BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION No. 03 of 2025

IN THE MATTER OF:

BHISHM TYAGI .... APPLICANT

VERSUS

STATE OF UTTAR PRADESH & ORS. .... RESPONDENTS

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17.12.2025
New Delhi

RESPONDENT

Through

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BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION No. 03 of 2025

NOTARY A.C. TYAGI Reg. No. 162 GOVT. OF INDIA

IN THE MATTER OF:

BHISHM TYAGI ....APPLICANT

VERSUS

STATE OF UTTAR PRADESH & ORS. .....RESPONDENTS

ADDITIONAL AFFIDAVIT ON BEHALF OF RESPONDENT NO. 5 (M/S DEV INDUSTRIES) IN THE ABOVE-CAPTIONED ORIGINAL APPLICATION OUTLINING FURTHER COMPLIANCES IN LINE WITH CPCB PRESCRIBED SOP DATED 16.01.2024 AS ALSO IN LINE WITH THE RECOMMENDATIONS VIDE REPORT OF THE JOINT COMMITTEE DATED 18.03.2025

TO THE HON'BLE PRESIDENT AND COMPANION MEMBERS OF THIS HON'BLE TRIBUNAL

MOST RESPECTFULLY SHOWETH;

The Respondent No. 5, i.e. M/s Dev Industries, most humbly puts forth the present additional affidavit outlining the various compliances and strict adherence to the Standard Operating Procedure (SOP) for Recycling of Waste Tyre Scrap for the recovery of Tyre Pyrolysis Oil, Pyro Gas and Char in Tyre Pyrolysis Oil (TPO) Units dated 16.01.2024 as promulgated by the Central Pollution Control Board (CPCB) along with outlining the compliance on part of the answering Respondent as per the Joint Committee Report dated 18.03.2025.

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1. That this Hon'ble Tribunal, vide its order dated the 24th day of January 2025, in Original Application No. 03 of 2025, registered ***Suo motu***, was pleased to direct the constitution of a Joint Committee comprising representatives of the Central Pollution Control Board, Uttar Pradesh State Pollution Control Board, and the District Magistrate, Bijnor, to conduct an inspection and submit a report addressing the environmental concerns raised by the Applicant. The Tribunal further directed Respondent No. 5 to submit its response in the matter, as per the short order issued on the said date.

2. As already outlined the Joint Committee submitted its inspection report on 18 March 2025 highlighting certain purported violations and outlining remedial actions on part of the answering Respondent herein. In pursuance of the directions issued by the Hon'ble Tribunal vide order dated 20.03.2025, Respondent No. 5 was directed to file its compliance affidavit at least one week in advance of the next scheduled hearing, fixed for 09.05.2025.

3. The Hon'ble Tribunal, in addition to issuing a show-cause notice unto the DM, District Bijnor and Regional Officer, UPPCB vide its order dated 09.05.2025 in I.A. No. 356 of 2025, was also pleased to impose an operational restraint on me, the Respondent No. 5 herein. The Hon'ble Tribunal further directed compliance within the extended timeline and listed the matter for further consideration on 30.07.2025.

4. In full adherence with the directions issued by this Hon'ble Tribunal, Respondent No. 5 has duly undertaken and effectuated all remedial measures as mandated and outlined vide the Joint Committee Report outlined above. A comprehensive exposition of

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the said compliances is delineated in the matrix appended hereinbelow and duly corroborated by the documentary annexures annexed hereto.

LEGAL FRAMEWORK GOVERNING TYRE PYROLYSIS PLANTS

5. The plant has been operating since 2018 under valid CCA (Consolidated Consent and Authorisation) and the same is already on record. Notably, vide the CPCB's report titled *"Classification of Sectors into Red, Orange, Green, White and Blue Categories"* released on 12.02.2025 the 'Tyre Pyrolysis Oil Industries' have been placed in the Orange Category thereby requiring a valid CTE/CTO from the relevant state pollution control board.

   A true copy of the report titled *"Classification of Sectors into Red, Orange, Green, White and Blue Categories"* dated 12.02.2025 is annexed herewith and marked as **ANNEXURE R-1.**

6. In addition to the above, CPCB issued its revised **SOP dated 16 January 2024** for Tyre Pyrolysis Oil (TPO) units, wherein the following features of the pyrolysis process were outlined;

   a. Pyrolysis is a thermal degradation process carried out in the absence of oxygen /air in a vessel or a chamber, so that the combustion of material does not take place. It is a process in which organic materials are thermally decomposed into simpler compounds in the temperature range of 400-500°C in an oxygen-free environment.

   b. From the above process of pyrolysis, the following products emerge;

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- **Pyro Gas:** 20-35% of a tyre's energy content is typically converted into a combustible gas (Pyro Gas) that is used to fuel the pyrolysis process or is combusted in a flare before it is released. Typically, the components of pyro gas are H, HS, CO, CO, CHa, CHa, CaHs and other light hydrocarbons;
- **Pyro Oil:** 35-50% of the output from the process is transformed into a liquid product that varies in quality from saleable fuel oil to lower-value oil blend stock.
- **Char:** The residual solid product (referred as char) constitutes 25-40% of the output and contains a mixture of carbon, silica, titanium dioxide, zinc, steel etc.
- **Steel:** The thin wire, which is used for reinforcement of tyre is extracted out during pyrolysis and is collected at the end, sold in the market as scrap steel.

c. The SOP further made certain salient observations so far as the siting criteria is concerned for such TPO Units and it was observed that;

"(i) There are no organized continuous process emissions in tyre pyrolysis process.

(ii) The air pollutant emission in ABAP type TPO unit is from burning of fuel for heating purpose and intermittent flaring of excess pyro gas or its emergency release;

iii) The plot area of the TPO Unit carries more weightage as the emission from TPO unit does not affect far away community, instead it is the immediate neighbourhood that is affected. Char,

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being large size particle if spilled in the plant premises during its handling cannot travel to larger distance under the influence of wind;

iv) The environmental concern from TPO Unit is spillage of Char in the work zone while removing it from the reactor and its subsequent packing into the bags. The influence zone due to this spillage is limited within the premise of the unit;

v) The odour from TPO Unit are localized and confined to premises and adjacent areas."

d. Clearly thus, in considering the siting of such TPO Units as that of the answering Respondent herein, what is of paramount importance if adherence to ABAP protocols along with having PLC control systems. Moreover, in so far as the emissions from such units is concerned, CPCB has tritely observed that the impact is localised and therefore emphasis has been laid on the plot size rather than dislocation.

A true copy of the *"Standard Operating Procedure (SOP) for Recycling of Waste Tyre Scrap for the recovery of Tyre Pyrolysis Oil, Pyro Gas and Char in Tyre Pyrolysis Oil (TPO) Units"* dated 16.01.2024 is annexed herewith and marked as **ANNEXURE R-2.**

III. PREVIOUS INSPECTIONS

7. It is also most humbly put forth before this Hon'ble Tribunal that the Respondent TPO Unit has repeatedly been inspected by the UPPCB as well as the State Govt. and vide reports dated 21.10.2024 and thereafter January 2025 the following emerged;

i. The answering Respondent's TPO Unit was found with a functioning Effluent Treatment Plant comprising of a Collection Tank, Oil Grease Trap, Coagulation/Flocculation Tank, Tube Settler, Filter Feed Tank, STF & MGF along with sludge drying beds.

ii. Wet scrubber for air pollution control along with a chimney stack of height 21mtrs.

Note: This was incorrectly noted as 21 mtrs whereas the technical report appended along with the said report itself proves that the chimney stack was always of the prescribed height of 30 mtrs.

iii. Wood used as fuel for firing up the furnace and absolutely no adverse impact on the crops in the adjoining lands was found as per both the reports.

True copy of the inspection report dated 21.10.2024 as also inspection report dated January 2025 is annexed herewith and marked as **ANNEXURE R-3.**

IV. COMPLIANCE MATRIX

ISSUE IDENTIFIED	**NON-COMPLIANCE (AS PER JOINT COMMITTEE)**	**REMEDIAL ACTION TAKEN**	**ANN.**
Stack height < 30 m	Only 21 m stack present NOTE: The stack height was 30mtrs even earlier and it was incorrectly noted in the Joint Committee Report that the same was	No remedial action required since the Old Chimney was also 30mtrs in height. New 30 m stack constructed after the damage caused in the storm to the old stack.	**R-4**

	21mtrs since the same was based on old record available with the local administration.		
Reactor technology & controls	Batch process had no PLC, flaring, safety systems	Upgraded to **ABAP**, installed PLC, cooling tower including water sprinklers, gas leakage sensors in the PLC mechanism installed at the plant	**R-5**
Carbon black spillage	Spillage on surrounding fields	Soil cleaned, remediated and currently being used for growing sugarcane crops on the adjoining plot of land belonging to the applicant. **Note:** most humbly submitted that the complainant herein repeatedly burns his crop residue thereby resulting in ash and burnt soil residue and photos of the same attached herein as well.	**R-6**
EPR Registration	Not registered under 2022 Rules	***Registration Completed*** as recycler on CPCB EPR Portal; payment proof attached along with EPR	**R-7**

		registration certificate dated 26.11.2025.	
Concrete flooring	No concrete flooring found	Full concrete flooring has been done in the areas that store raw materials and end products in accordance with the CPCB SoP.	**R-8**
Green Belt	Missing	415 m of trees (12%) planted; open paved road of 5 m maintained which meets and in fact surpasses the mandated 5% criteria.	**R-9**
Change of land use	Converted agricultural land	CLU permission (Case No. T802025070641) has ***granted*** vide order dated 29.11.2025 and 0.3625 hectares out of a total 2.6610 hectares of Khata No. 14, Gata No. 49 has been declared Non-Agricultural and revenue free under Section 80(1) of the Uttar Pradesh Revenue Code 2006.	

V. ADDITIONAL SUBMISSIONS

i. With regard to the Showcause Notice dated 06.05.2025 received by the answering Respondent herein seeking cause as to why a penalty of Rs. 32,832/- on a per-day basis be not imposed on the

answering Respondent herein, an appropriate response dated 19.05.2025 was dispatched thereby addressing the erroneous manner of EC imposition by the UPPCB.

A true copy of the SCN dated 06.05.2025 along with Reply dated 19.05.2025 is annexed herewith and marked as **ANNEXURE R-10**.

j. However despite the said response dated 19.05.2025, the UPPCB without paying heed to the objections raised by R-5 herein, vide Notice dated 17.07.2025 went ahead with imposition of EC to the tune of Rs. 50,23,296/- (Rupees Fifty Lakhs Twenty Three Thousand Two Hundred and Ninety Six Only) based on an unsound interpretation of the EC Regime-2 as was brought into force on 03.09.2024.

A true copy of the Guidelines for Environmental Compensation under Waste Tyre EPR Regime dated July 2024 is annexed herewith and marked as **ANNEXURE R-11**

k. Thereafter, the Hon'ble Supreme Court of India has vide its judgment in ***Delhi Pollution Control Committee v. Lodhi Property Co. Ltd. Etc. (2025 SCC Online SC 1601)*** passed the following directions;

> *B. Powers Must Be Guided by Transparency and Non-Arbitrariness.*
>
> *33. While we hold that the Boards have the power to direct the payment of environmental damages, we make it clear that this power must always be guided by two overarching principles. First, that the power cannot be exercised in an arbitrary manner; and second, the process of exercising this power must be infused with transparency.*

34. This Court has underscored the importance of strong institutional frameworks in environmental governance that are effective, accountable and transparent. In Bengaluru Development Authority v. Sudhakar Hegde29, this Court held-

> *"95. The protection of the environment is premised not only on the active role of courts, but also on robust institutional frameworks within which every stakeholder complies with its duty to ensure sustainable development. A framework of environmental governance committed to the rule of law requires a regime which has effective, accountable and transparent institutions. Equally important is responsive, inclusive, participatory and representative decision-making. Environmental governance is founded on the rule of law and emerges from the values of our Constitution. Where the health of the environment is key to preserving the right to life as a constitutionally recognised value under Article 21 of the Constitution, proper structures for environmental decision-making find expression in the guarantee against arbitrary action and the affirmative duty of fair treatment under Article 14 of the Constitution. Sustainable development is premised not merely on the redressal of the failure of democratic institutions in the protection of the environment, but ensuring that such failures do not take place."*

35. To ensure that the Boards impose restitutionary and the compensatory environmental damages in a fair transparent, nonarbitrary manner, with procedural certainty, necessary subordinate legislation in the form of rules and regulations must be notified. This shall include methods by which environmental damage is determined, and the

consequent quantum of damages are assessed. They may also incorporate certain basic principles of natural justice for fairness in action. At present environmental damages are being levied by the Boards on the basis of certain guidelines issued by the Central Pollution Control Board in its document "General framework for imposing environmental damage compensation" issue in December, 2022. These guidelines seem to have been issued pursuant to the directions of the NGT. It is important that these guidelines are reviewed thoroughly and issued in the form of Rules and Regulations. This will enable declaration of a law that applies and ensures its recognition and easy implementation.

36. These Rules must also create enabling framework for citizens to file complaints about environmental damage. Public participation in environmental protection has assumed great importance with climate change threatening to drastically disrupt our way of living. Boards, being the first line of defence against polluting activities, must provide easy accessibility and encourage public participation in their function and decision making.

...

39. For the reasons stated above:

(a) we allow these appeals and set aside the judgment and order dated 23.01.2012, passed by the Division Bench of the High Court of Delhi to the extent of declaration of law but

direct that the show cause notices that have been set aside by the High Court shall not be revived.

(b) we direct that the Pollution Control Boards can impose and collect as restitutionary and compensatory damages fixed sums of monies or require furnishing bank guarantees as an ex-ante measure towards potential environmental damage in exercise of powers under Sections 33A and 31A of the Water and Air Acts.

(c) it is further directed that the power to impose or collect restitutionary or compensatory damages or the requirement to furnish bank guarantees as an ex-ante measure under Sections 33A and 31A of the Water and Air Acts shall be enforced only after detailing the principle and procedure incorporating basic principles of natural justice in the subordinate legislation."

l. In addition to the above the applicant, i.e. Bhishm Tyagi has not approached this Hon'ble Tribunal with clean hands and it is submitted that the present OA is motivated by personal vendetta rather than genuine environmental concern. The applicant has a long standing land dispute with Respondent No. 5 that has led to lodging of FIRs against the present applicant by the Respondent No. 5 herein and such fact has been deliberately hidden by the present applicant in the OA.

A true copy of the relevant FIR is annexed herewith and marked as **Annexure R-12**.

m. That in light of the compliances made and demonstrated as above and the fact that the answering Respondent is facing severe difficulties with every day that the operations are closed it is most humbly prayed for that M/s Dev Industries be permitted to operate pending further investigations to be conducted as may please this Hon'ble Tribunal.

n. That the present reply is being filed in a bonafide manner and nothing has been concealed to the best of knowledge of the answering Respondent.

17.12.2025
New Delhi

RESPONDENT

Through

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NOTARY
GOVT. OF INDIA

ATTESTED
NOTARY PUBLIC
(DELHI INDIA)
17 DEC 2025

केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

CP-18/1/2023-IPC-VI-HO-CPCB-HO

Date: 12.02.2025

To

ANNEXURE R-1

The Chairman
State Pollution Control Board/Pollution Control Committee
(As per the list)

Sub: 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 and Blue 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 the classification of industrial sectors under different categories. Therefore, in 2012, to have uniformity in classification throughout the country, CPCB vide letter no. B-29012/1/2012/ESS/1526-1563, dated 04.06.2012 issued directions under section 18(1(b) of the Water Act, 1974 and the Air Act, 1981 to SPCBs/PCCs to adopt and implement standardized list of Red, Orange and Green categories of industries; and

WHEREAS, in 2016, the Central Pollution Control Board (CPCB) developed a scoring methodology based on the Pollution Index (PI) to harmonize the criteria for classification of industrial sectors. The PI is determined based on Precautionary Principle- by evaluating potential of water pollution, air pollution, and hazardous waste generation from particular sector. CPCB vide letter no. B-29012//ESS(CPA)/2015-16, dated 07.03.2016 issued directions under section 18(1(b) of the Water Act, 1974 and the Air Act, 1981 to SPCBs/PCCs to adopt and implement revised classification. SPCBs/PCCs were also directed to categorize any new or left over sectors at their level by constituting a Committee and following the methodology prescribed by CPCB; and

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WHEREAS, CPCB vide letter no. B-29016/ROGW/IPC-VI/2020-21, dated 30.04.2020, issued directions under section 18(1)(b) of the Water Act, 1974 and the Air Act, 1981 to SPCBs/PCCs regarding segregated list of non-industrial sectors (activities/ facilities/ infrastructure/ services) such as sewage treatment plants, healthcare facilities, hotels, building and construction projects, airports, highways etc. Further, CPCB also classified few additional sectors from time to time; and

WHEREAS, based on the experience gained over the years in Pollution Index calculation, use of cleaner fuels like PNG/CNG etc., adoption of cleaner technology resulting in reduced emission/wastewater generation, a need was felt to revisit the classification methodology of 2016; and

WHEREAS, during July 2023, CPCB prepared a "Draft Report on Classification of Industrial Sectors into Red, Orange, Green and White Categories: A Tool for Progressive Environmental Management" which was uploaded on CPCB website for seeking comments/suggestions of the stakeholders/public on the same. The draft report was also circulated to SPCBs/PCCs/MoEF&CC for comments; and

WHEREAS, CPCB vide office order dated 26.09.2023 constituted a committee to critically examine and analyse the comments/suggestions and to make recommendations for suitable incorporation in the finalizing the methodology and classification; and

WHEREAS, based on the stakeholders' comments, a need was felt to promote/incentivize units for adopting measures resulting in better environmental performance. Additionally, a requirement was also felt for separate category – Blue Category- for essential environmental services for management of environmental pollution arising from domestic/household activities. Accordingly, CPCB prepared an "Addendum and substitution thereto in Draft Report on Classification of Sectors into Red, Orange, Green, White and Blue Categories", which was shared with SPCBs/PCCs and also uploaded on CPCB website on 11.07.2024 for seeking inputs/comments; and

WHEREAS, the amendment in Section-21 of the Air (Prevention and Control of Pollution) Act, 1981 through the Jan Vishwas (Amendment of Provisions) Act, 2023 and amendment in Section-25 of the Water (Prevention and Control of Pollution) Act, 1974 through the Water (Prevention and Control of Pollution) Amendment Act, 2024, grant exemption to certain categories of industries, as notified by Central Government, for obtaining consent under these Acts; and

WHEREAS, the Ministry of Environment, Forest and Climate Change, Government of India vide notification no. G.S.R. 702(E), dated 12.11.2024 granted exemption of consent under the Water Act, 1974 and the Air Act, 1981 to exemption of Consent to Establish (CTE) and Consent to Operate (CTO) to all industrial plants having pollution index score upto 20 (at present total 39 industrial sectors under white categories as per 2016 methodology) subject to

condition that such plant shall inform in writing to the concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC); and

WHEREAS, the MoEF&CC vide letter no. Q-15012/2/2022/-CPW-Part (1)/e-240741, dated 14.11.2024 has issued Standard Operating Procedure for implementation of the said Notification dated 12.11.2024. The SOP includes the following provisions for White categories of industries:

i. Industry to intimate to concerned SPCB/PCC about operations and self-declare the compliance with prevalent rules & regulations,
ii. Concerned SPCB/PCC to maintain separate list of such industries/activities, and
iii. Concerned SPCB/PCC to ensure that no activities other than those intimated, are carried out by exempted units.

WHEREAS, the Committee constituted by CPCB evaluated the comments, incorporated the suitable changes and finalized the revised methodology as well as classification of sectors. Final report in this regard titled as "Classification of sectors in to Red, Orange, Green, White and Blue Categories (A tool for progressive environmental management)" was submitted to Ministry of Environment, Forest and Climate Change (MoEF&CC) for concurrence. The MoEF&CC vide letter no. Q-16017-57-2015-CPA, dated 15.01.2025 granted concurrence to the revised classification; and

WHEREAS, as per the revised methodology, the category of the sector is decided based on the following ranges of Pollution Index:

i. Red: $PI \geq 80$,
ii. Orange: $55 \leq PI < 80$,
iii. Green: $25 \leq PI < 55$,
iv. White: $PI < 25$; and

WHEREAS, based on the revised methodology, CPCB has classified a total of 419 sectors and sub-sectors as under:

i. The Red Category: 125
ii. The Orange Category: 137
iii. The Green Category: 94
iv. The White Category: 54
v. The Blue Category: 9; and

WHEREAS, the purpose of classification is to ensure that the industry is established in a manner consistent with the environmental objectives and also to prompt industrial sectors to adopt cleaner technologies, ultimately resulting in the generation of no or minimum pollutants. The revised classification system also defines criteria for incentivizing such industry. The industry may self-assess the PI score as per defined criteria and can submit application to respective SPCBs/PCCs for consideration; and

NOW, THEREFORE, in the exercise of the powers delegated 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 dated 07.03.2016 and subsequent directions/letter in the context of categorization of industries are withdrawn with immediate effect and following **'Directions'** are hereby issued for compliance by all SPCBs and PCCs:

1. That SPCBs and PCCs shall immediately adopt the revised methodology for classification of sectors and list of 419 sectors/sub-sectors classified under Red, Orange, Green, White, and Blue categories as detailed in the **attached** report- "Classification of Sectors into Red, Orange, Green, White and Blue Categories (A tool for progressive environmental management)".
2. That all pending application for consideration of consent (CTE/CTO) and future such application shall be processed as per the revised classification. In case CTE granted before the revised classification, applicability of CTO will be as per revised classification.
3. That the revised sectors/subsectors classified under Red, Orange, Green, White, and Blue category of sectors as given in the attached document shall be used by the SPCBs and PCCs for consent management, inventorization of units under different categories, siting criteria, deciding environmental surveillance frequency, calculation of environmental compensation, etc., as per the guidelines issued from time to time.
4. That SPCBs and PCCs shall prepare the inventory of Red, Orange, Green, White and Blue categories of units operating in their jurisdictions, based on the revised classification. SPCBs and PCCs shall upload the category and sector-wise list of such units on their website. SPCBs and PCCs shall also forward such list to CPCB, latest by 30.06.2025 and thereafter updated list by 30th June every year.
5. That the classification of sectors shall not be linked to sanction of loans/finance of bank proceedings.
6. That any further addition of any new or left-out sector and their classification which is not listed in the revised list of Red, Orange, Green, and White categories, shall be done at the level of concerned SPCB /PCC by constituting a Committee and following revised criteria & guidelines as detailed in the attached report and no concurrence of CPCB shall normally be required. Intimation of same from time to time will suffice. However, addition in Blue Category Sectors-Essential Environmental Services for domestic waste management, will be done at the level of CPCB only. SPCBs/PCCs may forward their proposal, if any, to CPCB in this regard.
7. That SPCBs and PCCs are required to prepare and submit list of additional sector classified under white category to CPCB on annual basis, by 30th of June every year, in the prescribed format (Annexure-V) as given in the attached report, for further notification for exemption from consent as per the provisions of the Jan Vishwas (Amendment of Provisions) Act, 2023, the Water Act, and the Air Act as amended from time to time by MoEF&CC.
8. That SPCBs and PCCs shall constitute a committee as prescribed in the report to evaluate the applications of the units for incentives due to adopting measures resulting in better environmental performance and reduction in PI score. The SPCB/PCC shall

place the separate list of such units on their website and also submit list of such units to CPCB on Annual Basis by 30th June every year.

The SPCBs/PCCs shall acknowledge the receipt of directions and submit the "Action Taken Report" in compliance with these directions to CPCB before 20.02.2025.

Encl. As above.

(Bharat Kumar Sharma)
Member Secretary

Copy to:

1. The Chief Secretary of all the States and UTs
   (As per the list)
2. The Secretary,
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3. The Secretary,
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Classification of Sectors into Red, Orange, Green, White and Blue Categories

(A tool for progressive environmental management)

Central Pollution Control Board

"Parivesh Bhawan", East Arjun Nagar

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(January 2025)

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अध्यक्ष
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CENTRAL POLLUTION CONTROL BOARD
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

FOREWORD

The concept of classifying industries into different pollution categories originated in 1989 with the Doon Valley (Uttarakhand) Notification issued by Ministry of Environment and Forests. Subsequently the concept of pollution index was developed by Central Pollution Control Board (CPCB) during 2016 to classify the sectors into different category. The 2016 classification helped State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) in streamlining consent management, prioritizing regulatory oversight & environmental monitoring, taking decision related to siting of units, etc. However, necessity felt for refining the concept of calculating Pollution Index to overcome certain limitation and to bifurcate sub-sectors based on pollution load, scale of operation etc.

Accordingly, draft methodology was prepared and widely circulated for inputs/comments/suggestions by placing the same on CPCB website (public domain) as well as by inviting comments from MoEF&CC/SPCBs/PCCs. As of 11.08.2024, i.e. the extended date for receipt of suggestions, CPCB received 170 representations, comprising over 700 comments from PSUs, NGOs, industries, industrial associations, including feedback from SPCBs of Kerala, Nagaland, Tamil Nadu, Mizoram, West Bengal, Punjab and Lakshadweep. The report has been finalised after examining all the comments by a working committee.

The 2025 classification methodology bifurcates sub-sectors based on pollution load, scale of operation, production technology, and type of fuel used into Red, Orange, Green, White and Blue categories. Red indicates the highest pollution potential, requiring stringent regulatory oversight, while White signifies minimal or no pollution, with much reduced compliance burden of merely intimation to the concerned SPCBs/PCCs. **A new Blue Category has also been introduced to distinguish the Essential Environmental Services** required for management of environmental concerns arising from anthropogenic pollution due to domestic/household activities which otherwise will have large littering potential. Additional 2 years validity for consent to operate (as per Pollution Index) is prescribed for the blue category.

This report also outlines the implementation pathway, which includes guidelines for State Pollution Control Boards/Pollution Control Committees to follow and implement the new classification system. Earlier classified 257 sectors have now been bifurcated and classified into 403 sectors (including sub sectors) and additionally, 16 new sectors have been introduced. Thus, the revised classification of 273 key sectors comprising of total 419 sectors/sub-sectors are further classified into Red Category (125 nos.), Orange Category (137 nos.), Green Category (94 nos.), White Category (54 nos.) and Blue Category (9 nos.). Progression between red, orange and green categories for the industrial sectors is also incorporated based on the use of less polluting available processes and technologies.

The report also comprises provisions for individual units to adopt cleaner technologies and practices resulting in reduction of pollution load in any sector. Incentives, such as extended validity for Consent to Operate (CTO) and reduced inspection frequencies, are outlined to encourage continual improvement of environmental performance. The incentive mechanism allowing progression between categories will thereby promote Ease of Doing Business by extended consent validity and enhance duration between inspections, thereby leading to reduced compliance burden.

To sum up, this report aims to create a more transparent, consistent, and incentivized regulatory mechanism for better environment management, promoting sustainable industrial development and better governance. I hope the report will be useful to all concerned in the field of industrial pollution control in the country and would incentivise the industries to switch over to cleaner process and technology leading to reduced air, water and soil pollution and also encourage setting up of blue category industries.

I would like to place on record my sincere appreciation for the hard work and valuable contributions by the CPCB team comprising of Shri Amit R. Thakkar, Add. Director, Shri Saubhagya Dixit, Scientist D, and Dr. Anantha N. S., SSA under the guidance of Shri Bharat Kumar Sharma, Member Secretary. I would also like to extend my thanks to Dr. Prashant Gargava, former Member Secretary, Shri P. K. Gupta, former Director and Shri Ajay Aggarwal, former Director, for their contribution. I would also express gratitude to the Working Committee, CPCB, MoEF&CC, SPCBs/PCCs and others for their contributions in the preparation of this report.

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EXECUTIVE SUMMARY

The concept of classification of industrial sectors into red, orange, and green categories based on the size of operations and consumption of resources was first introduced in 1989 for Doon Valley, Uttarakhand. This classification aimed to aid decisions regarding siting of industries. Over the period of time, this concept was extended nationwide to manage consents and establish norms for surveillance and inspection of industry. In 2012, to have uniformity in classification throughout the country, the Central Pollution Control Board (CPCB) issued a standardized list of 244 sectors, classified under red (85 sectors), orange (73 sectors) and green (86 sectors) categories.

In 2016, the Central Pollution Control Board (CPCB) developed a scoring methodology based on the Pollution Index (PI) to harmonize the criteria for categorizing industries. This PI was determined by evaluating water pollution, air pollution, and hazardous waste generation. Using this methodology, CPCB classified 257 industrial sectors into four categories: Red (63 sectors), Orange (91 sectors), Green (65 sectors), and White (38 sectors). The White category was introduced for sectors considered "practically non-polluting" during 2016. Additionally, State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) were authorized to categorize any new or left over sectors according to the CPCB's 2016 methodology.

Further, based on the experience gained over the years, the increased use of cleaner fuels like PNG and bio-CNG, adoption of cleaner technology resulting into reduced wastewater generation, normalisation approach & different formula for calculating PI etc. a need was felt to revisit the classification methodology of 2016 for several such identified areas for improvement. Separate scoring for trade effluent and sewage effluent was also required due to differing characteristics and treatment methods.

Considering the scope of revision, CPCB published a draft report revising the methodology for calculating PI and accordingly classification of sectors into Red, Orange, Green, and White categories based on pollution index range was placed in the public domain for inputs/comments. Around 160 representations comprising more than 700 comments were received. Based on feedback/suggestions and examination of same by the working committee constituted for the purpose, the methodology was finalised. As per the final methodology, the scoring criteria for the following three major pollutant groups are as follows:

i. Water Pollutant Score (PI_W): Assesses the water pollution potential considering the oxygen demand of wastewater, other pollutants in the wastewater and quantity of wastewater generated.
ii. Air Pollutant Score (PI_A): Evaluates the potential air pollution due to process emissions (point source), work zone emissions (fugitive and odour) and type & quantity of fuel used.
iii. Waste Pollutant Score (PI_H): Considering the type and quantity of waste (which are hazardous/toxic/infectious/bulk in nature) generated.

Each pollutant group is scored out of 100, and the Cumulative Pollution Index is calculated. The category of the sector is decided based on the pollution index range, if $PI \geq 80$ the category

of sector is Red, if PI ranges between 55 ≤ PI < 80, the category of sector is orange, similarly for the range of PI between 25 ≤ PI < 55, the category is Green and for PI < 25, the category of the sector is white.

Further, based on the stakeholders' comments, a need was felt to introduce a separate "blue category" for Essential Environmental Services (ESS) required for management of waste generated from domestic/household activities and, an incentive mechanism to promote units in a particular sector, taking measures resulting into better environmental performance. An addendum was prepared, shared and presented to all SPCBs/PCCs. The addendum was also placed in the CPCB Website on 11.07.2024 for inputs/comments. 09 representations were received in the addendum. All representations were examined, and classification based on revised methodology is finalised. Based on the revised methodology, CPCB has classified total 419 sectors and sub-sectors under Red (125), Orange (137), Green (94), White (54) and Blue (9) categories.

The report introduced incentive mechanism for the units in any sector that adopt environment friendly practices such as treatment and recovery of 100% wastewater, use of 100% cleaner fuel/renewal energy etc. and ensuring continuous compliance. These incentives are designed to encourage continuous improvement in environmental performance and to reward units that demonstrate proven implementation of sustainable practices and compliances.

Following are the salient features of the revised classification methodology:

- Methodology focusses on "Potential to pollute the environment" by the sector.
- Simplified single formula for Cumulative Pollution Index for all cases.
- Equal weightage to all three pollutant groups- Air, Water, and Waste.
- Cumulative PI based on weighted proportionate scores of pollutant groups.
- Separate scoring criteria for sectors generating sewage (such as Building & construction projects, STPs, Airports, etc.) and bio-medical waste (Health Care Facilities).
- Introduced Blue Category for 9 sectors under Essential Environmental Services required for management of waste generated from domestic/household activities.
- Appropriate weightage to scale of operations by introducing more slabs to bifurcates sub-sectors based on pollution load, scale of operation, production technology and type of fuel used.
- Introduction of sub-categories for sectors based on cleaner technologies, fuel types, integrated/segregated operations etc.
- Motivation to industries for progressive environmental management.
- A tool to assess the Cumulative Pollution Index and category based on revised method.

This report, prepared by the Central Pollution Control Board (CPCB), presents a revised methodology for classifying sectors based on their pollution potential. The classification aims to enhance environmental management and regulatory oversight by classifying sectors into red, orange, green, white, and blue categories. The report covers in detail about the genesis of

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classification, need for the revision of 2016 methodology, scoring methodology for calculation of cumulative PI, etc.

The report also outlines guidelines for implementing the classification system. The classification may be used for consent management, inspection frequency, siting criteria, cluster development, pollution control plans, levying environmental compensation, promoting progressive environmental management, etc.

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LIST OF ABBREVIATION

CBG: Compressed Biogas

CNG: Compressed Natural Gas

CPI: Cumulative Pollution Index

CPCB: Central Pollution Control Board

CTE: Consent to Establishment

CTO: Consent to Operate

EC: Environment Compensation

ETP: Effluent Treatment Plant

EES: Essential Environmental Services

Gen-Set: Generator Set

HAPs: Hazardous Air Pollutants

HCFs: Health Care Facilities

HW: Hazardous Waste

MoEF&CC: Ministry of Environment, Forest & Climate Change

LNG: Liquefied Natural Gas

LPG: Liquefied Petroleum Gas

NGT: National Green Tribunal

NOC: No Objection Certificate

OCEMS: Online Continuous Effluent/Emission Monitoring System

PCC: Pollution Control Committee

PM: Particulate Matter

PI: Pollution Index

PI_A: Air pollutant score

PI_H: Waste pollutant score

PI_W: Water pollutant score

PNG: Piped Natural Gas

SPCB: State Pollution Control Board

TTZ: Taz Trapezium Zone

VOCs: Volatile Organic Compounds

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Genesis and Journey of Classification

1.1 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 categories. The purpose of this classification was to facilitate decisions related to location of these industries. The criteria for classification of industries was primarily based on quantity of industrial effluent, quantity of fuel/coal, and the number of employees, and amount of waste generated. The notification included list of 129 sectors, classified under red (45), orange (35), and green (39) categories. The criteria used for Doon Valley Notification, 1989 is summarized in the **Figure I**.

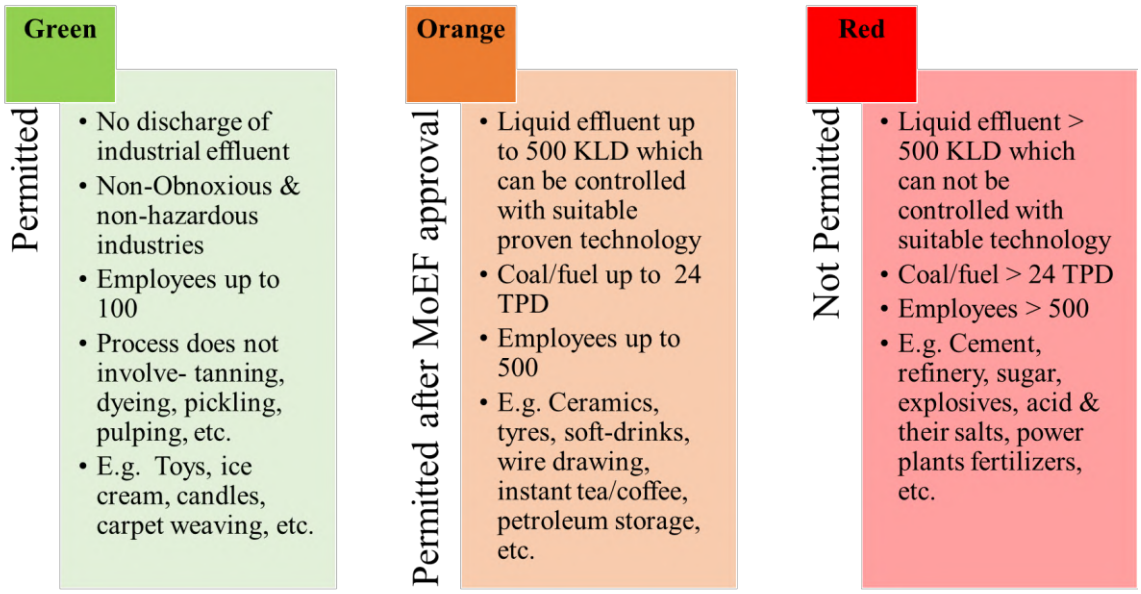

Figure I: Criteria for classification of industries in Doon Valley Notification, 1989

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, to maintain the uniformity across the country, during 2012, CPCB issued a list of 244 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 and hazardous waste generation. Based on this methodology, CPCB has classified 257 sectors under red (63), orange (91), green (65) and white (38) categories and directed SPCBs/PCCs to adopt the same. During 2016, CPCB introduced white category as a new category for such sectors which are "practically non-polluting". SPCBs/PCCs were also empowered to categorize any new/left-out sector at their own level, following the methodology prescribed by CPCB. Additionally, during 2020, CPCB also segregated the list of non-industrial operations/facilities. The overall journey of classification may be understood with the help of milestone chart shown in **Figure II**.

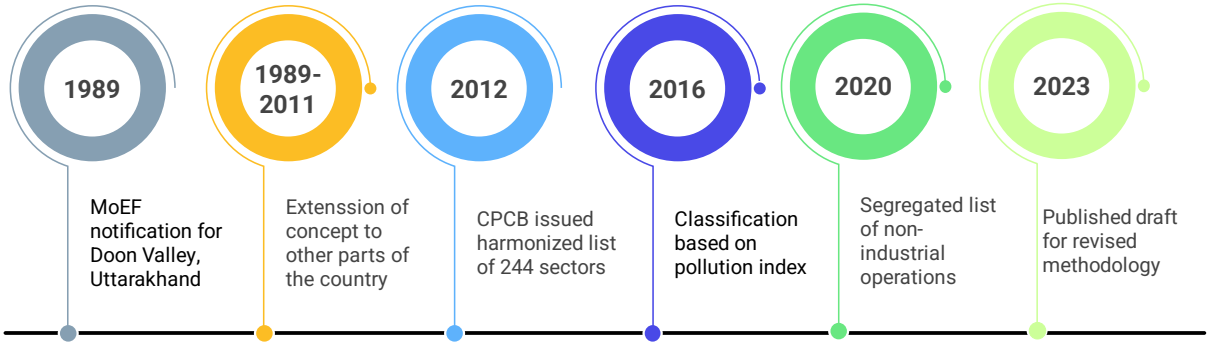

Figure II: Genisis and journey of classification of sectors

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.

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2

Modified Methodology for Classification

2.1 Need and scope for revision of methodology

Based on the experience gained over the years, a need was felt to revisit the 2016 methodology for classification of sectors considering following scope of improvement:

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. The water and air pollutants were each assigned a weight of 40%. However, the hazardous waste generation was given 20% weightage in pollution index.

As per the classification methodology of 2016, in case of absence of any pollutant groups, pollution index was normalized to 100. As a result, different formulas were required to compute pollution index.

Further, the normalization method has certain limitations while comparing pollution potential among sectors having scores for all three pollutant groups verses score only for any one/two pollutant group(s). Moreover, it was also observed that in some sectors normalization involved subjectivity based on perception.

ii. Size of operations of industrial activities:

It was observed that, there was less variation in PI score of industry based on size of operation in same sector. Limited variables/slabs were considered for the quantity of wastewater discharge and fuel consumption. It was also observed that adequate weightage in the considered variables/slabs to account the variation in size of operations of industrial activities need to introduce.

iii. Consideration to segregated industrial activities:

Although there were differences in pollution potential of integrated and standalone units of a particular sector, the classification methodology (2016) classifies the integrated or standalone units in the same sector. 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 type of fuel used:

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. It was observed that adequate weightage based on type of fuel used is required.

v. Separate scoring for sewage and trade effluent:

It is desirable to have separate wastewater scoring criteria for the sectors generating trade effluent and sewage effluent, as characteristics, treatment method and impact are different for trade effluent generated from industrial sectors and sewage effluent generated from infrastructure & development sectors.

vi. 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.

2.2 Modified methodology for classification of sectors

Considering the scope of revision, CPCB prepared a draft report on "Classification of Industrial Sectors into Red, Orange, Green and White Categories: A Tool for Progressive Environmental Management". As per the draft report, a revised methodology for the classification is proposed which incorporates, water pollutant score, air pollutant score and waste generation score, based on the pollution potential of a sector on the environment. Scores out of 100 were given to each three pollutant groups and formula for calculating cumulative score based on the impact pollutant is devised. These scores are used for computation of pollution index for deciding the

category of industrial sector. The cut-offs for deciding the category were based on the quartiles of pollution indices, pollution potential of sectors, etc. The draft report was placed on CPCB website in July 2023, for comments/feedback from stakeholders.

CPCB received 161 representations, comprising more than 700 comments from various State Pollution Control Boards, research and technical institutions, industrial associations, NGOs, individual industries, and the public. The stakeholder-wise representations are shown with the help of pie-chart in **Figure III**.

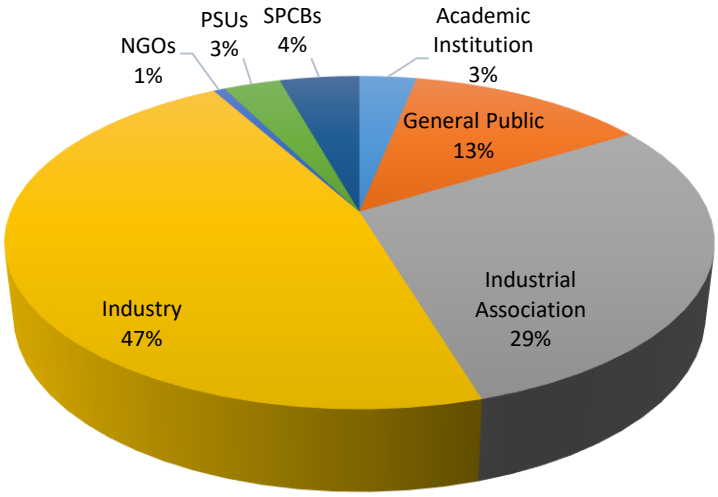

Figure III: Stakeholder-wise representations received

Subsequently, CPCB constituted a committee to critically examine and analyse the comments and to make recommendations for suitable incorporation in the final methodology and classification. After incorporating the feedback received from stakeholders, the Committee has finalized the basic methodology which can be used as a yardstick for classification of the sectors into Red, Orange, Green and White Categories.

Further, based on the stakeholders' comments, a need was felt to introduce a separate "blue category" for Essential Environmental Services (ESS) required for management of waste generated from domestic/household activities and, an incentive mechanism to promote units in a particular sector, taking measures resulting into better environmental performance. An addendum was prepared, shared and presented to all SPCBs/PCCs. The addendum was also placed in the CPCB Website on 11.07.2024 for inputs/comments. Till last date (i.e. 11.08.2024) 09 representations were received in the addendum. All representations were examined, and classification based on revised methodology is finalised.

It is worth to mention that to safeguard the environment, following the fundamental principle of classification i.e., “Precautionary Principle", scope is always available for application of mind and collective wisdom. As per the precautionary principle, when human activities may lead to morally unacceptable harm that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm. Therefore, variation from methodology is possible in case of projects having high chances of damage to the environment/eco-system such as river mining, etc. or having associated accidental risk such as major accident hazards installations wherein risk is associated with industrial activities having potential in terms of operation or process, manufacturing, transportation, and storage of one or more hazardous chemicals as prescribed by the Manufacture, Storage, and Import of Hazardous Chemical Rules, 1989.

Considering the above issues, the classification methodology was modified based on the potential of three pollutant groups, namely, water pollutant, air pollutant and waste pollutant (which are hazardous/toxic/infectious/bulk in nature), which have been given scores out of 100, each. Slabs are assigned for selection of pollutant groups respectively for water, air, and waste. Score can be decided based on dominant pollutants in the pollutant groups and quantity as detailed in Table-I, Table-II and Table-III. These scores are used for computation of pollution index for deciding the category of sector. The scoring methodology is based on the pollution potential during generation and not at the end of pipe/ after treatment considering the fact that all pollutants need to be treated and disposed as per the provisions/rules notified 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 and as amended.

The details of scoring criteria for PI_W for “water pollutant,” PI_A for “air pollutant” and PI_H for “waste generating sector” are as follows:

2.2.1 Scoring criteria for Water Pollutant “PI_W”

Water pollution score consider the potential water pollution load from any sector in terms of characteristics and quantity of untreated trade effluent (wastewater). The “trade effluent” includes any liquid, gaseous or solid substance which is discharged from any premises used for carrying on any [industry, operation or process, or treatment and disposal system], other than domestic sewage.

The water pollutant score (PI_W) is the addition of three sub-scores which are based on organic content in terms of oxygen demand of wastewater (W1), potential of other 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.

Proportionate higher scores are assigned to the sectors generating trade effluent of high BOD and/or high COD, heavy metals/toxic compounds, and large volume of wastewater. The scores are assigned considering the potential for causing damage to the environment. It may be noted that for sectors generating industrial effluent, dominant quantity of trade effluent is considered in score W3 (W3-1 to W3-5). Whereas, for sectors generating huge volume of sewage effluent such as railway stations, STPs, residential building projects, airports etc., the separate scores W3 (W3-6 to W3-10) are assigned. The term used, "Sewage effluent" means effluent from any sewerage system or sewage disposal works and includes sullage from open drains. The scoring criteria for water polluting sectors are given in **Table-I**.

Table I: Scoring Criteria for Water Polluting Sector

Water Pollutant Group	Description	Score
Score W1: Score based on the oxygen demand of wastewater (Maximum of the following scores to be considered)		
W1-1	BOD ≥ 5,000 mg/l or COD ≥ 10,000 mg/l	35
W1-2	1000 ≤ BOD < 5,000 mg/l or 5000 ≤ COD < 10,000 mg/l	30
W1-3	500 ≤ BOD < 1,000 mg/l or 1000 ≤ COD < 5,000 mg/l	25
W1-4	100 ≤ BOD < 500 mg/l or 250 ≤ COD < 1,000 mg/l	20
W1-5	10 ≤ BOD < 100 mg/l or 50 ≤ COD < 250 mg/l	10
Score W2: Score based on other pollutants in the wastewater (Maximum of the following scores to be considered)		
W2-1	Pollutants like pesticides, heavy metals, and toxic compounds: *(Aluminium, 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, Polychlorinated biphenyls, Polynuclear aromatic hydrocarbons, Arsenic, Total/Hexavalent Chromium, Trichloroethane, Trichloroethylene, Adsorbable Organic Halogens (AOx), Pesticides compounds, Residual antibiotic, Radioactive materials, etc.)*	30
W2-2	Pollutants like Nitrate Nitrogen, Nitrate, Ammonical Nitrogen, Total Kjeldahl Nitrogen (TKN), Oil & grease, pH<5.5 or > 9	25
W2-3	Pollutants mainly in terms of inorganic dissolved solids and associated other impurities due to process e.g. wastewater generated from DM water rejects, boiler blowdowns, brine solution rejects, fresh-water RO rejects, etc.	20
W2-4	Pollutants mainly in terms of inorganic dissolved solids e.g. wastewater from cooling towers, cooling-re-circulation processes, etc.	15

Score W3: Score based on quantity of wastewater generated		
A. For sectors generating Industrial Trade effluent (Maximum score to be considered)		
W3-1	Wastewater ≥ 500 KLD	35
W3-2	100 KLD ≤ Wastewater < 500 KLD	30
W3-3	50 KLD ≤ Wastewater < 100 KLD	25
W3-4	10 KLD ≤ Wastewater < 50 KLD	20
W3-5	Wastewater < 10 KLD	15
B. For sectors such as STPs, building projects, etc. generating/handling only high-volume Sewage (Maximum score to be considered)		
W3-6	Sewage ≥ 5,000 KLD	35
W3-7	2,000 KLD ≤ Sewage < 5,000 KLD	30
W3-8	500 KLD ≤ Sewage < 2,000 KLD	25
W3-9	100 KLD ≤ Sewage < 500 KLD	20
W3-10	Sewage < 100 KLD	15
Water Pollutant Score (PI_W) = W1+W2+W3		

2.2.2 Scoring criteria for Air Pollutant "PI_A":

Air pollution score consider the potential air pollution load from any sector in terms of characteristics of emissions and its quantum/scale in terms of quantity of fuel. The air pollutant score is based on generation of emission. The "air pollutant" means any solid, liquid, or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.

The air pollution score (PI_A) is the addition of three sub-scores which are based on the type of pollutants in emissions (A1), work zone emission/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.

Proportionate higher scores are assigned to the sectors generating emissions with hazardous air pollutants, process-based fugitive emissions and using solid/liquid fuels, as such pollutants have higher potential to damage the environment.

The California Air Resources Board defines fugitive emissions as "Emissions not caught by a capture system which are often due to equipment leaks, evaporative processes and windblown disturbances." The fugitive emissions from any process having acid mist, VOCs, etc. are given higher weightage (score A2=30) as compared to the fugitive emissions of inert material (score A2=25). Sectors having persistent foul odour issue, will get score A2=20. Sectors/units using solid/liquid fuel will get higher score-A3, compared to the sectors using cleaner gaseous fuel or electricity. The scoring criteria for air polluting sectors are given at **Table-II.**

Table II : Scoring criteria for air polluting sectors

Air Pollutant Group	Description	Score
Score A1: Score based on Process emissions (point source) (Maximum of the following scores to be considered)		
A1-1	Hazardous Air Pollutants (HAPs) and heavy metals: *HAPs (Phosgene, Benzene, Benzo(α)pyrene, Butadiene, Toluene Di-isocyanate, Methylene-di-phenyl Di-isocyanate, 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
A1-2	Halogens, acids, and pesticides-based pollutants: *H_2S, HF, HBr, P_2O_5 as H_3PO_4, NH_3, TOC, Cl, HCl, SO_3, CH_3Cl, Total Fluoride, PM having pesticide compounds/other organic compounds, Acid mist, etc.*	30
A1-3	Pollutants due to combustion of fuel or due to process: *PM, CO_2, CO, NOx, SO_2, etc.*	25
A1-4	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)		
A2-1	Fugitive emissions of Particulate Matter (PM), acid mist, VOCs, etc. from process	30
A2-2	Fugitive emissions of Particulate Matter (PM), acid mist, VOCs, etc. due to storage and handling, etc.	25
A2-3	Odour nuisance, including odour due to the use of binding gums, cements, adhesives, enamels etc.	20
Score A3: Score based on quantity of fuel (Maximum of the following scores to be considered)		
	Coal or liquid fuels	
A3-1	Fuel consumption ≥ 24 TPD	35
A3-2	12 TPD ≤ Fuel consumption < 24 TPD	30
A3-3	Fuel consumption < 12 TPD	25
	Biomass-based fuels	
A3-4	Fuel consumption ≥ 48 TPD	25
A3-5	24 TPD ≤ Fuel consumption < 48 TPD	20
A3-6	Fuel consumption < 24 TPD	15
	Cleaner/gaseous fuels, such as, PNG, CNG, LPG, Compressed Biogas (CBG), propane, butane etc.	
A3-7	Fuel consumption ≥ 120 TPD	20
A3-8	60 TPD ≤ Fuel consumption < 120 TPD	15
A3-9	Fuel consumption < 60 TPD	10
A3-10	Electricity	0
Air Pollutant Score (PI_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 considered.		

2.2.3 Scoring criteria for Industrial Waste Generating Sector "PI_H"

Industrial waste generating sectors are considered based on the generation of hazardous waste/high volume low effect waste. As per the Hazardous and Other Wastes (Management & Trans-boundary Movement) Rules, 2016, the "hazardous waste" means any waste which by reason of characteristics such as physical, chemical, biological, reactive, toxic, flammable, explosive or corrosive, causes danger or is likely to cause danger to health or environment, whether alone or in contact with other wastes or substances and shall include waste as per the Schedule I, Schedule II and Schedule III of the rule. Further, scores are also assigned to the high-volume low effect wastes such as fly ash, phosphogypsum, red mud, jarosite, slags from pyro-metallurgical operations, mine tailings and ore beneficiation rejects.

The score for waste comprises of two sub-scores H1 and H2. The H1 score is based on the different type of hazardous waste which are generated during the process, and which required to be managed/disposed through common facility OR based on the generation of high-volume low effect waste/ HW like contaminated bags/ drums etc. The H2 score is based on the total quantum of waste generated.

The desirable disposal method such as incineration, landfill after treatment, landfill etc. signifies the potency of hazardous waste. In recent time, the utilization of hazardous waste as per the Rule-9 of Hazardous and Other Wastes (Management & Trans-boundary Movement) Rules, 2016, as alternate fuel and raw material in cement kilns, as recyclable hazardous waste etc. has increased. The classification is based on the pollution potential due to generation of such types of hazardous waste from any sector. The score for the quantum of hazardous waste is total potential of generation of such hazardous waste by any sector., Score H1: Based on potency of hazardous waste and score H2: Based on quantum of hazardous waste, are given weightage of 30% and 70%, respectively. Considering the higher risk due to amount of hazardous waste generated rather than its disposal method, more weightage is given to the quantity. Overall waste generation score in case of waste generating sector will be PI_H =H1+H2. The scoring criteria for hazardous waste generating sectors are given at **Table-III**.

A separate scoring criterion has been included for sectors generating bio-medical waste. Bio-medical waste means any waste, which is generated during the diagnosis, treatment or immunisation of human beings or animals or research activities pertaining thereto or in the production or testing of biological or in health camps, including the categories mentioned in Schedule-I appended to the Bio-Medical Waste Management Rules, 2016. As any Health Care

Facilities (HCFs) generates all types of bio-medical waste (red, yellow, blue, and white) and quantities of such wastes may vary considerably based on the type of facility/location of facility (rural/urban), and other such factors. Therefore, scoring based on number of beds in a healthcare facility is considered as sole criteria for assigning waste score (H: B-1 to B-7) as tabulated in **Table-III**.

Least score of 25 is given to non-bedded healthcare facilities and maximum score of 100 is given to facilities having more than 1,000 beds. Overall waste generation score in case of bio-medical waste generating sector will be PI_H.

Table III: Scoring criteria for waste generating Sectors

Waste Pollutant Group	Description	Score
A. Score for sectors generating hazardous waste		
Score H1: Score based on the hazardous waste management/disposal method. (Maximum of the following scores to be considered)		
H1-1	Hazardous wastes which are flammable, ignitable, corrosive, oxidizing toxic, etc. and requiring disposal through incineration	30
H1-2	Hazardous wastes which are reactive, capable of yielding another material post disposal, etc. and requiring disposal in secured landfill after stabilization/treatment	25
H1-3	Hazardous wastes which are requiring direct disposal in secured landfill without stabilization	20
H1-4	High volume and low effect wastes, contaminated bags/ drums/ containers etc.	10
Score H2: Score based on quantity of hazardous waste generation. (Maximum of the following scores to be considered)		
H2-1	Hazardous Waste ≥ 5000 TPA	70
H2-2	1000 TPA ≤ Hazardous Waste < 5000 TPA	50
H2-3	200 TPA ≤ Hazardous Waste < 1000 TPA	30
H2-4	10 TPA ≤ Hazardous Waste < 200 TPA	20
H2-5	Hazardous Waste < 10 TPA	10
B. Scores for the sectors generating bio-medical waste		
B-1	No. of beds ≥ 1,000	100
B-2	500 ≤ No. of beds < 1,000	80
B-3	200 ≤ No. of beds < 500	60
B-4	50 ≤ No. of beds < 200	50
B-5	10 ≤ No. of beds < 50	40
B-6	No. of beds < 10	30
B-7	Non-bedded facility	25
For sectors generating hazardous waste PI_H =H1+H2 **For sectors generating bio-medical waste PI_H =B**		

2.3 Computation of Cumulative Pollution Index and criteria for deciding category of sector

In the revised methodology of classification (2025), all three pollutant scores due to water, air and industrial waste generation are taken into account while computing pollution index. The formula for computing cumulative pollution index (PI) 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 (PI_W), Air (PI_A), and Waste (PI_H) pollutant scores and i_2 & i_3 are the remaining pollutant scores.

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

Table IV: Ranges of Cumulative Pollution Index for different categories

Cumulative Pollution Index (PI)	Category of industrial sector
PI ≥ 80	Red
55 ≤ PI < 80	Orange
25 ≤ PI < 55	Green
PI < 25	White

The purpose of classification is to have uniform consent mechanism, defined routine monitoring frequency by concerned SPCB/PCC, environmental protection plans etc. Modified methodology also considers the variation in pollution potential due to various type of activities and operations in a particular sector.

The scores/pollution index/category of any two sectors may be same, however, comparing two different sectors based on the category or pollution index is not desirable as the cumulative PI is a function of air pollutant, water pollutant, and waste pollutant and the cumulative score is arithmetically relates the maximum score of one pollutant with the remaining other two pollutants. Hence, PI/category of sectors may be same but may have different impact on environment.

2.4 Blue Category Projects- Essential Environmental Services for management of environmental pollution arising from domestic/household activities

Essential Environmental Services may be defined as those facilities which are essential to control, abate and mitigate pollution generated from Domestic and Industrial activities. Such Essential environment services for Industrial Activity includes CETP, CHWTSDF, Effluent conveying system etc. and essential environment services for domestic activities includes STP, MSW etc. Both the type of EES plays a vital role in Environment Management. However, during the treatment of waste, some EES generates/handle hazardous waste/infectious waste. The EES which do not generate Hazardous Waste, and which otherwise have large littering potential can be categorised as Blue Category Projects. Further, there are past legal references wherein Hon'ble Apex court has also considered the importance and requirement of such Essential Environment Services.

Human settlements whether located in rural/urban/eco-sensitive area generate sewage, solid waste, and C&D waste, which are required to be managed to prevent adverse impact on environment and human health. Basic environment management facilities are required to be set-up to manage such waste which includes STP, C&D waste processing facility, MSW management facility like sanitary landfill, material recovery facility & waste processing units, bio-methanation, bio-composting, waste to energy, etc.

These facilities are basically essential environment services which play a vital role in protecting environment and human health. These facilities may also bring value addition by producing various by-products such as secondary raw material, compost, energy, etc. and promotes circular economy and sustainable development by converting waste into wealth. Moreover, these categories do not generate hazardous or infectious wastes.

As the role and importance of these facilities is different in nature as compared to other activities and industries in the sense that they are primarily set-up for prevention, control and abatement of soil, water and air pollution. It is more appropriate to have a separate colour category-Blue Category for essential environmental services facilizes related to environmental pollution arising from domestic/household activities. These activities are required to meet all the prescribed environmental norms/rules notified from time to time and the pollution index for such Essential Environmental Services (EES) shall continue to be calculated as per the formula and consent to operate will be governed based on the pollution index. However, the

category of the EES will be termed “Blue Category sector” and as an incentive for the essential services, additional 2 years validity for consent to operate (as per PI) will be provided.

The list of EES facilities is given at **Annexure-II**.

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3

Classification of Sectors as per Revised Methodology

3.1 Types of sectors based on their activities

The revised methodology of classification will be applicable to all industries which may have potential for generation of environmental pollutants. As per the Section 2(j) of the Industrial Disputes Act, 1947, "Industry" means any business, trade, undertaking, manufacture, or calling of employers and includes any calling, service, employment, handicraft or industrial occupation or avocation of workman", however, based on type of operational activities, the industries are divided into following four sectors:

i. Industrial Sectors
ii. Essential Environmental Services (EES)
    a. EES for Industrial Waste
    b. EES for Domestic Waste (Blue Category Sector)
iii. Service/Infrastructure Development Sectors
iv. Others/Special Category Sectors

The sectors which are involved in production of goods, products, etc. are considered under "Industrial Sectors". The sectors covered under "Essential Environmental Services (EES)" are those facilities which are essential to control, abate and mitigate pollution generated from Domestic and Industrial activities. These services are essential facilities which are required to reduce pollution load on the environment, such as sewage treatment plants, common bio-medical waste treatment facilities, construction & demolition waste processing plants, etc. Essential Environmental Services Sectors are sub classified as "EES for industrial waste" and "EES for domestic waste (Blue category sectors which do not handle or generate infectious or hazardous waste)". On the other hand, sectors which carry out service-related activities such as infrastructure projects, railways, airports, hospitals, etc. are covered under "Service/infrastructure development sectors".

"Other/special category sectors" include those projects which cannot be classified based on the scoring methodology of pollution index but require classification based on precautionary principle and considering the potential of ecological damage/ health and environment related risk, etc. Few such sectors are sand mining, hydel power plants, etc.

The revised methodology of classification, sub-categorises the main sector based on the usage of cleaner technology/cleaner production/cleaner fuel which has proven reduction in trade effluent generation, emissions, waste, etc., for better environmental management, resulting into overall reduction of pollution index compared to main sector. For example, if coffee seeds processing industries use eco-pulping technology, which generates less water pollution, the pollution index of the said sector gets reduced and category changes from orange to green. Similarly, variation in type/scale of activities in a particular sector is also considered for classification of sub-sectors.

The methodology and scores have been screened through stakeholder feedback/consultation and public opinion. Available standard literature, various documents and guidelines, inspection reports, etc. were also referred, while assessing the scores for water pollution, air pollution, and waste generation for classification of sectors. Based on the modified methodology, the list of sectors and sector specific sub-classification is given at **Annexure-I to Annexure-IV**. Summary of classified sectors is given in **Table-V**.

Table V: Number of sectors classified under different categories

Sl. No.	Type of sector	Total number of sectors/sub-sectors	Red	Orange	Green	White	Blue
1.	Industrial Sectors	**359**	**107**	**120**	**81**	**51**	-
2.	Essential Environmental Services (ESS)						
2.a.	ESS for domestic waste	**9**	**-**	**-**	-	-	**9**
2.b.	ESS for industrial waste	**9**	**9**	**-**	-	-	-
3.	Service/Infrastructure Development Sectors	**37**	**7**	**15**	**13**	**2**	-
4.	Others/Special Category Sectors	**5**	**2**	**2**	`-	**1**	-
	Total	**419**	**125**	**137**	**94**	**54**	**9**

3.2. Usage of classification of sectors

The classification of 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 as per existing provisions which would be later governed as per the provisions/guidelines under Jan Vishwas (Amendment of Provisions) Act, 2023/Water Act, as amended. The validity of blue category sectors will be 2 years more than the category based on PI.

ii. **Inspection frequency:** SPCBs/PCCs may prioritize their environmental surveillance programs based on the categories of sectors. 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. **Development of cluster:** The classification will help in planning of sector specific cluster, based on scoring of various pollutants and development of adequate environment management infrastructure facility, accordingly.

v. **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.

vi. **Levying environmental compensation:** Pollution index may be used for determining and levying environmental compensation on industries violating the environmental norms.

vii. **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.

3.3 Classification of left-out/new sectors

The revised methodology of classification (2025) 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 (as nominated by the Member secretary of the concerned SPCB/PCC) may be constituted to examine the matter and classify the sector in accordance with the methodology prescribed by CPCB. The State Level Committee may also co-opt subject experts, industrial association representative, etc., as member, as per requirement. CPCB has also developed a tool to assess the Cumulative Pollution Index and category of any sector, which is available on CPCB website (https://cpcb.nic.in/categorization-of-industrial-sectors/).

In addition, all SPCBs/PCCs are required to submit list of all such sector classified under white category to CPCB in the prescribed format (**Annexure-V**), for notification as per provisions of Jan Vishwas (Amendment of Provisions) Act, 2023.

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4

Incentives to unit in a sector for adopting measures resulting to better environmental performance

A methodology has been strategized to provide incentives to the unit in a sector which are dedicated to reduce environmental impacts from their operations/process. The objective can be achieved by 100% treatment and reuse of wastewater generated, having complete dependency on cleaner fuel alternatives (such as PNG, LPG, compressed biogas, propane, butane, electricity etc. for meeting energy requirement), implementation & achievements of targets of sector-specific charters of CPCB/SPCB for environmental management, EPR obligations and use of cleaner process/cleaner technology to eliminate generation of toxic/hazardous pollutants.

The units fulfilling the following eligibility criteria may submit their formal proposal to the concerned SPCB/PCC for consideration:

4.1 Eligibility Criteria

- The unit should have completed at least one year of completion of production/operations with demonstrated, verifiable steps and submitted audit report from institute of repute for considering the unit for the purpose by concerned SPCB/PCC. To facilitate verification, the unit must have properly maintained logbooks/bills for production, electricity consumption, fuel, water consumption, wastewater treatment and use of treated wastewater.
- The unit should be located in conforming area with applicable Environment Clearance, Consent to Establishment (CTE) and Consent to Operate (CTO) and hazardous/bio-medical waste authorization from SPCB/PCC.
- Unit should comply with all the norms/conditions stipulated under EC, CTO and Guidelines/Rules issued by CPCB.

- In case, unit using ground water resource, it should have valid permission/NOC and also required to install electronic flowmeter.
- No penalty or legal obligation is imposed/pending against unit for violation of environmental norms. Records for last 5 years may be verified. In case establishment period of the unit is less than 5 years, the past records since the start of production may be verified.
- Unit should not be involved in any sort of accident/incident resulting into emission /discharge into the environment. Records for last 5 years may be verified.

All such units, interested in availing incentives are required to demonstrate and prove their initiatives to the Committee (to be constituted at the level of concerned SPCB/PCC), comprising of members as mentioned in **Table VI**.

Table VI: Structure of Committee to evaluate the request of units adopting measures resulting in better environmental performance

Sl. No.	Members	Role
1	Member Secretary, SPCB/PCC	Chairman
2	Subject expert from Indian Institute of Technologies (IITs) or National Institute of Technologies (NITs) or any other institute/university of repute.	Member
3	Expert from CSIR institute/laboratories, having expertise in industrial process and pollution control technologies/ environmental management	Member
4	Two officials of concerned SPCB/PCC, as nominated by the Member Secretary, SPCB/PCC	Member

4.2. Evaluation Criteria

The committee shall scrutinize the proposals based on the eligibility criteria. The basis of evaluation will be- (i) Measures taken for treatment and reuse of wastewater to reduce freshwater consumption, (ii) Use of alternative cleaner fuel to reduce emissions, and (iii) Use of cleaner technology/ cleaner production which results in reduction in pollution/hazardous waste generation (iv) Recycling units identified for EPR obligations and has fulfilled all requirement including Environmentally Sound Management Facility for recycling.

The unit is required to demonstrate the successful implementation of measures by annual submission of third-party audit report (through institute of repute) regarding performance of environmental management measures. The Committee members may also inspect unit, collect samples, and get it analysed, check logbooks, electricity/water bills, examine system feasibility through mass-balances, ensure real-time submission of environment data to SPCB/PCC server, etc. The check and balances to examine the industry claims are summarized in **Table VII.**

Table VII: Checks and balances to assess the adequacy of environment management measures

Criteria	Checks and balances
I. Wastewater Management	
Installation of wastewater recovery system resulting into treatment and 100% reuse of treated wastewater in industrial process.	• Unit must have adequate operational Effluent Treatment Plant (ETP). The freshwater requirement of the unit has shown proportionate reduction. • There should not be any flow/ponding of wastewater inside the premises or discharge outside from the premises. Further, there should not be any by-pass. • Electronic flowmeters and Pan-tilt-zoom (PTZ) camera should have been installed with connectivity for continuous transmission of data to SPCB/PCC and CPCB servers (as applicable). • Recirculation system should be clearly mapped and visible for inspection and flow meter should be installed at required locations with records. • Mass/water balance based on actual production need to be checked. The claim regarding reduction in freshwater consumption should have concurrency with the readings of flow meters, water bill, log-books, etc. • Treated wastewater should not be used for horticulture or agriculture purposes. • Sludge generated from treatment of wastewater should be managed properly as per the authorization issued by the concerned SPCB/PCC and timely submission of Form-IV as per the requirement of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
II. Air Pollution Management	
100% fuel dependency on cleaner fuels, such as- Piped Natural Gas (PNG), Compressed Natural Gas (CNG), Liquefied Natural Gas (LNG) Liquefied Petroleum Gas (LPG), Compressed	• No other fuel (coal, pet-coke, furnace oil, etc.) should be stored/used in the unit premises. Diesel for Gensets (as an auxiliary power source) may be allowed. Preference may be given to the units using gas based Gensets. • Adequate facility for stack monitoring (port holes, zig-zag ladder etc.) should be available with provision of OCEMS (as applicable).

Biogas (CBG), propane, butane, etc.	• Use of upgraded air pollution control devices with higher efficiency for the reduction of emissions. • Adoption of cleaner technology, advanced pollution control systems etc. to control fugitive/emissions • Use of alternate cleaner raw material for generation of less pollution. • Use of renewable energy as an alternate to conventional fuel/power should be considered.
III. Waste Management	
The unit has adopted cleaner technology/ cleaner production which results in reduction in pollution/ hazardous waste generation	• Reduction in generation of pollution/waste due to adoption of cleaner technology/change in raw material etc. • Mass balance based on actual production need to be checked. There should be concurrency in generation of hazardous waste, utilization, disposal, etc. with respect to net reduction in generation.
IV. EPR Targets (for recycling facilities)	
Recycling units identified for EPR obligations and has fulfilled all requirement including Environmentally Sound Management Facility for recycling.	• Complying with the requirement of EPR obligation identified by CPCB from time to time.

4.3. Re-assessment of Pollution Index (PI)

The purpose of giving star category is to classify the unit in the sector as star performing units. The category of the unit may be re-assessed as detailed below:

A. For Industries, Service/Infrastructure facilities and Essential Environmental Services Sectors for management of waste.

The pollution index of the units in any sector which have proven reduction in trade effluent generation and/or air pollution management and/or waste management measures, can be calculated based on submission of same with the supporting documents for considering the modified score based on the same methodology.

The revised cumulative pollution index (PI) will be calculated with modified air/water/waste scores as discussed in the methodology given in previous section. If revised, cumulative PI results to change in the category of unit in the sector, the nomenclature for revised category will be as per the **Table VIII**.

Table VIII: Nomenclature for revised category

Change in category	Nomenclature of revised category
Red to Orange	Red*
Orange to Green	Orange*
Green to White	Green*

B. Essential Environmental Service Sectors for Domestic/Household Waste- "Blue Category Sectors":

Units under Blue Category are required to reduce their existing PI score by 25%, by meeting evaluation criteria/check and balances, as mentioned in **Table III** to qualify for change in category to Blue*.

4.4 Incentives to the units for better environmental management

Units which have demonstrated the successful implementation of environmental management measures and verified by the Committee, shall be eligible for the incentives, as listed in the **Table IX**.

Table IX: Incentives to units for better environmental performance

Category	Incentives
Red*	• CTO may be granted for the validity of max. 10 years. • Prescribed random environmental surveillance inspection frequency may be once a year, considering the change in category.
Orange*	• CTO may be granted for the validity of max. 15 years. • Prescribed random environmental surveillance inspection frequency may be once in two years, considering the change in category.
Green*	• CTO may be granted for the validity of max. 20 years. • Prescribed random environmental surveillance inspection frequency may be once in four years, considering the change in category and given incentives twice the original category.
Blue*	• CTO may be granted with additional 3 years validity period. • Prescribed random environmental surveillance inspection frequency may be once in 3 months.

In case of non-compliance(s) observed in future, the State Board can remove the star status and for calculation of EC, the PI of original category shall be considered.

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5 Implementation pathway/guidelines

The revised methodology and classification of sectors will be implemented in prospective manner. For this purpose, following guidelines may be referred:

i. All pending application for consideration of CTE/CTO and future such application shall be processed as per the revised methodology of classification. In case CTE granted before the revised classification, applicability of CTO will be as per new classification.

ii. New classification will be applicable to existing units at the time of renewal of CTO or within one year from the date of directions issued by CPCB regarding implementation of revised classification, whichever is earlier. The annual fees or cumulative fees for the remaining period shall be as per the revised category.

iii. SPCBs/PCCs may grant Consent to Operate (CTO) to units under red, orange, and green categories for maximum validity up to 5 years, 10 years, and 15 years, respectively as per existing provisions which would be later governed as per the provisions/guidelines under Jan Vishwas (Amendment of Provisions) Act, 2023/Water Act, as amended. SPCBs/PCCs may grant Consent to Operate (CTO) to units under Blue Category sectors with additional 2 years validity, considering their role as Essential Environmental Services for management of waste generated from domestic/household activities.

iv. Requirement of intimation/consent for white category of industries, shall be governed as per the provisions/guidelines under Jan Vishwas (Amendment of Provisions) Act, 2023//Water Act, as amended.

v. All sectors irrespective of category shall follow guidelines for pollution control, if any, issued by SPCB/PCC/CPCB time to time.

vi. Siting of units shall be only in the conforming area as per the guidelines of CPCB/SPCB/PCC. Further, as per the Section 17(1)(n) of the Water Act, 1974 and the Section 17(1)(h) of the Air Act, 1981, SPCB/PCC may also frame policies/advisory with respect to the location of any industry/operations, the carrying on of which is likely to cause air/water pollution, considering the scale/type of industries and sensitivity of area. Siting of units in eco-sensitive area will be governed by their respective notifications.

vii. The classification of sectors shall not be linked to sanction of loans/finance of bank proceedings.

viii. In the matter of Taz Trapezium Zone (TTZ), for air pollution scores of 10 and 20 (as per 2016 methodology), equivalent scores of 30 and 60 (as per 2025 methodology), respectively, may be considered for sectoral guidelines/opinion from NEERI (Ref: Order dated 08.12.2021, in the matter of M.C. Mehta v/s Union of India, Writ Petition (Civil) No.13381/1984, before Hon'ble Supreme Court).

ix. As per CPCB directions dated 12.12.2019, issued under Section 18(1)(b) of the Water Act, 1974 and the Air Act, 1981, 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 waste treatment facilities and 17 categories of industries are to be inspected at least once in every three-months. (Ref: Order dated 05.11.2019, in the matter of Shailesh Singh v/s State of Haryana & Ors., OA No.639/2018, before Hon'ble National Green Tribunal, Principal Bench).

x. The sectors which are classified under white or green category and if such sectors have installed Genset(s) of higher capacity which are classified under orange/green category, then such sector will be considered under higher category.

xi. All Industrial units are encouraged to adopt measures such as cleaner technology/cleaner production, cleaner raw material, cleaner fuel etc., for better environmental management. If such measures result into overall reduction of pollution

index, request regarding change in category of such sectors/units may be made to concerned SPCB/PCC as detailed under Section 8 of this report.

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ANNEXURE-I

(LIST OF INDUSTRIAL SECTORS CLASSIFIED UNDER RED, ORANGE, GREEN, AND WHITE CATEGORIES)

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LIST OF INDUSTRIAL SECTORS

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
	~A~															
1	Manufacturing of **Automobiles** (integrated facilities)	20	30	25	**75**	0	25	0	**25**	25	20	**45**	83.8	Red	i. Such types of plants are having either one or combinations of polluting activities viz. washing, metal surface finishing operations, pickling, plating, electro-plating, phosphating, painting, heat treatment etc. ii. Some of such plants may outsource some /all of the polluting activities or may have stand-alone units. In such cases, after thorough inspection of such units by concerned SPCB, re-categorization of the industry shall be made accordingly.	IPC-V
2	**Asbestos** and asbestos based industries	10	30	25	**65**	35	30	30	**95**	25	30	**55**	98	Red	Asbestos is carcinogenic and banned in many countries.	IPC-II
3	**Almirah**, Grill Manufacturing (Dry Mechanical Process)	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green		IPC-V
	~B~															
4.0	**BAKERY**, CONFECTIONERY AND SWEETS PRODUCTS															
4.1	Bakery, confectionery, sweets with production capacity ≥ 1 TPD	25	0	20	**45**	25	0	25	**50**	0	0	**0**	61.3	Orange		IPC-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
4.2	Bakery, confectionery, sweets with production capacity ≥ 1 TPD. (using cleaner/gaseous fuel)	25	0	20	**45**	25	0	10	**35**	0	0	**0**	54.6	Green		IPC-III
5.0	**BRICK** MANUFACTURING															
5.1	Brick kilns using coal as fuel	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-V
5.2	Brick kilns using biomass as fuel	0	0	0	**0**	25	25	15	**65**	0	0	**0**	65	Orange		IPC-V
5.3	Tunnel brick kilns (gas fired)	0	0	0	**0**	25	25	10	**60**	0	0	**0**	60	Orange		IPC-V
6.0	MANUFACTURING OF AUTOCLAVED AERATED CONCRETE (AAC) **BRICKS/BLOCKS.**															
6.1	AAC bricks/blocks manufacturing using coal as fuel (12 TPD and above)	0	0	0	**0**	25	25	30	**80**	0	0	**0**	80	Red		IPC-V
6.2	AAC bricks/blocks manufacturing using coal as fuel (less than 12 TPD)	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-V
6.3	AAC bricks/blocks manufacturing using biomass as fuel	0	0	0	**0**	25	25	20	**70**	0	0	**0**	70	Orange		IPC-V
6.4	AAC bricks/blocks manufacturing using gas as fuel	0	0	0	**0**	25	25	15	**65**	0	0	**0**	65	Orange		IPC-V
7.0	FLY ASH **BRICKS / BLOCK** MANUFACTURING															
7.1	Fly ash bricks/ block manufacturing (with boiler)	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-V
7.2	Fly ash bricks/ block manufacturing (without boiler)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
8.0	MANUFACTURING OF NON-ALCOHOLIC **BEVERAGES**															
8.1	Wastewater generation ≥ 100 KLD	25	20	30	**75**	25	0	25	**50**	0	0	**0**	81.3	Red		IPC-III
8.2	Wastewater generation < 100 KLD	25	20	25	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
9.0	**BATTERY** MANUFACTURING															
9.1	Lead-acid **Battery** manufacturing (excluding assembling and charging of lead acid **Battery** in micro-scale)	0	30	20	**50**	35	30	25	**90**	25	10	**35**	94.3	Red		IPC-V
9.2	Dry cell **Battery** (excluding manufacturing of electrodes) and assembling & charging of acid lead battery on micro scale	0	30	15	**45**	25	25	10	**60**	25	10	**35**	76	Orange		IPC-V
9.3	**Battery** manufacturing without boiler (excluding lead acid battery)	0	0	0	**0**	0	25	0	**25**	25	10	**35**	43.1	Green		IPC-V
10	**Briquette** manufacturing (coal/biomass/coke)	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green	The process involves mixing, mechanized compression and drying.	IPC-II
11	Assembly of **Bicycles**, **Baby** carriages and other small non motorizing vehicles	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
12	**Bailing** (hydraulic press) of waste papers	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
13	**Bio fertilizer** and bio-pesticides without using inorganic chemicals	0	0	0	**0**	0	20	0	**20**	0	0	**0**	20	White		IPC-V
14	**Block** making of printing without foundry (excluding wooden block making)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
15	Flavoured **Betel** nuts production/ grinding (completely dry mechanical operations)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
16	Manufacturing of shoe **Brush** and wire **Brush**	0	0	0	**0**	0	20	0	**20**	0	0	**0**	20	White		IPC-V
	~C~															
17.0	MANUFACTURING OF INDUSTRIAL **CARBON** INCLUDING ELECTRODES AND GRAPHITE BLOCKS, ACTIVATED **CARBON**, **CARBON BLACK**															
17.1	Carbon black manufacturing	20	15	20	**55**	25	30	30	**85**	30	20	**50**	92.9	Red		IPC-I
17.2	Industrial carbon including electrodes & graphite blocks and calcined pet coke	20	15	20	**55**	25	25	25	**75**	30	10	**40**	86.9	Red		IPC-II
17.3	Activated carbon manufacturing (with steam activation)	20	15	20	**55**	25	25	15	**65**	0	0	**0**	74.6	Orange		IPC-V
18.0	INORGANIC **CHEMICALS**															
18.1	Basic inorganic chemicals and electro chemicals and its derivatives including manufacturing of acid	10	30	25	**65**	30	30	20	**80**	20	20	**40**	90.5	Red		IPC-I
18.2	Phosphorous and its compounds, including phosphorous rock processing	20	30	20	**70**	35	25	10	**70**	10	30	**40**	86.5	Red		IPC-I
18.3	Chlorates, per-chlorates & peroxides	20	30	20	**70**	30	20	25	**75**	20	20	**40**	88.8	Red		IPC-I
18.4	Chlorine, fluorine, bromine, iodine, and their compounds	10	30	25	**65**	35	20	10	**65**	20	20	**40**	83.4	Red		IPC-I
19	Coke oven plant, coal liquefaction, coal tar distillation and fuel gas-making	30	30	30	**90**	25	30	35	**90**	25	50	**75**	98.3	Red		IPC-II
20.0	**CEMENT** PLANTS															

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
20.1	With co-processing with CPP (Captive Power Plant)	20	25	35	**80**	35	30	35	**100**	10	50	**60**	100	Red		IPC-II
20.2	With co-processing without CPP	20	0	20	**40**	35	30	35	**100**	30	20	**50**	100	Red		IPC-II
20.3	Without co-processing with CPP	10	25	35	**70**	35	30	35	**100**	10	50	**60**	100	Red		IPC-II
20.4	Without co-processing without CPP	0	0	0	**0**	25	30	35	**90**	30	10	**40**	92	Red		IPC-II
20.5	Stand-alone grinding units with CPP	20	25	35	**80**	25	30	35	**90**	10	50	**60**	97	Red		IPC-II
20.6	Stand-alone grinding units without CPP	0	0	0	**0**	25	30	0	**55**	30	10	**40**	64	Orange		IPC-II
20.7	Bulk terminals for storage and packaging of cement	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green		IPC-II
21.0	**CHLOR** ALKALI															
21.1	Chlor alkali	10	20	25	**55**	30	25	25	**80**	20	20	**40**	89.5	Red		IPC-I
21.2	Chlor alkali using washed salt	10	20	15	**45**	30	25	25	**80**	20	10	**30**	87.5	Red		IPC-I
21.3	Chlor alkali using cleaner/gaseous fuel	10	20	25	**55**	30	25	10	**65**	20	20	**40**	81.6	Red		IPC-I
21.4	Chlor alkali using cleaner/gaseous fuel and washed salt	10	20	15	**45**	30	25	10	**65**	20	10	**30**	78.1	Orange		IPC-I
22	Manufacturing of **Compact** disc **Computer** (CD/DVD) / cassette manufacturing / reel manufacturing	0	15	15	**30**	30	0	0	**30**	20	10	**30**	51	Green		IPC-V
23.0	MANUFACTURING OF **COIR/COIR** PITH AND **COIR** PRODUCTS															
23.1	Coir bleaching and dyeing/printing units	25	0	25	**50**	25	25	20	**70**	0	0	**0**	77.5	Orange		IPC-V
23.2	Coir fibre/pith processing units generating effluent	25	0	20	**45**	0	25	0	**25**	0	0	**0**	51.9	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
23.3	Coir fibre/pith processing and/or Manufacturing of coir products from coir (only dry process)	0	0	0	**0**	0	20	0	**20**	0	0	**0**	20	White		IPC-V
24.0	**CERAMICS**															
24.1	Ceramics/ Glass /Earthen potteries and tile manufacturing using coal/oil fired kilns (fuel consumption: 12 TPD and above)	0	0	0	**0**	25	25	30	**80**	0	0	**0**	80	Red		IPC-V
24.2	Ceramics/ Glass /Earthen potteries and tile manufacturing using coal/oil fired kilns (fuel consumption: less than 12 TPD)	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-V
24.3	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	Orange		IPC-V
24.4	Ceramics/ Glass /Earthen potteries and tile manufacturing (using only electrical kiln)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
25	**Coal Washeries**	20	25	30	**75**	0	25	0	**25**	0	0	**0**	78.1	Orange		IPC-II
26	Liquid floor **Cleaner**, black phenyl, liquid soap, glycerol mono-stearate manufacturing	25	25	15	**65**	0	20	0	**20**	0	0	**0**	68.5	Orange		IPC-V
27	Phenyl/toilet **Cleaner** formulation and bottling	10	0	15	**25**	0	20	0	**20**	0	0	**0**	32.5	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
28	**Cashew** nut processing	20	0	15	**35**	25	20	15	**60**	0	0	**0**	67	Orange		IPC-III
29.0	**COFFEE** SEEDS PROCESSING INDUSTRY															
29.1	Coffee seeds processing (wet process)	35	0	20	**55**	25	0	15	**40**	0	0	**0**	64	Orange		IPC-III
29.2	Coffee seeds processing with eco-pulper	20	0	15	**35**	25	0	15	**40**	0	0	**0**	50.5	Green		IPC-III
30	Manufacturing of **Candy**	10	0	15	**25**	0	0	0	**0**	0	0	**0**	25	Green		IPC-V
31	**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	White		IPC-V
32	Manufacturing of 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		IPC-V
33	Manufacturing of **Ceramic Colour** by mixing & blending only (not using boiler and wastewater recycling process)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
34.0	**CHILLING** PLANT, COLD STORAGE AND ICE-MAKING															
34.1	Chilling plant	20	15	15	**50**	0	0	0	**0**	0	0	**0**	50	Green		IPC-IV
34.2	Cold storage	0	15	15	**30**	0	0	0	**0**	0	0	**0**	30	Green		IPC-V
34.3	Ice Making	0	20	15	**35**	0	0	0	**0**	0	0	**0**	35	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
35	Decoration of **Ceramic Cup**s and plates by electric furnace	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
36	Ready mix **Cement Concrete**	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green		IPC-V
37	**CO_2** recovery plant	0	0	0	**0**	0	0	0	**0**	20	10	**30**	30	Green	Exhausted molecular sieves are generated as hazardous waste.	IPC-V
38	Assembly of air **Coolers/Conditioners**, repairing and servicing	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
39	**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	White		IPC-V
40	Standalone manufacturing of **Concrete** admixtures up to 1000 MT per Month capacity by physical mixing (without boiler and reactor and no generation of wastewater)	0	0	0	**0**	0	0	0	**0**	10	10	**20**	20	White	The sector may become green category if it generates wastewater. The unit needs to be re-classified as per the methodology in case the capacity exceeds 1000 MT per Month.	IPC-V
41	Used **Cooking** oil (UCO) collection centers	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
~D~																
42.0	**DYES, DYE** INTERMEDIATES AND PIGMENT PRODUCTIONS															
42.1	Dyes, Dye Intermediates and Pigments produced by chemical synthesis	35	30	25	**90**	30	20	25	**75**	30	20	**50**	96.3	Red		IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
42.2	Natural Dye and Pigments requiring acidic/ alkaline/ solvent extraction	30	30	20	**80**	25	20	25	**70**	20	10	**30**	90	Red		IPC-I
42.3	Natural Dye and Pigments not require acidic/ alkaline/ solvent extraction	30	20	20	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-I
43.0	SYNTHETIC **DETERGENT** AND SOAPS															
43.1	Synthetic detergents and soaps (wastewater generation ≥ 100 KLD)	20	20	30	**70**	25	0	25	**50**	25	10	**35**	82.8	Red		IPC-I
43.2	Synthetic detergents and soaps (wastewater generation < 100 KLD)	20	20	25	**65**	25	0	25	**50**	25	10	**35**	79.9	Orange		IPC-I
43.3	Synthetic detergents and soaps (only formulation)	0	0	0	**0**	25	0	25	**50**	0	0	**0**	50	Green		IPC-I
43.4	Soap manufacturing (handmade -without steam boiling / boiler)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
DISTILLERIES AND FERMENTATION SECTORS																
44.0	**DISTILLERIES** AND FERMENTATION INDUSTRIES															
44.1	Distillery (Molasses based)	35	25	35	**95**	25	25	35	**85**	0	0	**0**	97.1	Red		IPC-III
44.2	Distillery (Grain based)	35	25	30	**90**	25	25	25	**75**	0	0	**0**	93.8	Red		IPC-III
44.3	Distillery (Grain based) with Distiller's Dried Grains with Soluble (DDGS) as by-product	25	25	20	**70**	25	25	25	**75**	0	0	**0**	83.8	Red		IPC-III
44.4	Standalone yeast manufacturing units	35	25	35	**95**	25	20	25	**70**	0	0	**0**	96.8	Red		IPC-III
44.5	Breweries and malteries industry (with fermentation)-Wastewater generation ≥ 100 KLD	30	15	30	**75**	25	0	25	**50**	0	0	**0**	81.3	Red		IPC-III
44.6	Breweries and malteries industry (with fermentation)-Wastewater generation < 100 KLD	30	15	25	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
44.7	Potable alcohol by blending, bottling of alcohol products	20	0	25	**45**	0	0	0	**0**	0	0	**0**	45	Green		IPC-III
45	**Diesel** pump repairing and servicing (complete mechanical dry process)	0	0	0	**0**	0	0	0	**0**	10	10	**20**	20	White		IPC-V
~E~																
46	Manufacturing of **Explosives**, detonators, fuses, etc.	25	30	15	**70**	0	30	0	**30**	30	10	**40**	80.5	Red	Explosives manufacture contribute to release of hazardous pollutants, including generation of other toxic chemicals. Accident/safety hazard is also associated with such sector during manufacturing and usages.	IPC-I
47	Manufacturing of coated **Electrode**	0	15	15	**30**	0	25	0	**25**	0	0	**0**	38.8	Green	Process involves preparation of core wire / rod, preparation of dry mix, preparation of wet mix, application of coating by extrusion, baking of coated electrodes.	IPC-V
48	**Emery** powder (fine dust of sand) manufacturing	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green	Fugitive emissions from grinding operations.	IPC-V
49	**Electric** lamp (bulb) and CFL manufacturing by assembling only	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
50	**Electrical** and electronic item assembling (completely dry process)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
51	**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	White		IPC-V
								~F~								
52.0	**FIBRE** GLASS (FIBRE REINFORCED PLASTIC) PRODUCTION															
52.1	Fibre glass (containing lead) production and processing (excluding moulding)	0	0	0	**0**	35	0	25	**60**	25	20	**45**	69	Orange		IPC-V
52.2	Fibre glass (without lead) production and processing (excluding moulding)	0	0	0	**0**	30	0	25	**55**	25	20	**45**	65.1	Orange	The use of styrene in most methods of fibre glass production causes hazardous air pollution that is harmful to breathe at excessive levels.	IPC-V
53	Manufacturing of **Firecrackers** including improved crackers/green crackers, etc.	0	0	0	**0**	35	30	0	**65**	30	10	**40**	72	Orange	Various hazardous chemicals are used in the manufacturing process. Accident/safety hazard is also associated with such sector during manufacturing and usages.	IPC-V
54.0	SYNTHETIC **FIBRES** MANUFACTURING															
54.1	Synthetic fibres-PSF & PFY, generated from petrochemical	35	30	35	**100**	30	25	35	**90**	30	20	**50**	100	Red		IPC-I
54.2	Synthetic fibres including rayon, tyre cord, viscose filament yarn/staple fibre, acrylic fibres	25	20	25	**70**	30	20	25	**75**	20	10	**30**	87.5	Red		IPC-I
54.3	Synthetic fibres including rayon, tyre cord, viscose filament yarn/staple fibre, acrylic fibres using cleaner/gaseous fuel	25	20	25	**70**	30	20	10	**60**	20	10	**30**	83.5	Red		IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
55.0	**FERTILIZERS** PRODUCTION															
55.1	Fertilizers (Urea)	10	30	35	**75**	30	30	20	**80**	20	30	**50**	92.5	Red		IPC-I
55.2	Fertilizers (Calcium Ammonium Nitrate/Ammonium Nitrate)	10	30	25	**65**	30	25	25	**80**	20	20	**40**	90.5	Red		IPC-I
55.3	Fertilizers (NPK)	10	30	25	**65**	30	25	25	**80**	20	20	**40**	90.5	Red		IPC-I
55.4	Fertilizers (Straight Phosphatic Fertilizers)	10	30	25	**65**	30	25	25	**80**	20	20	**40**	90.5	Red		IPC-I
55.5	Fertilizer (granulation /formulation / blending) generating wastewater through floor washings, cooling towers etc.	10	30	15	**55**	30	30	0	**60**	10	10	**20**	75	Orange		IPC-I
55.6	Fertilizer (granulation /formulation / blending) not generating wastewater	0	0	0	**0**	30	30	0	**60**	10	10	**20**	64	Orange		IPC-I
56.0	**FOOD** AND **FOOD PROCESSING** INCLUDING FRUITS AND VEGETABLE PROCESSING															
56.1	Wastewater generation ≥ 10 KLD	25	0	25	**50**	25	0	25	**50**	0	0	**0**	62.5	Orange		IPC-III
56.2	Wastewater generation < 10 KLD (without boiler)	25	0	15	**40**	0	0	0	**0**	0	0	**0**	40	Green		IPC-III
57.0	**FISH** FEED, POULTRY FEED AND CATTLE FEED															
57.1	Fish feed, poultry feed and cattle feed (with boiler)	0	20	15	**35**	25	25	25	**75**	0	0	**0**	79.4	Orange		IPC-V
57.2	Fish feed, poultry feed and cattle feed (without boiler)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
58	**Fish** processing and packing (excluding chilling of fishes)	25	25	20	**70**	0	20	0	**20**	0	0	**0**	73	Orange		IPC-IV
59.0	MANUFACTURING OF MODULAR WOODEN **FURNITURE**															

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
59.1	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	10	**60**	0	0	**0**	60	Orange		IPC-V
59.2	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	Green		IPC-V
60.0	CARPENTRY & WOODEN **FURNITURE** MANUFACTURING															
60.1	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	Green		IPC-V
60.2	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	White		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
61	**Foam** manufacturing	0	0	0	**0**	35	0	0	**35**	20	10	**30**	44.8	Green	Emissions of VOCs and HAPs. Raw materials are polyurethane, latex etc.	IPC-V
62	**Flour** mills (dry process)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green	Separate classification for domestic flour mills may not require.	IPC-V
63.0	STEEL **FURNITURE** INDUSTRY															
63.1	Steel furniture with spray painting	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green	Obnoxious gases from welding.	IPC-V
63.2	Steel furniture without spray painting	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	~G~															
64.0	MANUFACTURING OF **GLUE** AND **GELATIN**															
64.1	Manufacturing of glue and gelatin using coal/liquid fuel	25	20	15	**60**	25	20	25	**70**	10	10	**20**	82	Red		IPC-I
64.2	Manufacturing of glue and gelatin by using biomass/cleaner fuel	25	20	15	**60**	25	20	15	**60**	10	10	**20**	76	Orange		IPC-I
65.0	MANUFACTURING OF **GLASS** (INCLUDING PRINTING OR ETCHING OF **GLASS** SHEET USING HYDROFLUORIC ACID)															
65.1	Manufacturing of glass (Oil/coal fired)	0	15	15	**30**	25	25	25	**75**	0	0	**0**	78.8	Orange		IPC-V
65.2	Manufacturing of glass (gas fired)	0	15	15	**30**	25	25	10	**60**	0	0	**0**	66	Orange		IPC-V
66	Producer **Gas** plant using conventional coal **Gasification**	20	25	15	**60**	25	0	25	**50**	30	10	**40**	78	Orange		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
67.0	COMPRESSED **BIOGAS** (CBG)/BIO-CNG PLANTS															
67.1	CBG plants based on Municipal Solid Waste (MSW) as feed	30	25	25	**80**	0	20	0	**20**	0	0	**0**	82	Red		UPC-II
67.2	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	Red		IPC-III
67.3	CBG plants based on crop residue (paddy straw /wheat straw /corn sweet sorghum/ Napier grass, etc.) as feed	30	25	20	**75**	0	20	0	**20**	0	0	**0**	77.5	Orange		IPC-III
67.4	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		IPC-III
67.5	CBG plants 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	White	CBG plants producing FOM & LFOM as by-products in conformity with requirements of Gazette Notification No. 2051 dated 14.07.2020 & No. 1972 dated 01.06.2021, respectively, and utilizing entire FOM & LFOM as a fertilizer or manure on land and also not discharging any waste-water, to be considered under White category, subject to verification by SPCB on case-to-case basis.	IPC-III
68.0	STANDALONE PRODUCTION OF **HYDROGEN** AND/OR **AMMONIA** (WITHOUT CAPTIVE POWER PLANT USING FOSSIL FUEL)															

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
68.1	Integrated unit for production of Ammonia through Hydrogen generated by pyrolysis/gasification	20	25	20	**65**	20	25	25	**70**	30	20	**50**	87.3	Red	i. Pyrolysis of biomass will generate syn gas and other condensable gases having hydrocarbons and other impurities. ii. Purification of gas will generate wastewater having high organic content and tarry residue as hazardous waste. iii. The process will generate fugitive emissions and due to pyrolysis operation.	IPC-I
68.2	Integrated unit for production of ammonia through Hydrogen generated by electrolysis using renewable energy (capacity ≥ 15 TPD)	10	25	35	**70**	0	20	0	**20**	30	20	**50**	80.5	Red	i. Ammonia manufacturing process (Haber process) and associated safety hazards remain same as per the chemical properties of ammonia. ii. Wastewater generation due to the production of hydrogen through electrolysis and condensation of ammonia, other scrubbed liquid etc. iii.Generation of ETP sludge, exhausted membranes, molecular sieves, spent catalysts, etc. as hazardous waste.	IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
68.3	Integrated unit for production of Ammonia through hydrogen generated by electrolysis using renewable energy (Capacity < 15 TPD)	10	25	20	**55**	0	20	0	**20**	30	10	**40**	68.5	Orange	i. Ammonia manufacturing process (Haber process) and associated safety hazards remains same as per the chemical properties of ammonia. ii. Wastewater generation due to production of hydrogen through electrolysis and condensation of ammonia, other scrubbed liquid etc. iii.Generation of ETP sludge, exhausted membranes, molecular sieves, spent catalysts, etc. as hazardous waste.	IPC-I
68.4	Hydrogen production through pyrolysis/gasification	20	25	20	**65**	20	25	25	**70**	30	10	**40**	85.8	Red	i. Pyrolysis of biomass will generate syn gas and other condensable gases having hydrocarbons and other impurities. ii. Purification of gas will generate wastewater having high organic content and tarry residue as hazardous waste. iii.The process will generate fugitive emissions and due to pyrolysis operation.	IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
68.5	Hydrogen production through electrolysis using raw/seawater and renewable energy (capacity ≥ 2.5 TPD)	0	20	35	**55**	0	0	0	**0**	30	10	**40**	64.0	Orange	i. Type of electrolysers may include Alkaline Water Electrolyser (AWE), Proton Exchange Membrane (PEM), Solid Oxide Electrolyser Cell (SOEC) and Anion Exchange Membrane (AEM), etc. ii. Generation of DM reject, cooling tower blowdown, draining of alkaline/electrolyser water during maintenance, etc. as wastewater. iii. Generation of ETP sludge, exhausted membranes, molecular sieves, spent catalysts, etc. as hazardous waste.	IPC-I
68.6	Hydrogen production through electrolysis using raw/sea water and renewable energy (capacity < 2.5 TPD)	0	20	20	**40**	0	0	0	**0**	30	10	**40**	52.0	Green	i. Type of electrolysers may include Alkaline Water Electrolyser (AWE), Proton Exchange Membrane (PEM), Solid Oxide Electrolyser Cell (SOEC) and Anion Exchange Membrane (AEM), etc. ii. Generation of DM reject, cooling tower blowdown, draining of alkaline/electrolyser water during maintenance, etc. as wastewater. iii. Generation of ETP sludge, exhausted membranes, molecular sieves, spent catalysts, etc. as hazardous waste.	IPC-I
68.7	Hydrogen production through electrolysis (using	0	0	0	**0**	0	0	0	**0**	0	10	**10**	10.0	White	i. DM water as feed water for electrolyser and cooling/chilling	IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
	renewable energy) on BOO/BOOT/BOT, mode etc., located in the premises of end user industry and directly using de-mineralized water & other utilities (cooling tower, ETP, etc.) sourced from end user industry														water requirement to be met by the end user industry. ii. Wastewater and other waste generated during O&M shall also be managed by the end user industry.	
69	**Glue** from starch (physical mixing) with Gas/ electrically operated oven /boiler.	0	0	0	**0**	25	0	10	**35**	0	0	**0**	35	Green		IPC-V
70	**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	Green		IPC-V
71	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	White		IPC-V
72	**Glass** and ampules and vials making from **Glass** tubes	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
73	**Ground** nut decorticating	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
74	**Medical Oxygen**	0	0	0	**0**	0	0	0	**0**	10	10	**20**	20	White	The sector may become green category if it generates wastewater	IPC-V
	~H~															
75.0	**HOT** MIX PLANTS															
75.1	Hot mix plants using oil as fuel	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-V
75.2	Hot mix plants using gaseous as fuel	0	0	0	**0**	25	25	10	**60**	0	0	**0**	60	Orange		IPC-V
76	**Hazardous** waste pre-processing/processing facility including spent acid processing, spent solvent recovery, etc.	25	30	15	**70**	25	25	15	**65**	30	20	**50**	87.3	Red		WM-II
77	**Handloom**/ carpet weaving (without dying and bleaching operation)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	~I~															
78	**Ice** cream manufacturing units	25	25	20	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-IV
79	Printing **Ink** Manufacturing	20	30	15	**65**	0	20	10	**30**	30	10	**40**	77.3	Orange	In the process pigments, binders and solvents are used. VOCs are generated.	IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
80	Manufacturing of scientific and mathematical **Instrument** (assembling only)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
~J~																
81.0	**JUTE** PROCESSING															
81.1	Jute processing (with dyeing / with boiler)	25	20	25	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-III
81.2	Jute processing (without dyeing / without boiler)	20	0	20	**40**	0	0	0	**0**	0	0	**0**	40	Green		IPC-III
81.3	Manufacturing of products from jute (without dyeing/ without boiler)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-III
~L~																
82	**Lime** manufacturing (using lime kiln)	0	0	0	**0**	25	0	30	**55**	0	0	**0**	55	Orange		IPC-V
83	**Leather** foot wear and **Leather** products (excluding tanning and hide processing)	0	0	0	**0**	0	20	0	**20**	0	0	**0**	20	White	Fumes due to use of adhesives / gums.	IPC-IV
84	Manufacturing of optical **Lenses** (using electrical furnace)	0	20	15	**35**	0	0	0	**0**	0	0	**0**	35	Green		IPC-V
85	**Leather** cutting and stitching (more than 10 machine and using motor)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
~M~																

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
86	**Mobile** towers using genset(s)	0	0	0	**0**	25	0	25	**50**	0	0	**0**	50	Green	i. The used oil/waste oil generated during repair and maintenance need to be disposed through authorized hazardous waste recycler by service provider/OEM. ii. Order dated 24.08.2017 in the related matter with OA No. 83(THC) OF 2012 (Bharti Infratel Ltd.) may be referred for issuance of composite consent in case of mobile towers.	UPC-I
87.0	**MILK** PROCESSES AND DAIRY PRODUCTS															
87.1	Milk processes and dairy products (integrated project)	30	25	30	**85**	25	20	30	**75**	0	0	**0**	90.6	Red		IPC-IV
87.2	Dairy and dairy products (Small scale units), using coal/biomass as fuel (Wastewater generation ≥ 100 KLD)	25	25	30	**80**	25	0	25	**50**	0	0	**0**	85	Red		IPC-IV
87.3	Dairy and dairy products (Small scale units), using coal/biomass as fuel (Wastewater generation < 100 KLD)	25	25	20	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-IV
87.4	Dairy and dairy products, (Small scale units), using PNG as fuel	25	25	20	**70**	0	0	10	**10**	0	0	**0**	71.5	Orange		IPC-IV
88.0	**MINING** AND ORE BENEFICIATION															
88.1	Open-cast coal mining	10	25	35	**70**	25	30	35	**90**	10	70	**80**	97.5	Red		IPC-II
88.2	Underground coal mining	0	25	35	**60**	25	30	35	**90**	0	0	**0**	93	Red		IPC-II
88.3	Mining of major minerals and ore beneficiation	20	30	35	**85**	25	30	35	**90**	25	70	**95**	99.4	Red	Includes captive limestone mining.	IPC-II

500

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
88.4	Mining of minor minerals (except Sand/riverbed material mining)	10	0	20	**30**	25	25	25	**75**	0	0	**0**	78.8	Orange		IPC-II
88.5	Grinding, processing, and screening of minor minerals	0	0	0	**0**	25	30	0	**55**	0	0	**0**	55	Orange		IPC-II
89	Manufacturing of **Mirror** from sheet glass	0	0	0	**0**	30	20	0	**50**	25	10	**35**	58.8	Orange		IPC-V
90	**Mineral** processing, industries involving ore sintering, pelletisating, grinding & pulverization	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-II
91	**Malteries** (without fermentation)	30	15	25	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-III
92	Manufacturing of **Mosquito** repellent & coil	0	0	0	**0**	30	0	25	**55**	0	0	**0**	55	Orange	Toxic fumes may be released.	IPC-V
93	Organic **Manure** (physical mixing)	0	0	0	**0**	0	20	0	**20**	0	0	**0**	20	White		IPC-V
94	Packing of powdered **Milk**	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
METALS AND METALLURGICAL SECTORS																
95.0	**IRON & STEEL** (PRIMARY PROCESSING FROM ORE, INTEGRATED STEEL PLANTS AND SPONGE IRON UNITS)															
95.1	Integrated iron and steel plants	25	30	35	**90**	25	30	35	**90**	25	50	**75**	98.3	Red		IPC-II
95.2	Stand-alone sintering/palletisation	0	0	0	**0**	25	30	35	**90**	0	0	**0**	90	Red		IPC-II
95.3	Sponge iron with CPP (Captive Power Plant)	20	25	35	**80**	25	30	35	**90**	10	50	**60**	97	Red		IPC-II
95.4	Sponge iron without CPP	20	15	30	**65**	25	30	35	**90**	10	50	**60**	96.3	Red		IPC-II

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
95.5	Stand-alone coke oven gas plants	25	30	30	**85**	25	30	35	**90**	25	50	**75**	98	Red		IPC-II
96.0	**ALUMINIUM** PROCESSING															
96.1	Aluminium Refinery	10	30	35	**75**	25	25	35	**85**	10	70	**80**	96.6	Red		IPC-II
96.2	Aluminium Smelter	10	30	35	**75**	30	25	35	**90**	25	70	**95**	99.1	Red		IPC-II
97	**Copper Smelter**	10	30	35	**75**	30	25	35	**90**	10	70	**80**	97.8	Red		IPC-II
98	**Zinc smelter**	10	30	35	**75**	30	25	35	**90**	10	70	**80**	97.8	Red		IPC-II
99.0	**FERROUS AND NON-FERROUS METAL** SECONDARY PROCESSING/REPROCESSING UNITS INVOLVING DIFFERENT FURNACES THROUGH MELTING, REFINING, CASTING, ALLOY-MAKING															
99.1	All Ferrous and Non-ferrous metal secondary processing/reprocessing units involving different furnaces through melting, refining, casting, alloy-making (using coal/liquid fuels)	0	15	15	**30**	25	25	25	**75**	25	10	**35**	83.1	Red		IPC-V
99.2	Ferrous and Non-ferrous metal (excluding lead, nickel, and manganese) secondary processing/reprocessing units involving different furnaces through melting, refining, casting, alloy-making (using cleaner fuels/electricity)	0	15	15	**30**	25	25	10	**60**	10	10	**20**	70	Orange		IPC-V
100	Aluminium & copper extraction from scrap using an oil-fired furnace (dry process only)	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-V
101.0	INDUSTRY OR PROCESS INVOLVING **METAL** SURFACE TREATMENT OR PROCESS/HEAT TREATMENT															

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
101.1	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	25	0	**55**	25	30	**55**	88.8	Red		IPC-V
101.2	Plasma electrolytic polishing (electroplating)	25	30	15	**70**	30	25	0	**55**	0	0	**0**	78.3	Orange		IPC-V
101.3	Heat treatment using furnace (without cyaniding)	0	0	0	**0**	25	0	25	**50**	0	0	**0**	50	Green		IPC-V
101.4	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		IPC-V
102.0	FORGING OF **FERROUS AND NON- FERROUS METALS**															
102.1	Forging of ferrous and non-ferrous metals using liquid fuel	0	0	0	**0**	25	25	20	**70**	30	10	**40**	76	Orange		IPC-V
102.2	Forging of ferrous and non-ferrous metals using gaseous fuel	0	0	0	**0**	25	25	10	**60**	30	10	**40**	68	Orange		IPC-V
102.3	Forging of ferrous and non-ferrous metals using electricity	0	0	0	**0**	25	25	0	**50**	30	10	**40**	60	Orange		IPC-V
102.4	Forging of ferrous and non-ferrous metals (cold forging, without any heat treatment)	0	0	0	**0**	0	0	0	**0**	30	10	**40**	40	Green		IPC-V
103.0	ROLLING **MILLS**															
103.1	Rolling and pickling	25	30	15	**70**	25	30	25	**80**	25	10	**35**	90.5	Red		IPC-V
103.2	Rolling mills (oil and coal fired)	0	15	15	**30**	25	0	25	**50**	0	0	**0**	57.5	Orange		IPC-V
103.3	Rolling mills (gas fired)	0	15	15	**30**	25	0	10	**35**	0	0	**0**	44.8	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
103.4	Cold rolling mill (without heat treatment)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
104.0	**FOUNDRY OPERATIONS**															
104.1	Cupola furnace	**0**	**0**	**0**	**0**	25	25	25	**75**	10	10	20	77.5	Orange		IPC-V
104.2	Induction furnace/arc furnace	0	0	0	**0**	25	30	0	**55**	10	10	**20**	59.5	Orange		IPC-V
105.0	**WIRE** DRAWING AND **WIRE** NETTING															
105.1	Wire drawing and wire netting (with pickling)	25	30	15	**70**	30	25	0	**55**	10	10	**20**	81.3	Red		IPC-V
105.2	Wire drawing and wire netting (without pickling and with heat treatment)	0	0	0	**0**	25	0	20	**45**	10	10	**20**	50.5	Green		IPC-V
105.3	Wire drawing and wire netting (without pickling and without heat treatment)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
106	**Die-casting** /extrusion process only	0	0	0	**0**	25	0	25	**50**	0	0	**0**	50	Green		IPC-V
107	Manufacturing of aluminium utensils from aluminium circles pressing/ Brass and bell **Metal** utensils manufacturing from circles (dry mechanical operation only)	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green	Emissions during buffing	IPC-V
108	Manufacturing of **Metal** caps containers etc	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V

~N~

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
109	Formulation/palletisation of camphor tablets, **Naphthalene** balls from camphor/ naphthalene powders.	0	0	0	**0**	35	20	0	**55**	0	0	**0**	55	Orange	Emissions of benzene, hydrocarbons etc. are expected.	IPC-V
110	Organic and inorganic **Nutrients** by physical mixing (without boiler and without any reactor)	0	0	0	**0**	0	0	0	**0**	10	10	**20**	20	White	The sector may become green category if it generates wastewater	IPC-V
111.0	**ORGANIC** CHEMICALS INCLUDING HALOGENATED HYDROCARBONS															
111.1	Organic chemicals including halogenated hydrocarbons (using solid/liquid fuel)	30	30	25	**85**	35	0	30	**65**	30	20	**50**	93.6	Red		IPC-I
111.2	Organic chemicals including halogenated hydrocarbons (using cleaner fuel)	30	30	25	**85**	35	0	10	**45**	30	20	**50**	92.1	Red		IPC-I
112	**Oil** and gas extraction (offshore & onshore extraction through drilling wells), Coal Bed Methane (CBM) drilling and shale gas, including group gathering stations (GGS), etc.	25	30	15	**70**	20	25	0	**45**	30	10	**40**	82.8	Red		IPC-I
113.0	EDIBLE **OIL** MILLS															
113.1	Vegetable oil manufacturing including solvent extraction and refinery /hydrogenated oils	25	25	20	**70**	25	0	20	**45**	0	0	**0**	76.8	Orange		IPC-III
113.2	Oil mills Ghani and extraction without boiler (no refining/ hydrogenation)	10	25	15	**50**	0	0	0	**0**	0	0	**0**	50	Green		IPC-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
	~P~															
114.0	**POWER** GENERATION PLANTS															
114.1	Power plants based on coal	0	15	35	**50**	35	25	35	**95**	10	70	**80**	98.3	Red		IPC-II
114.2	Power plants based on liquid fuels	0	15	35	**50**	25	25	35	**85**	30	20	**50**	92.5	Red		IPC-II
114.3	Biomass-based power plants	0	15	30	**45**	25	25	25	**75**	10	50	**60**	88.1	Red		IPC-II
114.4	Nuclear energy-based power plants (> 220 MW)	0	30	35	**65**	25	0	25	**50**	25	20	**45**	81.6	Red	Overall safety aspects related with radioactivity is regulated by Atomic Energy Regulatory Board (AERB).	IPC-II
114.5	Nuclear energy-based power plants (up to 220 MW)	0	30	35	**65**	25	0	25	**50**	25	10	**35**	79.9	Orange	Overall safety aspects related with radioactivity is regulated by Atomic Energy Regulatory Board (AERB).	IPC-II
114.6	Gas-based power plants	0	15	35	**50**	25	0	20	**45**	0	0	**0**	61.3	Orange		IPC-II
115.0	**PULP & PAPER** (AGRO & WOOD)															
115.1	Manufacturing of bleached chemical pulp, papers, and paperboards	30	30	35	**95**	30	0	35	**65**	30	30	**60**	98.1	Red		IPC-III
115.2	Unbleached or Totally Chlorine Free (TCF) bleaching for manufacturing of chemical pulp, papers, and paperboards	30	20	35	**85**	30	0	35	**65**	10	30	**40**	92.9	Red		IPC-III
115.3	Bleached grades of chemical pulp, paper, and paperboard having Totally Chlorine Free (TCF) bleaching	30	20	35	**85**	30	0	35	**65**	10	30	**40**	92.9	Red		IPC-III
116.0	**PULP AND PAPER** (RECYCLED FIBRE/WASTE PAPER BASED)															
116.1	Pulp & Paper (With bleaching)	30	15	35	**80**	25	0	25	**50**	10	30	**40**	89	Red		IPC-III
116.2	Pulp & Paper (Without bleaching, capacity ≥15 TPD)	25	15	35	**75**	25	0	25	**50**	10	30	**40**	86.3	Red		IPC-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
116.3	Pulp & Paper (Without bleaching; plant capacity <15 TPD)	25	15	20	**60**	25	0	25	**50**	10	10	**20**	74	Orange		IPC-III
117.0	MANUFACTURING OF **PAINTS**, VARNISHES															
117.1	Manufacturing of solvent-based paints/varnish	35	30	20	**85**	25	20	25	**70**	25	30	**55**	94.4	Red	The process may cause considerable emissions of volatile organic compounds (VOC)	IPC-I
117.2	Manufacturing of water-based paints	25	30	20	**75**	25	20	25	**70**	20	20	**40**	88.8	Red		IPC-I
117.3	Manufacturing of powder coatings	0	15	15	**30**	20	30	25	**75**	10	20	**30**	82.5	Red		IPC-I
117.4	Manufacturing of paint and varnishes (only blending and mixing)	20	30	15	**65**	0	20	0	**20**	30	20	**50**	77.3	Orange		IPC-I
118.0	**PESTICIDE** INDUSTRIES															
118.1	Pesticide technical (organic chemicals based)	30	30	20	**80**	30	25	25	**80**	30	30	**60**	94	Red		IPC-I
118.2	Pesticide technical (inorganic chemicals based like Zinc Phosphide and Aluminium Phosphide)	20	30	20	**70**	30	25	25	**80**	20	20	**40**	91	Red		IPC-I
118.3	Pesticide formulation industries (Liquid formulation only) having boiler/thermopack	20	30	20	**70**	25	20	25	**70**	20	20	**40**	86.5	Red		IPC-I
118.4	Pesticide formulation industries (Liquid formulation only) without having boiler/thermopack	20	30	20	**70**	0	20	0	**20**	20	20	**40**	79	Orange	Considering that dry formulation industries can also generate effluent because of equipment cleaning, the water pollution score is given	IPC-I
118.5	Pesticide formulation industries (having both liquid and dry formulation or dry formulation only) without having boiler / thermopack	20	30	20	**70**	30	20	0	**50**	20	20	**40**	83.5	Red	Considering that dry formulation industries can also generate effluent because of equipment cleaning, the water pollution score is given	IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
118.6	Pesticide formulation industries (having both liquid and dry formulation or dry formulation only) having boiler / thermopack	20	30	20	**70**	30	20	25	**75**	20	20	**40**	88.8	Red	Considering that dry formulation industries can also generate effluent because of equipment cleaning, the water pollution score is given	IPC-I
119	**Photographic** film and its chemicals	20	20	15	**55**	30	0	25	**55**	20	10	**30**	74.1	Orange	Silver salts and other chemicals are used	IPC-I
120	**Petroleum** oil refineries	35	30	30	**95**	35	20	35	**90**	20	20	**40**	98.3	Red		IPC-I
121.0	**PETROCHEMICALS**															
121.1	Petrochemicals (Naphtha cracker.)	30	30	30	**90**	35	25	35	**95**	30	20	**50**	98.5	Red		IPC-I
121.2	Petrochemicals (Gas cracker)	30	30	30	**90**	35	25	25	**85**	30	20	**50**	96.8	Red		IPC-I
121.3	Petrochemicals (without cracker)	25	30	20	**75**	25	25	15	**65**	20	20	**40**	88.1	Red		IPC-I
121.4	Petrochemicals (without cracker and using cleaner/gaseous fuel)	25	30	20	**75**	25	25	10	**60**	20	20	**40**	87.5	Red		IPC-I
122.0	MANUFACTURING OF LUBRICATING OILS, GREASE AND **PETROLEUM**-BASED PRODUCTS															
122.1	Manufacturing of lubricating oils, grease, and petroleum-based products	20	15	15	**50**	25	20	10	**55**	30	10	**40**	75.3	Orange	Such unit uses distillation columns/ boilers etc	IPC-I
122.2	Manufacturing of lubricating oils, grease, and petroleum-based products (only blending)	0	0	0	**0**	0	25	0	**25**	10	10	**20**	32.5	Green		IPC-I
123.0	**PHARMACEUTICAL** INDUSTRY															
123.1	Pharmaceuticals manufacturing	35	30	30	**95**	35	25	35	**95**	30	20	**50**	98.6	Red		IPC-I
123.2	Pharmaceuticals manufacturing using cleaner/gaseous fuel	35	30	30	**95**	35	25	10	**70**	30	20	**50**	98	Red		IPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
123.3	Pharmaceuticals (Formulation)	20	15	15	**50**	25	0	25	**50**	30	10	**40**	72.5	Orange		IPC-I
123.4	Pharmaceuticals (Formulation) using cleaner/gaseous fuel	20	15	15	**50**	25	0	10	**35**	30	10	**40**	68.8	Orange		IPC-I
123.5	Vaccine manufacturing	20	15	15	**50**	25	0	35	**60**	30	10	**40**	78	Orange		IPC-I
123.6	Vaccine manufacturing using cleaner/gaseous fuel	20	15	15	**50**	25	0	10	**35**	30	10	**40**	68.8	Orange		IPC-I
123.7	Pharmaceutical R&D facilities	20	15	15	**50**	25	0	25	**50**	30	10	**40**	72.5	Orange		IPC-I
123.8	Ayurvedic or Unani medicines manufacturing	20	15	15	**50**	25	0	25	**50**	30	10	**40**	72.5	Orange		IPC-I
123.9	Ayurvedic or unani medicines manufacturing using cleaner fuel	20	15	15	**50**	25	0	10	**35**	0	0	**0**	58.8	Orange		IPC-I
123.10	Ayurvedic or unani medicines manufacturing (Without boiler)	20	15	15	**50**	0	0	0	**0**	0	0	**0**	50	Green		IPC-I
124	Digital **Printing** on flex /vinyl, PVC etc. (more than 5 machines)	0	0	0	**0**	20	0	0	**20**	30	10	**40**	46	Green		IPC-V
125	Spray **Painting**, Paint baking, Paint shipping	0	0	0	**0**	0	25	0	**25**	30	10	**40**	47.5	Green	Emissions in the form of VOCs and HC are generated.	IPC-V
126	**Plywood**/board manufacturing (including Veneer and laminate) with biomass fired boiler / thermic fluid heater (without resin plant)	20	20	15	**55**	25	20	25	**70**	0	0	**0**	78.3	Orange		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
127	**Printing** press (newspaper, books, magazines, etc./ Gravure printing	20	0	15	**35**	20	0	0	**20**	30	10	**40**	56.5	Orange		IPC-V
128	Manufacturing of bi-axially oriented **Polypropylene** (PP) film along with metalizing operations	0	15	15	**30**	0	0	0	**0**	0	0	**0**	30	Green	Mainly extrusion process involving	IPC-V
129	**Pulse**/Dal Mills	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green		IPC-V
130	Insulation and other coated **Papers** (excluding paper or pipe manufacturing)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
131	**Packaging** materials manufacturing from non-asbestos fibre, vegetable fibre yarn	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
132	**Polythene** and plastic processed products manufacturing (virgin/compostable plastic)	0	15	15	**30**	0	20	0	**20**	0	0	**0**	37	Green		IPC-V
133	**Poultry**, piggery, and hatchery	0	0	0	**0**	30	20	0	**50**	0	0	**0**	50	Green		IPC-V
134	**Puffed** rice (muri) (using gas)	0	0	0	**0**	25	0	10	**35**	0	0	**0**	35	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
135	Biscuits trays etc from rolled **PVC** sheet (using automatic vacuum forming machines)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
136	Fountain **Pen** manufacturing by assembling only	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
137	Glass **Putty** and sealant (by mixing with machine only)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
138	Manufacturing of **Paper** Pins, U-clips, etc.	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
139	Solar **Power** generation through solar photovoltaic cell and wind power	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	~R~															
140	Synthetic **Rubber** excluding molding	20	15	15	**50**	20	0	25	**45**	20	10	**30**	68.8	Orange	Most synthetic rubber is created from two materials, styrene, and butadiene.	IPC-I
141.0	**REFRACTORIES**															
141.1	Refractories based on coal/liquid fuel (fuel consumption: 12 TPD and above)	0	0	0	**0**	25	25	30	**80**	0	0	**0**	80	Red		IPC-V
141.2	Refractories based on coal/liquid fuel (fuel consumption: less than 12 TPD)	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75	Orange		IPC-V
141.3	Refractories based on cleaner fuels	0	0	0	**0**	25	25	10	**60**	0	0	**0**	60	Orange		IPC-V
142.0	**RUBBER** PRODUCTS MANUFACTURING															

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
142.1	Tyre and tube manufacturing	0	15	15	**30**	25	25	25	**75**	0	0	**0**	78.8	Orange		IPC-V
142.2	Tyres and tubes vulcanization/ hot retreading	0	15	15	**30**	25	20	10	**55**	0	0	**0**	61.8	Orange	Emissions of PM, VOCs and obnoxious odour are generated.	IPC-V
142.3	Rubber goods industry (with solid fuel/oil-based boiler)	0	15	15	**30**	25	0	25	**50**	0	0	**0**	57.5	Orange		IPC-V
142.4	Rubber goods industry (with gas-based boiler)	0	15	15	**30**	25	0	10	**35**	0	0	**0**	44.8	Green		IPC-V
143.0	SYNTHETIC **RESINS**															
143.1	Synthetic resins manufacturing	20	15	15	**50**	25	20	25	**70**	20	10	**30**	82	Red		IPC-I
143.2	Synthetic resins manufacturing (using only gaseous fuel)	20	15	15	**50**	25	20	10	**55**	20	10	**30**	73	Orange		IPC-I
144	Blending of melamine **Resins** & different powder, additives by physical mixing, including phenolic resin (without boiler)	0	15	15	**30**	0	30	0	**30**	20	10	**30**	51	Green		IPC-I
145.0	**RICE** MILLS															
145.1	Parboiled rice mill (with soaking and steam/drier)	25	0	20	**45**	25	0	25	**50**	0	0	**0**	61.3	Orange		IPC-V
145.2	Raw rice mill (Without soaking and steam/drier)/ hullers)	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green		IPC-V
146	**Repairing** of electric motors and generators (dry mechanical process)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
147	Manufacturing of plastic or cotton **Rope**	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
148	Tyre **Retraders**	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		WM-III
RECYCLING AND REPROCESSING SECTOR																
149.0	INDUSTRIES ENGAGED IN **RECYCLING/REPROCESSING/ RECOVERY/REUSE** OF HAZARDOUS WASTE UNDER SCHEDULE IV OF H&OW(M & TBM) RULES, 2016 - ITEMS, NAMELY, SPENT CATALYSTS CONTAINING NICKEL, CADMIUM, ZINC, COPPER, ARSENIC, VANADIUM, AND COBALT, INCLUDING DRY BATTERY (EXCEPT LEAD), AND CLEARED METAL CATALYST.															
149.1	Hydro & pyro metallurgy	0	30	15	**45**	35	25	25	**85**	25	10	**35**	91	Red		WM-II
149.2	Hydro & pyro metallurgy (using cleaner/gaseous fuels & without crushing of materials)	0	30	15	**45**	35	25	10	**70**	25	10	**35**	82	Red		WM-II
149.3	Pyro metallurgy (using coal/liquid fuels)	0	0	0	**0**	35	25	25	**85**	20	10	**30**	87.3	Red		WM-II
149.4	Pyro metallurgy (using cleaner/gaseous fuels)	0	0	0	**0**	35	25	10	**70**	20	10	**30**	74.5	Orange		WM-II
149.5	Hydro metallurgy	0	30	15	**45**	30	25	0	**55**	25	10	**35**	73	Orange		WM-II
150.0	E-WASTE DISMANTLING / **RECYCLING**															
150.1	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**	25	20	**45**	92	Red		WM-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
150.2	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**	25	10	**35**	73	Orange		WM-III
150.3	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**	25	10	**35**	43.1	Green		WM-III
150.4	E-waste refurbishing centres	0	0	0	**0**	0	25	0	**25**	25	10	**35**	43.1	Green		WM-III
151.0	INDUSTRIES ENGAGED IN **RECYCLING/REPROCESSING/ RECOVERY/REUSE** OF HAZARDOUS WASTE (Items as per Schedule IV of H&OW(M & TBM) Rules, 2016.)															
151.1	Lead Recycling (Lead Acid Batteries with Acids; Lead Scrap Recycling) Rotary Furnace/ Pit Furnace (Mandir/Canopy Bhatti)	0	30	20	**50**	35	30	25	**90**	20	20	**40**	94.5	Red	This also includes 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.”	WM-II

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
151.2	Lead Recycling (Drained Lead Acid Batteries; Lead Scrap Recycling) Rotary Furnace/Mandir Bhatti on Cleaner Fuel	0	30	15	**45**	35	30	10	**75**	20	10	**30**	84.4	Red	This also includes, 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."	WM-II
151.3	Isolated storages (as defined under Manufacture, Storage, and Import of Hazardous Chemicals Rules, 1989 as amended)	10	25	15	**50**	20	25	0	**45**	30	10	**40**	71.3	Orange		IPC-I
151.4	Paint and ink sludge / residues recycling	20	25	15	**60**	0	20	0	**20**	30	10	**40**	72	Orange		WM-II
151.5	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste, excluding lead, paint, and ink sludge	0	30	15	**45**	35	0	25	**60**	20	10	**30**	75	Orange	This includes 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.	WM-II

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
151.6	Refining of used oil by hydro-treating/using solvent extraction	10	25	25	**60**	25	0	25	**50**	20	20	**40**	78	Orange		WM-II
151.7	Refining of used oil by using thin film evaporation/vacuum distillation with clay treatment	10	25	15	**50**	25	0	15	**40**	20	10	**30**	67.5	Orange		WM-II
151.8	Recycling / reprocessing of waste oil	20	25	15	**60**	25	0	15	**40**	20	10	**30**	74	Orange		WM-II
152.0	**RECYCLING** OF PLASTIC WASTE															
152.1	Manufacturing of flakes/staple fibre/strip from the recycling of PET bottles	20	15	25	**60**	0	20	0	**20**	0	0	**0**	64	Orange		IPC-I
152.2	Plastic waste processing (manufacturing of flakes/granules)	20	15	15	**50**	0	20	0	**20**	0	0	**0**	55	Orange	Process using In-built heaters.Washwater and fugitive emission.	UPC-II
153.0	SCRAPING FACILITIES FOR **RECYCLING** END-OF-LIFE VEHICLES, WAGONS, AND COACHES															
153.1	Collection, Depollution and Dismantling Centers (Without shredding)	0	30	15	**45**	0	30	0	**30**	25	10	**35**	62.9	Orange		WM-II
153.2	Collection, Depollution, Dismantling and shredding Centers	0	30	15	**45**	0	30	0	**30**	25	10	**35**	62.9	Orange		WM-II
153.3	Common Shredders (Standalone)	0	0	0	**0**	0	30	0	**30**	25	10	**35**	44.8	Green		WM-II
153.4	Collection Centers (Without depollution, dismantling and shredding)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		WM-II
	~S~															
154	**Sugar** (excluding khandsari/jaggery)	30	25	35	**90**	25	0	25	**50**	30	10	**40**	94.5	Red	Generates large volume of wastewater.	IPC-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
155	**Ship** breaking industries	0	0	0	**0**	0	30	0	**30**	30	20	**50**	57.5	Orange	Ship breaking releases a large number of pollutants, including toxic waste, used/waste oil, poly-chlorinated biphenyls, and heavy metals.	WM-III
156	**Slaughterhouse** / **Slaughterhouse** (with rendering plant)/ integrated slaughtering unit, meat processing units, bone mill, processing of animal horns, hoofs and other body parts	30	25	30	**85**	25	20	25	**70**	0	0	**0**	90.3	Red		IPC-IV
157	Manufacturing of **Silica** gel	10	25	20	**55**	30	0	20	**50**	25	10	**35**	74.1	Orange		IPC-I
158	Manufacturing of Iodized **Salt** from Crude / Raw Salt	10	20	15	**45**	25	0	25	**50**	0	0	**0**	61.3	Orange	Process may involve boiling in evaporators (multiple effect evaporators), centrifuging, iodization, mixing, etc.	IPC-V
159	Manufacturing of **Starch** / Sago / Sorbitol	20	25	25	**70**	25	0	25	**50**	0	0	**0**	77.5	Orange		IPC-III
160	**Stone** crushers	0	0	0	**0**	25	30	0	**55**	0	0	**0**	55	Orange		IPC-V
161	**Stone** crushing/grinding/washing & screening of riverbed material(s)	10	0	25	**35**	25	30	0	**55**	0	0	**0**	62.9	Orange		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
162.0	MANUFACTURING OF **SURGICAL** AND MEDICAL PRODUCTS															
162.1	Manufacturing of **Surgical** and medical products	10	25	15	**50**	25	0	10	**35**	0	0	**0**	58.8	Orange		IPC-V
162.2	Surgical and medical products assembled only (with effluent-generating processes)	10	25	15	**50**	0	0	0	**0**	0	0	**0**	50	Green		IPC-V
162.3	Surgical and medical products assembled only (without effluent-generating processes)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
163.0	**SEMICONDUCTOR** MANUFACTURING INDUSTRIES															
163.1	Semiconductor fabs manufacturing	25	30	35	**90**	35	30	0	**65**	25	10	**35**	95	Red	i. Toxic wastewater is generated due to presence of Hydrofluoric acid (HF), Mixed Nitric HF ($HF+HNO_3$), Phosphoric acid, Sulphuric acid (H_2SO_4), Hydrogen Peroxide, Isopropyl alcohol (IPA) / Methanol (Methanol Only), Stripper EKC-265 /ACT N396 (ACT N396 Only), BHF – 63 U, Choline etchant, etc. ii. The air pollutants which are being emitted during the manufacturing process are SiH_4, PH_3, B_2H_6, HF, HBr, DCS, NF_3, SF_6, BCl_3, Cl_2, HCL, NH_3, $C2F_6$, CHF_3, CF_4, C_4F_8, C_2F_6 etc. iii. Process waste, used oil etc. are generated as hazardous waste.	WM-III
163.2	Display fabs manufacturing	25	30	35	**90**	25	30	0	**55**	25	10	**35**	94.5	Red		WM-III
163.3	Sensor fabs manufacturing/ Compound semiconductors/ silicon photonics	25	30	35	**90**	25	30	0	**55**	25	10	**35**	94.5	Red		WM-III
163.4	Semiconductor Assembly, Testing, Marking and Packaging Facility (ATMP)	0	0	0	**0**	0	25	0	**25**	25	10	**35**	43.1	Green		WM-III
164	**Saw** mills	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
165	**Spice** grinding	0	0	0	**0**	0	30	0	**30**	0	0	**0**	30	Green		IPC-V
166	Cutting, **Sizing** and polishing of marble, granite and other stones	10	0	20	**30**	0	30	0	**30**	0	0	**0**	40.5	Green		IPC-V
167	Manufacturing of **Solar** module/ non-conventional energy apparatus	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	~T~															
168.0	**TANNERIES**															
168.1	Tanneries (Raw to finish)	35	30	25	**90**	0	20	0	**20**	25	30	**55**	93.8	Red		IPC-IV
168.2	Tanneries (Raw to wet blue)	35	30	25	**90**	0	20	0	**20**	25	30	**55**	93.8	Red		IPC-IV
168.3	Tanneries (Wet blue to finish)	35	30	20	**85**	0	20	0	**20**	25	30	**55**	90.6	Red		IPC-IV
168.4	Vegetable tanning	20	25	25	**70**	0	20	0	**20**	20	10	**30**	77.5	Orange		IPC-IV
169.0	MANUFACTURING OF **TOOTH** POWDER, TOOTHPASTE, TALCUM POWDER AND OTHER COSMETIC ITEMS															
169.1	Manufacturing of toothpaste and other cosmetic items	20	25	20	**65**	25	0	25	**50**	0	0	**0**	73.8	Orange		IPC-V
169.2	Manufacturing of tooth powder, talcum powder	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
170.0	**THERMOMETER** MANUFACTURING															
170.1	Glass (mercury based) thermometer manufacturing	10	30	15	**55**	25	0	10	**35**	25	10	**35**	70.8	Orange	Process involves making of glass bulb, forming reservoir in the glass tube for fluid, inserting fluid, scale marking. Use of fuel to heat the glass tubes and hydrofluoric acid to seal the scaling. Small quantities of spent acids are generated.	IPC-V
170.2	Digital thermometer manufacturing	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
171	Manufacturing of **Teflon**-based products	10	0	15	**25**	25	25	25	**75**	0	0	**0**	78.1	Orange	Due to spraying applications, emissions (HC) are generated	IPC-V
172	**Thermocol** manufacturing (with boiler)	0	20	15	**35**	25	0	25	**50**	0	0	**0**	58.8	Orange		IPC-V
173.0	MANUFACTURING OF **TOBACCO** PRODUCTS INCLUDING CIGARETTES AND TOBACCO PROCESSES															
173.1	Manufacturing of tobacco products including cigarettes and tobacco processes (with boiler)	20	0	15	**35**	25	20	25	**70**	0	0	**0**	75.3	Orange		IPC-III
173.2	Manufacturing of tobacco products including cigarettes and tobacco processes (without boiler)	20	0	15	**35**	0	20	0	**20**	0	0	**0**	41.5	Green		IPC-III
174	**Transformer** repairing/ manufacturing (dry process only)	0	0	0	**0**	0	25	0	**25**	30	10	**40**	47.5	Green		IPC-V
175	**Tyre** Pyrolysis Oil Industries-Applicable for advanced batch automated process / continuous TPO units	10	0	15	**25**	25	25	25	**75**	0	0	**0**	78.1	Orange		WM-III
176	**Tamarind** powder manufacturing	10	15	15	**40**	25	0	10	**35**	0	0	**0**	50.5	Green	Dried tamarind fruits are cleaned, soaked, and boiled in steam jacketed kettle. Then pulp is extracted in pulper and dried in drum type drier.	IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
177.0	**TEA** PROCESSING AND BLENDING															
177.1	Tea processing (with boiler)	10	0	15	**25**	25	0	25	**50**	0	0	**0**	56.3	Orange		IPC-III
177.2	Tea processing (without boiler)	10	0	15	**25**	0	0	0	**0**	0	0	**0**	25	Green		IPC-III
177.3	Blending and packing of tea	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	TEXTILE SECTOR															
178.0	**TEXTILE** INDUSTRY															
178.1	Yarn / Textile processing involving any effluent/emission generating processes including bleaching, dyeing, printing, and colouring, including the garment and apparel manufacturing industry	30	30	30	**90**	25	0	35	**60**	30	20	**50**	95.5	Red		IPC-III
178.2	Yarn to grey fabric manufacturing with water jet machines	20	25	25	**70**	0	0	0	**0**	0	0	**0**	70	Orange		IPC-III
178.3	Garment and apparel manufacturing industry including Doubling / Reeling / TFO-Two for one unit (dry process)-with boiler	0	0	0	**0**	25	0	25	**50**	0	0	**0**	50	Green		IPC-III
178.4	Garment and apparel manufacturing industry including Doubling / Reeling / TFO-Two for one unit (dry process)-without boiler	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-III
179.0	**SAREE/FABRIC PRINTING** BY SCREEN / WOODEN BLOCK /HAND BLOCK															
179.1	Saree/fabric printing by screen / wooden block/hand block	25	0	25	**50**	25	0	20	**45**	30	10	**40**	71.3	Orange		IPC-III
179.2	Hand block printing without effluent generation	0	0	0	**0**	25	0	20	**45**	0	0	**0**	45	Green		IPC-III

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
180.0	**TEXTILE** SPINNING**,** SIZING AND WEAVING MILLS															
180.1	Textile spinning, sizing and weaving mills (wastewater generation≥ 10 KLD)	10	20	20	**50**	25	0	15	**40**	0	0	**0**	60	Orange		IPC-III
180.2	Textile spinning, sizing and weaving mills (wastewater generation <10 KLD)	10	20	15	**45**	25	0	10	**35**	0	0	**0**	54.6	Green		IPC-III
181	**Power looms** (without dye and bleaching)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-III
182.0	REPROCESSING OF WASTE **TEXTILE** FABRIC															
182.1	Integrated facility for reprocessing of waste textile fabric (including washing, bleaching, dyeing etc.)	30	30	20	**80**	25	25	15	**65**	0	0	**0**	86.5	Red		IPC-III
182.2	Reprocessing of waste textile fabric (dry process)	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-III
183	**Cotton and woollen Hosiers** making (Dry process only without any dying / washing operation)	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0	White		IPC-V
	~W~															
184	Seasoning of **Wood** in steam heated chamber	0	0	0	**0**	25	0	25	**50**	0	0	**0**	50	Green		IPC-V
185	Pulverization of bamboo and scrap **Wood**	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25	Green		IPC-V
186	Distilled **Water** (without boiler) with electricity as source of heat	0	20	20	**40**	0	0	0	**0**	0	0	**0**	40	Green		IPC-V

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S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
187	Purification of **Water** and packaging (mineralized/non-mineralized water)	0	20	25	**45**	0	0	0	**0**	0	0	**0**	45	Green	RO Rejects.	IPC-V

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ANNEXURE-II

(LIST OF ESSENTIAL ENVIRONMENTAL SERVICES)

LIST OF ESSENTIAL ENVIRONMENTAL SERVICES

i. Essential Environmental Services for Industrial Waste Management

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
1.0	**COMMON EFFLUENT TREATMENT PLANT (CETP)**															
1.1	CETP having MEE/spray drier	30	30	35	**95**	25	0	25	**50**	25	50	**75**	98.1	Red		IPC-VII
1.2	CETP (without having MEE/spray drier), Common MEE/common spray driers	25	30	30	**85**	0	0	0	**0**	25	30	**55**	89.1	Red		IPC-VII
1.3	Common Sewage-Effluent Treatment Plant (CSETP)	25	30	30	**85**	0	0	0	**0**	25	20	**45**	88.4	Red		WQM-I & IPC-VII
2.0	Effluent conveyance projects	20	30	35	**85**	0	0	0	**0**	25	10	**35**	87.6	Red	Such projects during O&M operation will generate deposited sludge, spillage etc. in addition regular operation of handling of effluent and its disposal.	IPC-VII
3.0	**COMMON HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITY**															
3.1	Integrated facility (Secured landfill and incinerator)	35	30	15	**80**	25	25	15	**65**	30	70	**100**	100.0	Red		WM-II
3.2	Only secured landfill	35	30	15	**80**	0	25	0	**25**	25	70	**95**	97.6	Red		WM-II
3.3	Only incinerator	35	30	15	**80**	25	25	15	**65**	30	70	**100**	100.0	Red		WM-II
4.0	**COMMON BIO-MEDICAL WASTE TREATMENT FACILITY (CBWTF)**															
4.1	CBWTF	20	25	20	**65**	35	20	25	**80**	20	20	**40**	90.5	Red		WM-I
4.2	CBWTF using cleaner/gaseous fuel	20	25	20	**65**	35	20	10	**65**	20	20	**40**	83.4	Red		WM-I

ii. LIST OF BLUE CATEGORY SECTORS- Essential Environmental Services for Domestic/Household Activities:

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
1.0	**MUNICIPAL SOLID WASTE MANAGEMENT FACILITY**															
1.1	Municipal Solid Waste Management Facility (Sanitary landfill/ Integrated Sanitary landfill with material recycling facility/ refused derived fuel, etc.)	35	30	15	**80**	35	25	0	**60**	0	0	**0**	86.0	Blue		UPC-II
1.2	Waste to energy power plants	0	15	30	**45**	35	25	35	**95**	10	50	**60**	97.6	Blue		UPC-II
1.3	Bio-mining of legacy waste projects	35	30	25	**90**	35	25	0	**60**	0	0	**0**	93.0	Blue		UPC-II
1.4	Municipal Solid Waste Bio-methanation plant (Quantity of MSW ≥ 5 TPD)	30	25	25	**80**	0	20	0	**20**	0	0	**0**	82.0	Blue		UPC-II
1.5	Municipal Solid Waste Composting Facility (Quantity of MSW ≥ 5 TPD)	30	25	15	**70**	0	30	0	**30**	0	0	**0**	74.5	Blue		UPC-II
1.6	Municipal Solid Waste Material Recovery Facility (Quantity of MSW ≥ 5 TPD)	20	25	15	**60**	0	30	0	**30**	0	0	**0**	66.0	Blue		UPC-II
2.0	Construction and Demolition (C&D) Waste Processing Plants	10	0	15	**25**	25	25	0	**50**	0	0	**0**	56.3	Blue	Wastewater of high TDS of inorganic nature is generated.	UPC-I
3.0	**SEWAGE TREATMENT PLANT**															
3.1	Sewage Treatment Plant (5 MLD and above)	20	0	35	**55**	0	20	0	**20**	0	0	**0**	59.5	Blue		WQM-I
3.2	Sewage Treatment Plant (less than 5 MLD)	20	0	25	**45**	0	20	0	**20**	0	0	**0**	50.5	Blue		WQM-I

ANNEXURE-III

(LIST OF SERVICE/INFRASTRUCTURE DEVELOPMENT SECTORS CLASSIFIED UNDER RED, ORANGE, GREEN, AND WHITE CATEGORIES)

SERVICE/INFRASTRUCTURE DEVELOPMENT SECTORS

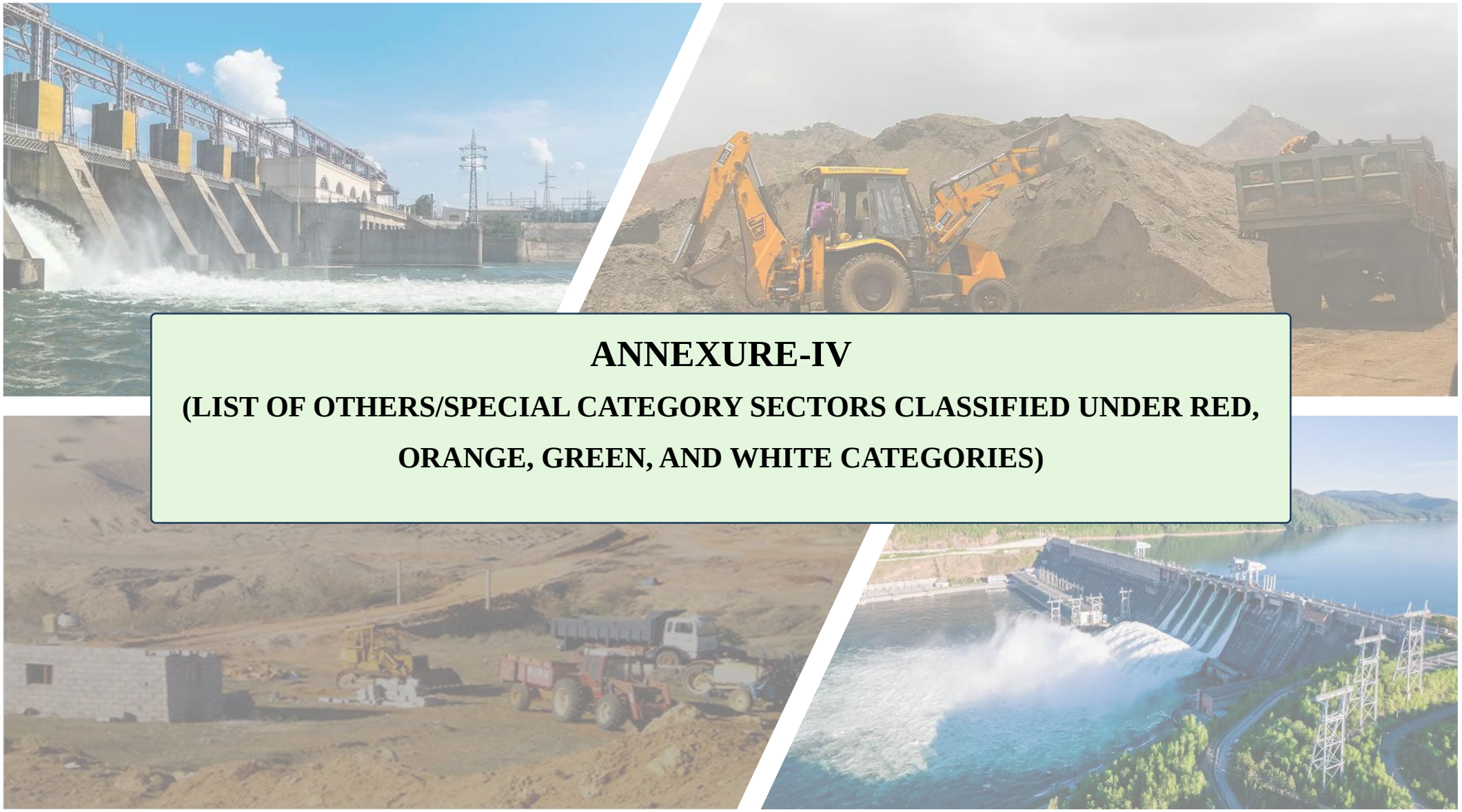
S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
1.0	**STANDALONE GENERATOR SET** (Genset)															
1.1	Genset(s) of total capacity ≥ 1 MVA, using liquid fuel	0	0	0	**0**	25	0	25	**50**	30	10	**40**	60.0	Orange	i. Standalone genset(s) of total capacity less than 1000 KVA may not require additional classification. The used oil/waste oil generated during repair and maintenance need to be disposed through authorized hazardous waste recycler by service provider/OEM. ii. Projects such data centers etc. having pollution potential due to gensets only, may be classified based on the capacity and fuel used.	UPC-I
1.2	Genset(s) of total capacity ≥ 1 MVA, using cleaner/gaseous fuel	0	0	0	**0**	25	0	10	**35**	30	10	**40**	50.5	Green		UPC-I
2.0	Airports	20	0	35	**55**	25	0	25	**50**	30	10	**40**	75.3	Orange	Airports generates mainly domestic sewage as wastewater. Emissions and generation of hazardous waste due to overall operations in airport are considered.	UPC-I
3.0	**HEALTH CARE FACILITIES (HCFS, AS DEFINED UNDER BIO-MEDICAL WASTE MANAGEMENT RULES, 2016)**															
3.1	HCFs with captive incinerator, irrespective of number of beds	20	0	15	**35**	35	20	25	**80**			**50**	88.5	Red	Sector generates bio-medical waste. As per methodology scores assigned to H.	WM-I
3.2	more than 1000 bedded HCFs	20	0	35	**55**	0	0	0	**0**			**100**	100.0	Red		WM-I
3.3	501 to 1,000 bedded HCFs	20	0	30	**50**	0	0	0	**0**			**80**	85.0	Red		WM-I
3.4	201 to 500 bedded HCFs	20	0	30	**50**	0	0	0	**0**			**60**	70.0	Orange		WM-I
3.5	51 to 200 bedded HCFs	20	0	20	**40**	0	0	0	**0**			**50**	60.0	Orange		WM-I
3.6	11 to 50 bedded HCFs	20	0	20	**40**	0	0	0	**0**			**40**	52.0	Green		WM-I
3.7	Up to 10 bedded HCFs	20	0	15	**35**	0	0	0	**0**			**30**	44.8	Green		WM-I
3.8	Non-bedded HCFs	0	0	0	**0**	0	0	0	**0**			**25**	25.0	Green		WM-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
4.0	**HOTELS/BANQUET HALLS HAVING ROOM FACILITY**															
4.1	Hotels (above 3 star) or having 100 & above rooms	20	25	30	**75**	25	0	25	**50**	0	0	**0**	81.3	Red		UPC-I
4.2	Hotels (above 3 star) or having 100 & above rooms (based on cleaner /gaseous fuel)	20	25	30	**75**	25	0	10	**35**	0	0	**0**	79.4	Orange		UPC-I
4.3	Hotels (up to 3 star) or having more than 20 rooms but less than 100 rooms.	20	25	20	**65**	25	0	25	**50**	0	0	**0**	73.8	Orange		UPC-I
4.4	Up to 20 rooms	10	25	15	**50**	0	0	10	**10**	0	0	**0**	52.5	Green		UPC-I
5.0	**RAILWAY LOCOMOTIVE WORK SHOP/ INTEGRATED ROAD TRANSPORT WORKSHOP/ AUTHORIZED SERVICE CENTERS**															
5.1	Railway locomotive work shop/ Integrated road transport workshop/ Authorized service centers (wastewater generation ≥ 10 KLD)	20	25	25	**70**	30	25	0	**55**	30	10	**40**	84.3	Red		IPC-V
5.2	Railway locomotive work shop/ Integrated road transport workshop/ Authorized service centers (wastewater generation <10 KLD)	20	25	15	**60**	30	25	0	**55**	30	10	**40**	79.0	Orange		IPC-V
6.0	**RAILWAY STATIONS**															
6.1	Railway Stations (Wastewater Generation ≥ 5 MLD)	20	0	35	**55**	25	0	25	**50**	30	10	**40**	75.3	Orange	Wastewater generating from public toilets, public taps, platform, and apron washing, coach cleaning, laundry, restaurants etc. Emissions and generation of hazardous waste due to overall operations are considered.	UPC-I
6.2	Railway Stations (Wastewater Generation ≥ 100 KLD, but < 5 MLD)	20	0	15	**35**	0	0	0	**0**	0	0	**0**	35.0	Green	Wastewater generating from various domestic uses as public toilets, public taps, platforms, and apron washing, restaurants etc.	UPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
7.0	**RAILWAY SIDINGS**															
7.1	Railway sidings / Mineral stock yard	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25.0	Green	Fugitive emissions due to loading, unloading, storage and transportation of the minerals.	UPC-I
7.2	Railway sidings only for defence purpose	0	0	0	**0**	0	0	0	**0**	0	0	**0**	0.0	White		UPC-I
8.0	**PORTS AND HARBOURS**															
8.1	Ports and harbours, jetties and dredging operations	20	30	25	**75**	0	25	0	**25**	30	20	**50**	84.4	Red		WM-I
8.2	Ports and harbours (only containers handling)/ Captive jetties	20	25	20	**65**	0	25	0	**25**	30	10	**40**	76.4	Orange		WM-I
9.0	Automobile service stations/ workshops	20	25	20	**65**	20	0	0	**20**	30	10	**40**	75.5	Orange		IPC-V
10.0	**BUILDING CONSTRUCTION PROJECTS**															
10.1	Building construction project ≥ 20,000 sq. m. built-up area	20	0	25	**45**	25	0	25	**50**	0	0	**0**	61.3	Orange	i. During the construction phase, the sector is mainly air polluting. However, in post construction phase it is mainly water polluting due to generation of sewage. Consent to Establish/Operate to be taken as per EC conditions, as applicable. ii. Building construction project ≥ 5,000 sq. m., but < 20,000 sq. m. built-up area (with connectivity to terminal STP) may not require separate classification. iii. For projects < 5000 the wastewater shall be managed according to on-site sanitation methods as mentioned in the Manual on Sewerage and Sewage Treatment System (2013), published by the	UPC-I
10.2	Building construction project ≥ 5,000 sq. m., but < 20,000 sq. m. built-up area (without connectivity to terminal STP)	20	0	20	**40**	0	0	0	**0**	0	0	**0**	40.0	Green		UPC-I

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
															Central Public Health and Environmental Engineering Organisation (CPHEEO), and as amended from time to time.	
11.0	Standalone mechanized laundry (using boiler)	20	0	20	**40**	25	0	25	**50**	0	0	**0**	60.0	Orange		IPC-V
12.0	New highway construction project	0	0	0	**0**	25	25	25	**75**	0	0	**0**	75.0	Orange	Such projects involve use of hot mix plants, ready-mix concrete plants, construction activities generating fugitive emissions, etc.	UPC-I
13.0	**DAIRY FARM**															
13.1	Dairy Farm (having more than 500 animals)	30	25	25	**80**	0	20	0	**20**	0	0	**0**	82.0	Red	Dairy farms having less than 15 animals do not require separate classification.	IPC-IV
13.2	Dairy Farm (having 101 to 500 animals)	30	25	20	**75**	0	20	0	**20**	0	0	**0**	77.5	Orange		IPC-IV
13.3	Dairy Farm (having 15 to 100 animals)	30	25	15	**70**	0	20	0	**20**	0	0	**0**	73.0	Orange		IPC-IV
14.0	Gold Assaying & Hallmarking Centres	0	0	0	**0**	35	0	0	**35**	25	10	**35**	46.4	Green	Lead oxide, nitrous fumes are generated during cupellation and parting acid treatment, respectively contributing to the air emissions.The hazardous waste is generated during fire assay in the form of spent cupels bearing lead, spent acid, scrubbed water etc.	IPC-V
15.0	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		IPC-V
16.0	Flyash export or disposal operations	0	0	0	**0**	0	25	0	**25**	0	0	**0**	25.0	Green		IPC-V

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
17.0	Oil and gas transportation pipeline (excluding pipeline covered under definition of isolated storage of hazardous chemicals, as per Manufacture, Storage, and Import of Hazardous Chemicals Rules, 1989)	0	0	0	**0**	25	0	10	**35**	0	0	**0**	35.0	Green		IPC-I
18.0	Gaushalas	20	0	15	**35**	0	20	0	**20**	0	0	**0**	41.5	Green		IPC-IV
19.0	Household bio-digesters/gobar-gas (cow-dung) plants based on biodegradable wastes, etc.	0	0	0	**0**	0	20	0	**20**	0	0	**0**	20.0	White		IPC-V



ANNEXURE-IV

(LIST OF OTHERS/SPECIAL CATEGORY SECTORS CLASSIFIED UNDER RED, ORANGE, GREEN, AND WHITE CATEGORIES)

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OTHERS/SPECIAL CATEGORY SECTORS

S. No.	Sector	W1	W2	W3	PI_W	A1	A2	A3	PI_A	H1	H2	PI_H	Pollution Index (PI)	Category	Remarks	Concerned Division
1.0	**HYDEL POWER PLANTS INCLUDING PUMPED STORAGE PROJECTS**															
1.1	Hydel power plants (Capacity > 50 MW)													Red	PI may be considered as 90.	IPC-II
1.2	Mini Hydel power plants (Capacity from more than 25 MVA and up to 50 MW)													Orange	PI may be considered as 67.5.	IPC-II
1.3	Mini Hydel power plants (Capacity ≤ 25 MW)													White	PI may be considered as 12.5.	IPC-II
2.0	**SAND / RIVERBED MATERIAL MINING FROM RIVERBED AND ITS FLOODPLAINS** (excluding manual excavation)															
2.1	Mining lease area more than 5 hectares or Mining lease area up to 5 hectares which is part of cluster mining													Red	i. Sand / riverbed material mining from riverbed and its floodplains may cause ecological disturbances, erosion of riverbed, change in hydro-geological conditions & river ecosystem, etc.	IPC-II
2.2	Standalone mining lease area up to five hectares in areas (not a part of any cluster mining)													Orange	ii. Cluster mining means that the distance of mining lease area is less than 500 m from periphery of another lease area. iii. This categorization is made considering the ecological damages and not based on pollution potential/index. iv. Cluster mining as defined in 'Enforcement & Monitoring Guidelines for Sand Mining, 2020', issued by MoEF&CC. v. PI may be considered as 90 and 67.5 for red and orange category, respectively.	IPC-II

ANNEXURE-V

FORMAT FOR SUBMISSION OF INFORMATION BY SPCBS/PCCS REGARDING SECTORS CLASSIFIED UNDER WHITE CATEGORY

S. No.	Sector	Water Pollutant Score (PI_W)				Air Pollutant Score (PI_A)				Waste Pollutant Score (PI_H)			Pollution Index (PI)	Remarks (including brief description of process and pollution potential)
		W1	W2	W3	W	A1	A2	A3	A	H1	H2	H		

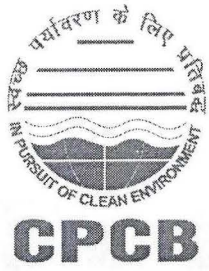
A tool for progressive environmental Management

CPCB

Central Pollution Control Board

"Parivesh Bhawan", East Arjun Nagar, Delhi - 110032

Standard Operating Procedure(SOP) for Recycling of Waste Tyre Scrap for the recovery of Tyre Pyrolysis Oil, Pyro Gas and Char in Tyre Pyrolysis Oil (TPO) Units



January 16, 2024

Central Pollution Control Board

(Ministry of Environment, Forest & Climate Change, Government of India)

Parivesh Bhawan, East Arjun Nagar, Shahdara, Delhi – 110032

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CP-22/139/2021-WM-III-HO-CPCB-HO

CPCB

STANDARD OPERATING PROCEDURE
for
Recycling of Waste Tyre Scrap for the recovery of
Tyre Pyrolysis Oil, Pyro Gas and Char
in Tyre Pyrolysis Oil (TPO) Units

1.0 Background

In the matter of OA No. 400 of 2019 and in compliance of the Hon'ble NGT order dated 06-01-2020, seven (07) Tyre Pyrolysis Oil (TPO) Units comprising of three (03) advance batch automated tyre pyrolysis plants, three (03) existing batch units and one (01) continuous tyre pyrolysis plants were studied under the guidance of experts from NEERI and IIT Delhi. Further study of 70 TPO units were carried out with the help of SPCBs. As per the study advanced batch automated process (ABAP) and continuous tyre pyrolysis process had demonstrated compliance with regard to work zone limits and no significant impact on ambient air quality.

The study further observed that existing batch TPO Units need additional features such as PLC based control arrangement, bypass arrangement for pyro gas from reactor door to primary condenser, installation of gas sensors, pressure, temperature gauges at reactor & storage tank, gas /fire alarm system, flaring of entire pyro gas during emergency, arrangement for re-circulation of pyro gas for reactor's heating, provision for flaring of pyro gas, suction hoods over the gate of reactor and char bagging area, water sprinkler system and mechanized arrangement for removal of char and steel scrap and arrangement of Nitrogen gas (N_2) purging to address environmental and safety concerns.

In the same matter, the Hon'ble NGT vide its order dated 25.10.2021 directed to issue appropriate SoP covering siting criteria, threshold limit of a plant, carrying capacity, standards for effluents, emissions and hazardous or other waste, safety aspects to prevent accidents and for protection of public health. Accordingly, in consultation with expert members from NEERI & IIT-Delhi, the existing SoP was revised w.r.t Recycling of Waste Tyre Scrap for the recovery of Tyre Pyrolysis Oil, Pyro Gas and Char in Tyre Pyrolysis Oil (TPO) Unit.

1.1 Pyrolysis process

Pyrolysis is a thermal degradation process carried out in the absence of oxygen /air in a vessel or a chamber, so that the combustion of material does not take place. It is a process in which organic materials are thermally decomposed into simpler compounds in the temperature range of 400 – 500 °C in an oxygen-free environment. **Fig. 1** shows the

schematic diagram of waste scrap tyre pyrolysis process. Since the products of thermal decomposition are released at different temperature having varying molecular structure, the products are in all phases i.e. solid, liquid and gas. Pyrolysis of tyres and rubber products produce pyrolysis oils, pyrolysis gas (pyro-gas), char and steel. The products generated in tyre pyrolysis are as follows:

A) **Pyro Gas**: 20 to 35 percent of a tyre's energy content is typically converted into a combustible gas (Pyro Gas) that is used to fuel the pyrolysis process or is combusted in a flare before it is released. Typically, the components of pyro gas are H_2, H_2S, CO, CO_2, CH_4, C_2H_4, C_3H_6 and other light hydrocarbons.
B) **Pyro Oil**: 35 to 50 percent of the output from the process is transformed into a liquid product that varies in quality from saleable fuel oil to lower-value oil blend stock.
C) **Char**: The residual solid product (referred as char constitutes 25 to 40 percent of the output and contains a mixture of carbon, silica, titanium dioxide, zinc, steel etc.
D) **Steel**: The thin wire, which is used for reinforcement of tyre is extracted out during pyrolysis and is collected at the end, sold in the market as scrap steel.

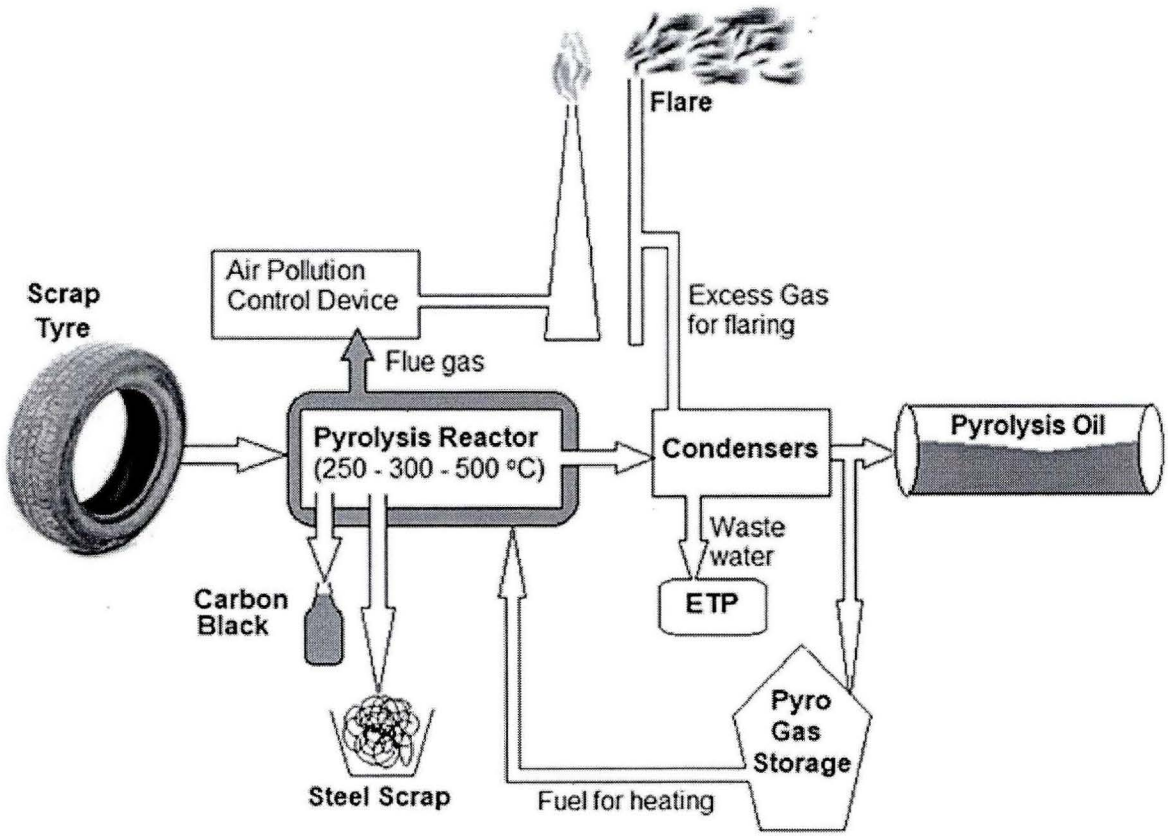

Fig. 1: Schematic diagram of waste tyre pyrolysis process

The quantity and quality of each product depends on many process variables, including temperature, pressure, and residence time. A preferred quality trye pyrolysis oil would have molecular weight little above its boiling temperature under normal temperature and pressure. This would help in efficient combustion, and less of soot formation. Waste tyre pyrolysis plant operators are expected to have a control on rate of heating and condensation so as to produce high-quality oils with high calorific values comparable with diesel and gasoline type fuels.

Two types of Pyrolysis process are in operation in India. Batch Type and Continuous Pyrolysis process. In both type of pyrolysis processes, the final product remains the same. Most of the tyre pyrolysis units in the country are based on batch processes technology having different types of process control, safety mechanism, raw material, finish product and waste handling facilities. There is a need to standardize the operations and facilities at Tyre Pyrolysis Oil (TPO) Units to achieve environmentally sound and safe operation of these units.

From the study carried out, it was observed that Advanced Batch Automated Process (ABAP) and continuous tyre pyrolysis process had no significant impact on ambient air quality. Therefore, for standardizing the batch type pyrolysis operations, Advanced Batch Automated Process (ABAP) type TPO Unit shall only be allowed.

2.0 Siting Criteria, Carrying Capacity and Standard Operating Procedures (SoP) for Advanced Batch Automated Process (ABAP) type TPO units:

2.1 Siting Criteria for ABAP type TPO Units

The siting criteria is applicable only to new /proposed units. New ABAP type TPO unit shall be allowed only in the industrial areas/land.

(I) **Siting criteria for ABAP type TPO Units:**

The criteria for siting of ABAP type TPO units depends on the following facts:

i) There are no organized continuous process emissions in tyre pyrolysis process.
ii) The air pollutant emission in ABAP type TPO unit is from burning of fuel for heating purpose and intermittent flaring of excess pyro gas or its emergency release;
iii) The plot area of the TPO Unit carries more weightage as the emission from TPO unit does not affect far away community, instead it is the immediate neighbourhood that is affected. Char, being large size particle if spilled in the plant premises during its handling cannot travel to larger distance under the influence of wind;
iv) The environmental concern from TPO Unit is spillage of Char in the work zone while removing it from the reactor and its subsequent packing into the

bags. The influence zone due to this spillage is limited within the premise of the unit;

v) The odour from TPO Unit are localized and confined to premises and adjacent areas.

Followings are the criteria for site consideration for new units:

i) New ABAP type TPO Unit having individual reactor capacity of 10 tonnes to 20 tonnes should only be allowed;

ii) Considering the possible impacts in neighbourhood, TPO Unit having cumulative maximum batch capacity up to 60 tonnes per day (TPD) only be allowed within a premises and this is applicable for new ABAP type Units /expansion in existing batch type TPO Unit.

iii) Beyond cumulative batch capacity of 60 TPD, only continuous process type TPO unit be allowed in case of setting up of new ABAP type units or expansion in existing TPO Unit in a single premises.

iv) For new ABAP type TPO Unit the minimum plot area shall be 3000 square meters for a single reactor of 10 to 12 tonnes capacity and the area will increase by 750 square meters for every additional reactor of capacity 10 to 12 tonnes and will increase up to 6000 square meters.

v) For new proposed ABAP type TPO unit the minimum plot area shall be 4000 square meters for a single batch reactor of 20 tonnes capacity and the area will increase by 1000 square meter for every additional reactor and will increase up to 6000 square meters.

vi) For new proposed continuous TPO unit the minimum plot area should be 7000 square meters irrespective of number of reactors.

(II) Green Belt Requirement

The green belt should be as per consent conditions or as per the guidelines of Central and State Government and in no case less than 5% of the total area of the plot.

(III) Movement of Fire-Tenders

Paved road to be provided for movement of the fire-tenders. No material is allowed to be stored (no obstruction) on this paved road. SPCBs /PCCs to ensure this requirement, while issuing new CTE/CTO.

2.2 Carrying Capacity of the area for siting of ABAP type Tyre Pyrolysis Oil (TPO) Units

The committee constituted by the Hon'ble NGT in the is of the view that carrying capacity may not be required in case of individual Tyre Pyrolysis Units of capacity 10 - 60 TPD, since these are small pyrolytic operations with no process emissions and there are only flue gas emissions due to combustion of fuels for reactors or in flare stacks.

In order to minimize impact on adjacent areas, the minimum plot area as stipulated in section 2.1 is required by the unit.

2.3 Threshold Limits for Tyre Pyrolysis Oil (TPO) Units (New TPO Units and expansions in Existing TPO units)

The threshold limit is applicable to new /proposed units or expansion in the existing units. Followings are the threshold limits for the TPO units:

i) New ABAP type TPO units or expansion in existing units having cumulative batch capacity up to 60 TPD only shall be allowed.
ii) Beyond cumulative batch capacity of 60 TPD for new units or expansion in existing units, only continuous type TPO unit shall be allowed.

2.4 Standard Operating Procedure (SoP) of ABAP type TPO Units

A) Minimum Requirement for Environmentally Sound Operation:

2.4.1	Unit should have a valid Consent to Establish (CTE), Consent to Operate (CTO) under Water and Air Act and Authorization under the Hazardous and Other Waste (M & TM) Rules, 2016 issued by SPCB / PCC & Fire Safety Certificate issued by the concerned department.
2.4.2	Unit to comply with emission & effluents standards as prescribed by the concerned SPCBs/ PCCs in consent to operate (CTO) under Air and Water Act. Further the management of Hazardous waste generated has to be done as per the conditions prescribed in the authorization issued by the SPCBs / PCCs under the Hazardous and Other Waste (M & TM) Rules, 2016.
2.4.3	The feed to ABAP type reactor has to be in the form of used tyre scrap – whole tyres /cut tyres / chips / shred /mulch /granules etc.
2.4.4	Initial heating of the reactor has to be done either by using pyro gas stored during previous cycle or by use of pyro water / purge water (oil mix water) / oil water emulsion, or by tyre pyrolysis oil or any other fuel approved by concerned SPCBs /PCCs. After generation of pyro gas, the same is to be used for the purpose of heating reactor. The flue gas should be vented out to the environment through an alkaline scrubber with mist eliminator attached to a chimney of at least 30 meters height. Plants to install adequate air pollution control devices (APCDs) for controlling flue gas emissions.

2.4.5	A compressor / air blower has to be installed for mixing of air with pyro water for ensuring proper burning while using pyro water/purge water during initial heating.
2.4.6	In order to control fugitive emissions from the reactor shell during operation, its proper sealing should be ensured.
2.4.7	ABAP type TPO units to construct or install a sufficient capacity suction hood / industrial dust collector attached to a bag filter at feeding door and same should must be operational at the time of removal of steel scrap wire and char from the reactor.
2.4.8	Suction hoods also to be installed at all the transfer points across the work zone such as at char bagging area etc. to control fugitive emissions. All suction hood to be connected to a common manifold leading to alkaline scrubber with mist eliminator attached with stack of 30 m height (installed for venting out flue gas emissions).
2.4.9	Unit to ensure no spillage of char during removal/ unloading of steel scrap from the reactor. The flooring should be paved/ concretized along with proper slope and drains for movement of steel scrap. This operation to be made cleaner by use of vacuum cleaner after each batch operation.
2.4.10	Unit to install water sprinkling system for prevention of fugitive emission at the all transfer points for arresting fugitives.
2.4.11	The removal of char should be through a mechanized system. The unloading of char from the reactor is to be done under controlled conditions in such a manner that the material inside the reactor is not open to the atmosphere at any point of time. The char shall be bagged in the HDPE bags with proper sealing. It should be ensured that no spillage take place during the collection of the char in the bags. The removal of char should be started only after Nitrogen purging.
2.4.12	A permanent arrangement should be made for Nitrogen purging. Pre-filled nitrogen gas cylinders will not be allowed to use for purging. All units to have PLC based Nitrogen generator as per the following requirement:

Number of Reactors	Nitrogen Generator capacity (Nm^3/h)	Storage Tank Capacity (Liters)
1	3	1000
2	5	1500
3	7	2000
4	10	3000
> 4	12	4000

2.4.13	Excess pyro gas if any should be flared through properly designed flaring system of adequate capacity considering the emergency situation

	in which the entire gas may have to be flared. The flaring should be done at a minimum height of 30 meter.
2.4.14	Unit to install Programme Logic Controller (PLC) based system for control of temperature and pressure inside the reactor.
2.4.15	Unit to install Programme Logic Controller (PLC) based auto activation for stopping of gas supply to the burner and for switching off the burners in case of increase of pressure and temperature inside the reactor.
2.4.16	Unit to install PLC based auto activation of bypass arrangements for bypassing the pyro gas from reactor to first separator tank in case of blocking /chocking of outlet vent inside the reactor or direct bypass for flaring
2.4.17	Unit to install PLC based carbon monoxide (CO) gas sensors connected with sirens (hooters) in case of release of CO.
2.4.18	The collection of the oil from the condensers should be in closed vessel and storage also should be in closed metallic tanks. (Oil / Liquid is stored at atmospheric pressure in metallic tank. Since this is not pressureized tank, there is no need of vent. The presence of vent releases low molecular weight HC into the air and creates odour, which is objected by the neighbourhood.) There should be no manual handling of oil. Transfer of oil should be carried out through pumps.
2.4.19	Unit to connect first separator tank with the oil storage tank for storing heavy oil fraction. There should not be any release valve at the first separator tank.
2.4.20	At the end of the pyrolysis process the reactor has to be cooled before the removal of char. During cooling process, the reactor should be purged with Nitrogen gas.
2.4.21	The removal of char should be started after the reactor temperature comes down to below 50 ^{o}C or first separator tank temperature comes down to 40 ^{0}C.
2.4.22	The inside temperature of the reactor should not exceed 500 ^{0}C and the first separator tank temperature should not exceed 450 ^{0}C during the entire batch operation.
2.4.23	Waste water (Pyro water/Purge water/Oil mixed water/oil water emulsion) generated during the process should not be discharged anywhere and:

i)	Should be treated in suitable ETP of sufficient capacity. Oily sludge should be disposed through TSDF or can used to make char briquettes, for subsequent transfer /sale to the cement manufacturing plants or other such industries having authorization for co – processing or;

a. ETP discharge may be used for briquettes manufacturing. The briquettes so manufactured shall be disposed through processing in cement kiln

b. ETP sludge may be used for briquettes manufacturing. The briquettes so manufactured shall be disposed through processing in cement kiln.

ii)	Pyro water/Purge water /Oil mixed water/oil water emulsion may be used for briquettes manufacturing in a briquetting plant by mixing it with sawdust and char in suitable proportions. These briquettes so manufactured using the pyro water/purge water/oil mixed water/oil water emulsion and char are to be utilized only in processes where temperature is 1000 ^{0}C or more to avoid emissions of obnoxious gases; or
iii)	Pyro water/Purge water/ oil mix water/oil water emulsion should be used for Initial heating of the reactor.

2.4.24	Unit to ensure that treated water be re-used in unit itself & there is zero effluent discharge.
2.4.25	Unit to have a covered /closed separate storage tank for storage of pyro water /purge water /oil mix water/ oil water emulsion. The pyro water be transferred from final storage tank to pyro water / purge water / oil mix water / oil water emulsion storage tank in closed loop through pumps.
2.4.26	Unit should carry out stack and ambient air quality monitoring for SO_2, PM and CO at least once in six months from a recognized laboratory at identified monitoring location. The unit shall maintain a log book for recording the plant, operation, monitoring of the stack emissions and ambient air quality, generation & utilization of wastewater & sale of various products and by-products.
2.4.27	The transportation of Char should be done in bags (small or jumbo) in closed vehicles to ensure that there is no spillage of char during their transportation.
2.4.28	The transportation of Tyre Pyrolysis Oil (TPO) should strictly be done in closed tankers to ensure that there is no spillage of TPO during their transportation.
2.4.29	The char generated in the process shall be utilized either in co-processing in the cement industry or its quality be upgraded to Recovered Carbon Black (RCB). RCB may be used as raw material for manufacture of new tyre and other processes.
2.4.30	The Tyre Pyrolysis Oil and char shall be stored in areas separate / distinct from the processing area (shed where the reactors are installed). Tyres shall be stored in earmarked area / open area on a paved platform.

B. Safety Measure to be adopted

2.4.31	Automatic control systems such as Programmed Logic Control (PLC) shall be adopted for measurement and control of temperature and pressure along with safety inter-locks in case of increase of temperature or pressure to cut off heating of the reactor should be provided. It should be ensured that the reactor is under positive pressure at all the time.
2.4.32	A sensor for CO gas to be installed in the working area to ensure that concentration of CO in the working area does not exceed the prescribed limits for occupational safety and health as per Factory Act 1948. It will also be coupled with a warning /alarm system so that the plant operator can take adequate steps to rectify the situation.
2.4.33	Sensors along with alarm system should be provided at all the transfer points throughout the plant to detect any leakage of flammable vapours from the system.
2.4.34	Fire detectors, sprinklers and fire hydrant with necessary pumping system and water storage should be provided in the process area, product and raw material storage area.
2.4.35	Unit to install fire hydrant system connected directly to the water tank and DG set for direct electric supply. Unit should also have ABC type fire extinguisher cylinders & fire buckets filled with sand and water.
2.4.36	The safety instruction for safe operation of plant will be displayed at the gate, plant working area and other critical places. Further, training will be imparted to the workers for safe operation of these plants.
2.4.37	On site emergency plan, as per the requirements under the Factories Act, 1948, will be made and implemented to handle any accident, fire/ leakage or any other emergency situation. All such measures shall include raw material storage, product storage and handling thereof.
2.4.38	The plant will be operated under the continuous supervision of a qualified person having experience of running such units.
2.4.39	All the persons /workers in the premises should wear an air filter mask to avoid inhaling of the fine char particles.
2.4.40	Unit will maintain good house-keeping and will ensure that no raw material products and wastes get spilled inside or outside the plant.
2.4.41	Unit to carry out annual health check-up of all the employees working in the unit & submit its report to concerned SPCBs/PCCs on annual basis.
2.4.42	Workers should be trained to handle fire. Workers should be given mock drill exercise for fire hazard incident. Assuming fire at the hatch door due to leakage of pyro-gas, what action, the workers should do? Training to use CO_2 type fire extingushers. Regular visit and inspection to check the training to workers.

2.5 Continuous Process (New & Existing):

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A. Minimum Requirement for Environmentally Sound Operation:

2.5.1	Unit should have a valid Consent to Establish (CTE) and Consent to Operate (CTO) under Water and Air Act and Authorization under the Hazardous & Other Waste (M&TM) Rules, 2016 issued by SPCB /PCC & Fire Safety Certificate issued by the concerned department.
2.5.2	Unit to comply with emission & effluents standards as prescribed by the concerned SPCB/PCC in consent to operate (CTO) under Water and Air Act. Further the management of Hazardous Waste generated to be done as per the conditions prescribed in the authorization issued by the SPCB/PCC under the Hazardous Waste (M&TM) Rules, 2016.
2.5.3	The feeding system should be provided with an air-lock arrangement so that no air enters the reactor during feeding.
2.5.4	Initial heating of the reactor to be done either by using pyro gas stored during previous cycle itself or by use of purge water (oil mix water)/oil water emulsion, or by tyre pyrolysis oil or any other fuel approved by concerned SPCBs/PCCs. After generation of pyro gas, the same is to be used for the purpose of heating reactor. The flue gas should be vented out into the environment through alkaline scrubber with mist eliminator attached with a chimney of at least 30 meters height. Plants to install adequate air pollution control devices (APCDs) for controlling flue gas emissions.
2.5.5	A compressor or any other suitable arrangement has to be made /installed for mixing of air with pyro water for ensuring proper burning while using pyro water/purge water during initial heating.
2.5.6	In order to control fugitive emissions from the reactor during operation, proper sealing should be ensured.
2.5.7	Excess pyro gas if any should be flared through properly designed flaring system of adequate capacity considering the emergency situation in which the entire gas may have to be flared. The flaring should be done at a minimum height of 30 m.
2.5.8	The collection of the oil from the condensers should be in a closed vessel and storage also should be in closed tanks with suitable vents. There should be no manual handling of oil. Transfer of oil should be through pumps.
2.5.9	The removal of char should be through a mechanized system. The unloading of char from the reactor is to be done under controlled conditions through a pneumatic /screw conveyor system in such a manner that the contents of the reactor are not open to the atmosphere at any point of time. The end of the conveyor system shall be attached to a bagging plant where all the char will be bagged in the HDPE bags with proper sealing. It should be ensured that no spillage taken place during the collection of the char in the bags. Moreover, an air-lock should be provided to ensure no entry of air into the reactor.

2.5.10	Water sprinklers to be installed at the transfer points for arresting fugitives.
2.5.11	The char generated in the process shall be utilized either in co-processing in the cement industry or its quality be upgraded to Recovered Carbon Black (RCB). RCB may be used as raw material for manufacture of new tyre and other processes.
2.5.12	Waste water (Pyro water/Purge water/Oil mixed water/oil water emulsion) generated during the process should not be discharged anywhere and:

i)	Should be treated in suitable ETP of sufficient capacity. Oily sludge should be disposed through TSDF or can used to make char briquettes, for subsequent transfer /sale to the cement manufacturing plants or other such industries having authorization for co – processing or;

a. ETP discharge may be used for briquettes manufacturing. The briquettes so manufactured shall be disposed through processing in cement kiln

b. ETP sludge may be used for briquettes manufacturing. The briquettes so manufactured shall be disposed through processing in cement kiln.

ii)	Pyro water/Purge water /Oil mixed water/oil water emulsion may be used for briquettes manufacturing in a briquetting plant by mixing it with sawdust and char in suitable proportions. These briquettes so manufactured using the pyro water/purge water/oil mixed water/oil water emulsion and char are to be utilized only in processes where temperature is 1000 ^{0}C or more to avoid emissions of obnoxious gases; or
iii)	Pyro water/Purge water/ oil mix water/oil water emulsion should be used for Initial heating of the reactor.

2.5.13	TPO Units to ensure that treated water be re-used in the unit itself & there is zero effluent discharge.
2.5.14	The transportation of Char and Tyre Pyrolysis Oil (TPO) should strictly be done in closed vehicles to ensure that there is no spillage of char or oil during their transportation.
2.5.15	The generation, transportation and disposal of char to the cement manufacturing plants shall be recorded
2.5.16	The Tyre Pyrolysis Oil (Product) and char shall be stored in areas separate / distinct from the processing area (shed where the reactors are installed). Tyres shall be stored in earmarked sheds/open area on a raised cement concrete platform.

2.5.17	The unit should carry out stack and ambient air quality monitoring for SO2, PM, and CO at least once in six months from a recognized laboratory at identified monitoring location. The unit will maintain a log book for recording the plant operation, monitoring of the stack emissions and ambient air quality, generation & utilization of wastewater & sale of products and wastes.

B. Safety Measure to be adopted

2.5.18	Automatic control systems such as Programmed Logic Control (PLC) shall be adopted for measurement and control of temperature and pressure along with safety interlocks in case of increase of temperature or pressure to cut off heating of the reactor should be provide.
2.5.19	A sensor for CO gas to be installed in the working area to ensure that concentration of CO in the working area does not exceed the prescribed limits for occupational safety and health as per Factory Act 1948. It will also be coupled with a warning/alarm system so that the plant operator can take adequate steps to rectify the situation.
2.5.20	Sensors along with alarm system should be provided at all the transfer points throughout the plant to detect any leakage of flammable vapors from the system.
2.5.21	Excess pyro gas if any should be flared through properly designed flaring system of adequate capacity considering the emergency situation in which the entire gas may have to be flared. The flaring should be done at a minimum height of 30 meters.
2.5.22	Fire detectors, sprinklers and fire hydrant with necessary pumping system and water storage should be provided in the process area, product and raw material storage area.
2.5.23	The TPO unit shall possess fire clearance certificates issued by concerned departments.
2.5.24	The safety instruction for safe operation of plant will be displayed at the gate, plant working area and other critical places. Further, training will be imparted to the workers for safe operation of these plants. On site emergency plan, as per the requirements under the Factories Act, 1948, will be made and implemented to handle any accident, fire/ leakage or any other emergency situation. All such measures shall include raw material storage, product storage and handling thereof.
2.5.25	The plant will be operated under the continuous supervision of a qualified person having experience of running such units. All the persons/workers in the premises should wear an air filter mask to avoid inhaling of the fine char particles.
2.5.26	Units will maintain good house-keeping and will ensure that no raw material products and wastes get spilled inside or outside the plant.

2.5.27	Units to carry out annual health check-up of all the employees working in the unit & submit its report to concerned SPCBs /PCCs on annual basis.
2.5.28	Units operators shall have insurance cover for workers, plant & machinery and materials.
2.5.29	Workers should be given mock drill exercise for fire hazard incident.

C. General conditions applicable to all plants (Batch & Continuous):

2.5.30	The Tyre Pyrolysis Units (Continuous and Advanced Batch Automated Pyrolysis) are categorized into Orange category. Unit to register on the Waste Tyre EPR Portal of CPCB.
2.5.31	The Tyre Pyrolysis Oil unit to fulfill fuel quality as specified by Ministry of Petroleum and Natural Gas / Bureau of Indian Standards as and when the same gets notified.
2.5.32	In line with the policy adopted by MoEF&CC, Unit shall not to import waste tyres for the purpose of TPO production. Unit to use only indigenous generated waste tyre (i.e. Waste tyre generated in India only). Also unit to sell its products to Actual Users only.
2.5.33	Unit to maintain record on consumption of waste tyre along with details of its procurement source, Details & quantity of products, details of actual users to whom products have been sold.
2.5.34	Unit to submit its annual report on the EPR Portal and also to the concerned SPCB providing details on annual production of TPO, Char, Steel & other products including details of sources of purchasing waste tyre and also details of actual users to whom products have been sold within the time frame as prescribed on the Portal. The annual report to be supported with electricity bills of the financial year for which annual return has been submitted.
2.5.35	Units have to report daily waste generation, disposal data on National Hazardous Waste Tracking system as and when such system gets implemented by CPCB.

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कार्यालय जिलाधिकारी अमरोहा के पत्रांक–726/आई0जी0आर0एस0सहा0/2024 दिनांक–18.10.2024 के साथ संलग्न आई0जी0आर0एस0 संदर्भ सं0–92413700020899 एवं पत्रांक–727/आई0जी0 आर0एस0सहा0/2024 दिनांक–18.10.2024 के साथ संलग्न आई0जी0आर0एस0 संदर्भ सं0–92413700021267 के माध्यम से मैसर्स देव इण्डस्ट्रीज, ग्राम–जमालुद्दीनपुर, तहसील–चाँदपुर, जिला–बिजनौर के विरूद्ध प्राप्त शिकायत के सम्बन्ध में निरीक्षण आख्या।

उपरोक्त शिकायती इकाई का निरीक्षण अधोहस्ताक्षरकर्ताओ द्वारा दिनांक–19.10.2024 को उद्योग प्रतिनिधि श्री सचिन त्यागी, पार्टनर की उपस्थिति में किया गया। निरीक्षण आख्या निम्नवत् है :–

1. उद्योग द्वारा कच्चे माल के रूप में रबर स्क्रेप/वेस्ट रबर/वेस्ट टायर–06 मीट्रिक टन/दिन का प्रयोग कर फर्नेस आयल 2.5 टन/दिन, कार्बन ब्लैक 2.5 टन/दिन तथा स्टील वायर 200 किग्रा/दिन का उत्पादन किया जाता है। निरीक्षण के समय उद्योग संचालित नही पाया गया।
2. उद्योग द्वारा जल का प्रयोग घरेलू प्रयोजन एवं औद्योगिक प्रकिया में शीतलन हेतु प्रयोग किया जाता है। घरेलू प्रयोजन से जनित उत्प्रवाह का निस्तारण सेप्टिक टैंक के माध्यम से किया जाता है। उद्योग में वाशिंग प्रकिया से जनित उत्प्रवाह के शुद्धिकरण हेतु 05 किली0/दिन क्षमता का उत्प्रवाह शुद्धिकरण सयन्त्र स्थापित है, जिसकी इकाईयॉ कमशः कलेक्शन टैंक, ऑयल ग्रीस ट्रैप, कोगुलेशन एवं फ्लोकुलेशन टैंक, ट्यूब सेटलर, फिल्टर फीड टैंक, एस0सी0एफ0, एम0जी0एफ0, स्लज ड्राईंग बेड्स हैं।
3. उद्योग में स्थापित दो फर्नेस से सम्बद्ध संयुक्त चिमनी की भूतल से ऊँचाई 21 मीटर है। उक्त फर्नेस पर वायु प्रदूषण नियन्त्रण व्यवस्था के रूप में वेट स्कबर स्थापित है। फर्नेस हेतु ईंधन के रूप में लकड़ी का प्रयोग किया जाता है। उद्योग द्वारा फर्नेस से सम्बद्ध चिमनी के अनुश्रवण (स्टेक मॉनिटरिंग) का कार्य मैसर्स इन्वायरो टेक सर्विसेस, गाजियाबाद से कराकर अनुश्रवण आख्या दिनांक–15.10.2023 प्रेषित की गयी है। अनुश्रवण आख्या संलग्न है।
4. उद्योग में वैकल्पिक विद्युत आपूर्ति हेतु 62.5 के0वी0ए0 एवं 15 के0वी0ए0 क्षमता के डी0जी0सेट्स स्थापित है। निरीक्षण के समय डी0जी0सेट से सम्बद्ध चिमनी की ऊँचाई निकटतम छत तल से बोर्ड मानको के अनुरूप पायी गयी। डी0जी0सेट्स हेतु ईंधन के रूप में डीजल आवश्यकतानुसार प्रयोग किया जाता है।
5. उक्त इकाई को इस कार्यालय द्वारा निवेश मित्र योजना के अन्तर्गत ऑनलाइन सन्दर्भ सं0–188470/यूपीपीसीबी/बिजनौर(यूपीपीसीबीआरओ)/सीटीओ/बोथ/बिजनौर/2023 दिनांक –25.07.23 द्वारा सशर्त सी0टी0ओ0 निर्गत की गयी थी, जिसकी वैधता अवधि दिनांक–31.07.2028 तक है।

कमशः.....2.....

6. निरीक्षण के समय उद्योग की चिमनी पर स्टैक मॉनिटरिंग हेतु प्लेटफार्म की व्यवस्था पायी गयी।

7. जिला कृषि अधिकारी के पत्रांक–1383/4–कृषि/ए0डी0ए0ओ0/2024–25/ दिनांक–15.10.2024 के द्वारा उक्त इकाई के संचालन से सन्निकट आस–पास की फसलों पर कोई प्रतिकूल प्रभाव न पड़ने के सम्बन्ध में आख्या प्रेषित की गयी है, जिसकी छायाप्रति संलग्न है।

अतः उपरोक्त निरीक्षण आख्या आपके अवलोकनार्थ एवं अग्रिम आवश्यक कार्यवाही हेतु प्रस्तुत है।

21/10/24

(नारायण दत्त पाठक)
जे0आर0एफ0

21/10/24

(एस0के0त्रिपाठी)
वैज्ञानिक सहायक

सहा0पर्या0अभियन्ता/क्षेत्रीय अधिकारी महोदय

21-10-24

21/10/24

इकाई मैसर्स देव इण्डस्ट्रीज, ग्राम–जमालुद्दीनपुर, तहसील–चाँदपुर, जिला–बिजनौर के विरूद्ध प्राप्त शिकायत के सम्बन्ध में संयुक्त निरीक्षण आख्या।

उपरोक्त संदर्भित इकाई मैसर्स देव इण्डस्ट्रीज, ग्राम–जमालुद्दीनपुर, तहसील–चाँदपुर, जिला–बिजनौर के विरूद्ध श्री भीषम कुमार त्यागी पुत्र श्री भूदेव सिंह, निवासी ग्राम–बसेड़ा तगा, तहसील–नौगावां सादात, जिला–अमरोहा द्वारा प्रेषित शिकायत के कम में संयुक्त निरीक्षण उ0प्र0 प्रदूषण नियन्त्रण बोर्ड, बिजनौर एवं राजस्व विभाग, तहसील–चांदपुर, जिला–बिजनौर द्वारा संयुक्त रूप से दिनांक–21.01.2025 को किया गया। निरीक्षण के समय इकाई प्रतिनिधि श्रीपाल, प्लांट इंचार्ज उपस्थित थें। निरीक्षण आख्या निम्नवत् है :–

1. इकाई द्वारा कच्चे माल के रूप में रबर स्क्रेप/वेस्ट रबर/वेस्ट टायर–06 मीट्रिक टन/दिन का प्रयोग कर फर्नेस आयल 2.5 टन/दिन, कार्बन ब्लैक 2.5 टन/दिन तथा स्टील वायर 200 किग्रा0/दिन का उत्पादन किया जाता है। **निरीक्षण के समय इकाई संचालित नहीं पायी गयी एवं उद्योग प्रतिनिधि द्वारा अवगत कराया गया कि इकाई विगत 01 माह से स्वयं के कारणों से बन्द है।**
2. इकाई द्वारा जल का प्रयोग घरेलू प्रयोजन एवं औद्योगिक प्रकिया में शीतलन हेतु प्रयोग किया जाता है। घरेलू प्रयोजन से जनित उत्प्रवाह का निस्तारण सेप्टिक टैंक के माध्यम से किया जाता है। उद्योग में वांशिग प्रकिया से जनित उत्प्रवाह के शुद्धिकरण हेतु 05 किली0/दिन क्षमता का उत्प्रवाह शुद्धिकरण सयन्त्र स्थापित है, जिसकी इकाईयॉ कमशः कलेक्शन टैंक, ऑयल ग्रीस ट्रैप, कोगुलेशन एवं फ्लोकुलेशन टैंक, ट्यूब सेटलर, फिल्टर फीड टैंक, एस0सी0एफ0, एम0जी0एफ0, स्लज ड्राईंग बेड्स हैं।
3. इकाई में स्थापित दो फर्नेस से सम्बद्ध संयुक्त चिमनी की भूतल से ऊँचाई 21 मीटर है। उक्त फर्नेस पर वायु प्रदूषण नियन्त्रण व्यवस्था के रूप में वेट स्कबर स्थापित है। फर्नेस में ईंधन के रूप में लकड़ी का प्रयोग किया जाता है।
4. इकाई में वैकल्पिक विद्युत आपूर्ति हेतु 62.5 के0वी0ए0 एवं 15 के0वी0ए0 क्षमता के डी0जी0सेट्स स्थापित है। निरीक्षण के समय डी0जी0सेट से सम्बद्ध चिमनी की ऊँचाई बोर्ड मानको के अनुरूप पायी गयी।

कमशः.....2.....

5. उक्त इकाई को इस कार्यालय द्वारा निवेश मित्र योजना के अन्तर्गत ऑनलाइन सन्दर्भ सं0–188470/यूपीपीसीबी/बिजनौर(यूपीपीसीबीआरओ) /सीटीओ/बोथ/बिजनौर/2023 दिनांक–25.07.23 द्वारा सशर्त सी0टी0ओ0 निर्गत की गयी थी, जिसकी वैधता अवधि दिनांक–31.07.2028 तक है।

6. निरीक्षण के समय उद्योग की चिमनी पर स्टैक मॉनिटरिंग हेतु प्लेटफार्म की व्यवस्था पायी गयी।

7. जिला कृषि अधिकारी, बिजनौर के पत्रांक–1383/4–कृषि/ए0डी0ए0ओ0/2024–25/ दिनांक–15.10.2024 के द्वारा उक्त इकाई के संचालन से सन्निकट आसं–पास की फसलों पर कोई प्रतिकूल प्रभाव न पड़ने के सम्बन्ध में आख्या प्रेषित की गयी है, जिसकी छायाप्रति संलग्न है।

उपरोक्त निरीक्षण आख्या अग्रिम आवश्यक कार्यवाही हेतु प्रस्तुत है।

(अंशु यादव)
जे0आर0एफ0
उ0प्र0 प्रदूषण नियन्त्रण बोर्ड,
बिजनौर।

(आशीष शर्मा)
अवर अभियन्ता
उ0प्र0 प्रदूषण नियन्त्रण बोर्ड,
बिजनौर।

(साधना चावला)
नायब तहसीलदार,
तहसील–चांदपुर
जिला–बिजनौर।


GPS Map Camera
Bijnor,Uttar Pradesh,India
Chandpur, Bijnor, Uttar Pradesh 246727, India
Lat 29.051033, Long 78.486103
07/11/2025 18:41 GMT+05:30
Note : Captured by GPS Map Camera
Maps

555

ANNEXURE R-5

MACHINE-1

MACHINE-2

PLC PROTECTION

GPS Map Camera

Bijnor,Uttar Pradesh,India

Chandpur, Bijnor, Uttar Pradesh 246727, India

Lat 29.051118, Long 78.486044

07/12/2025 07:33 GMT+05:30

Note : Captured by GPS Map Camera

GPS Map Camera

Bijnor,Uttar Pradesh,India

Chandpur, Bijnor, Uttar Pradesh 246727, India

Lat 29.050834, Long 78.486041

07/12/2025 07:31 GMT+05:30

Note : Captured by GPS Map Camera

558

GPS Map Camera

Bijnor,Uttar Pradesh,India

Chandpur, Bijnor, Uttar Pradesh 246727, India

Lat 29.051016, Long 78.485942

07/11/2025 18:31 GMT+05:30

Note : Captured by GPS Map Camera


GPS Map Camera
Bijnor,Uttar Pradesh,India
Chandpur, Bijnor, Uttar Pradesh 246727, India
Lat 29.050893, Long 78.486124
07/12/2025 07:30 GMT+05:30
Note : Captured by GPS Map Camera

ANNEXURE P-6 560

561


GPS Map Camera
Bijnor,Uttar Pradesh,India
Chandpur, Bijnor, Uttar Pradesh 246727, India
Lat 29.050604, Long 78.486213
07/26/2025 09:52 GMT+05:30
Note : Captured by GPS Map Camera
Maps

562


GPS Map Camera
Bijnor,Uttar Pradesh,India
Chandpur, Bijnor, Uttar Pradesh 246727, India
Lat 29.050612, Long 78.486173
07/26/2025 09:52 GMT+05:30
Note : Captured by GPS Map Camera
Maps

563


GPS Map Camera
Bijnor,Uttar Pradesh,India
Patiwari Basantpur Road, Chandpur, Bijnor, Uttar Pradesh 246727, India
Lat 29.050268, Long 78.486713
Friday, 28/11/2025 16:06:02 GMT+05:30
Note : Captured by GPS Map Camera

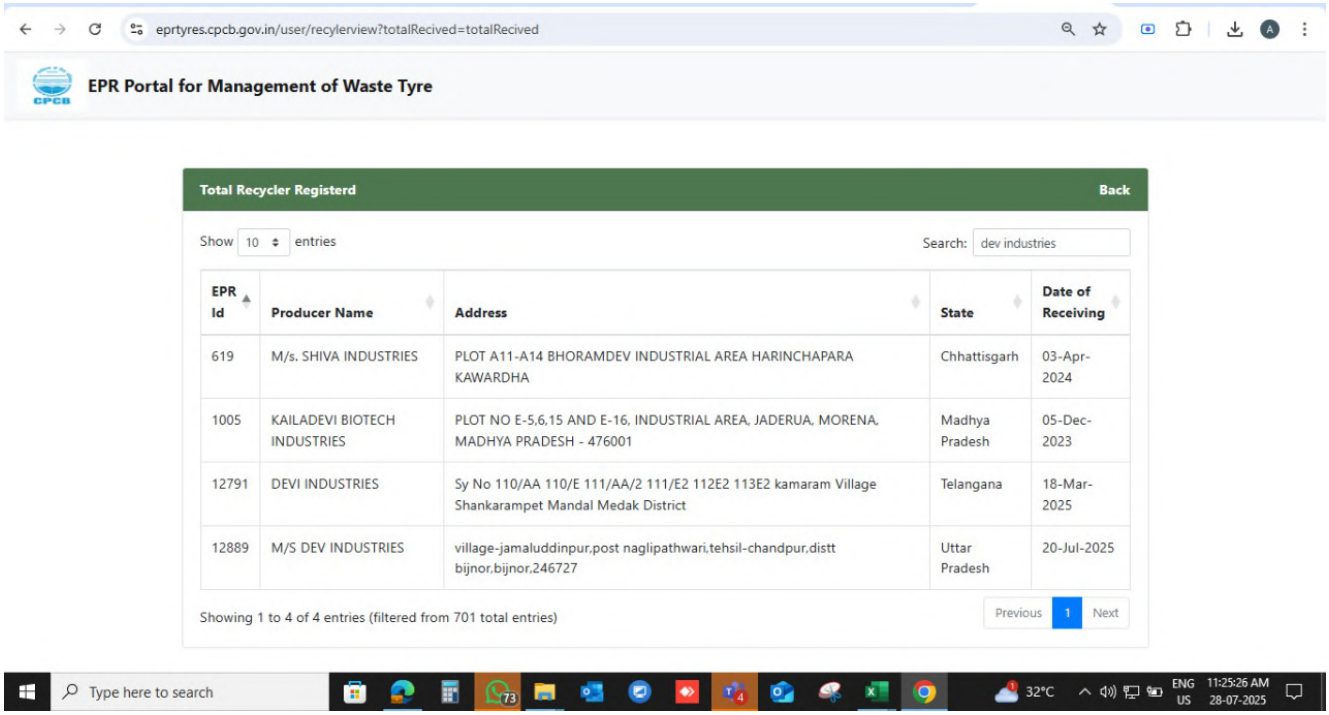
564

565


GPS Map Camera
Bijnor, Uttar Pradesh, India
Pathwari Basantpur Road, Chandpur, Bijnor, U
India
Reply

566

ANNEXURE R-7



eprtyres.cpcb.gov.in/user/recylerview?totalRecived=totalRecived

EPR Portal for Management of Waste Tyre

Total Recycler Registerd — Back

Show 10 entries — Search: dev industries

EPR Id	Producer Name	Address	State	Date of Receiving
619	M/s. SHIVA INDUSTRIES	PLOT A11-A14 BHORAMDEV INDUSTRIAL AREA HARINCHAPARA KAWARDHA	Chhattisgarh	03-Apr-2024
1005	KAILADEVI BIOTECH INDUSTRIES	PLOT NO E-5,6,15 AND E-16, INDUSTRIAL AREA, JADERUA, MORENA, MADHYA PRADESH - 476001	Madhya Pradesh	05-Dec-2023
12791	DEVI INDUSTRIES	Sy No 110/AA 110/E 111/AA/2 111/E2 112E2 113E2 kamaram Village Shankarampet Mandal Medak District	Telangana	18-Mar-2025
12889	M/S DEV INDUSTRIES	village-jamaluddinpur,post naglipathwari,tehsil-chandpur,distt bijnor,bijnor,246727	Uttar Pradesh	20-Jul-2025

Showing 1 to 4 of 4 entries (filtered from 701 total entries) — Previous 1 Next

Type here to search — 32°C — ENG US — 11:25:26 AM 28-07-2025

ANNEXURE-568

569

ANNEXURE R-9

GPS Map Camera

Bijnor,Uttar Pradesh,India

Chandpur, Bijnor, Uttar Pradesh 246727, India

Lat 29.051137, Long 78.485958

07/26/2025 11:09 GMT+05:30

Note : Captured by GPS Map Camera


DEV INDUSTRIES
Gstin
GPS Map Camera
Bijnor,Uttar Pradesh,India
Chandpur, Bijnor, Uttar Pradesh 246727, India
Lat 29.051171, Long 78.485983
07/26/2025 11:09 GMT+05:30
Note : Captured by GPS Map Camera

571

GPS Map Camera

Bijnor,Uttar Pradesh,India

Chandpur, Bijnor, Uttar Pradesh 246727, India

Lat 29.051050, Long 78.486034

07/26/2025 11:15 GMT+05:30

Note : Captured by GPS Map Camera


GPS Map Camera
Bijnor,Uttar Pradesh,India
Chandpur, Bijnor, Uttar Pradesh 246727, India
Lat 29.051050, Long 78.486034
07/26/2025 11:15 GMT+05:30
Note : Captured by GPS Map Camera
Maps

GPS Map Camera

Bijnor,Uttar Pradesh,India

Chandpur, Bijnor, Uttar Pradesh 246727, India

Lat 29.051079, Long 78.486027

07/26/2025 11:15 GMT+05:30

Note : Captured by GPS Map Camera

Maps

GPS Map Camera

Bijnor,Uttar Pradesh,India

Chandpur, Bijnor, Uttar Pradesh 246727, India

Lat 29.050829, Long 78.486467

07/26/2025 11:17 GMT+05:30

Note : Captured by GPS Map Camera

GPS Map Camera

Bijnor,Uttar Pradesh,India
Chandpur, Bijnor, Uttar Pradesh 246727, India
Lat 29.051005, Long 78.486152
07/26/2025 11:17 GMT+05:30
Note : Captured by GPS Map Camera

Maps

576

163

GPS Map Camera

Bijnor,Uttar Pradesh,India

Chandpur, Bijnor, Uttar Pradesh 246727, India

Lat 29.050644, Long 78.486346

07/26/2025 11:23 GMT+05:30

Note : Captured by GPS Map Camera

उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड
UTTAR PRADESH POLLUTION CONTROL BOARD

LiFE Lifestyle for Environment

सदर्भ संख्या H2789 /C-7 /विविध-716/25 दिनांक 6.5.25

सेवा में,

पंजीकृत

मै0 देव इण्डस्ट्रीज,
ग्राम–जमालुद्दीनपुर, तहसील–चाँदपुर,
जिला–बिजनौर।

विषयः–माननीय राष्ट्रीय हरित अधिकरण, नई दिल्ली में विचाराधीन ओ0ए0 सं0–03/2025 **Bhishm Tyagi Vs. State of Uttar Pradesh & Ors.** में पारित आदेश दिनांक 24.01.2025 एवं 20.03.2025 के क्रम में इकाई पर पर्यावरणीय क्षतिपूर्ति अधिरोपित किये जाने के संबंध में।

यह कि माननीय राष्ट्रीय हरित अधिकरण, नई दिल्ली में विचाराधीन ओ0ए0 सं0–03/2025 Bhishm Tyagi Vs. State of Uttar Pradesh & Ors. में पारित आदेश दिनांक 24.01.2025 के क्रम में इकाई मै0 देव इण्डस्ट्रीज, ग्राम–जमालुद्दीनपुर, तहसील–चाँदपुर, जिला–बिजनौर का संयुक्त निरीक्षण केन्द्रीय प्रदूषण नियंत्रण बोर्ड, तहसीलदार, तहसील–चाँदपुर, जिला बिजनौर एवं क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, बिजनौर द्वारा संयुक्त रूप से दिनांक 17.03.2025 को किया गया।

यह कि उक्त संयुक्त निरीक्षण में समिति द्वारा पाया गया कि आपके उद्योग द्वारा टॉयर पेरोलिसिस हेतु Hazardous and Other Wastes (Management and Trasnboundary Movement) Amendment Rules, 2022 के अन्तर्गत केन्द्रीय प्रदूषण नियंत्रण बोर्ड के ई0पी0आर0 पोर्टल पर पंजीकरण नहीं कराया गया है आपकी इकाई में स्थापित रियेक्टर की चिमनी मात्र 21 मीटर पर पायी गयी जबकि उ0प्र0 प्रदूषण नियंत्रण बोर्ड द्वारा निर्गत सशर्त सहमति जल एवं वायु में चिमनी की ऊँचाई 30 मीटर तक किया जाना निर्देशित है।

यह कि केन्द्रीय प्रदूषण नियंत्रण बोर्ड के पत्र सं0–CP-22/31/2024-WM-III-HO-CPCB-HO दिनांक 03.09.2024 द्वारा वेस्ट टायर की रिसाइक्लिंग किये जाने वाले इकाईयों के विरूद्ध पर्यावरणीय क्षतिपूर्ति की गाइडलाइन जारी की गयी है। उक्त गाइडलाइन के अन्तर्गत EC Regime 2 जिसके अन्तर्गत ई0पी0आर0 पोर्टल पर रजिस्ट्रेशन न कराये जाने के दृष्टिगत पर्यावरणीय क्षतिपूर्ति का आंकलन निम्नानुसार किया जाना प्राविधानित है :–

iii. For Recyclers and Retreaders the registration fee on the EPR Portal is Rs. 15000.0 and Rs. 10,000.0 respectively. So taking Rs. 12,500 as an average, the EC to Recyclers and Retreaders are as below:
For 1st Default – Rs. 12,500.0
For 2nd Default – Rs. Two times of first default i.e. Rs. 12,500.0 x 2=Rs. 25,000.0
For 3rd Default - Two times of second default i.e. Rs. 25,000 x 2=Rs. 50,000.0

B. For informal/illegalSale/Storage/Transportaion/Retreading/Recycling of Waste Tyre by any non-registered entity/person/shop/entity, EC Regime 2 will by applicable and the EC will be as below:
EC = Rs. 12,500.0 + Quantity of Waste Tyre Seized x Rs 8.40 per Kg of seized waste Tyre

यह कि क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, बिजनौर के पत्र दिनांक 01.05.2025 के साथ आप द्वारा प्रेषित सूचना के अनुसार माह सितम्बर, 2024 से अप्रैल, 2025 तक आपकी इकाई में औसतन दैनिक टायर की खपत 2,392 कि0ग्रा0/दिन है जिसको दृष्टिगत रखते हुए दिनांक माह सितम्बर, 2024 से अप्रैल, 2025 तक EC=12,500 + 2392 X 8.5 = Rs. 32832/per day (Rs. Thirty Two Thousand Eight Hundered Thirty Two Only) आंकलित होती है।

.....कृ0पृ0उ0

टी.सी. - 12 वी, विभूति खण्ड, गोमती नगर,
लखनऊ - 226010
दूरभाष : 0522-2720828, 2720831
ई–मेल : info@uppcb.com
वेबसाइट : www.uppcb.com

T.C.-12 V, Vibhuti Khand, Gomti Nagar,
Lucknow - 226 010
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E-mail : info@uppcb.com
Website : www.uppcb.com

यह कि संयुक्त समिति की निरीक्षण आख्या दिनांक 17.03.2025 में निम्नानुसार सुझाव एवं टिप्पणी की गयी है :–

A. To upgrade its Unit to Advanced Batch Automated Technology Process (ABAP) as per CPCB SOP dated 16.01.2024 for "Recycling of Waste scrap for the recovery of Tyre Pyrolysis Oil, Pyro Gas and Char in Tyre Pyrolysis Oil (TPO) Units" and provide below mentioned features:

i. Automatic control systems such as Programmed Logic Control (PLC) for measurement and control of temperature and pressure along with safety inter-locks in case of increase of temperature or pressure to cut off heating of the reactor.

ii. Sensors along with alarm system at all the transfer points throughout the plant to detect any leakage of flammable vapours from the system.

iii. Bypass arrangement for pyro gas from reactor door to primary condenser.

vi. Fire detectors, sprinklers and fire hydrant with necessary pumping system and water storage should be provided in the process area, product and raw material storage area,

v. Provision for suction hoods over the gate of reactor and char bagging area,

vi. Water sprinkler system, and

vii. Mechanized arrangement for removal of char and steel scrap and arrangement of Nitrogen gas (N) purging to address environmental and safety concerns.

B. To increase the height of its stack upto 30 meters as per Consolidated Consent & Authorisation.

C. To develop green belt across its periphery. The green belt may not be less than 5% of the total area of the plot in line with CPCB SOP.

D. To provide concrete flooring for storage of Raw Material & End Products as required under CPCB SOP.

E. To register under CPCB online Waste Tyre EPR Portal as per the provisions stipulated under schedule-IX of the Hazardous & Other Waste (M&TM) Amendment Rules, 2022 for Utilization & Management of Waste Tyre.

F. To remove the spillage of carbon black immediately from the agricultural land of complainant.

G. To obtain permission for Change in Land Use from concerned department.

अतः उपरोक्त वर्णित तथ्यों एवं क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, बिजनौर द्वारा की गयी संस्तुति के दृष्टिगत सक्षम अधिकारी की अनुमति से आपके इकाई मै0 देव इण्डस्ट्रीज, ग्राम–जमालुददीनपुर, तहसील–चाँदपुर, जिला–बिजनौर के विरूद्ध वायु (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1981 की धारा–31ए सपठित 21(4) के अन्तर्गत बन्दी आदेश जारी किये जाने हेतु निम्नानुसार कारण बताओ नोटिस जारी किया जाता है :–

1. यह कि क्यो न इकाई मै0 देव इण्डस्ट्रीज, ग्राम–जमालुददीनपुर, तहसील–चाँदपुर, जिला–बिजनौर के पक्ष में बोर्ड के पत्र सं0–188470/यूपीपीसीबी/बिजनौर (यूपीपीसीबीआरओ)/सीटीओ/बोथ/बिजनौर/2023 दिनांक 25.07.2023 द्वारा निर्गत सशर्त

सहमति जल एवं वायु को खण्डित करते हुए इकाई के विरूद्ध बन्दी आदेश जारी कर दिया जाए।

2. यह कि क्यों न सक्षम अधिकारियों से यह अपेक्षा की जाये की इकाई मै0 देव इण्डस्ट्रीज, ग्राम–जमालुद्दीनपुर, तहसील–चॉदपुर, जिला–बिजनौर को मिलने वाले जल एवं बिजली की समस्त सुविधाएं तत्काल प्रभाव से रोक दी जाए।
3. यह कि इकाई मै0 देव इण्डस्ट्रीज, ग्राम–जमालुद्दीनपुर, तहसील–चॉदपुर, जिला–बिजनौर द्वारा संयुक्त समिति द्वारा दिये गये सुझाव एवं टिप्पणी के दृष्टिगत ई0पी0आर0 पोर्टल पर पंजीकरण कराते हुए उक्त समस्त संस्तुतियों का अनुपालन सुनिश्चित कराया जाए।

उक्त के अतिरिक्त केन्द्रीय प्रदूषण नियत्रण बोर्ड द्वारा जारी गाइडलाइन के अनुसार समस्या के समाधान किये जाने तक रू0 32,832/(रू0 बत्तीस हाजर आठ सौ बत्तीस मात्र) प्रतिदिन की दर से क्यों न आपकी इकाई मै0 देव इण्डस्ट्रीज, ग्राम–जमालुद्दीनपुर, तहसील–चॉदपुर, जिला–बिजनौर के विरूद्ध पर्यावरणीय क्षतिपूर्ति अधिरोपित कर दी जाए।

उपरोक्त के संबंध में अपना स्पष्टीकरण इस पत्र प्राप्ति के 15 दिन के अन्दर बोर्ड मुख्यालय में प्रेषित करें, अन्यथा की स्थिति में उपरोक्तानुसार आपकी इकाई के विरूद्ध पर्यावरणीय क्षतिपूर्ति अधिरोपित करते हुए बन्दी आदेश जारी कर दिया जाएगा, जिसका सम्पूर्ण उत्तरदायित्व स्वयं इकाई एवं इकाई के स्वामी का होगा।

मुख्य पर्यावरण अधिकारी, वृत्त–7

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<u>प्रतिलिपिः–निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित–</u>

1. जिलाधिकारी, बिजनौर।
2. क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, बिजनौर को इस निर्देश के साथ प्रेषित कि अपने स्तर से भी कारण बताओ नोटिस की प्रति इकाई स्वामी को प्राप्त कराते हुए, पावती एवं जारी कारण बताओ नोटिस के संबंध में इकाई का अद्यतन निरीक्षण कर आख्या 15 दिन के अन्दर बोर्ड मुख्यालय प्रेषित करना सुनिश्चित करें।

मुख्य पर्यावरण अधिकारी, वृत्त–7

TO,

UTTAR PRADESH POLLUTION CONTROL BOARD (UPPCB)
MAIN OFFICE AT,
TC-12V, VIBHUTI KHAND,
GOMTI NAGAR,
LUCKNOW, U.P

SUB: Reply to the letter dated 06.05.2025 having reference no. 27/N-H27891/C-7/Miscellaneous-716/25 dated 06.05.2025

Sir/Madam,

The present reply is being filed on behalf of M/s Dev Industries (hereinafter the ***'Noticee'***) situated in District Bijnor, Uttar Pradesh to the show cause notice dated 06.05.2025 (hereinafter the ***'SCN'***) addressed to it as referenced above. The answering Noticee seeks to also bring on record that the said SCN was received by it on 15.05.2025 and is thus being answered within the time period specified therein.

That the answering Noticee had earlier also replied to your letter having REFERENCE NO. 27/N-68/GENERAL-2025 DATED 05.04.2025 as well as LETTER HAVING REFERNCE NO. 101/N-68/GENERAL-2025 DATED 28.04.2025 and the same may also be referenced to herein and the following may be considered in response thereof;

i. At the very outset the Noticee puts forth that the present SCN is an afterthought and an exercise undertaken without due diligence and consideration of the status of the issue at hand.

ii. In fact, for reasons best known to the UPPCB, no reference has been made to the fact that M/s Dev Industries has been operating in a wholly legal and authorized manner and a ***Consolidated Consent to Operate and Authorisation*** (hereinafter referred to as ***'CCA'***) dated 25.07.2023 was duly issued by the UPPCB in accordance with Section 25 of the Water (Prevention & Control of Pollution) Act, 1974 (hereinafter the ***'Water Act'***) as also under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 (hereinafter the ***'Air Act'***).

iii. Notably, the said CCA grants authorisation to the Noticee from 01.08.2023 to 31.07.2028 and is valid for manufacturing of following products;

- Furnace Oil (2.5 MT/day)
- Carbon Black (2.5 MT/day)
- Steel Wire (200 kg/day)

iv. It must thus be noted that the Noticee herein has been operating in complete and absolute compliance with the said CCA as also the law governing the same.

v. Additionally, the *"Guidelines for Environmental Compensation (EC) under Waste Tyre EPR Regime"* were notified from 03.09.2024 however the manner of calculation of the EC by the UPPCB is misplaced and erroneous. The guidelines provide for a 'registration fee based calculation' of compensation under EC Regime-2 and qua the same the registration fee has been computed as an average of Rs. 12,500/- for 'Recyclers and Retreaders'.

vi. Additionally, vide Clause 6.2(B) of the guidelines, the ***'quantity of waste tyre seized'*** assumed crucial importance for

devoid of the same no pro-rata calculation of EC can be made under Regime-2.

vii. However in the matter at hand, and as the Joint Committee Report dated 17.03.2025 makes evident, the Tyre Pyrolysis Plant (TPO) as operated by M/s Dev Industries has been non-operational and thus there is no basis for calculation of EC at Rs. 32,832 per day from September 2024 to April 2025.

viii. Moreover, the above-outlined guidelines as also the EC Regime-2 nowhere grant the power to apportion the EC in an onerous and unreasonable manner as has been done herein by the UPPCB. The EC Regime-2 is clear in its mandate that if at all there is an EPR violation the same shall be calculated as a sum of the (1) Registration fee default, (2) Quantity of seized tyre, and (3) Multiplier of ₹8.40 per kg of such seizure.

ix. As has already been outlined above, there is no seizure of any illegal tyre made by the UPPCB and its calculation rests on an assumptive basis entirely.

Having regard to the response as above outlined, the answering Noticee puts forth that being the operator of the recycling plant, in compliance of the joint committee report was in the process of outlining its responses/replies to the remedial actions outlined vide said report and due to the calamitous events of the intervening night of 18/19.04.2025, the entire recycling plant was devastated and substantially extensive damage was caused. Manifestly thus, no manufacturing/industrial activity has been undertaken.

That the answering Noticee had earlier followed the guidelines issued by the UPPCB for the installation of the ETP (effluent treatment plant) and the same was installed at the earliest and information for the same was given to the department.

Furthermore, the chimney stack installed at the TPO is having the height of 30 mtrs and the same has been erroneously mentioned in the joint committee report as 21 mtrs because the incorrect records maintained by the UPPCB. The Noticee herein has never neglected to adhere to the guidelines issued qua its operation.

That, the SOP issued in September,2024 was not in the knowledge of the answering respondent and therefore necessary changes could not be made according the new SOP. The answering respondent came to know about the new SOP only after reading the joint committee report submitted in the NGT, Delhi.

Therefore, keeping in consideration the above-outlined submissions of the Noticee herein, the matter at hand is sub-judice and the Noticee has fully complied with all the directions as issued to it by the Hon'ble National Green Tribunal. In fact, a time period of 6-8 weeks has been granted to it to file its compliance affidavit and therefore no adverse and coercive action ought to be taken against it devoid of directions from the Hon'ble NGT.

Thanking You,

M/s DEV INDUSTRIES
THROUGH IT'S PROPRIETOR
OFFICE AT:- VILLAGE JAMALUDDIN PUR, POST-NANGLI PATHWARI, TEHSIL-CHANDPUR, DIST. BIJNOR-246727
DATED 19.05.2025

COPY TO;

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UTTAR PRADESH POLLUTION CONTROL BOARD,
REGIONAL OFFICE AT:- MAHARISHI DAYANAND NAGAR,
NEAR SAINT MARY SCHOOL, AADAMPUR, CHAKKARROAD,
BIJNOR-246701

केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

File No.: CP-22/31/2024-WM-III-HO-CPCB-HO

September 3, 2024

Waste Management-III Division

ANNEXURE R-11

NOTICE

Kind Attention: Producers, Recyclers and Retreaders under Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2022

Subject: Environmental Compensation (EC) Guidelines under Hazardous and Other Waste (Management &Transboundary Movement) Amendment Rules, 2022 (Waste Tyre EPR Regime)

The Central Pollution Control Board has prepared Environmental Compensation (EC) Guidelines, after several rounds of consultations with Producer's Associations namely ATMA (Automotive Tyre Manufacturer Association) and Recycler's Associations namely MRAI (Material Recycling Association of India), AIRTRA (All India Rubber and Tyre Recyclers Association) and TRRAI (Tyre & Rubber Recyclers Association of India).

As required under paragraph 10(1) of Schedule-IX of HOW (M&TM) Amendments Rules, 2022, the Environmental Compensation (EC) Guidelines were presented in the 3rd Steering Committee meeting held on 08.08.2024. The Steering Committee has approved the Environmental Compensation (EC) Guidelines. The Environmental Compensation (EC) Guidelines were further submitted to the Ministry of Environment, Forest and Climate Change (MoEF&CC) vide letter F. No.: CP-22/31/2024-WM-III-HO-CPCB-HO/364 dated 19.08.2024 for approval.

Accordingly, MoEF&CC vide Office Memorandum F. No.: 09/6/2021-HSMD dated 02.09.2024 (copy enclosed) has approved the Environmental Compensation (EC) Guidelines. The approved Environmental Compensation (EC) Guidelines are enclosed herewith for ready reference.

Anand Kumar 03/09/2024

(Anand Kumar)
Director &
Divisional Head
WM-III Division

F. No. 09/6/2021-HSMD
Government of India
Ministry of Environment, Forest and Climate Change
(HSM Division)

Level II, Jal Block,
Indira Paryavaran Bhawan,
Jor Bagh Road, Ali Ganj,
New Delhi-110003

Dated: 02nd September, 2024

OFFICE MEMORANDUM

Sub: Draft Environmental Compensation (EC) guidelines prepared by CPCB and approved by Steering Committee under the provisions of Hazardous and Other Waste (Management and Transboundary Movement) Amendment Rules, 2022 (Waste Tyre EPR Rules) – reg.

The undersigned is directed to refer to communication *vide* No. CP-22/31/2024-WM-III-HO-CPCB-HO/364 dated 19th August, 2024 of Central Pollution Control Board on the above mentioned subject matter and to convey the approval of Ministry of Environment, Forest and Climate Change on the said guidelines.

This issue with the approval of the competent authority.

(Ved Prakash Mishra)
Director

To,

Shri Anand Kumar,
Director & Divisional Head,
WM-III Division,
Central Pollution Control Board,
Parivesh Bhawan, East Arjun Nagar,
Shahdara, Delhi -110032
Email ID – anand.cpcb@nic.in

Copy to:

The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Shahdara, Delhi - 110 032.

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Guidelines for Environment Compensation (EC)
under
Waste Tyre EPR Regime

Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2022 and amendments thereof

Central Pollution Control Board
Parivesh Bhawan, East Arjun Nagar, Delhi – 110032

July, 2024

TABLE OF CONTENTS

1.0 Background

MoEF&CC has notified 'Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2022 and amendments thereof', for management of Waste Tyre. The management is based on the principal of Extended Producer Responsibility (EPR) where the Producers of the Waste Tyres have been assigned EPR targets on the basis of quantity of tyre sold or imported by it. Recyclers and Retreaders under the rules are mandated to generate and issue EPR Certificates and Retreading Certificate based on quantity of waste tyre recycled or retreaded by them. Further, for fulfilment of EPR targets Producers are required to purchase EPR Certificate from registered Recyclers. The quantity of EPR certificates purchased will be adjusted against EPR targets. A Producer may also buy Retreading certificate for deferment of its EPR obligations, however, the obligations will only be considered fulfilled once the Recycling certificates are purchased.

As per paragraph 10 of Schedule-IX of HOW (M & TM) Amendments Rules, 2022 and amendments thereof "The Central Pollution Control Board shall lay down guidelines for imposition and collection of environmental compensation on the producers in case of non-fulfilment of obligations set out in this Schedule and use of false extended producer responsibility certificate and the said guidelines shall be in accordance with the provisions of this Schedule and shall require to be approved by the Steering Committee constituted under paragraph 13 and Central Government before implementation."

As per paragraph 6 (8) of Schedule IX of the above said Rules, "The Central Pollution Control Board shall fix the highest and lowest price for exchange of extended producer responsibility certificates which shall be equal to hundred per cent and thirty per cent, respectively of the environmental compensation for non-fulfilment of extended producer responsibility obligation under paragraph 10 of the Schedule IX".

This EC Regime has been framed in accordance with the Hazardous and Other Waste (Management &Transboundary Movement) Amendments Rules, 2022 and amendments thereof. The document details the EC regime to be levied on the violators in accordance with provisions of the above said Rules

2.0 Introduction

Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2022 and amendments thereof stipulates that CPCB shall impose Environmental Compensation (EC) in case of non-compliance of these rules by the registered Producers / Recyclers / Retreaders. This Environmental Compensation will help in implementation of the waste tyre EPR regime by the Producers / Recyclers / Retreaders. Environmental Compensation shall be levied for non-compliances of provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2022 and amendments thereof. The Environmental Compensation has been derived based on the cost incurred for recycling of Waste Tyre.

Under the Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2022, five end products of recycling have been recognized, which are Reclaimed Rubber, Crumb Rubber, Crumb Rubber Modified Bitumen (CRMB), Recovered Carbon Black and Pyrolysis Oil or Char. For environmentally sound recycling of waste tyre significant investments in technology, R&D and health and safety measures are required. Establishing floor price for EPR Certificate is very crucial as it incentivizes investments in collection and transportation networks, making collection and logistics costs economically viable and motivates recyclers to go for best available technology.

3.0 Applicability

These guidelines will be applicable to below mentioned entities involved in manufacture, sale, transfer,

purchase, recycling and retreading of Waste Tyre or Tyre as defined in the Hazardous and Other Waste (Management & Transboundary Movement) Amendments Rules, 2022.

I. **Producers:** "Producer" means any person or entity who, -
   i. Manufactures and sells new tyre domestically; or
   ii. Sells domestically under its own brand, new tyre manufactured by other manufacturers or suppliers; or
   iii. Sells imported new tyre; or
   iv. Imports vehicles fitted with new tyres; or
   v. Automobile manufacturers importing new tyre for use in new vehicles sold domestically; or
   vi. Imports waste tyre;

II. **Recyclers:** "Recyclers" means any person or entity engaged in the process of converting waste tyre into following end products, in an environmentally sound manner namely; -
   i. Reclaimed rubber;
   ii. Crumb rubber;
   iii. Crumb rubber modified bitumen (CRMB);
   iv. Recovered carbon black, which is usable as raw material for manufacture of new tyre; and
   v. Pyrolysis oil or Char, which is used only as a fuel and not as raw material for manufacture of new tyre;

III. **Retreaders:** "Retreaders" means any person or entity engaged in the process of renewal of tread and side wall rubber of a worn out tyre having a good structural quality.

4.0 Provisions of HOW (M & TM) Amendment Rules, 2022 for which EC is to be levied and violation

Environmental Compensation is to be levied for the non-compliance of the following provisions of the of HOW (M &TM) Amendments Rules, 2022 (Waste Tyre EPR Regime) as listed in Table 1 below:

Table 1:

S. No.	Rules	Provisions	Violations	Entities
1.	3(2), 10(3)	No entity (Producer, Recycler and Retreader) shall carry out any business without registration. The environmental compensation shall also be levied on unregistered producers, recyclers and any entity which aids or abets the violation of the provisions of this Schedule.	Operating without registration	Producer, Recycler, Retreader
2.	3(3)	The entities registered under sub-paragraph (1) shall not deal with any unregistered producer or recycler.	Entity dealing with unregistered entities	Producer, Recycler, Retreader
3.	3(4) 10(2)	In case any registered entity furnishes false information or wilfully conceals information for getting registration or return or report or information required to be provided or furnished under this Schedule or in case of any irregularity, the registration of such entity may be revoked by the Central Pollution Control Board for a period up to three years after giving an opportunity of being heard and in addition, environmental compensation charges may	Submission of false information and/or wilful concealment of information	Producer, Recycler, Retreader

Anand Kumar

S. No.	Rules	Provisions	Violations	Entities
		also be levied in such cases as per paragraph 10 The environmental compensation shall also be levied on the recyclers for issue of false extended producer responsibility certificate and providing false information		
4.	3(5)	In case any entity is covered in more than one category under paragraph 3, then the said entity shall register under those categories separately.	Entities falling under more than one category but registered under only one category	Producer, Recycler Retreader
5.	4(1), 4(4)(i), 7(1)	All producers shall fulfil the extended producer responsibility obligations. The producer shall fulfil their extended producer responsibility obligation through online purchase of extended producer responsibility certificate from registered recyclers only	Non-fulfilment of obligations	Producer
6.	4(4) (ii)	The quarterly return shall be filed by the end of the month succeeding the end of the quarter.	Failure in filing the quarterly returns	Producer, Recycler, Retreader
7.	4(4)(iii)	The details provided by producers and registered recyclers shall be cross-checked on the portal.	Submission of False information	Recycler
8.	5(3) (a)	The validity of the extended producer responsibility certificate shall be two years from the end of the financial year in which it was generated.	Renewal of registration	Producer, Recycler, Retreader
9.	4(4) (ii) 7(2),8(2), 8(A)(2)	The producer shall be responsible to file annual and quarterly returns in the forms as specified by the Central Pollution Control Board on the portal on or before the end of the month succeeding the quarter to which the return relates and each registered entity shall have to file the quarterly return. All the recycler/retreader shall file annual and quarterly returns in the Form as specified on the portal on or before the end of the month succeeding the quarter to which the return relates.	Failure in filing the quarterly returns	Producer, Recycler, Retreader
10.	8(1), 8(A)(1)	The Recycler/Retreader shall submit on monthly basis the information regarding quantity of waste tyres used and end product produced, extended producer responsibility certificate sold and such other relevant information on the portal.	Monthly basis Procurement and sales, Credit transfer data should be uploaded on the portal	Recycler, Retreader
11.	10(1), 10(2)	Producers in case of non-fulfilment of obligations set out in this Schedule and use of false extended producer responsibility certificate.	Transaction or use of false extended producer responsibility certificate	Producer

Anand Kumar

S. No.	Rules	Provisions	Violations	Entities
12.	10(5)	Any false information resulting in over generation of extended producer responsibility certificates by recycler above 5% of the actual recycled waste shall result in revocation of registration and imposition of environmental compensation which shall not be returnable.	Submission of False information resulting in over generation of EPR certificates	Recycler
13.		HOW (M &TM) Amendments Rules, 2022,2024	Any other violation not listed above	Producer, Recycler, Retreader

Assessment of Environmental Compensation to be levied for violation of the any other sub-rules of the HOW (M &TM) Amendments Rules, 2022 or any other violation other than mentioned in the table above shall be done on case to case basis

5.0 Environmental Compensation (EC) and Boundary Conditions

As per paragraph 6 subparagraph 8 of Schedule IX, the highest and lowest price for exchange of extended producer responsibility certificates shall be equal to hundred percent (100%) and thirty per cent (30%), respectively of the Environmental Compensation. The cost of EPR will be regulated with the cost of Environmental Compensation.

The basic concepts applied for calculation of Environmental Compensation (EC) is the damage to environment or adverse impact on the environment due to violation or non-compliance of Hazardous and Other Waste (M & TM) Amendment Rules, 2022

The Environmental Compensation is divided into two regimes, EC Regime 1 and EC Regime 2 based on the non-fulfilment of EPR target by the Producers and other non-compliances of Hazardous and Other Waste (M & TM) Amendment Rules, 2022 and amendments thereof by Producers / Recyclers / Retreaders.

In EC Regime 1, producers are covered for not meeting their EPR Targets. Shortfall in EPR Targets has been considered as adverse impact and damage to the environment and this adverse impact and damage to the environment has happened because quantity of Waste Tyre equal to shortfall in target was not collected, transported to recycling facility and recycled in an environmentally sound manner. So, producers have to bear the average cost of collection, transportation and processing as a compensation for damaging the environment. So in EC Regime 1, average cost of collection, transportation and processing cost of Waste Tyre are taken as parameters for deciding the EC.

In EC Regime 2, average application fees as applicable for registration of Producers, Recyclers and Retreaders on the Waste Tyre EPR Portal under these rules is selected as the parameter in EC Regime 2.

Boundary Condition for Environmental Compensation & Cost of EPR Certificate:

i. The cost of EPR certificate for various end products should be set lower than the market value of end products. This ensures that end products are recovered from the recycling of waste rather than purchasing end products from the market and selling them to generate EPR certificates.
ii. The Environment Compensation shall not absolve the producers from their extended producer responsibility

6.0 Approach for Assessment of Environment Compensation (EC)

i. **EC Regime 1** – In this regime, EC will be levied to the Producers for non-fulfilment of EPR-

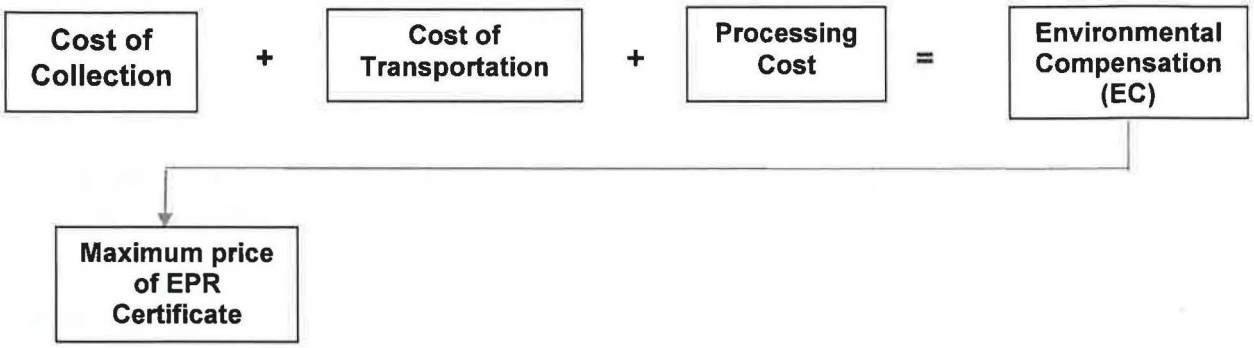
Obligations.

ii. **EC Regime 2** – In this regime, EC will be levied to any entity for non-compliances of HOW (M &TM) Amendments Rules, 2022 and amendments thereof (detail of which is mentioned in Section 7.0).

6.1 EC Regime 1

The EC to producers for not meeting the EPR Targets is the average expense on Waste Tyre collection, transportation and recycling.

The concept for arriving EC charges as per the above scenario is given below:



For arriving at cost of collection, transportation and processing, extensive interactions were held with recyclers and producer's associations (six meetings) and it was observed that the cost of collection, transportation and processing depends upon various factors such as handling cost, labour cost and intermediate storage cost, product types, recycling technology and use of products. Based on the discussion with stakeholder's association an average cost of collection, transportation and processing of Rs. 8.40 per Kg has been considered.

[Cost of Collection + Cost of Transportation + Cost of Processing] per Kg of Waste Tyre = Rs. 8.40

EC = Cost of [Collection + Transportation + Processing] of waste tyre
= Rs. 8.40 per Kg

EC =Maximum Value of EPR Certificate

Maximum value of EPR Certificate = EC = Rs. 8.40 per Kg

Minimum value of EPR Certificate = ECx0.3 = 8.40 x 0.3 = Rs. 2.52 per Kg

6.2 EC Regime 2: EC based on Registration Fee

A. **EC Regime 2** will be applicable to the entities as per section 3 above for violations under provisions of HOW (M & TM) Amendments Rules, 2022 except EPR obligation violation by producers. The violations are listed in table 1 of the section 4. Under the EC Regime 2, the basis for calculation of EC shall be registration fee.

i. **For Producers** the registration fee for registration on the EPR Portal is Rs. 25,000.0 + Rs. 0.625 per tones of tyre Manufactured/Imported in the preceding two years. So, Rs. 25,000.0

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has been taken as the fee for levying Environmental Compensation Charges to Producers. The EC to Producers are as below:

For 1st Default – Rs. 25,000.0
For 2nd Default – Two times of first default i.e. Rs. 25,000.0 x 2 = Rs. 50,000.0
For 3rd Default – Two times of second default i.e. Rs. 50,000.0 x 2 = Rs. 100,000.0

ii. **For providing false sales data resulting in EPR obligation less than the actual EPR obligation then EC = Rs. 25000.0 + quantity of false sales data x Rs. 8.40 per Kg of false sales data****
** EC Charges

iii. **For Recyclers and Retreaders** the registration fee on the EPR Portal is Rs. 15000.0 and Rs. 10,000.0 respectively. So taking Rs. 12,500 as an average, the EC to Recyclers and Retreaders are as below

For 1st Default – Rs. 12,500.0
For 2nd Default – Two times of first default i.e. Rs. 12,500.0 x 2 = Rs. 25,000.0.
For 3rd Default – Two times of second default i.e. Rs. 25,000 x 2 = Rs. 50,000.0.

B. For Informal/illegal Sale/Storage/Transportation/ Retreading/ Recycling of Waste Tyre by any non-registered entity/ person/shop/entity, **EC Regime 2** will be applicable and the EC will be as below:

EC = Rs. 12,500.0 + Quantity of Waste Tyre Seized x Rs 8.40 per Kg of seized Waste Tyre**
** EC Charges

C. Submission of false information resulting in over generation of EPR certificates /retreading certificate, **EC Regime 2** will be applicable and the EC will be as below:

EC = Rs. 12,500.0 + Quantity of false EPR/ Retreading certificate generated x Rs 8.40 per Kg of false EPR/ Retreading certificate generated**
** EC Charges

7.0 Details of EC to be levied & Penal action for non-compliance.

Details of EC to be levied & penal action to be taken against the stakeholders for non-compliance of HOW (M &TM) Amendments Rules, 2022 is given in the table below:

S.No.	Entities	Violation	Environmental compensation
	Registration on EPR Waste Tyre Portal		
1.	Producer, Recycler, Retreader	Operating without registration/ Non-compliance of conditions stipulated in Certificate	I. EC Regime 2 II. The applicant has to register on the Waste Tyre EPR Portal and the EC will be levied. III. Action as per Environment (Protection) Act, 1986 IV. Penalty as per Section 15 of Environment (Protection) Act, 1986
2.		Entity dealing with unregistered entities	EC Regime 2
3.		Registered only in one type of entity	EC Regime 2
4.		Operating without valid registration- Failure in renewal of Registration in time as prescribed under the rules	Respective EC Regime 2 as below: 1st default regime till 15 days. 2nd default regime from 16th day till 30th Day and 3rd default regime from 31st day till grant of registration
	Submission of false information or wilfully concealing information		
5.	Producer, Recycler, Retreader	Submission of false information and/or wilful concealment of information	i. EC Regime 2 [A(i) + A (ii)] ii. and beyond 3rd default, cancellation of registration issued by CPCB up to three years. iii. Action as per Environment (Protection) Act, 1986 iv. Penalty as per Section 15 of Environment (Protection) Act, 1986

6.	Recycler	Submission of False information resulting in over generation of EPR certificates	i. EC Regime 2 [A (iii) + C] and suspension of registration issued by CPCB for a period of one year for 1st default, suspension for 2 years for 2nd default and suspension of 3 years for 3rd default ii. Action as per Environment (Protection) Act, 1986 iii. Penalty as per Section 15 of Environment (Protection) Act, 1986
	Annual and quarterly returns filings		
7.	Producer, Recycler, Retreader	Failure in filing the Annual returns	i. Notice will be issued for **10** days after the last date of return filings. ii. Thereafter Respective EC Regime 2 as below: iii. 1st default regime if filed within **15** days after the last day of return filing iv. 2nd default regime if filed within **30** days after the last day of return filing v. 3rd default regime if filed within **60** days after the last day of return filing vi. Thereafter AR to be auto filled on the EPR Portal and EC will be levied on shortfall in recycling target, if any, in addition to EC charges calculated as at points from 7(iii) to 7(v) above. If due to force majeure conditions, the Producers are not able to file the AR, within the period of 60 days after the last day of filing, then the final decision regarding levying of EC will be taken by CPCB for the purpose.
	Failure in fulfilling the obligation by Producer		
8	Producer	Failure in fulfilling the EPR obligation	EC Regime 1 will be applicable

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	EPR Certificates / Retreading Certificates		
9	Producer	Transaction or use of false extended producer responsibility certificate or any unethical practice for transaction of certificate	EC Regime 2 [A(i) + A (ii)] and immediate suspension of registration issued by CPCB for a period of six months to three years as decided by the competent Authority CPCB
10	Recycler/Retreader	Transaction or use of false extended producer responsibility certificate or any unethical practice for transaction of certificate Submission of False information resulting in over generation of EPR certificates /refurbishing	EC Regime 2 and immediate suspension of registration issued by CPCB for a period of six months to three years as decided by the competent Authority CPCB
	Improper Recycling/Retreading of Waste Tyres		
11	Recycler/Retreader	Non-compliance of Recycling SOP	EC Regime 2 i. Action as per Environment (Protection) Act, 1986 ii. Penalty as per Section 15 of Environment (Protection) Act, 1986
	Audit		
12	Producer/Recycler/Retreaders	Non-Compliance Found in Audit	i. EC Regime 2 ii. For continued violation, (increase in EC amount, Closure of unit/ Cancellation of CTO and Authorization under HOWM Rules etc. as the case may be,) as deemed necessary by the Competent Authority, CPCB iii. Action as per Environment (Protection) Act, 1986 iv. Penalty as per Section 15 of Environment (Protection) Act, 1986
Any other violation			
13	Producer/Recycler/Retreaders	Any other violation not listed above	i. EC Regime 2 ii. Action as per Environment (Protection) Act, 1986 iii. Penalty as per Section 15 of Environment (Protection) Act, 1986

INFORMAL ACTIVITIES

S.No.	Violation	Environmental Compensation
1	Informal/Illegal sale/storage/transportation/ recycling/retreading / processing of Waste Tyre	**Rs. 12,500.0 + Quantity of Waste Tyre Seized x Rs 8.40 per Kg of seized Waste Tyre**** ** EC Charges

Note:

a) ***The Environmental compensation shall be effective from the date of issue of this Environmental Compensation (EC).***

b) ***As per the rules 10 (5) of the HOW (M &TM) Amendments Rules, 2022 and amendments thereof, false information resulting in over generation of extended producer responsibility certificates by recycler above 5% of the actual recycled waste shall result in revocation of registration and imposition of environmental compensation which shall not be returnable.***

c) ***The Environment Compensation shall not absolve the producers from their extended producer responsibility and the unfulfilled extended producer responsibility for a particular year shall be carried forward to the next year and so on up to three years as per the sub rule 10 (4) (b) of the HOW (M &TM) Amendments Rules, 2022 and amendments thereof.***

8.0 EC charges for Delay in EC deposition

The Environmental Compensation Charges and Financial Penalty shall be deposited by the violating facility within the stipulated time period specified under directions issued by CPCB/SPCB/PCC. In case, such facility does not submit the same within the stipulated time frame the amount will be exponentially increased as per details given below:

S.N.	Delay in EC Deposition	Penalty
1	**Within one month** after the stipulated time as per the directions by CPCB/SPCB/PCCs.	Original amount with interest @ 12% per annum for the number of days delayed after the stipulated time.
2.	**After one month and within three months** after the stipulated time as per the directions by CPCB/SPCB/PCCs.	Original amount with interest @ 24 % per annum for the number of days delayed after the stipulated time.
3.	**After three months** of the stipulated time as per the directions by CPCB/SPCB/PCCs.	a) Issue of show cause notice to the facility b) Closure of unit/facility c) Action as per section 15 of the Environment (Protection) Act, 1986

9.0 Actions to be taken after submission of EC levied against shortfall of EPR obligation

Payment of environmental compensation shall not absolve the producer from the extended producer responsibility as specified in rules and the unfulfilled extended producer responsibility for a particular year shall be carried forward to the next year and so on and up to three years.

1. In case, the shortfall of extended producer responsibility obligation is addressed after one year, 85 per cent of the environmental compensation levied shall be returned to the producer.
2. In case, the shortfall of extended producer responsibility obligation is addressed after two years, 60 per cent of the environmental compensation levied shall be returned to the producer.

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3. In case, the shortfall of extended producer responsibility obligation is addressed after three years, 30 per cent of the environmental compensation levied shall be returned to the producer, thereafter no environmental compensation shall be returned to the producer.

10.0 Modalities for Expenditure of EC Funds

As per the rule 10(6)(a)(b) of the HOW (M &TM) Amendments Rules, 2022. "The funds collected under environmental compensation shall be kept in a separate escrow account by the Central Pollution Control Board and shall be utilized in collection and recycling or end of life disposal of uncollected and non-recycled or non-end of life disposal of waste tyres on which the environmental compensation is levied and on such other heads as decided by the said Steering Committee. The modalities and heads for utilization of the funds shall be decided by the Steering Committee with the approval of the Ministry of Environment, Forest and Climate Change".

11.0 Revision of Guidelines

These EC guidelines may be reviewed and revised from time to time as per the need.

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ANNEXURE R-12 600

N.C.R.B (NCRC)

II.F.-I (Integrated Investigation Form -I)

FIRST INFORMATION REPORT

(Under Section 173 B.N.S.S)

1. District/Unit: Amroha

P.S.: Naugawan Sadat

FIR No.: 0552 Year: 2024

Date & Time of FIR: 04/10/2024 16:33

2. S.No. Acts (Sl. No.) Sections

1. Bhartiya Nyaya Sanhita (BNS)2023 351(2)

2. Bhartiya Nyaya Sanhita (BNS)2023 351(3)

3. (a) Occurrence of offence:

1. Day (Day): Saturday

Date From (From Date): 01/03/2025

Date To (Till Date): 01/03/2025

Time Period (Time Period): Time 1

Time From (From Time):00:00 hrs

Time To (Till Time): 00:00 hrs

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(b) Information received at P.S. (Police station where information was received):

Date: 02/03/2025 Time: 14:14 hrs

(c) General Diary Reference:

Entry No. (Entry c.):038

Date & Time:02/03/2025 14:14 hrs

4. Type of Information: Written

5. Place of Occurrence:

Direction and distance from P.S.

(a) Distance and direction from police station): North, 15:00 km

Beat no. (beat s.):

(b) Address Village Baseda Tanga

(c) In case, outside the limit of this Police Station, then (if the police station is outside the limit):

Name of P.S. (Police station name):

District(State)

6.Complainant/Informant:

(a) Name: Rahul Tyagi

(b) Father's Name: Late Munidev Singh

(c) Date/Year of Birth: 2007

(d) Nationality: India

(e) UID No.:

(f) Passport No.:

Date of Issue:

Place of Issue

(g) Id details (Ration Card, Voter ID Card, Passport. UID No., Driving License, PAN)

S.No. Id Type (Type of Identification Card) (Identification Number)

(h) Address:

S.No.	Address Type	Address
1.	current address	Village Baseda Tanga, Naugaon Sadat Amroha Uttar Pradesh, India
2.	Permanent address	Village Baseda Tanga, Naugaon Sadat Amroha Uttar Pradesh, India

(i) Occupation:

(j) Phone number: Mobile: 91-9858664933

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7. Details of known/suspected/unknown accused with full particulars:

Accused More Than (if there are more than one caste accused then number):

S.No.	Name	Alias	Reletive's Name	Present Address
1.	Bhishma		Unknown	Village Baseda Tanga, Naugaon Sadat Amroha Uttar Pradesh, India
2.	Atul			Village Baseda Tanga, Naugaon Sadat Amroha Uttar Pradesh, India
3.	Ankur			Village Baseda Tanga, Naugaon Sadat Amroha Uttar Pradesh, India
4.	Rohan			Village Baseda Tanga, Naugaon Sadat Amroha Uttar Pradesh, India

8. Reasons for delay in reporting by the complainant/informant:

9. Particulars of properties of interest:

S.No.	Property Category	Property Type	Description	Value (In Rs/-)

10. Total value of property (In Rs/-)-
Total value of property (Rs

11. Inquest Report / U.D. case No., if any
S.No. UIDB Number

12.First Information contents:
Copy of Tahrir in Hindi To the plaintiff, Mr. Incharge Inspector, Police Station Naugawa Sadat Subject:- Regarding registering the report of the applicant, Sir, the request is that Bhishma Tyagi, son of Bhudev Tyagi of the applicant's family, has encroached upon 55 bigha agricultural land of his uncle Kamalveer, son of Jaiswarup Singh.He had got a fake deed of the land made in his and his

wife Poonam's name, regarding which FIR No. 552/2024 is registered in Police Station Naugava Sadat and chargesheet has been filed. Since then, the said Bhishma and his brothers Atul, Ankur, Rohan are threatening to kill the applicant and the applicant's brother Sachin because the applicant and the applicant's brother are witnesses in the said case and are currently looking after Kamalveer. The said Bhishma suspects the applicant of pleading Kamalveer's case. The applicant had earlier also complained against the said Bhishma, due to which Bhishma became more resentful. On 1.3.2025, the said Bhishma has also told Ramniwas Tyagi S/O late Ramesh Tyagi of the village to kill the applicant if he enters the village. The said Bhishma can also get the applicant and the applicant's brother killed by unknown persons. Therefore, it is requested to please register a report against the above accused. It would be highly appreciated. Date 2-3-2025. Signature English illegible applicant

Rahul Tyagi S/O Shri Late Munidev Singh Nigram Baseda Taga Police Station Naugava Sadat District Amroha 9858664933. Note: I O.M. 449 Dinesh Yadav certify that the Tahrir and the disclosure of the Qaymi were typed word for word by me by the computer operator. The original Tahrir is enclosed.

13. Action taken: Since the above information reveals commission of offence(s) u/s as mentioned at Item No. 2.

(1) Registered the case and took up the investigation:

or

(2) Directed (Name of I.O.) Braj Mohan Singh Rank: SI (Sub-Inspector)

No. 912650414

to take up the Investigation

(3) Refused investigation due to:

or

(4) Transferred to P.S. District:

on point of jurisdiction (due to transfer of jurisdiction).

F.I.R. read over to the complainant/informant, admitted to be correctly recorded and a copy given to the complainant/informant free of cost.

R.O.A.C. (R.O.A.C.)

14 Signature/Thumb impression of the complainant/informant.

15 Date and time of dispatch to the court:

Signature of Officer in charge Police Station

Name: SHO NAUGAWAN

Rank: 1 (Inspector)

No. 9454403676

Gmail

195 608

Abhay Singh <admin@ablaw.in>

Advance Service: Bhishm Tyagi vs. State of Uttar Pradesh & Ors. (OA 03 OF 2025)

1 message

Abhay Singh <admin@ablaw.in> 29 December 2025 at 16:08
To: pccf-up@nic.in, ms@uppcb.in, dmbij@nic.in, odopcell@gmail.com
Cc: Ivan <ivand2m@gmail.com>, Aanchal Basur <aanchal@ablaw.in>

Dear Sir,
Please find the compliance affidavit to be filed before the National Green Tribunal in the above captioned matter.

Treat this as advanced service for you.
--
Abhay Singh

Office Administrator

D-52, Lower Ground Floor, Gulmohar Park | New Delhi 110049 | India.

Kothi No. 507, Sector 55 | Chandigarh 160055 | India

M +91 8377088256 / +91 8810460803

Email: admin@ablaw.in

NGT ADDITIONAL COMPLIANCE AFFIDAVIT_compressed (1).pdf
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