	20	0	20	0	0	0	73.0	Orange	
111.4	Dairy Farm (having upto 25 animals)	30	25	15	70	0	20	0	20	0	0	0	73.0	Orange	
112.0	Manufacturing of pasted veneers using gas fired boiler or thermic fluid heater	0	0	0	0	25	20	10	55	0	0	0	55.0	Orange	Green
113.0	Fly ash bricks/ block manufacturing														White
113.1	Fly ash bricks/ block manufacturing (with boiler)	0	0	0	0	25	25	25	75	0	0	0	75.0	Orange	
113.2	Fly ash bricks/ block manufacturing (without boiler)	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	
114.0	Manufacturing of coir and coir products														
114.1	Manufacturing of coir (wet/dyeing process)	20	30	15	65	0	25	0	25	0	0	0	69.4	Orange	White
114.2	Manufacturing of coir (dry process)	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	White
114.3	Manufacturing of coir items (dry process)	0	0	0	0	0	20	0	20	0	0	0	20.0	White	White
115.0	Tyre Pyrolysis Oil	0	0	0	0	25	25	25	75	0	0	0	75.0	Orange	
116.0	Chanachur and ladoo from puffed and beaten rice (muri and Shira) using husk fired oven	20	0	15	35	25	0	15	40	0	0	0	50.5	Green	Orange
117.0	Coated electrode manufacturing	0	15	15	30	0	25	0	25	0	0	0	38.8	Green	Orange
118.0	Almirah, Grill Manufacturing (Dry Mechanical Process)	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Orange
119.0	Heat treatment using oil fired furnace (without cyaniding)	0	0	0	0	25	0	25	50	0	0	0	50.0	Green	Orange

120.0	Recycling of plastic waste														
120.1	Plastic waste processing	0	15	20	35	0	20	0	20	0	0	0	41.5	Green	Orange
120.2	PET bottle recycling for flakes/staple fibre	0	15	20	35	0	20	0	20	0	0	0	41.5	Green	Orange
121.0	Stone crushers	0	0	0	0	0	30	0	30	0	0	0	30.0	Green	Orange
122.0	Foam manufacturing	0	0	0	0	35	0	0	35	30	10	40	50.5	Green	Orange
123.0	Aluminium utensils from aluminium circles pressing (dry mechanical operation)	0	0	0	0	0	30	0	30	0	0	0	30.0	Green	Green
124.0	Bi-axially oriented PP film along with metalizing operations	0	15	15	30	0	0	0	0	0	0	0	30.0	Green	Green
125.0	Briquette manufacturing														
125.1	Coal briquette	0	0	0	0	0	30	0	30	0	0	0	30.0	Green	
125.2	Coke briquetting (sun drying)	0	0	0	0	0	30	0	30	0	0	0	30.0	Green	Green
125.3	Biomass briquettes/pellets (sun drying)	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green
126.0	Brass and bell metal utensils manufacturing from circles (dry mechanical operation)	0	0	0	0	0	30	0	30	0	0	0	30.0	Green	Green
127.0	Candy	0	0	0	0	25	0	25	50	0	0	0	50.0	Green	Green
128.0	Carpentry & wooden furniture manufacturing														Green
128.1	Carpentry & wooden furniture manufacturing with spray painting (excluding saw mill) with the help of electrical (motorized) machines such as electrical wood planner, steel saw cutting circular blade, etc.	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	

128.2	Carpentry & wooden furniture manufacturing without spray painting (excluding saw mill) with the help of electrical (motorized) machines such as electrical wood planner, steel saw cutting circular blade, etc.	0	0	0	0	0	0	0	0	0	0	0	0.0	White	
129.0	Precast cement products (without using asbestos/ boiler / steam curing) like pipe ,pillar, jafri, well ring, block/tiles etc.(should be done in closed covered shed to control fugitive emissions)	0	0	15	15	0	25	0	25	0	0	0	30.6	Green	Green
130.0	Ceramic colour manufacturing by mixing & blending only (not using boiler and wastewater recycling process)	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green
131.0	Chilling plant, cold storage and ice making														Green
131.1	Chilling plant	20	15	15	50	0	0	0	0	0	0	0	50.0	Green	
131.2	Cold storage	0	15	15	30	0	0	0	0	0	0	0	30.0	Green	
131.3	Ice making	0	20	15	35	0	0	0	0	0	0	0	35.0	Green	
132.0	Pulse/Dal Mills	0	0	0	0	0	30	0	30	0	0	0	30.0	Green	Green
133.0	Decoration of ceramic cups and plates by electric furnace	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green
134.0	Digital printing on PVC clothes	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green
135.0	Flour mills (dry process)	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green
136.0	Glue from starch (physical mixing) with gas/ electrically operated oven /boiler.	0	20	15	35	25	0	10	35	0	0	0	46.4	Green	Green

137.0	Gold and silver smithy (purification with acid smelting operation and sulphuric acid polishing operation) (using less or equal to 1 litre of sulphuric acid/ nitric acid per month)	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green
138.0	Heat treatment with any of the new technology like ultrasound probe, induction hardening, ionization beam, gas carburizing etc.	0	15	15	30	0	25	0	25	0	0	0	38.8	Green	Green
139.0	Insulation and other coated papers (excluding paper or pipe manufacturing)	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green
140.0	Lubricating oil, greases or petroleum based products (only blending at normal temperature)	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green
141.0	Packaging materials manufacturing from non-asbestos fibre, vegetable fibre yarn	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green
142.0	Phenyl/toilet cleaner formulation and bottling	10	0	15	25	0	20	0	20	0	0	0	32.5	Green	Green
143.0	Polythene and plastic processed products manufacturing (virgin plastic)	0	15	15	30	0	20	0	20	0	0	0	37.0	Green	Green
144.0	Poultry, Hatchery and Piggery	0	0	0	0	30	20	0	50	0	0	0	50.0	Green	Green
145.0	Power looms (without dye and bleaching)	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green
146.0	Puffed rice (muri) (using gas)	0	0	0	0	25	0	10	35	0	0	0	35.0	Green	Green
147.0	Pulverization of bamboo and scrap wood	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green
148.0	Ready mix cement concrete	0	0	0	0	0	30	0	30	0	0	0	30.0	Green	Green
149.0	Reprocessing of cotton	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green

150.0	Saw mills	0	0	0	0	0	30	0	30	0	0	0	30.0	Green	Green
151.0	Soap manufacturing (hand made without steam boiling / boiler)	20	0	15	35	25	0	15	40	0	0	0	50.5	Green	Green
152.0	Spice grinding	0	0	0	0	0	30	0	30	0	0	0	30.0	Green	Green
153.0	Steel furniture industry														Green
153.1	Steel furniture with spray painting	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	
153.2	Steel furniture without spray painting	0	0	0	0	0	0	0	0	0	0	0	0.0	White	
154.0	CO2 recovery plant	0	20	15	35	0	0	0	0	0	0	0	35.0	Green	Green
155.0	Distilled water (without boiler) with electricity as source of heat	0	20	20	40	0	0	0	0	0	0	0	40.0	Green	Green
156.0	Manufacturing of optical lenses (using electrical furnace)	0	20	15	35	0	0	0	0	0	0	0	35.0	Green	Green
157.0	Mineralized water	0	20	15	35	0	0	0	0	0	0	0	35.0	Green	Green
158.0	Tamarind powder manufacturing	0	15	15	30	25	0	10	35	0	0	0	44.8	Green	Green
159.0	Cutting, sizing and polishing of marble stone	0	20	20	40	0	30	0	30	0	0	0	49.0	Green	Green
160.0	Emery powder (fine dust of sand) manufacturing	0	0	0	0	0	30	0	30	0	0	0	30.0	Green	Green
161.0	Seasoning of wood in steam heated chamber	0	0	0	0	25	0	25	50	0	0	0	50.0	Green	Green
162.0	Tea processing and blending														Green
162.1	Tea processing	0	0	0	0	25	0	25	50	0	0	0	50.0	Green	
162.2	Blending and packing of tea	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White

163.0	Cardboard or corrugated box and paper products (excluding paper or pulp manufacturing and without using boilers)	0	0	0	0	0	20	0	20	0	0	0	20.0	White	Green
164.0	Leather foot wear and leather products (excluding tanning and hide processing)	0	0	0	0	0	20	0	20	0	0	0	20.0	White	Green
165.0	Assembly of air coolers /conditioners, repairing and servicing	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
166.0	Assembly of bicycles ,baby carriages and other small non motorizing vehicles	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
167.0	Bailing (hydraulic press)of waste papers	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
168.0	Bio fertilizer and bio-pesticides without using inorganic chemicals	0	0	0	0	0	20	0	20	0	0	0	20.0	White	White
169.0	Biscuits trays etc from rolled PVC sheet (using automatic vacuum forming machines)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
170.0	Block making of printing without foundry (excluding wooden block making)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
171.0	Chalk making from plaster of Paris (only casting without boilers etc.(sun drying / electrical oven)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
172.0	Compressed oxygen gas from crude liquid oxygen (without use of any solvents and by maintaining pressure & temperature only for separation of other gases)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
173.0	Cotton and woollen hosiers making (Dry process only without any dyeing / washing operation)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White

174.0	Diesel pump repairing and servicing (complete mechanical dry process)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
175.0	Electric lamp (bulb) and CFL manufacturing by assembling only	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
176.0	Electrical and electronic item assembling (completely dry process)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
177.0	Engineering and fabrication units (dry process without any heat treatment / metal surface finishing operations / painting)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
178.0	Flavoured betel nuts production/ grinding (completely dry mechanical operations)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
179.0	Fountain pen manufacturing by assembling only	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
180.0	Glass and ampules and vials making from glass tubes	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
181.0	Glass putty and sealant (by mixing with machine only)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
182.0	Ground nut decorticating	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
183.0	Handloom/ carpet weaving (without dyeing and bleaching operation)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
184.0	Leather cutting and stitching (more than 10 machine and using motor)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
185.0	Manufacturing of metal caps containers etc	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
186.0	Manufacturing of shoe brush and wire brush	0	0	0	0	0	20	0	20	0	0	0	20.0	White	White
187.0	Medical oxygen	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White

188.0	Organic and inorganic nutrients (by physical mixing)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
189.0	Organic manure (manual mixing)	0	0	0	0	20	0	20	0	0	0	0	20.0	White	White
190.0	Packing of powdered milk	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
191.0	Paper pins and u clips	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
192.0	Repairing of electric motors and generators (dry mechanical process)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
193.0	Rope (plastic and cotton)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
194.0	Scientific and mathematical instrument manufacturing (assembling only)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
195.0	Solar module non-conventional energy apparatus manufacturing unit	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
196.0	Solar power generation through solar photovoltaic cell and wind power	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
197.0	Surgical and medical products assembling only (not involving effluent / emission generating processes)	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
198.0	Used Cooking oil (UCO) collection centers	0	0	0	0	0	0	0	0	0	0	0	0.0	White	White
199.0	Household bio-digesters/gobar-gas (cow-dung) plants based on biodegradable wastes, etc.	0	0	0	0	20	0	20	0	0	0	0	20.0	White	White
2. Non-industrial Operations															
A. Environment Management Facilities															
1.0	Common Effluent Treatment Plant (CETP)														Red

1.1	Capacity \geq 500 KLD	25	30	35	90	0	0	0	0	50	40	90	94.5	Red	
1.2	100 KLD \leq Capacity < 500 KLD	25	30	30	85	0	0	0	0	50	30	80	91.0	Red	
1.3	50 KLD \leq Capacity < 100 KLD	25	30	25	80	0	0	0	0	50	20	70	87.0	Red	
1.4	10 KLD \leq Capacity < 50 KLD	25	30	20	75	0	0	0	0	50	20	70	83.8	Red	
1.5	Capacity <10 KLD	25	30	15	70	0	0	0	0	50	10	60	79.0	Orange	
2.0	Sewage Treatment Plant	20	0	35	55	0	20	0	20	0	0	0	59.5	Orange	Red
3.0	Common Bio-medical Waste Treatment Facility (CBWTF)														Red
3.1	CBWTF	20	25	20	65	35	20	25	80	30	20	50	91.5	Red	
3.2	CBWTF using cleaner/gaseous fuel	20	25	20	65	35	20	10	65	30	20	50	85.1	Red	
4	Construction and Demolition (C&D) Waste Processing Plants	0	0	0	0	25	25	25	75	0	10	10	76.3	Orange	Orange
B. Infrastructure Facilities															
1.0	Airports														
1.1	Airports with hangers/freight handling/repairing facilities	20	25	35	80	25	0	25	50	40	10	50	90.0	Red	Red
1.2	Airports without hangers/freight handling facilities	20	25	25	70	0	0	0	0	0	0	0	70.0	Orange	
2.0	Ports and harbours														Red
2.1	Ports and harbours, jetties and dredging operations	20	30	25	75	0	25	0	25	40	20	60	85.6	Red	
2.2	Ports and harbours (only containers handling)	20	25	20	65	0	25	0	25	40	10	50	78.1	Orange	

3.0	Railway stations														Red
3.1	Railway Stations (Waste water Generation \geq 500 KLD)	20	0	35	55	0	0	0	0	0	0	0	55.0	Orange	
3.2	Railway Stations (Waste water Generation \geq 10 KLD, but < 500 KLD)	20	0	20	40	0	0	0	0	0	0	0	40.0	Green	
4.0	Building construction projects														
4.1	Building construction project \geq 20,000 sq. m. built-up area	20	0	35	55	0	0	0	0	0	0	0	55.0	Orange	Orange
4.2	Building construction project \geq 5,000 sq. m., but < 20,000 sq. m. built-up area (without connectivity to terminal STP)	20	0	25	45	0	0	0	0	0	0	0	45.0	Green	
5.0	New highway construction project	0	0	0	0	20	25	0	45	0	0	0	45.0	Green	Orange
6.0	Railway sidings														Green
6.1	Railway sidings / Mineral stock yard	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	
6.2	Railway sidings for defence purpose	0	0	0	0	0	0	0	0	0	0	0	0.0	White	
7.0	Oil and gas transportation pipeline	0	0	0	0	25	0	10	35	0	0	0	35.0	Green	Green
C. Service Sector															
1.0	Health Care Establishments (HCEs) (as defined under Bio-medical Waste Management Rules, 2016)														Red
1.1	200 & above bedded HCEs	20	25	30	75	0	0	0	0	40	10	50	81.3	Red	
1.2	100 to 199 bedded HCEs	20	25	25	70	0	0	0	0	40	10	50	77.5	Orange	
1.3	Up to 99 bedded HCEs	20	25	20	65	0	0	0	0	40	10	50	73.8	Orange	

2.0	Hotels														
2.1	Hotels (above 3 star) or hotels having 100 & above rooms	20	25	30	75	25	0	25	50	0	0	0	81.3	Red	Red
2.2	Hotels (above 3 star) or hotels having 100 & above rooms (based on cleaner /gaseous fuel)	20	25	30	75	25	0	10	35	0	0	0	79.4	Orange	
2.3	Hotels (up to 3 star) or hotels having more than 20 rooms but less than 100 rooms.	20	25	20	65	25	0	25	50	0	0	0	73.8	Orange	Orange
2.4	Hotels (up to 3 star) or hotels having more than 20 rooms but less than 100 rooms (based on cleaner/gaseous fuel)	20	25	20	65	25	0	10	35	0	0	0	71.1	Orange	
2.5	Hotels up to 20 rooms	10	25	15	50	0	0	10	10	0	0	0	52.5	Green	Green
3.0	Railway locomotive work shop/ Integrated road transport workshop/ Authorized service centers	20	25	25	70	30	25	0	55	40	20	60	87.3	Red	Red
4.0	Automobile service stations/ workshops	20	25	20	65	20	0	0	20	40	10	50	77.3	Orange	Orange
5.0	Mechanized laundry (using oil fired boiler)	20	0	20	40	25	0	25	50	0	0	0	60.0	Orange	Orange
6.0	Gold Assaying & Hallmarking Centres	0	0	0	0	35	0	0	35	50	10	60	67.0	Orange	Orange
7.0	Facility of handling, storage and transportation of food grains in bulk	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green
8.0	Flyash export or disposal operations	0	0	0	0	0	25	0	25	0	0	0	25.0	Green	Green
9.0	Gaushalas	25	0	20	45	0	20	0	20	0	0	0	50.5	Green	Green

3. Special Category Projects																	
1.0	Nuclear power plants													Red	Red	High potential to damage due to use of radio-active materials	
2.0	Hydel power plants																High potential to damage river ecosystem
2.1	Hydel power plants (Capacity > 25 MW)													Red	Red		
2.2	Mini Hydel power plants (Capacity from more than 5 MVA and up to 25 MW)													Orange	White		
2.3	Mini Hydel power plants (Capacity ≤ 5 MW)													Green	White		
3.0	River sand mining																High potential to damage river ecosystem
3.1	River sand mining (>25 hectare)													Red			
3.2	River sand mining (>5 to 25 hectare)													Orange			
3.3	River sand mining (up to 5 hectare)													Green			
