

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE BENCH, CHENNAI**

ORIGINAL APPLICATION NO. 288 OF 2024 (SZ)

IN THE MATTER OF:

Mrs. P. Muthammal

..... Applicant

Vs

Regional Director,
Central Pollution Control Board, Chennai

..... Respondent(s)

INDEX

S. No.	Particulars	Page No.
1.	Reply along with Affidavit on Behalf of Respondent No. 1 , i.e., Central Pollution Control Board	1-7
2.	Annexure- I: A copy of the modified direction issued by CPCB dated March 07, 2016 regarding harmonization of classification of Industrial Sectors.	8-65
3	Annexure -II: CPCBs Environmental Guidelines for Poultry Farms, January 2022	66-78
4.	Annexure -III: CPCBs Letter dated 10.01.2022 sent to all SPCBs/PCCs	79-92
5.	Annexure -IV: CPCBs Letter dated 03.09.2024 sent to TNPCB for Action taken report	93-94
6	Annexure -V: CPCBs Letter dated 09.09.2024 sent to TNPCB for Action taken report	95-96

Place: Chennai

Date: 06.02.2025

Counsel for 1st Respondent




H.D. VARALAXMI
Regional Director
CENTRAL POLLUTION CONTROL BOARD
Regional Directorate (Chennai)
MoEF & CC, Govt. of India
2nd Floor, 40-E, BSNL Building, TVK Industrial Estate,
CIPET Road, Guindy, Chennai - 600032

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE BENCH, CHENNAI**

ORIGINAL APPLICATION NO. 288 OF 2024 (SZ)

IN THE MATTER OF:

Mrs. P. Muthammal,

..... Applicant

Vs

The Regional Director,
Central Pollution Control Board, Chennai

..... Respondent(s)

**REPLY ON BEHALF OF RESPONDENT NO. 1,
CENTRAL POLLUTION CONTROL BOARD (CPCB)**

PRELIMINARY SUBMISSION:-

1. That the Hon'ble National Green Tribunal, Southern Zone (hereinafter referred to as "Hon'ble NGT") vide order dated 21.11.2024 in Original Application (hereinafter referred to as "OA") No. 288 of 2024 (SZ) directed all the respondents to file their replies/reports. The Central Pollution Control Board (hereinafter referred to as "CPCB") is Respondent No. 1 in the instant matter. Thereby, the reply is made in this instant OA in succeeding paragraphs.
2. That at the outset, Answering Respondent deny all claims, contentions, allegations and averments against Answering Respondent CPCB in the above OA contrary to anything stated or submitted in this reply. Nothing in the OA may be deemed to have been accepted or admitted by the Answering Respondent for want of a specific denial or on the ground of non-traverse, save and except any averment which has been expressly admitted hereinafter.



H.D. Varalaxmi
H.D. VARALAXMI
Regional Director
CENTRAL POLLUTION CONTROL BOARD
Regional Directorate (Chennai)
MoEF & CC, Govt. of India
2nd Floor, 40-E, BSNL Building, TVK Industrial Estate,
CIPET Road, Guindy, Chennai - 600032

3. That the CPCB is constituted under Section 3 of the Water (Prevention and Control of Pollution) Act, 1974. It performs the functions 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.
4. It is further submitted that State Pollution Control Boards (hereinafter referred to as SPCBs) and Pollution Control Committees (hereinafter referred to as PCCs) have been constituted in States/Union Territories under the Water Act, 1974 and the Air Act, 1981 and are empowered to perform the functions and implement the provisions of these Acts in respect of their respective Territorial Jurisdictions.
5. That as per the modified direction dated March 07, 2016, issued by CPCB under section 18(1)(b) of the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 to all the SPCBs/PCCs regarding harmonization of classification of Industrial Sectors under Red/Orange/Green/White Categories, "Poultry farms" are categorized under "Green Category" The Green category of industrial sectors are required to obtain Consent to Establish (hereinafter referred to as "CTE") and Consent to Operate (hereinafter referred to as "CTO") from the concerned SPCB/PCC. A copy of the modified direction dated March 07, 2016 is annexed at **Annexure-I**.
6. That to address the environmental issues associated with poultry farms, CPCB formulated "Environmental Guidelines for Poultry Farms" in January, 2022 and circulated to all the SPCBs/PCCs for its implementation and compliance. The said guidelines stipulate the management of air emissions, solid waste (Manure/litter, Hatchery debris, and Dead birds), and wastewater including control of flies and other rodents. A copy of the said Environmental Guidelines for Poultry Farms is annexed at **Annexure II**.



H.D. Varalaxmi
H.D. VARALAXMI
Regional Director
CENTRAL POLLUTION CONTROL BOARD
Regional Directorate (Chennai)
MoEF & CC, Govt. of India
2nd Floor, 40-E, BSNL Building, TVK Industrial Estate,
CIPET Road, Guindy, Chennai - 600032

PARA WISE REPLY:-

1. That it is humbly submitted that the matter is related to operation of M/s Meiyazhagan Poultry Farm located at Thiruchengode Taluk, Namakkal district, without obtaining consent from Tamil Nadu Pollution Control Board (hereinafter referred to as "TNPCB") and without complying the "Environmental Guidelines for Poultry Farms" issued by CPCB in January, 2022. In this regard, the Para wise reply in O.A No. 288 of 2024 (SZ) are as follows:
2. That no comments are offered over the averments made in Para nos. 1, 2, 3 and 4 of the OA being introductory in nature.
3. That the averments made in Para nos. 5 and 6 of the OA are regarding the operation of an unauthorized poultry farm i.e M/s Meiyazhagan Poultry Farm by 7th respondent. The applicant also submits that birds are accommodated in cages and placed above 10 feet in height. The feathers and poultry food particles emanate from the poultry farm depositing on the applicant's field and reducing the yield and polluting the environment. The applicant requested the 7th respondent to construct a compound wall and the same was rejected by the 7th respondent.

In this regard, it is humbly submitted that to address the environmental issues associated with poultry farms, CPCB formulated "Environmental Guidelines for Poultry Farms" in January, 2022 and circulated to all the SPCBs/PCCs on 10.01.2022 for its implementation and compliance. The said environmental guidelines highlights the environmental issues associated with poultry farms and its management w.r.t Gaseous Emissions, Solid Wastes, Wastewater and Control of Flies & Rodents etc. The above mentioned environmental guidelines also stipulate the Siting criteria for new poultry farms (set up after issuance of Guidelines) and Regulatory/ Monitoring Mechanisms for Poultry Farms.

A copy of the said environmental guidelines and letter to all the SPCBs/PCCs dated 10.01.2022 are annexed as **Annexure II and III respectively.**




H.D. VARALAXMI
Regional Director
CENTRAL POLLUTION CONTROL BOARD
Regional Directorate (Chennai)
MoEF & CC, Govt. of India
2nd Floor, 40-E, BSNL Building, TVK Industrial Estate,
CIPET Road, Guindy, Chennai - 600032

4. That the averments made in Para no. 7 of the OA are regarding the operation of the poultry farm of 7th respondent without obtaining consent and non-compliance of environmental guidelines/siting norms issued by CPCB. In this regard, it is humbly submitted that submissions made at Para no. 3 of this reply affidavit are re-iterated and not repeated herein for the sake of brevity. All the Poultry Farms are required to comply the CPCB guidelines and conditions stipulated while issuing CTE and CTO by the respective SPCB/PCC. Further, it is humbly submitted that Section 7 of the aforesaid Environmental Guidelines issued by CPCB, stipulates the Siting criteria for new poultry farms (set up after issuance of Guidelines).
5. That the averments made in Para nos. 8, 9 and 10 of the OA are about the complaints made by the applicant and information sought from 6th respondent, i.e., TNPCB under Right to Information Act. It is humbly submitted that averments does not refer to this Answering Respondent, hence, need no reply from Answering Respondent.
6. That the averments made in Para no. 11 of the OA are about the complaints dated 14.03.2024 and 31.08.2024 sent to this Answering Respondent No. 1 against 7th respondent i.e M/s Meiyazhagan Poultry Farm. In this regard, it is humbly submitted that complaints of the applicant were received by CPCB and forwarded to TNPCB vide letters dated 03.04.2024 and 09.09.2024 for taking necessary action on the complaints. A copy of the letters addressed to TNPCB are annexed as **Annexure -IV and Annexure -V**.
7. That, in light of the above submission, it is respectfully submitted that this Answering Respondent No. 1, i.e. CPCB, shall abide by any order(s) or direction(s) passed by this Hon'ble Tribunal in the instant OA.



H.D. Varalaxmi

**H.D Varalaxmi
Scientist 'E' & Regional Director - Chennai**

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE BENCH, CHENNAI**

ORIGINAL APPLICATION NO. 288 OF 2024 (SZ)

IN THE MATTER OF:

Mrs. P. Muthammal

..... Applicant

Vs

The Regional Director,
Central Pollution Control Board, Chennai

..... Respondent(s)

AFFIDAVIT

I, H. D. Varalaxmi, D/o Shri H.S. Devaiah, Hindu, aged about 55 years and having office at the Regional Directorate - Chennai, Central Pollution Control Board, 40-E, 2nd Floor, BSNL Building, TVK Industrial Estate, CIPET Road, Chennai - 600 032, do hereby solemnly affirm and sincerely state as follows:

1. That the deponent is authorized representative to represent the Respondent CPCB in the present case, and as such, I am well conversant with the facts and circumstances of the present case on the basis of the information derived from the official records, and hence, I am competent and authorized to verify, sign and swear this affidavit on behalf of the Respondent CPCB.
2. That the accompanying reply may be read part and parcel of the present affidavit as I am competent to swear this affidavit.



H.D. Varalaxmi
H.D. VARALAXMI
Regional Director
CENTRAL POLLUTION CONTROL BOARD
Regional Directorate (Chennai)
MoEF & CC, Govt. of India
2nd Floor, 40-E, BSNL Building, TVK Industrial Estate,
CIPET Road, Guindy, Chennai - 600032

3. That the accompanying reply has been drafted and filed under my instructions and authority the contents thereof of are true and correct on the basis of the record maintained during ordinary course of business of CPCB and available records and documents and the contents of the same are read over and explained to me and are not repeated herein for the sake of brevity.



H.D. Varalaxmi

DEPONENT
H.D.VARALAXMI
Regional Director
CENTRAL POLLUTION CONTROL BOARD
Regional Directorate (Chennai)
MoEF & CC, Govt. of India
2nd Floor, 40-E, BSNL Building, TVK Industrial Estate,
CIPET Road, Guindy, Chennai - 600032

VERIFICATION

Verified at Chennai on this 06th day of February 2025 that the contents of the above reply are correct and true on the basis of the record of the cases as mentioned in the day to day affairs of the CPCB. Nothing has been concealed therefrom or mis-stated.

Verified at New Delhi on this the 06th day of February 2025

[Handwritten Signature]

COUNSEL

H.D. Varalaxmi

DEPONENT
H.D.VARALAXMI
Regional Director
CENTRAL POLLUTION CONTROL BOARD
Regional Directorate (Chennai)
MoEF & CC, Govt. of India
2nd Floor, 40-E, BSNL Building, TVK Industrial Estate,
CIPET Road, Guindy, Chennai - 600032



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

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

March 07, 2016

To

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

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

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

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

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

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

'परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली-110032

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

दूरभाष/Tel. : 43102030, फ़ैक्स/Fax : 22305793, 22307078, 22307079, 22301932, 22304948

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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


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

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

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


1. That the SPCBs and PCCs shall adopt the Revised Criteria of categorization of industrial sectors as detailed in table nos. F1, F2, F3 and F4 and Revised Lists of Red, Orange, Green and White categories of industrial sectors, presented at table no. G2, G3, G4 and G5 respectively, in the 'Final Report' as attached herewith immediately.
2. That all pending applications for consideration of 'Consent to Establish' and 'Consent to Operate' and future such applications shall be processed as per revised criteria.
3. That the SPCBs and PCCs will provide the list of industries identified in each category existing in the State which have been considered for grant of consents. SPCBs/PCCs will forward the list of such industries before 31.05.2016 and the same will be uploaded on the websites of respective SPCB/PCC.
4. That the 'Revised Lists of Red, Orange, Green and White category of industrial sectors' shall be used by the SPCBs and PCCs for Consent Management and inventorization of industries under Red, Orange, Green and White categories. Siting of industries shall be only in conforming areas. SPCBs / PCCs shall evolve sector specific plans for control of pollution and industrial surveillance for verifying compliance.
5. That the SPCBs and PCCs shall revise /prepare the inventory of Red, Orange, Green and White categories of industries operating in their jurisdiction based on the revised criteria specified in the Final Report and submit the same to CPCB within 90 days i.e., before 30.05.2016 in hard copy as well as soft copy.
6. That the listed category of industries or those identified later-on under different categories shall not be linked to sanction of loan / finance or bank proceedings.
7. That any further addition of any new or left-over industrial sector and their categorization which is not listed in the revised list of Red, Orange, Green and White industrial sectors, shall be done at the level of concerned SPCB /PCC following revised criteria & guidelines as detailed in the attached document and no concurrence of CPCB shall normally be required. It is further clarified that while categorizing the industries, fractional numbers shall be rounded off to nearest integer.

The SPCBs/PCCs shall acknowledge the receipt of directions and submit the 'Action Taken Report' in compliance with these directions to CPCB before 15.04.2016.


(Arun Kumar Mehta)
Chairman
7/3/16

Copy to:

1. The Chief Secretary of all the States and UTs
2. The Secretary ,
Ministry of Micro, Small and Medium Entrepreneurs
Udyog Bhawan, Rafi Marg, New Delhi - 110 011
3. The Secretary ,
Ministry of Heavy Industries
Udyog Bhawan, Rafi Marg, New Delhi - 110 011
4. The Secretary,
Ministry of New and Renewable Energy
Block-14, CGO Complex,
Lodhi Road, New Delhi-110 003,
5. The Advisor(CP Division)
Ministry of Environment ,Forests and Climate Change
Indira Paryavaran Bhawan
Jor Bagh Road, New Delhi - 110 003
6. All Zonal Offices of CPCB


(A. B. Aklkar) 7.3.16
Member Secretary

Final Document
on
Revised
Classification
of
Industrial Sectors
Under

Red, Orange, Green and White Categories
(February 29, 2016)



Central Pollution Control Board
Delhi

Executive Summary

Categorization of Industrial Sectors under Red, Orange, Green and White Category

The Ministry of Environment, Forest and Climate Change (MoEFCC) had brought out notifications in 1989, with the purpose of prohibition/ restriction of operations of certain industries to protect ecologically sensitive Doon Valley. The notification introduced the concept of categorization of industries as " Red", "Orange "and "Green" with the purpose of facilitating decisions related to location of these industries. Subsequently, the application of this concept was extended in 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.

The concept of categorization of industries continued to evolve and as different State Pollution Control Boards interpreted it differently, a need arose to bring about necessary uniformity in its application across the country. In order to harmonize the 'Criteria of categorization', Directions were issued by CPCB under Section 18(1)(b) of the Water (Prevention & Control of Pollution) , Act, 1974 to all SPCBs/PCCs to maintain uniformity in categorization of industries as red, green and orange as per list finalized by CPCB, which identified 85 types of industrial sectors as 'Red', 73 industrial sectors as 'Orange' and 86 sectors as 'Green'.

The process of categorization thus far was primarily based on the size of the industries and consumption of resources. The pollution due to discharge of emissions & effluents and its likely impact on health was not considered as primary criteria. There was demand from the SPCBs / PCCs and industrial associations for categorization of the industrial sectors in a more transparent manner. Accordingly, the issue was discussed thoroughly during the national level conference of the Environment Ministers of the States, held in New Delhi during April 06-07, 2015 and a 'Working Group' comprising of the members from CPCB, APPCB, TNPCB, WBPCB, PPCB, MPPCB and Maharashtra PCB is constituted to revisit the criteria of categorization of industries and recommend measures for making the system transparent and rational.

The Working Group has developed the criteria of categorization of industrial sectors based on the Pollution Index which is a function of the emissions (air pollutants), effluents (water pollutants), hazardous wastes generated and consumption of resources. For this purpose the references are taken from the the Water (Prevention and Control of Pollution) Cess (Amendment) Act, 2003, Standards so far prescribed for various pollutants under Environment (Protection) Act , 1986 and Doon Valley Notification, 1989 issued by MoEFCC. The Pollution Index PI of any industrial sector is a number from 0 to 100 and the increasing value of PI denotes the increasing degree of pollution load from the industrial sector. Based on the series of brain storming sessions among CPCB, SPCBs and MoEFCC , the following criteria on 'Range of Pollution Index 'for the purpose of categorization of industrial sectors is finalized.

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

The newly introduced White category of industries pertains to those industrial sectors which are practically non-polluting such as Biscuit trays etc. from rolled PVC sheet (using automatic vacuum forming machines), Cotton and woolen hosiers making (Dry process only without any dyeing/washing operation), Electric lamp (bulb) and CFL manufacturing by assembling only, Scientific and mathematical instrument manufacturing, Solar power generation through photovoltaic cell, wind power and mini hydel power (less than 25 MW).

The salient features of the 'Re-categorization' Exercise are as follows :

- Due importance has been given to relative pollution potential of the industrial sectors based on scientific criteria . Further, wherever possible, splitting of the industrial sectors is also considered based on the use of raw materials, manufacturing process adopted and in-turn pollutants expected to be generated.
- The Red category of industrial sectors would be 60.
- The Orange category of industrial sectors would be 83.
- The Green category of industrial sectors would be 63.
- Newly introduced White category contains 36 industrial sectors which are practically non-polluting.
- There shall be no necessity of obtaining the Consent to Operate'' for White category of industries. An intimation to concerned SPCB / PCC shall suffice.
- No Red category of industries shall normally be permitted in the ecologically fragile area / protected area.

The purpose of categorization is to ensure that the industry is established in a manner which is consistent with the environmental objectives. The new criteria will prompt industrial sectors willing to adopt cleaner technologies, ultimately resulting in generation of fewer pollutants. Another feature of the new categorization system lies in facilitating self-assessment by industries as the subjectivity of earlier assessment has been eliminated. This 'Re-categorization' is a part of the efforts, policies and objective of present government to create a clean & transparent working environment in the country and promote the Ease of Doing Business.

Other similar efforts include installation of Continuous Online Emissions/ Effluent Monitoring Systems in the polluting industries, Revisiting of the CEPI (Comprehensive Environment Pollution Index) concept for assessment of polluted industrial clusters, Revision of existing industrial Emission/Effluent discharge standards, initiation of special drive on pollution control activities in Ganga River basin and many more in coming future.

Revised Criteria of Categorization of Industries

“Securing industrial pollution control in accordance with the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 by linking with categorization of industries, consent management and vigilance – ‘In context of Red, Orange, Green and White categories of industries”

A: Genesis of Categorization:

- The Ministry of Environment, Forest and Climate Change (MoEFCC) had brought out notifications, which inter-alia refers to Prohibition/ Restriction on operation of industries to protect ecologically sensitive areas or areas of specific importance. This has for the first time brought the concept of categorization of industries to “Red”, “Orange “and “Green” and restrict their operation in certain areas of importance. Therefore, it is at-once interpreted that Red, Orange and Green categorization is linked with location specific needs.
- The notification of MoEF was first brought on 2nd February,1989 in case of “Restriction on location of industries, mining operations and other developmental activities in Doon Valley in “Uttarakhand” and thereafter another notification on 24th February 1999 regarding restriction on the setting up of industries in Dahanu Taluka in Maharashtra. The categorization had been made mainly on the basis of size of the industries, man power and consumption of resources.
- However, in other parts of the country, there have been variations in context to the classification of industries under Red, Orange and Green categories. SPCBs / PCCs were following their own criteria in different States thereby creating confusion.
- In order to harmonize the ‘Criteria of categorization’, a ‘Working Group’ was formed as per resolution passed during the 57th Conference of the Chairmen & Member Secretaries of CPCB and SPCBs. Based on the recommendations of the Working Group, Directions dated 4/6/2012 under Section 18(1)(b) of the Water

(Prevention & Control of Pollution), Act, 1974 were issued to all SPCBs/PCCs with the effects to maintain uniformity in categorization of industries as red, green and orange as per list finalized by the Working Group. This indicative list included 85 types of industrial sectors as 'Red', 73 industrial sectors as 'Orange' and 86 sectors as 'Green'. However, these identified categories have not been assigned with scores as per existing criteria/ or any new criteria

B: Categorization criteria used by SPCBs/PCCs:

SPCBs and PCCs use the criteria of Red, Orange and Green categories for consent management and vigilance purposes for carrying out inspections to verify compliance to the stipulated standards. However the above categorization do not emphasize on sector-specific plan for control of pollution in accordance with priority based on pollution index.

C: Gap in the process:

1. The categorization has been made mainly on the basis of size of the industries and consumption of resources. The pollution due to discharge of emissions & effluents and its impact on health was not considered as primary criteria.
2. Categorization was on random basis, no scoring system was adopted.

D: Resolutions made during National Level Conferences

The issue was discussed thoroughly during the following national level conferences held in New Delhi:

- Conference of the Environment Ministers of Central Government and State Governments during April 06-07, 2015
- 59th Conference of Chairmen & Member Secretaries of Pollution Control Boards / Pollution Control Committees held on April 08, 2015

Accordingly following resolutions were made during the Conferences:

1. A 'Working Group' comprising of the members from CPCB, APPCB, TNPCB, WBPCB, PPCB, MPPCB and Maharashtra PCB is constituted.
2. This WG shall revisit the categorization of industries that is based on pollution index criteria & environmental issues such as generation of emission, effluent and hazardous wastes.
3. The categorization will be done on the basis of composite score (0-100 marks) of Pollution Index given in accordance with the following weightage.

Air Pollution Score based on parameters namely PM, CO, NO _x , SO _x , HMs, Benzene, Ammonia and other toxic parameters relevant to the industry.	40 Marks
Water Pollution Score based on parameters namely pH, TSS, NH ₃ -N, BOD, Phenol and other toxic pollutants relevant to the industry.	40 Marks
Hazardous wastes (land fillable, incinerable, recyclable) as generated by the industry.	20 Marks
<p>Note :</p> <ul style="list-style-type: none"> • Parameters to be decided on the basis of the nature of the wastes generating from the industrial sector. • Industries having only either water pollution or air pollution, the score will be normalized wrt 100. 	

4. Based on the score of the Pollution Index, following categorization be made :
 - Type of industries, if scores 60 and above be categorized as Red
 - Type of industries, if scores from 30 to 59 be categorized as Orange
 - Type of industries, if scores from 15 to 29 be categorized as Green
 - Type of industries, if less than 15 be categorized as White or non-polluting industry.
5. SPCBs/PCCs may issue consent to the industries
 - Red category of industries for 5 years.
 - Orange category of industries for 10 years.
 - Green category of industries for 15 years.
 - No necessity of consent for non-polluting industries.
6. No red categories of industries will be permitted to establish in eco-sensitive areas and protected areas.

E: Follow-up Actions made on the Resolutions :-

- Accordingly, a Committee comprising the Chairmen of CPCB, APPCB, TNPCB, MPPCB, MPCB, PPCB, WBPCB and MS, CPCB was constituted vide CPCB OM dated

23.04.2015 to review & classify industrial sectors into different categories based on criteria of respective pollution potential.

- The categorization is made on the basis of following:
 - Quality of emissions (air pollutants) generated
 - Quality of effluents (water pollutants) generated
 - Types of hazardous wastes generated
 - Consumption of resources

- Reference is taken from the following :
 - The Water (Prevention and Control of Pollution) Cess Act, 1977
 - Standards so far prescribed for various pollutants under the Environment (Protection) Act , 1986
 - Doon Valley Notification, 1989 issued by MoEF.

F : Scoring Methodology :

The details on the scoring methodology in respect of the aforesaid 3 components is presented in the following tables F-1 to F-4 .

Table F-1 : Water Pollution Scoring Methodology

Sl. No.	Activity / Types of Discharges	Score
Part A : Score W1 : Score based on types of expected criteria water-pollutants present in industrial processes waste waters. Maximum of the following seven categories is to be taken.		
W11	Waste-water which is polluted and the pollutants are - <ul style="list-style-type: none"> • not easily biodegradable (very high strength waste waters having BOD > 5000 mg/l); or • toxic; or • both toxic and not easily biodegradable. (Presence of criteria water pollutants having prescribed standard limits up-to 10 mg/l or having BOD > 5000 mg/l). For details appendix 1 may be referred)	30
W12	Non-toxic high strength polluted waste-water having BOD in the range of 1000-5000 mg/l and the pollutants are biodegradable. (Presence of criteria water pollutants having prescribed standard limits from 11 mg/l to 250 mg/l and having BOD strength in the range of 1000-5000 mg/l) . For details appendix 1 may be referred)	25
W13	Non toxic- polluted waste-water having BOD below 1000 mg/l and the pollutants are easily biodegradable. (Presence of criteria water pollutants having prescribed standard limits from 11mg/l to 250 mg/l and having BOD strength below 1000 mg/l) . For details appendix 1 may be referred)	20
W14	Waste-water generated from the chemical processes and which is polluted due to presence of high TDS (total dissolved solids) of inorganic nature. (Presence of criteria water pollutants having prescribed standard limits more than 250 mg/l. For details appendix 1 may be referred)	15
W15	Waste-water generated from the physical unit operations / processes and which is polluted due to presence of TDS (total dissolved solids) of inorganic nature and of natural origin like fresh-water RO rejects, boiler blow-downs, brine solution rejects etc. (Presence of criteria water pollutants having prescribed standard limits more than 250 mg/l. For details appendix 1 may be referred)	12
W16	Non-toxic polluted waste-water from those units which are: <ul style="list-style-type: none"> • Having the overall waste-water generation less than 10 KLD and • The pollutants are easily bio-degradable having BOD below 200 mg/l which can be easily treated in a single stage ASP (activated 	12

	sludge process) based Effluent Treatment Plant. Note : This is a special category and is applicable to only those units having over-all liquid waste generation less than 10 KLD with low strength organic load.	
W17	Waste-water from cooling towers and cooling-re-circulation processes	10
Part B : Score W2 : Score based on huge discharges of any kind (Penalty Clause)		
W2	Industry having overall liquid waste generation of 100 KLD or more including industrial & domestic waste-water.	10
Overall Water Pollution Score $W = W1+W2$		

Appendix 1

- **Water Pollutants covered under Group W11:**
 - ✓ Free available Chlorine , Total residual chlorine, Fluoride (as F), Sulphide (as S), Free Ammonical Nitrogen, Dissolved phosphates (as P), Free ammonia (as NH₃), Nitrate Nitrogen, Mercury (As Hg), Selenium (as Se), Hexa-valent chromium (as Cr + 6), Lead (as Pb), Tin , Vanadium (as V), Cadmium (as Cd), Manganese (as Mn), Total chromium (as Cr), Copper (as Cu), Iron (as Fe), Nickel (as Ni), Zinc (as Zn), Benzene, Arsenic (as As), Benzo-a-pyrene, Cyanide (as CN), Phenolic compounds (as C₆H₅OH) , Adsorbable Organic Halogens (AOX), Boron and /or
 - ✓ BOD strength of waste water > 5000 mg/l
- **Water Pollutants covered under Group W12:**
 - ✓ Sodium Absorption Ratio (SAR) , Biochemical oxygen demand (3 days at 27°C), Total Kjeldahl nitrogen (TKN), Ammonical nitrogen (as N), Suspended solids, Total nitrogen (as N), Chemical oxygen demand, Oils & grease and
 - ✓ BOD strength of waste water is in the range of 1000-5000 mg/l
- **Water Pollutants covered under Group W13:**
 - ✓ Sodium Absorption Ratio (SAR), Biochemical oxygen demand (3 days at 27°C), Total Kjeldahl nitrogen (TKN), Ammonical nitrogen (as N), Suspended solids, Total nitrogen (as N), Chemical oxygen demand and
 - ✓ BOD strength of waste water is below 1000 mg/l
- **Water Pollutants covered under Group W14 and W15:**

Chlorides as Cl, Colour , Total dissolved solids (TDS - Inorganic)
- **Water Pollutants covered under Group W16**
 - ✓ BOD strength of waste water is below 200 mg/l and overall discharge is less than 10 KLD.

Table F-2 : Air Pollution Score

Sl. No.	Air Pollutants Group	'Range of Prescribed Standard' of criteria pollutants	Marks
Part 1 : Score A1 = Score based on types of expected criteria Air Pollutants present in the emissions . Maximum of the following seven categories is to be taken. For details appendix 2 may be referred.			
1	Group A1A	Presence of criteria air pollutants having prescribed standard limits up to 2 mg/Nm ³	30
2	Group A1B	Presence of criteria air pollutants having prescribed standard from 3 to 10 mg/Nm ³	25
3	Group A1C	Presence of criteria air pollutants having prescribed standard from 11 to 50 mg/Nm ³	20
4	Group A1D	Presence of criteria air pollutants having prescribed standard from 51 to 250 mg/Nm ³	15
5	Group A1E	Presence of criteria air pollutants having prescribed standard from 251 mg/Nm ³ & above.	10
6	Group A1F	<ul style="list-style-type: none"> • Generation of fugitive emissions of Particulate Matters which are: <ul style="list-style-type: none"> ○ Not generated as a result of combustion of any kind of fossil-fuel. ○ Generated due to handling / processing of materials without involving the use of any kind of chemicals. ○ Which can be easily contained / controlled with simple conventional methods 	10
7	Group A1G	<ul style="list-style-type: none"> • Generation of Odours which are : <ul style="list-style-type: none"> ○ Generated due to application of binding gums / cements / adhesives / enamels ○ Which can be easily contained / controlled with simple conventional methods 	10
Part 2 : Score A2 = Score based on consumption of fuels and technologies required for air pollution control :			
6	Group A2F1	<ul style="list-style-type: none"> • All such industries in which the daily consumption of coal/fuel is more than 24 MT/day and the particular (Particulate/gaseous/process) emissions from which can be controlled only with high level equipments / technology like ESPs, Bag House Filters, High Efficiency chemical wet scrubbers etc. 	10
7	Group A2F2	<ul style="list-style-type: none"> • All such industries in which the daily consumption of coal/fuel is from 12 MT/day to 24 MT/day and the particular (Particulate/gaseous/process) emissions from which can be controlled with suitable proven technology. 	5
Overall Air Pollution Score - A = A1 + A2			

- **Air pollutants covered under Group A1A:**
Cd+Th, Dioxins & Furans, Mercury, Asbestos
- **Air Pollutants covered under Group A1B:**
HF, Nickel+ Vanadium, HBr, Manganese, Lead, H₂S, P₂O₅ as H₃PO₄
- **Air Pollutants covered under Group A1C:**
Chlorine, Pesticide compounds, CH₃Cl, TOC, Total Fluoride, Hydrocarbons, NH₃, HCL vapour & Mist, H₂SO₄ Mist, SO₂
- **Air Pollutants covered under Group A1D:**
CO, PM, CO, NO_x
- **Air Pollutants covered under Group A1E:**
NO_x with liquid-fuel, SO₂ with liquid-fuel

Table F-3: Hazardous Waste Generation Score

Sl.No.	Types of Hazardous Waste Generated as per Schedule 1 / Schedule 2 of Hazardous Waste (Management, Handling & Trans-boundary Movement) Rules , 2008 . Maximum of the following four categories is to be taken	Score
HW1	<ul style="list-style-type: none"> • Land disposable HW which require special care & treatment for stabilization before disposal. 	20
HW2	<ul style="list-style-type: none"> • Incinerable HW 	15
HW3	<ul style="list-style-type: none"> • Land disposable HW which doesn't require treatment & stabilization before disposal. • High volume low effect wastes such as fly-ash, phspho-gypsum, red-mud, slags from pyro-metallurgical operations, mine tailings and ore beneficiation rejects) 	10
HW4	<ul style="list-style-type: none"> • Recyclable HW, which are easily recyclable with proven technologies. 	10

Table F-4 : Calculation Sheet
Industrial Sector -

1. Water Pollution Score (W)			
Scores	Waste Water Category	Value	
Score on W1			
Score on W2			
Water Pollution Score = W1+W2			
2. Air Pollution Score (A)			
Scores	Air Pollutant Category	Value	
Score on A1			
Score on A2	-	-	
Air Pollution Score = A1+A2			
3. Hazardous Waste Score (HW)			
Score	HW Category	Value	
HW			
Grand Total = W + A + HW			

Note :

- Any of the industrial sector having only either air pollution (A) or water pollution (W), the score will be normalized to 100 as per the following formula -

$$\text{Normalized Score} = \{100 \times W \text{ (or A)}\} / 40$$

- Any of the industrial sector having air pollution (A) and water pollution (W) both but no hazardous waste generation (H), the joint score of air & water pollution will be normalized to 100 as per the following formula -

$$\text{Normalized Score} = \{100 \times (W+A)\} / 80$$

- Any of the industrial sector having air pollution (A) & hazardous waste generation (H) but no water pollution (W), the joint score of air pollution & hazardous waste generation will be normalized to 100 as per the following formula -

$$\text{Normalized Score} = \{100 \times (A+H)\} / 60$$

- Any of the industrial sector having water pollution (W) and hazardous waste generation (H) but no air pollution (A), the joint score of water pollution & hazardous waste generation will be normalized to 100 as per the following formula -

$$\text{Normalized Score} = \{100 \times (W+H)\} / 60$$

G : Developments :

- i. The existing Red (85 sectors) , Orange (73 sectors) and Green (86 sectors) i.e a total of 244 industrial sectors have been assessed as per the proposed formula by the Working Group. For this purpose, concerned Engineers / Scientists from the Member SPCBs were also involved & consulted during May 28-29, 2015.
- ii. After careful examination and consideration of the suggestions of concerned stake-holders the “Draft Document on Revised Concept of Categorization of Industrial Sectors “ was prepared by the Committee and circulated to all the SPCBs, PCCs and concerned Ministries for their information & comments. The ‘ Draft Document ‘ was uploaded on the website of CPCB also for information & comments of one & all.
- iii. The matter was discussed during the 170th Board Meeting also and issues raised by the Board Members pertaining to some of the industrial sectors were clarified.
- iv. Responses were received from various concerned Ministries, SPCBs, Industrial Associations including individuals.
- v. Based on the above, final meeting was convened by the Secretary , MoEFCC with CPCB and senior officers of MoEFCC on January 06, 2016 to resolve the issues appropriately and finalize the ‘Re-categorization’. Accordingly , following modifications in the ‘Range of Pollution Index ‘for the purpose of categorization of industrial sectors were suggested :
 - Industrial Sectors having Pollution Index score of 60 and above – Red category
 - Industrial Sectors having Pollution Index score of 41 to 59 –Orange category
 - Industrial Sectors having Pollution Index score of 21 to 40 –Green category
 - Industrial Sectors having Pollution Index score incl.& upto 20 –White category
- vi. Based on the final criteria as described in v above , the final categorization is as follows :

Category of Industrial Sector	Existing Categorization	Proposed (New) categorization
Red	85	60
Orange	73	83
Green	86	63
White	---	36
Total	244	242

- vii. In the proposed categorization, some of the industrial sectors have been either deleted due to duplication or merged with similar type of sectors on account of same

characteristics of pollution generation. In a similar way, some of the industrial sectors are split into more sectors on account of variation in the raw materials / manufacturing process. As a result final totals of the existing and proposed categorization are different.

- viii. The industrial sector which doesn't fall under any of the above four categories (Red, Orange, Green and White) , decision with regard to its categorization will be taken at the level of concerned SPCB/PCC by a committee headed by the Member Secretary , SPCB/PCC and comprising of two senior cadre Engineers / Scientists of the SPCB / PCC in accordance with the scoring-criteria specified in this document.
- ix. The summary is presented in the following Table G-1 and final lists of Red, Orange, Green and White categories of industries are presented in Tables G-2, G-3, G-4 and G-5 respectively, which are self explanatory.

Table G-1: Final Summary Table Red , Orange, Green and White Categories of Industries (16-01-16)

Sl No.	Original Categorization	Initial Nos.	Addition by Splitting into further classes	Deletion/ Shifting to foot-note due to vague term / Merger / other reasons	Re-categorization to Red	Re-categorization to Orange	Re-categorization to Green	Re-categorization to White	Check
					1	2	3	4	5
1	Red	85	11	7	60	26	3	Nil	96=96
2	Orange	73	2	3	Nil	51	19	2	75=75
3	Green	86	Nil	3+2=5	Nil	6	41	34	86=86
Final Categorization		244	13	15	60 (Red)	83 (Orange)	63 (Green)	36 (White)	257 =257 (Total categories including in foot-note)

Table G-2 : Final List of Red Category of Industrial Sectors

Sl No.	Orgnl Sl.No	Industry Sector	W1	W2	W	A1	A2	A	H	W+A+H	Revised Category	REMARKS
1.	38	Isolated storage of hazardous chemicals (as per schedule of manufacturing, storage of hazardous chemicals rules ,1989 as amended)									R-R	As per provisions of Rules, to be kept under Red category especially for safety purposes.
2.	4	Automobile Manufacturing (integrated facilities)	30	-	30	20	-	20	10	60	R-R	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. In such cases, after thorough inspection of such units by concerned SPCB, re-categorization of the industry shall be made accordingly.
3.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Spent cleared metal catalyst containing copper,, Spent cleared metal catalyst containing zinc,,	30	-	30	20	-	20	10	60	R-R	All the three types of pollutants are expected.
4.	44	Manufacturing of lubricating oils ,grease and petroleum based products	20	-	20	20	-	20	20	60	R-R	Generates all sorts of pollution.
5.	66 E	DG Set of capacity > 5 MVA	-	-	-	20	5	25	-	62.5	R-R	i. Mainly air polluting. ii. DG sets consume the diesel @ 0.21 litres/hr/KVA at full load. iii. Average running is taken @ 12 hrs / day although many of the DG sets run for more than this period.
6.	31	Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black	10	-	-	20	5	25	10	62.5	R-R	Mainly air polluting. Air pollution score is normalized to 100.

7.	39	Lead acid battery manufacturing(excluding assembling and charging of lead-acid battery in micro scale)	10	-	10	25	-	25	10	62.5	R-R	<ul style="list-style-type: none"> i. Mainly air polluting. Air pollution scores are normalized to 100. ii. Lead Acid Battery manufacturing consists of various stages which broadly involve (after producing or receiving lead oxide): Paste Mixing , Grid Casting , Grid Pasting & Curing , Hydro-setting, parting & enveloping , Stacking, grouping & inter-cell welding ,Formation. iii. Exposure of workmen to lead during all or any of the processes outlined above exceeds the prescribed standards if appropriate equipment in this respect is not installed at any Battery Manufacturing Unit. iv. All of the above processes, some more than others, involve release of lead particles or fumes into the environment. Pollution from the above processes can be grouped into two possible types, viz: (a) Lead Oxide becomes airborne and there is Particulate Pollution (b) Fumes are generated and there is Gaseous Pollution
8.	62	Phosphate rock processing plant	30	-	30	20	-	20	-	62.5	R-R	<ul style="list-style-type: none"> i. The separation of phosphate rock from impurities and non-phosphate materials for use in fertilizer manufacture consists of beneficiation, drying or calcining at some operations, and grinding. Phosphate rock from the mines is first sent to beneficiation units to separate sand and clay and to remove impurities. Steps used in beneficiation depend on the type of rock. ii. The water & air pollution scores are normalized to 100.

9.	66	Power generation plant [except Wind and Solar renewable power plants of all capacities and Mini Hydel power plant of capacity <25MW]	10	-	10	15	10	25		62.5	R-R	1. Mainly air polluting. It uses a mixture of biomass (agro based) and coal (< 10 %) as a fuel. Almost, round the year operation. 2 .In case of DG sets of 5 MVA & more and emissions of SO2 will take place due to use of liquid fuel. Air pollution score will be =20 + 10 = 30, Normalized score will be 75. 3. In case of 'Waste to Energy Plants' , water will be used for cooling and air score will be - 30+10 = 40.
10.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Spent catalyst containing nickel, cadmium, Zinc, copper, arsenic, vanadium and cobalt,	30	-	30	25	-	25	10	65	R-R	All the three types of pollutants are expected.
11.	67	Processes involving chlorinated hydrocarbons	30	-	30	20	-	20	15	65	R-R	Chlorinated hydrocarbons are used in the manufacture of insecticides, pesticides and organo chloro pesticides. Effluents & emissions are toxic in nature.
12.	74	Sugar (excluding Khandsari)	20	10	30	15	10	25	10	65	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Sugar mills generate all sorts of pollution problems.
13.	22	Fibre glass production and processing (excluding moulding)	-	-	-	20	-	20	20	67	R-R	i. The use of styrene in most methods of fiberglass production causes hazardous air pollution that is harmful to breathe at excessive levels. ii. It is mainly air polluting & HW generating industry. The air pollution & HW scores are normalized to 100. iii. In case of lead containing glass, the score of A1 will be 25 and final normalized score will be 75 and shall be categorized as Red.
14.	23	Fire crackers manufacturing and bulk storage facilities	-	-	-	20	-	20	20	67	R-R	i. This is the normalized score based on air pollution & HW generation. ii. Various hazardous chemicals are used in the manufacturing process. iii. These chemicals are namely Potassium Nitrate , Potassium per-chlorate, Barium Nitrate, Aluminium compounds, Copper Chloride etc.

												iv. These chemicals are highly hazardous and cause serious diseases among the workers. especially ability of blood to carry oxygen leading to headaches, methemoglobinemia and kidney problems , skin problems, thyroid metal fume etc.
15.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Dismantlers Recycling Plants -- Components of waste electrical and electronic assembles comprising accumulators and other batteries included on list A, mercury-switches, activated glass cullets from cathode-ray tubes and other activated glass and PCB-capacitors, or any other component contaminated with Schedule 2 constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they exhibit hazard characteristics indicated in part C of this Schedule.	-	-	-	30	0	30	10	67	R-R	Mainly air polluting and hazardous waste generating. Air & HW pollution scores are jointly normalized to 100.
16.	47	Milk processes and dairy products(integrated project)	20	10	30	20	5	25	-	68.75	R-R	i. Water as well as air polluting due to use of boilers. ii. Water & air pollution scores are normalized to 100.
17.	63	Phosphorous and its compounds	30	-	30	25	-	25	-	68.75	R-R	Water pollution & air pollution containing compounds of phosphorous are expected
18.	61	Pulp & Paper (waste paper based without bleaching process to manufacture Kraft paper)	20	10	30	15	10	25	0	68.75	R-R	Mainly water & air polluting . Water & air pollution scores are normalized to 100.
19.	13	Coke making , liquefaction, coal tar distillation or fuel gas making	30	-	30	20	-	20	20	70	R-R	It is a kind of petrochemical industry.

20.	41	Manufacturing of explosives, detonators, fuses including management and handling activities	30	-	30	20	-	20	20	70	R-R	<ul style="list-style-type: none"> i. Explosives manufacture and use contribute some measure of hazardous waste to the environment. ii. Nitroglycerin produces several toxic byproducts such as acids, caustics, and oils contaminated with heavy metals. These must be disposed of properly by neutralization or stabilization and transported to a hazardous waste landfill. iii. The use of explosives creates large amounts of dust and particulate from the explosion, and, in some cases, releases asbestos, lead, and other hazardous materials into the atmosphere.
21.	45	Manufacturing of paints varnishes, pigments and intermediate (excluding blending/mixing)	30	-	30	25	-	25	15	70	R-R	<ul style="list-style-type: none"> i. The process may cause considerable emissions of volatile organic compounds (VOC). VOC contribute to the creation of ozone in the lower layers of the atmosphere (photochemical air pollution) and can present danger to health. ii. Dust and odour may also be a problem. iii. Washing of vessels will contribute waste-waters. iv. Large quantity of HWs are also produced.
22.	56	Organic Chemicals manufacturing	30	-	30	20	-	50	20	70	R-R	Such types of industrial sectors generate all sorts of pollution.
23.	1	Airports and Commercial Air Strips	20	10	30	-	-	-	10	75	R-R	<ul style="list-style-type: none"> i. The Airports are generating mainly the waste-waters. ii. This is the water pollution normalized score for airports having discharge more than 100 KLD. iii. The airports / strips having discharge less than 100 KLD will have score of 50 and hence orange category. iv. If the score is normalized wrt water + HW both, then all the airports will come under Orange category (score - 58.33).
24.	3	Asbestos and asbestos based industries	-	-	-	30	-	30	10	75	R-R	<ul style="list-style-type: none"> i. This is mainly air polluting industry. ii. Final score is based on air pollution score only. iii. Asbestos is carcinogenic and banned in many countries.
25.	5	Basic chemicals and electro chemicals and its derivatives including manufacturing of acid	30	-	30	-	-	-	10	75	R-R	<ul style="list-style-type: none"> i. Standards prescribed for Inorganic Chemicals are adopted. ii. It is mainly water polluting industry having effluents which are toxic and not easily biodegradable.

												<p>iii. Water pollution score normalized to 100 is undertaken.</p> <p>iv. The earlier Red category industrial sector namely "Hydrocyanic acid and its derivatives " is also merged under this industrial sector.</p>
26.	7	Cement	-	-	-	20	10	30	-	75	R-R	This is mainly air polluting industry & hence normalized air pollution score.
27.	9	Chlorates, per-chlorates & peroxides	30	-	30	-	-	-	-	75	R-R	<p>i. It is mainly water polluting industry having effluents which are toxic and not easily biodegradable.</p> <p>ii. Water pollution score normalized to 100 is undertaken.</p>
28.	10	Chlorine, fluorine, bromine, iodine and their compounds	30	-	30	-	-	-	-	75	R-R	<p>i. It is mainly water polluting industry having effluents which are toxic and not easily biodegradable.</p> <p>ii. Water pollution score normalized to 100 is undertaken.</p>
29.	16	Dyes and Dye- Intermediates	30	-	30	20	5	25	20	75	R-R	<p>i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'.</p> <p>ii. Such types of industrial sectors generate all sorts of pollution.</p>
30.	26	Health-care Establishment (as defined in BMW Rules)	20	10	30	-	-	-	-	75	R-R	<p>i. Mainly water polluting.</p> <p>ii. The water pollution score is normalized to 100 & valid for Hospitals having total waste-water generation > 100 KLD.</p> <p>iii. The hospitals with incinerator will be categorized as Red irrespective of the quantity of the waste-water generation.</p> <p>iv. The hospitals having total waste-water generation less than 100 KLD and without incinerator, the normalized water pollution score will be 50 and will be categorized as Orange category.</p>
31.	29	Hotels having overall waste-water generation @ 100 KLD and more.	20	10	30	15	-	15	-	75	R-R	<p>i. Mainly water polluting. Small boiler may be installed.</p> <p>ii. The water pollution score is normalized to 100 & valid for Hotels having waste-water generation > 100 KLD.</p> <p>iii. The hotels having more than 20 rooms and waste-water generation less than 100 KLD and having a coal / oil fired boiler , the pollution score will be 35/40 & are categorized as Orange.</p> <p>iv. The hotels having more than 20 rooms and waste-water generation less than 10 KLD and</p>

												having no-boiler & no hazardous waste generation, the pollution score will be 20 & are categorized as Green.
32.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Lead acid battery plates and other lead scrap/ashes/residues not covered under Batteries (Management and Handling) Rules, 2001. [* Battery scrap, namely: Lead battery plates covered by ISRI, Code word "Rails" Battery lugs covered by ISRI, Code word "Rakes". Scrap drained/dry while intact, lead batteries covered by ISRI, Code word "rains".	30	-	30	25	--	25	20	75	R-R	All the three types of pollutants are generated.
33.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Integrated Recycling Plants -- Components of waste electrical and electronic assembles comprising accumulators and other batteries included on list A, mercury-switches, activated glass cullets from cathode-ray tubes and other activated glass and PCB-capacitors, or any other component contaminated with Schedule 2 constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they exhibit hazard characteristics indicated in part C of this Schedule.	30	-	30	25	-	25	20	75	R-R	All the three types of pollutants are expected.
34.	43	Manufacturing of glue and gelatin	30	10	40	20	-	20	-	75	R-R	Highly water polluting & obnoxious air polluting.
35.	49	Mining and ore beneficiation	30	10	40	15	5	20	-	75	R-R	Both air and water polluting. Score is normalized with air & water pollution.

36.	52	Nuclear power plant	10	-	10	30	-	30	15	75	R-R	<ul style="list-style-type: none"> i. Mainly air polluting due to incinerator. Others - cooling water. ii. Air pollution score is normalized to 100.
37.	58	Pesticides (technical) (excluding formulation)	30	-	30	25	-	25	20	75	R-R	<ul style="list-style-type: none"> i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Such types of industrial sectors generate all sorts of pollution.
38.	64	Photographic film and its chemicals	30	-	30	-	-	-	-	75	R-R	<ul style="list-style-type: none"> i. Silver salts and other chemicals are used in preparation. Slight quantity of effluents is generated. ii. Water pollution scores are normalized to 100.
39.	68	Railway locomotive workshop/Integrated road transport workshop/Authorized service centers	20	10	30	-	-	-	10	75	R-R	<ul style="list-style-type: none"> i. Mainly water polluting industry. Water is used in the washing of locomotives, road transport vehicles during servicing. ii. This score is valid for those Centers having discharge more than 100 KLD. iii. Service Centers having waste-water generation < 100 KLD, the normalized score will be = (100*20)/40= 50.
40.	84	Yarn / Textile processing involving any effluent/emission generating processes including bleaching, dyeing, printing and colouring	30	10	40	15	-	15	20	75	R-R	In this sector all sorts of pollution are generated.
41.	8	Chlor Alkali	30	10	40	20	10	30	10	80	R-R	<ul style="list-style-type: none"> i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Chlor-alkali units are having different section like NaOH, Cl₂, SBP etc which are having toxic effluents. Additionally, fuel consumption is also on higher-side.
42.	70	Ship Breaking Industries	30	-	30	30	-	30	20	80	R-R	<ul style="list-style-type: none"> i. The ship-breaking industry creates numerous hazards for the coastal and marine environment. ii. Ship-breaking releases a large number of dangerous pollutants, including toxic waste, oil, poly-chlorinated biphenyls, and heavy metals, into the waters and sea bed. iii. While most of the oil is removed before a ship is scrapped, sand used to mop up the remaining oil is thrown into the sea. High concentrations of oil and grease are then found in the coastal waters, choking marine life.

												iv. Solid waste strewn on the shore, 45 tonnes on any given day according to a study by the Central Pollution Control Board, also finds its way into the sea. v. Adding to the stress on coastal waters, the organic load from the thousands of workers living in cramped conditions with little or no sanitary facilities results in unacceptably high levels of BOD.
43.	53	Oil and gas extraction including CBM (offshore & on-shore extraction through drilling wells)	30	-	30	-	-	-	20	83	R-R	i. Mainly water polluting & hazardous waste generating. ii. The water pollution & HW generation scores are normalized to 100.
44.	36	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	30	-	30	-	-	-	20	83	R-R	Mainly water polluting & toxic hazardous waste generating industry. Scores are normalized to 100.
45.	80	Tanneries	30	-	30	-	-	-	20	83	R-R	Mainly water polluting & hazardous waste generating industry. Scores are normalized to 100.
46.	65	Ports and harbour, jetties and dredging operations	30	10	40	15	10	25	20	85	R-R	This category contain all sorts of pollution.
47.	77	Synthetic fibers including rayon ,tyre cord, polyester filament yarn	30	10	40	25	10	35	10	85	R-R	This sector generates all sorts of pollution problems.
48.	81	Thermal Power Plants	30	10	40	20	10	30	15	85	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. TPP generate all sorts of pollution problems.
49.	71	Slaughter house (as per notification S.O.270(E)dated 26.03.2001)and meat processing industries, bone mill, processing of animal horn, hoofs and other body parts	25	10	35	-	-	-	-	87.5	R-R	Mainly water polluting and obnoxious odour generating industry. The water pollution score is normalized to 100
50.	2	Aluminium Smelter	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. This sector is generating all sorts of pollution i.e. air, water and HW.
51.	12	Copper Smelter	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Integrated Copper Smelters contain all sorts of

												pollution.
52.	20	Fertilizer (basic) (excluding formulation)	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Generates all sorts of pollution.
53.	37	Iron & Steel (involving processing from ore/ integrated steel plants) and or Sponge Iron units	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Such types of industrial sectors generate all sorts of pollution.
54.	61	Pulp & Paper (waste paper based units with bleaching process to manufacture writing & printing paper)	25	10	35	25	10	35	20	90	R-R	Waste paper based Pulp & Paper mills with bleaching process generate all sorts of pollution.
55.	85	Zinc Smelter	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Integrated Zinc smelter generates all sorts of pollution problems.
56.	55	Oil Refinery (mineral Oil or Petro Refineries)	30	10	40	25	10	35	20	95	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Such types of industrial sectors generate all sorts of pollution.
57.	59	Petrochemicals Manufacturing (including processing of Emulsions of oil and water)	30	10	40	25	10	35	20	95	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Such types of industrial sectors generate all sorts of pollution. iii. The earlier red category industrial sector namely "Processing of Emulsions of Oil & Water " is merged with this industrial sector.
58.	60	Pharmaceuticals	30	10	40	30	5	35	20	95	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Such types of industrial sectors generate all sorts of pollution.
59.	61	Pulp & Paper (Large-Agro + wood) , Small Pulp & Paper (agro based-wheat straw/rice husk)	30	10	40	25	10	35	20	95	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Large /Small Agro based Pulp & Paper mills contribute all sorts of pollution problems.
60.	15	Distillery (molasses / grain / yeast based)	30	10	40	-	-	-	-	100	R-R	Mainly water polluting industry. Final score is the normalized water pollution score.

Note :

- i. Under the column Revised Category, the full forms of the abbreviations are as follows :
- R-R means original category was Red and revised category is also Red
 - R-O means original category was Red and revised category is Orange
 - O-O means original category was Orange and revised category is also Orange
 - O-G means original category was Orange and revised category is Green
 - O-W means original category was Orange and revised category is White
 - G-O means original category was Green and revised category is Orange
 - G-G means original category was Green and revised category is also Green
 - G-W means original category was Green and revised category is White
- ii. There are specific remarks in respect of some of the industrial sectors. These sectors are either merged with other relevant sectors or deleted due to duplication. The overall details are as follows :

Sl No.	Original Sl No.	Industry Sector	Original Category	Remarks
1	14	Common treatment and disposal facilities (CETP, TSDF, E-waste recycling, CBMWTF, effluent conveyance project, incinerator, solvent/acid recovery plant, MSW sanitary land fill site)	R	i. All such facilities are classified as Red but special category projects as these are parts of pollution control facilities. ii. In case of CETP, the categorization will depend upon the category of member industries being served.
2	18	Processing of Emulsions of Oil & Water		It is a part of Petrochemical industries. Transferred and merged with the industrial sector namely 'Petrochemicals' at Sl. No. 54.
3	27	Heavy engineering including ship building (with investment on Plant & Machineries more than Rs 10 crores)	R	Most of the pollution generating processes / operations under this category are similar to the industry category namely "Automobile Manufacturing (integrated facilities)" at Sl. No. 1 and may be referred accordingly.
4	30	Hydrocyanic acid and its derivatives	R	Have been merged with the red category industrial sector namely "Basic chemicals and electro chemicals and its derivatives including manufacturing of acid" at Sl. No. 24
5	32	Industrial estates/ parks / complexes/ areas/ export processing zones/ SEZs/ Biotech parks/ leather complex	R	The classification will depend upon the category(ies) of the industries operating / proposed to be permitted in the area. In this context, guidelines prescribed in EIA Notification, 2006 shall be followed.
6	33	Industrial inorganic gases namely- a) Chemical gas- Acetylene, hydrogen, chlorine, fluorine, ammonia, sulphur dioxide, ethylene, hydrogen-sulphide, phosphine b) Hydrocarbon gases- Methane, ethane, propane	R	These gases are generally secondary products and produced alongwith other main products. To be classified as per the main parent plant.
7	69	Reprocessing of used oils & waste oils	R	i. The industry generates mainly the air pollution and oil bearing hazardous wastes. The normalized (air pollution & HW generation score is 58.33). ii. To be deleted as already covered under HW Recyclers / Re-processors (Used oils / Waste Oils) under Orange Category

Table G-3 : Final List of Orange Category of Industrial Sectors

Final Sl. No.	Orgnl S.No	Industry Sector	W1	W2	W	A1	A2	A	H	W+A+H	Revised category	Remarks
1.	20	Dismantling of rolling stocks (wagons/ coaches)	--	--	--	15	--	15	10	41.67	O-O	Emissions of dust and generation of waste oils take place during dismantling. Air pollution & HW generation scores (15+10=25) are normalized to 100.
2.	5	Bakery and confectionery units with production capacity > 1 TPD. (With ovens / furnaces)	20	--	20	15	--	15	--	43.75	O-O	
3.	10	Chanachur and ladoo from puffed and beaten rice(muri and shira) using husk fired oven	20	--	20	15	--	15	--	43.75	O-O	Normal water and air polluting.
4.	23	Coated electrode manufacturing	15	0	15	20	0	20	0	43.75	G-O	Preparation of core wire / rod, preparation of dry mix, preparation of wet mix, application of coating by extrusion, baking of coated electrodes
5.	24	Compact disc computer floppy and cassette manufacturing / Reel manufacturing	15	0	15	20	0	20	0	43.75	G-O	Generates waste-water and process emissions.
6.	24	Flakes from rejected PET bottle	20	-	20	15	-	15	-	43.75	R-O	Normal water & air pollutions are generated.
7.	30	Food and food processing including fruits and vegetable processing	20	--	20	15	--	15	--	43.75	O-O	Normal water and air polluting.
8.	40	Jute processing without dyeing	20	--	20	15	--	15	--	43.75	O-O	CPCB has notified standards for this category. Both air and water pollutions are generated.
9.	56	Manufacturing of silica gel	15	0	15	20	0	20	0	43.75	G-O	Waste-waters containing TDS and emissions of H ₂ SO ₄ are generated.

10.	45	Manufacturing of tooth powder, toothpaste, talcum powder and other cosmetic items	20	--	20	15	--	15	--	43.75	O-O	Both air and water pollution are generated.
11.	55	Printing or etching of glass sheet using hydrofluoric acid	15	--	15	20	--	20	--	43.75	O-O	Both air and water pollution are generated.
12.	65	Silk screen printing, sari printing by wooden blocks	20	--	20	15	--	15	--	43.75	O-O	Wash-water and PM emissions from boilers .
13.	76	Synthetic detergents and soaps(excluding formulation)	20	-	20	15	-	15	-	43.75	R-O	i. This is the score for units having generation of waste-waters less than 100 KLD. ii. The units having waste-water generation more than 100 KLD will become mainly water polluting and accordingly normalized water pollution score will be 75 and be categorized as Red.
14.	71	Thermometer manufacturing	15	--	15	20	--	20	--	43.75	O-O	Process - making 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.
15.	14	Cotton spinning and weaving (medium and large scale)	--	--	--	15	--	37.5	10	47.5	O-O	Mainly air polluting industry. Sources of air pollution (PM) are the fine particles of cotton from spinning process. Air pollution score is normalized to 100.
16.	1	Almirah, Grill Manufacturing (Dry Mechanical Process)	--	--	--	20	--	20	--	50	O-O	Air pollution due to spray painting (emissions of VOCs). Units without painting operations shall be categorized as White.

17.	2	Aluminium & copper extraction from scrap using oil fired furnace (dry process only)	--	--	--	20	--	20	10	50	O-O	i. Normalized Air pollution score. ii. Significant air pollution due to melting (emissions of SO ₂ , PM).
18.	3	Automobile servicing, repairing and painting (excluding only fuel dispensing)	20	--	20	20	--	20	10	50	O-O	Normal water & air polluting and recyclable waste oil generating. If the waste water generation is more than 100 KLD, it will become mainly water polluting and Red category unit.
19.	4	Ayurvedic and homeopathic medicine	20	--	20	15	--	15	15	50	O-O	
20.	7	Brickfields (excluding fly ash brick manufacturing using lime process)	--	--	--	20	--	20	--	50	O-O	Significantly air polluting.
21.	8	Building and construction project more than 20,000 sq. m built up area	20	--	20	20	--	20	--	50	O-O	1. In the pre-construction stage , it is mainly air polluting due to generation of dust (PM) emissions. 2. After construction, it is mainly water polluting. If the discharge is more than 100 KLD, it will be having the normalized score of 75 and be categorized as Red.
22.	6	Ceramics and Refractories	-	-	-	20	-	20	-	50	R-O	i. Mainly air polluting industry. ii. This score is for the units having coal consumption < than 12 MT/day. iii. For the units having coal consumption > 12 MT /day, the normalized air pollution score will be 62.5 and shall be categorized as Red.

23.	11	Coal washeries	15	10	25	15	-	15	-	50	R-O	<p>i. Wet washeries are mainly water polluting industry generating effluents which are having inorganic SS & TDS. Additionally, air pollution due to PM emissions is also generated.</p> <p>ii. Water & air pollution scores are jointly normalized to 100.</p>
24.	16	Dairy and dairy products (small scale)	20	--	20	20	--	20	--	50	O-O	Water and air polluting both.
25.	18	DG set of capacity >1MVA but < 5MVA	--	--	--	20	--	20	--	50	O-O	Mainly air polluting . air pollution score is normalized to 100.
26.	17	Dry coal processing, mineral processing, industries involving ore sintering, pelletisating, grinding & pulverization	-	-	-	20	-	20	-	50	R-O	Mainly air polluting industry. Final score is the normalized air pollution score.
27.	19	Fermentation industry including manufacture of yeast, beer, distillation of alcohol (Extra Neutral Alcohol)	20	-	20	-	-	-	-	50	R-O	<p>i. Mainly water polluting industry. This is the normalized water pollution score for units having discharge < 100 KLD.</p> <p>ii. For the units having discharge > 100 KLD, the normalized water pollution score will be 75 and shall be accordingly categorized as Red.</p>
28.	21	Ferrous and Non-ferrous metal extraction involving different furnaces through melting, refining, re-processing, casting and alloy-making	-	-	-	15	5	20	10	50	R-O	<p>i. Mainly air polluting.</p> <p>ii. This score is applicable to secondary production of ferrous & non-ferrous metals (excluding lead) up-to 1 MT/hour production.</p>

												<p>iii. For lead, the normalized air pollution score will be = $(100 \times 25) / 40 = 62.5$ and is categorized as Red.</p> <p>iv. For Induction Furnace clubbed with AOD furnace - separate calculation shall be made based on the capacity of the furnaces. In such industries, the molten metal from induction furnace is transferred to AOD furnace where other metals like manganese and nickel are added to get the metal of desired constituents. The lime and silicon are also added for reduction of the metal oxides to the base metal. the normalized air pollution score will be = $(100 \times 25) / 40 = 62.5$ and is categorized as Red.</p>
29.	26	Fertilizer (granulation / formulation / blending only)	--	--	--	20	--	20	--	50	O-O	Air polluting.
30.	27	Fish feed, poultry feed and cattle feed	--	--	--	20	--	20	--	50	O-O	Obnoxious odour , H2S etc. AP score is normalized to 100
31.	28	Fish processing and packing (excluding chilling of fishes)	20	--	20	--	--	--	--	50	O-O	Mainly water polluting. WP score is normalized to 100.

32.	31	Forging of ferrous and non- ferrous metals (using oil and gas fired furnaces)	--	--	--	20	--	20	--	50	O-O	Heating furnace. Mainly air polluting.
33.	32	Formulation/pelletization of camphor tablets, naphthalene balls from camphor/ naphthalene powders.	--	--	--	20	--	20	--	50	O-O	Mainly air polluting. Emissions of Benzene, HC are expected.
34.	33	Glass ceramics, earthen potteries and tile manufacturing using oil and gas fired kilns, coating on glasses using cerium fluorides and magnesium fluoride etc.	--	--	--	20	--	20	--	50	O-O	Mainly air polluting. Emissions of SO2 are expected.
35.	35	Gravure printing, digital printing on flex, vinyl	20	--	20	20	--	20	10	50	O-O	Waste waters , emissions of VOCs
36.	36	Heat treatment using oil fired furnace (without cyaniding)	--	--	--	20	--	20	--	50	O-O	Mainly air polluting and noise generating. AP Score is normalized to 100.
37.	28	Hot mix plants	-	-	-	20	-	20	-	50	R-O	Mainly air polluting. Air pollution scores are normalized to 100.
38.	37	Hotels (< 3 star) or hotels having > 20 rooms and less than 100 rooms.	20	--	20	20	--	20	--	50	O-O	Mainly water polluting. WP score is normalized to 100.
39.	38	Ice cream	20	--	20	20	--	20	--	50	O-O	Wash-water and boilers / oven for pasteurization.
40.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Paint and ink Sludge/residues	-	-	-	20	0	20	0	50	R-O	Mainly air polluting. Air pollution score is normalized to 100
41.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Brass Dross ,, Copper Dross,, Copper Oxide Mill Scale,, Copper Reverts, Cake & Residues,, Waste Copper and copper alloys in	10	-	10	20	-	20	10	50	R-O	Mainly air polluting.

		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 from,,										
42.	35	Industry or processes involving foundry operations	-	-	-	20	-	20	-	50	R-O	<ul style="list-style-type: none"> i. This score is valid for the foundries having capacity < 5 MT/hr as such units require the coal/coke @ < 500 kg/hr. ii. The units having capacity of 5 MT/hr and more, the coal/coke consumption will be more than 500 kg/hr and the normalized score will be 62.5 and classified accordingly as Red.
43.	40	Lime manufacturing (using lime kiln)	-	-	-	20	-	20	-	50	R-O	Mainly air polluting
44.	41	Liquid floor cleaner, black phenyl, liquid soap, glycerol mono-stearate manufacturing	20	--	20	20	--	20	--	50	O-O	Both air and water pollution are generated.

45.	42	Manufacturing of glass	10	-	-	20	-	20	-	50	R-O	<p>i. Mainly air polluting (melting at 1500°C and refining .</p> <p>ii. In case of lead glass , the score of A1 will be 25 and accordingly the normalized scores will be 62.5 i.e. Red .</p>
46.	43	Manufacturing of iodized salt from crude/ raw salt	12	--	12	20	--	20	--	50	O-O	Boiling in Evaporators (multiple effect evaporators), centrifuging, iodization with KIO ₃ mixing . Mainly air polluting. Air pollution score is normalized to 100.
47.	42	Manufacturing of mirror from sheet glass	--	--	--	20	--	20	--	50	O-O	Evaporator & furnace for heating the metal to be applied as reflector on mirror. Mainly air polluting.
48.	44	Manufacturing of mosquito repellent coil	--	--	--	20	--	20	--	50	O-O	Mainly air polluting. Toxic fumes are expected.
49.	46	Manufacturing of Starch/Sago	25	-	25	15	-	15	-	50	R-O	<p>i. Water and air polluting industry. Boiler is used for steam generation.</p> <p>ii. Water & air pollution scores are normalized to 100</p>
50.	46	Mechanized laundry using oil fired boiler	20	--	20	20	--	20	--	50	O-O	Both air and water pollution are generated.
51.	47	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)	--	--	--	20	--	20	--	50	O-O	1. Mainly air polluting. Boiler as well as VOCs from use of adhesives. 2. Without boiler, it will be a Green category industry.
52.	50	New highway construction project	-	-	-	20	-	20	-	50	R-O	Mainly air polluting project.

53.	51	Non-alcoholic beverages(soft drink) & bottling of alcohol/non alcoholic products	20	-	20	15	5	20	-	50	R-O	i. Both air and water polluting. Score is normalized with air & water pollution. This score is valid for industries having waste-water generation < 100 KLD. ii. For the units having waste-water generation > 100 KLD the , normalized score would be 62.5 and categorized as Red.
54.	49	Paint blending and mixing (Ball mill)	20	--	20	20	--	20	10	50	O-O	Both air and water pollution are generated.
55.	62	Paints and varnishes (mixing and blending)	20	0	0	20	0	20	0	50	G-O	Waste-waters as well as fumes of VOCs due to solvents, pigments, varnishes.
56.	51	Ply-board manufacturing(including Veneer and laminate) with oil fired boiler/ thermic fluid heater(without resin plant)	0	--	0	20	--	20	--	50	O-O	Mainly air polluting because of use of boiler. AP score is normalized to 100
57.	52	Potable alcohol (IMFL) by blending, bottling of alcohol products	20	--	20	--	--	--	--	50	O-O	Mainly water polluting. WP score is normalized to 100.
58.	54	Printing ink manufacturing	20	--	20	20	--	20	--	50	O-O	1. Pigments, binders and solvents are used. 2. Boiler is also used. 3. Emissions of VOCs take place.
59.	70	Printing press	20	0	20	20	0	20	0	50	G-O	Colored waste-waters containing dyes and VOC emissions are generated.
60.	59	Reprocessing of waste plastic including PVC	20	--	20	20	--	20	--	50	O-O	Large quantities of wash-water and fugitive emissions are generated.
61.	61	Rolling mill (oil or coal fired) and cold rolling mill	10	--	10	20	--	20	--	50	O-O	Mainly air polluting. Air pollution score is normalized to 100. Others - cooling water and recyclable waste oils etc. are generated.
62.	67	Spray painting, paint baking, paint shipping	--	--	--	20	--	20	10	50	O-O	Mainly air polluting. Emissions of VOCs and HC are generated.

63.	72	Steel and steel products using various furnaces like blast furnace /open hearth furnace/induction furnace/arc furnace/submerged arc furnace /basic oxygen furnace /hot rolling reheated furnace	10	-	10	20	-	20	10	50	R-O	i. Mainly air polluting. In the emissions, oxides of manganese, nickel etc. are also present. ii. Air pollution score is normalized to 100.
64.	73	Stone crushers	-	-	-	20	-	20	-	50	R-O	Mainly air polluting. Air pollution score is normalized to 100.
65.	75	Surgical and medical products including prophylactics and latex	20	-	20	20	-	20	-	50	R-O	Both air as well as water polluting. Air and water pollution scores are normalized to 100.
66.	85	Tephlon based products	0	0	0	20	0	20	0	50	G-O	Due to spraying applications, emissions (HC) are generated
67.	70	Thermocol manufacturing (with boiler)	--	--	--	20	--	20	--	50	O-O	Polystyrene is heated. Mainly air polluting with boiler.
68.	82	Tobacco products including cigarettes and tobacco/opium processes	20	-	20	20	-	20	-	50	R-O	Such industries generate both air as well as water pollution. These scores are normalized to 100.
69.	72	Transformer repairing/ manufacturing (dry process only)	--	--	--	20	--	20	10	50	O-O	Mainly air polluting because of ovens, shot-blasting etc.
70.	73	Tyres and tubes vulcanization/ hot retreating	10	--	10	20	--	20	--	50	O-O	Mainly air polluting . Emissions of PM, VOCs and obnoxious odour are generated.
71.	83	Vegetable oil manufacturing including solvent extraction and refinery /hydrogenated oils	20	-	20	15	5	20	10	50	R-O	i. All sorts of pollution are generated. ii. This score is valid for plants having waste-water generation < 100 KLD. iii. If the waste-water generation is more than 100 KLD, the unit shall be classified as Red.
72.	74	Wire drawing and wire netting	20	--	20	--	--	--	--	50	O-O	Mainly water polluting. WP score is normalized to 100.

73.	21	Dry cell battery (excluding manufacturing of electrodes) and assembling & charging of a lead battery on micro scale	30	--	30	15	--	15	10	55	O-O	Water and air polluting both.
74.	50	Pharmaceutical formulation and for R & D purpose (For sustained release/ extended release of drugs only and not for commercial purpose)	20	--	20	20	--	20	15	55	O-O	i. All sorts of pollution are generated. ii. R&D activities are to be shifted to Red category.
75.	78	Synthetic resins	20	-	20	20	-	20	15	55	R-O	All sorts of pollution are generated.
76.	79	Synthetic rubber excluding molding	20	-	20	20	-	20	15	55	R-O	i. Most synthetic rubber is created from two materials, styrene and butadiene. Both are currently obtained from petroleum. ii. Process is similar to a part of Petrochemical plants.
77.	9	Cashew nut processing	25	--	25	20	--	20	--	56	O-O	Normal water and air polluting.
78.	12	Coffee seed processing	25	--	25	20	--	20	--	56	O-O	Normal water & air polluting industry.
79.	57	Parboiled Rice Mills	25	-	25	20	-	20	-	56	R-O	i. Rice Mills are generating both air and water pollution. Waste-waters are having high strength in respect of BOD. ii. This is the normalized air & water pollution score for units having waste-water generation < 100 KLD and fuel consumption less than 12 MTD. iii. For units having waste-water generation > 100 KLD or fuel consumption > 12 MTD or both , the unit shall be classified as Red.

80.	29	Foam manufacturing	--	--	--	20	--	20	15	58	O-O	<p>i. Raw material is polyurethane, latex etc.</p> <p>ii. Emissions of VOCs and HAPs. CH₃Cl₂ and similar compounds as blowing agents.</p> <p>iii. Outdated raw materials and spoiled slots are discarded as HW.</p>
81.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Used Oil – As per specifications prescribed from time to time.	10	0	10	20	0	20	15	58.33	R-O	Mainly air polluting and hazardous waste generating industry. Air pollution & HW scores are normalized to 100
82.	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) rules, 2008 - Items namely - Waste Oil ---As per specifications prescribed from time to time.	-	-	-	20	0	20	15	58.33	R-O	Mainly air polluting and hazardous waste generating industry. Air pollution & HW scores are normalized to 100.
83.	56	Producer gas plant using conventional up drift coal gasification (linked to rolling mills glass and ceramic industry refractories for dedicated fuel supply)	--	--	--	20	--	20	15	58.33	O-O	Mainly air polluting & tar (HW) generating. SO ₂ , CO, NO _x are generated. Tar is the by-product and utilized by other industries in co-processing.

Note :

- i. Under the column Revised Category, the full forms of the abbreviations are as follows :
- R-R means original category was Red and revised category is also Red
 - R-O means original category was Red and revised category is Orange
 - O-O means original category was Orange and revised category is also Orange
 - O-G means original category was Orange and revised category is Green
 - O-W means original category was Orange and revised category is White
 - G-O means original category was Green and revised category is Orange
 - G-G means original category was Green and revised category is also Green
 - G-W means original category was Green and revised category is White

ii. There are specific remarks in respect of some of the industrial sectors. These sectors are either merged with other relevant sectors or deleted due to duplication / vague category. The overall details are as follows:

<i>Sl No .</i>	<i>Origin al Sl No.</i>	<i>Industry Sector</i>	<i>Original Categor y</i>	<i>Remarks</i>
1	24	<i>Excavation of sand from the river bed (excluding manual excavation)</i>	0	<i>Since such types of activities cause ecological disturbances, the instructions issued by the government from time to time be followed. To be categorized by MoEF&CC.</i>
2	39	<i>Infrastructure Development Project</i>	0	<i>Vast variety of such projects come under such category. This is to be decided by the concerned SPCB in line of EIA Notification , 2006.</i>
3	53	<i>Power press</i>	0	<i>Very vague term hence deleted. Such types of general engineering units have already been covered.</i>

Table G-4 : Final List of Green Category of Industrial Sectors

Sl. No.	Orgnl Sl. No.	Industry Sector	W1	W2	W	A1	A2	A	H	W+A+H	Revised Category	Remarks
1.	2	Aluminium utensils from aluminium circles by pressing only (dry mechanical operation)	--	--	--	10	--	10	--	25	G-G	Minor air pollution due to some fugitive PM emissions from buffing operations.
2.	6	Ayurvedic and homeopathic medicines (without boiler)	10	--	10	--	--	--	--	25	G-G	Small quantities of waste-waters are generated from washing operations.
3.	8	Bakery /confectionery /sweets products (with production capacity <1tpd (with gas or electrical oven)	10	--	10	--	--	--	--	25	G-G	Small quantities of waste-waters are generated from washing operations.
4.	6	Bi-axially oriented PP film along with metalizing operations	10	--	10	--	--	--	--	25	O-G	Mainly extrusion process involving Cooling water recirculation
5.	10	Biomass briquettes (sun drying) without using toxic hazardous wastes	--	--	--	10	--	10	--	25	G-G	Minor air pollution due to some fugitive PM emissions from pulverization / mixing operations.
6.	13	Blending of melamine resins & different powder, additives by physical mixing	--	--	--	10	--	10	--	25	G-G	Minor air pollution due to some fugitive PM emissions from pulverization / mixing operations.
7.	15	Brass and bell metal utensils manufacturing from circles(dry mechanical operation without re-rolling facility)	--	--	--	10	--	10	--	25	G-G	Minor air pollution due to some fugitive PM emissions from buffing operations.
8.	16	Candy	10	--	10	10	--	10	--	25	G-G	Small quantities of waste-water and minor

												PM emissions are generated.
9.	17	Cardboard or corrugated box and paper products (excluding paper or pulp manufacturing and without using boilers)	--	--	--	10	--	10	--	25	G-G	This score is valid with Small gas / electricity operated oven / furnace for making glue.
10.	18	Carpentry & wooden furniture manufacturing (excluding saw mill) with the help of electrical (motorized) machines such as electrical wood planner, steel saw cutting circular blade, etc.	--	--	--	10	--	10	--	25	G-G	Minor air pollution due to some fugitive PM emissions from cutting operations.
11.	19	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)	--	--	--	10	--	10	--	25	G-G	Minor air pollution due to some fugitive PM emissions from mixing operations.
12.	20	Ceramic colour manufacturing by mixing & blending only (not using boiler and wastewater recycling process)	--	--	--	10	--	10	--	25	G-G	Minor air pollution due to some fugitive PM emissions.
13.	11	Chilling plant, cold storage and ice making	10	--	10	--	--	--	--	25	O-G	Cooling water recirculation only.
14.	13	Coke briquetting (sun drying)	--	--	--	10	--	10	--	25	O-G	Mainly air polluting industry. Sources of air pollution (PM) are pulverizes and mixers. Air pollution score is normalized to 100.
15.	28	Cotton spinning and weaving (small scale)	--	--	--	10	--	10	--	25	G-G	Minor PM emissions from spinning process.
16.	17	Dal Mills	--	--	--	10	--	10	--	25	O-G	Some fugitive emissions of PM.

17.	29	Decoration of ceramic cups and plates by electric furnace	--	--	--	10	--	10	--	25	G-G	Fumes of enamels. Minor air pollution.
18.	19	Digital printing on PVC clothes	--	--	--	10	--	10	--	25	O-G	Minor emissions / odour generations are expected.
19.	25	Facility of handling, storage and transportation of food grains in bulk	--	--	--	10	--	10	--	25	O-G	Some fugitive emissions of PM during handling of grains.
20.	36	Flour mills (dry process)	--	--	--	10	--	10	--	25	G-G	Fugitive dust emissions.
21.	41	Glass , ceramic, earthen potteries, tile and tile manufacturing using electrical kiln or not involving fossil fuel kiln	--	--	--	10	--	10	--	25	G-G	Minor fugitive emissions only.
22.	34	Glue from starch (physical mixing) with gas / electrically operated oven /boiler.	--	--	--	10	--	10	--	25	O-G	Some fugitive emissions of PM during mixing of raw materials.
23.	42	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)	--	--	--	10	--	10	--	25	G-G	Minor fumes from cleaning process.
24.	36	Heat treatment with any of the new technology like ultrasound probe , induction hardening , ionization beam, gas carburizing etc.	10	--	10	10	--	10	--	25	O-G	<ul style="list-style-type: none"> Cooling waters and minor heat fumes. Finalization of categorization subject to field verification.
25.	46	Insulation and other coated papers (excluding paper or pipe manufacturing)	--	--	--	10	--	10	--	25	G-G	Minor fumes due to application of poly-urethane
26.	49	Leather foot wear and leather products (excluding tanning and hide processing except cottage scale)	--	--	--	10	--	10	--	25	G-G	Minor fumes due to use of adhesives / gums.

27.	50	Lubricating oil, greases or petroleum based products (only blending at normal temperature)	--	--	--	10	--	10	--	25	G-G	Minor fumes at the time of transfers from one container to other.
28.	54	Manufacturing of pasted veneers using gas fired boiler or thermic fluid heater and by sun drying	--	--	--	10	--	10	--	25	G-G	1. Minor fumes due to application of gums / adhesives / pastes etc. 2. This score is valid only for gas fired boiler. 3. The units having coal fired boilers shall be categorized as Orange.
29.	59	Oil mill Ghani and extraction (no hydrogenation / refining)	10	--	10	--	--	--	--	25	G-G	Small quantities of floor washings & equipments washings are generated.
30.	48	Packing materials manufacturing from non asbestos fibre, vegetable fibre yarn	--	--	--	10	--	10	--	25	O-G	Some fugitive emissions of PM are expected.
31.	65	Phenyl/toilet cleaner formulation and bottling	--	--	--	10	--	10	--	25	G-G	Minor fumes of VOCs in the work zone
32.	67	Polythene and plastic processed products manufacturing (virgin plastic)	10	--	10	10	--	10	--	25	G-G	Cooling water & emissions due to mixing of raw materials.
33.	68	Poultry, Hatchery and Piggery	--	--	--	10	--	10	--	25	G-G	Obnoxious odour containing H ₂ S, CH ₄ etc. and fugitive PM emissions
34.	69	Power looms (without dye and bleaching)	--	--	--	10	--	10	--	25	G-G	Minor emissions of PM.
35.	71	Puffed rice (muri) (using gas or electrical heating system)	--	--	--	10	--	10	--	25	G-G	Minor emissions of PM.
36.	57	Pulverization of bamboo and scrap wood	--	--	--	10	--	10	--	25	O-G	Some fugitive emissions of PM are expected.
37.	72	Ready mix cement concrete	--	--	--	10	--	10	--	25	G-G	PM emissions.
38.	73	Reprocessing of waste cotton	--	--	--	10	--	10	--	25	G-G	PM emissions.
39.	60	Rice mill (Rice hullers only)	--	--	--	10	--	10	--	25	O-G	PM emissions are generated. Mainly air

													polluting. AP score is normalized to 100
40.	62	Rolling mill (gas fired) and cold rolling mill	10	--	10	10	--	10	--	25	O-G		Mainly air polluting. AP score is normalized to 100
41.	75	Rubber goods industry (with gas operated baby boiler)	--	--	--	10	--	10	--	25	G-G		Some PM emissions and obnoxious odour.
42.	63	Saw mills	--	--	--	10	--	10	--	25	O-G		Mainly air polluting. PM and noise are generated.
43.	77	Soap manufacturing (hand made without steam boiling / boiler)	10	--	10	--	--	--	--	25	G-G		Small quantities of waste-water are generated.
44.	80	Spice grinding (upto-20 HP motor)	--	--	--	10	--	10	--	25	G-G		Small quantities of fugitive emissions of raw materials.
45.	66	Spice grinding (>20 hp motor)	--	--	--	10	--	10	--	25	O-G		Mainly air polluting. Fugitive emissions of PM.
46.	81	Steel furniture without spray painting	--	--	--	10	--	10	--	25	G-G		Obnoxious gases from welding as well as noise pollution.
47.	82	Steeping and processing of grains	10	--	10	--	--	--	--	25	G-G		Washing waters are generated.
48.	86	Tyres and tube retreating (without boilers)	--	--	--	10	--	10	--	25	G-G		Due to applications of binding gum / adhesives / cement, some obnoxious fumes may generate.
49.	22	Chilling plant and ice making without using ammonia	12	--	12	--	--	--	--	30	G-G		Cooling water and brine water circuits. Spillages / blow down may take place
50.	26	CO2 recovery	12	--	12	--	--	--	--	30	G-G		Normal water pollution from scrubbing action
51.	32	Distilled water (without boiler) with electricity as source of heat	12	--	12	--	--	--	--	30	G-G		TDS as distillation residues

52.	45	Hotels (up to 20 rooms and without boilers)	12	--	12	--	--	--	--	30	G-G	This score is valid for hotels having overall waste-water generation less than 10 KLD.
53.	53	Manufacturing of optical lenses (using electrical furnace)	12	--	12	--	--	--	--	30	G-G	Small quantities of waste-waters containing TDS, SS are generated.
54.	58	Mineralized water	12	--	12	--	--	--	--	30	G-G	RO Rejects.
55.	68	Tamarind powder manufacturing	12	--	12	15	--	15	--	33.75	O-G	<ul style="list-style-type: none"> Dried tamarind fruits - cleaned and after soaking them in water they are boiled in steam jacketed kettle for about 40-45 minutes. Then pulp is extracted in pulper and dried in drum type drier and on cooling, the final product is packed. Generates small quantities of waste waters and air emissions. Joint score is normalized to 100.
56.	15	Cutting, sizing and polishing of marble stone	15	--	15	--	--	--	--	37.5	O-G	Mainly water polluting . Water pollution score is normalized to 100.
57.	22	Emery powder (fine dust of sand) manufacturing	--	--	--	15	--	15	--	37.5	O-G	Air polluting. PM emissions take place during various stages of grindings of naturally occurring minerals.
58.	25	Flyash export, transport & disposal facilities	-	-	-	15	-	15	-	37.5	R-G	<ul style="list-style-type: none"> This is mainly air polluting activity. This is the normalized score based on air pollution.
59.	48	Mineral stack yard / Railway sidings	15	-	15	15	-	15	-	37.5	R-G	<ul style="list-style-type: none"> Mainly air pollution due to loading, unloading, storage and transportation of the minerals.

													<ul style="list-style-type: none"> Waste-water generation mainly during rains only.
60.	54	Oil and gas transportation pipeline	-	-	-	10	5	15	-	37.5	R-G	<ul style="list-style-type: none"> Contains small gas based power plants up-to 5 MWs. Air pollution score is normalized to 100. In case , if these power plants are bigger / liquid fuel / oil based, scores will be calculated accordingly. 	
61.	64	Seasoning of wood in steam heated chamber	--	--	--	15	--	15	--	37.5	O-G	<p>Air pollution due to use boiler for supply of steam. Air pollution score is normalized to 100.</p>	
62.	84	Synthetic detergent formulation	--	--	--	15	--	15	--	37.5	G-G	<ul style="list-style-type: none"> This score is valid for the industries which are not manufacturing LABSA. It is procured from outside. Small quantities of emissions are generated from mini boiler. Air pollution score is normalized to 100. 	
63.	69	Tea processing (with boiler)	--	--	--	15	--	15	--	37.5	O-G	<p>With boiler, it is an orange category industry. Without boiler, it will be green category industry.</p>	

Note :

- i. Under the column Revised Category, the full forms of the abbreviations are as follows :
- R-R means original category was Red and revised category is also Red
 - R-O means original category was Red and revised category is Orange
 - O-O means original category was Orange and revised category is also Orange
 - O-G means original category was Orange and revised category is Green
 - O-W means original category was Orange and revised category is White
 - G-O means original category was Green and revised category is Orange
 - G-G means original category was Green and revised category is also Green
 - G-W means original category was Green and revised category is White
- ii. There are specific remarks in respect of some of the industrial sectors. These sectors are either merged with other relevant sectors or deleted due to duplication. The overall details are as follows :

Sl No .	Origin al Sl No.	Industry Sector	Original Categor y	Remarks
1	47	Jobbing and Machining	G	Vague category to be deleted, as such activities have already been covered in other categories.
2	66	Reel manufacturing	G	Already covered in other categories. Hence, deleted
3	1	Assembling of acid lead batteries (up to 10 batteries per day excluding lead plate casting)	G	Already covered in Orange category. Hence, deleted
4	5	Automobile fuel outlets (only dispensing)	G	Minor air pollution due to some fugitive emissions during fuel filling operations. May be exempted from the purview of Consent management.
5	30	Diesel generator sets (15 KVA to 1 MVA)	G	<ul style="list-style-type: none"> Normal operation – 12 hrs a day. Consumption of diesel = 1680 litres for 1 MVA DG set at full load @ 0.21 litres / KVA / hr. Stand-alone DG Sets having total capacity 1 MVA or less and equipped with acoustic enclosures alongwith adequate stack height may be exempted from the purview of Consent management. Higher capacity DG sets have already been covered under Red / Orange categories .

Table G-5: Final List of White Category of Industries

Sl. No.	Orgnl Sl. No.	Industry Sector	W1	W2	W	A1	A2	A	H	W+A+H	Revised Category
1.	3	Assembly of air coolers /conditioners ,repairing and servicing	--	--	--	--	--	--	--	--	G-W
2.	4	Assembly of bicycles ,baby carriages and other small non motorizing vehicles	--	--	--	--	--	--	--	--	G-W
3.	7	Bailing (hydraulic press)of waste papers	--	--	--	--	--	--	--	--	G-W
4.	9	Bio fertilizer and bio-pesticides without using inorganic chemicals	--	--	--	--	--	--	--	--	G-W
5.	11	Biscuits trays etc from rolled PVC sheet (using automatic vacuum forming machines)	--	--	--	--	--	--	--	--	G-W
6.	12	Blending and packing of tea	--	--	--	--	--	--	--	--	G-W
7.	14	Block making of printing without foundry (excluding wooden block making)	--	--	--	--	--	--	--	--	G-W
8.	21	Chalk making from plaster of Paris (only casting without boilers etc. (sun drying / electrical oven)	--	--	--	--	--	--	--	--	G-W
9.	25	Compressed oxygen gas from crude liquid oxygen (without use of any solvents and by maintaining pressure & temperature only for separation of other gases)	--	--	--	--	--	--	--	--	G-W
10.	27	Cotton and woolen hosiers making (Dry process only without any dyeing / washing operation)	--	--	--	--	--	--	--	--	G-W
11.	31	Diesel pump repairing and servicing (complete mechanical dry process)	--	--	--	--	--	--	--	--	G-W
12.	33	Electric lamp (bulb) and CFL manufacturing by assembling only	--	--	--	--	--	--	--	--	G-W

13.	34	Electrical and electronic item assembling (completely dry process)	--	--	--	--	--	--	--	--	G-W
14.	23	Engineering and fabrication units (dry process without any heat treatment / metal surface finishing operations / painting)	--	--	--	--	--	--	--	--	O-W
15.	35	Flavoured betel nuts production/ grinding (completely dry mechanical operations)	--	--	--	--	--	--	--	--	G-W
16.	37	Fly ash bricks/ block manufacturing	--	--	--	--	--	--	--	--	G-W
17.	38	Fountain pen manufacturing by assembling only	--	--	--	--	--	--	--	--	G-W
18.	39	Glass ampules and vials making from glass tubes	--	--	--	--	--	--	--	--	G-W
19.	40	Glass putty and sealant (by mixing with machine only)	--	--	--	--	--	--	--	--	G-W
20.	43	Ground nut decorticating	--	--	--	--	--	--	--	--	G-W
21.	44	Handloom/ carpet weaving (without dying and bleaching operation)	--	--	--	--	--	--	--	--	G-W
22.	48	Leather cutting and stitching (more than 10 machine and using motor)	--	--	--	--	--	--	--	--	G-W
23.	51	Manufacturing of coir items from coconut husks	--	--	--	--	--	--	--	--	G-W
24.	52	Manufacturing of metal caps containers etc	--	--	--	--	--	--	--	--	G-W
25.	55	Manufacturing of shoe brush and wire brush	--	--	--	--	--	--	--	--	G-W
26.	57	Medical oxygen	--	--	--	--	--	--	--	--	G-W
27.	60	Organic and inorganic nutrients (by physical mixing)	--	--	--	--	--	--	--	--	G-W
28.	61	Organic manure (manual mixing)	--	--	--	--	--	--	--	--	G-W
29.	63	Packing of powdered milk	--	--	--	--	--	--	--	--	G-W
30.	64	Paper pins and u clips	--	--	--	--	--	--	--	--	G-W
31.	58	Repairing of electric motors and generators (dry mechanical process)	--	--	--	--	--	--	--	--	O-W
32.	74	Rope (plastic and cotton)	--	--	--	--	--	--	--	--	G-W

33.	76	Scientific and mathematical instrument manufacturing	--	--	--	--	--	--	--	--	G-W
34.	78	Solar module non conventional energy apparatus manufacturing unit	--	--	--	--	--	--	--	--	G-W
35.	79	Solar power generation through solar photovoltaic cell, wind power and mini hydel power (less than 25 MW)	--	--	--	--	--	--	--	--	G-W
36.	83	Surgical and medical products assembling only (not involving effluent / emission generating processes)	--	--	--	--	--	--	--	--	G-W

Note : Under the column Revised Category, the full forms of the abbreviations are as follows :

- a. R-R means original category was Red and revised category is also Red
- b. R-O means original category was Red and revised category is Orange
- c. O-O means original category was Orange and revised category is also Orange
- d. O-G means original category was Orange and revised category is Green
- e. O-W means original category was Orange and revised category is White
- f. G-O means original category was Green and revised category is Orange
- g. G-G means original category was Green and revised category is also Green
- h. G-W means original category was Green and revised category is White





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

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

19.08.2015

Sub: "Harmonization of Classification of industries under Red / Orange / Green / White Categories".

During the Conference of the Environment Ministers of States held in New Delhi during April 06-07, 2015, it was resolved to adopt pollution potential criteria for categorization of Red, Orange & Green categories of industries and that a Committee be constituted with State representatives. Further, in the 59th Conference of Chairmen & Member Secretaries of Pollution Control Boards/PCCs held in New Delhi on April 08, 2015, it was agreed to constitute a Committee to look into categorization system of industries based on their respective pollution potential index.

2. Accordingly, a Committee comprising the Chairmen of CPCB, APPCB, TNPCB, MPPCB, MPCB, PPCB, WBPCB and MS, CPCB was constituted vide CPCB OM dated 23.04.2015 to review & classify industrial sectors into different categories based on criteria of respective pollution potential indices.
3. The existing Red (85 sectors) , Orange (73 sectors) and Green (86 sectors) industrial sectors have been assessed as per the proposed formula by a group of Scientists from CPCB . For this purpose , concerned Engineers / Scientists from the Member SPCBs of the Committee were also involved & consulted during May28-29, 2015.
4. After careful examination and consideration of the suggestions of concerned stake-holders the "Draft Document on Revised Concept of Categorization of Industrial Sectors " is prepared by the Committee .

In this context, the Undersigned is directed to forward a copy of the " Draft Document on Revised Concept of Categorization of Industrial Sectors to all the SPCBs, PCCs and concerned Ministries for their comments. Accordingly, the same is enclosed herewith and all the SPCBs, PCCs and concerned Ministries are, hereby requested to provide their comments by 04.09.2015. The comments may kindly be sent through hard copy as well as soft copy at e-mail: nkgupta.cpcb@nic.in , nkgpcb@hotmail.com .

Encl : As above

[N.K. Gupta]
Incharge - ESS

To:

1. All the State Pollution Control Boards / Pollution Control Committees
2. The Secretary, Ministry of Micro Small and Medium Enterprises, New Delhi
3. The Secretary, Ministry of Heavy Industries & Public Enterprises, New Delhi
4. The Advisor & Incharge , CP Division, MoEFCC, New Delhi
5. CPCB Website

'परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली-110032

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

दूरभाष / Tel. : 43102030, फैक्स / Fax : 22305793, 22307078, 22307079, 22301932, 22304948

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

Environmental Guidelines for Poultry Farms



Central Pollution Control Board
(Ministry of Environment, Forest and Climate Change, Govt. of India)
Parivesh Bhawan, East Arjun Nagar
Delhi-110032

(January 2022)

CONTENT

Particulars		Page no
1.	Background	03
2.	Poultry farming	03
3.	Poultry Farming Process	04
	3.1 Breeder Farms	05
	3.2 Hatchery Farm	05
	3.3 Layer (Egg Production)	05
	3.4 Broiler	06
	3.4.1 Deep Litter System	
	3.4.2 Cage System	
4.	Classification of poultry farms	06
5.	Environmental issues & Current practices to address the environmental issues in Poultry Farms	07
	(i) Gaseous emission (NH ₃ & H ₂ S) and Feed Mill Dust	07
	(ii) Solid Waste	07
	(iii) Waste water generation from cleaning operation	08
	(iv) Other issues	08
6	Environmental Guidelines for Poultry Farms	08
	6.1 Gaseous emission (NH ₃ & H ₂ S) and Feed Mill Dust	08
	(i) Minimization of odour/gaseous pollution	08
	(ii) Dust from Feed Mills	09
	6.2 Management of solid wastes (Solid Wastes contains Manure/litter, Hatchery Debris and Dead Birds)	09
	(i) Manure handling and disposal	09
	(ii) Hatchery waste	10
	(iii) Dead bird disposal	10
	6.3 Waste water Management	11
	6.4 Other Issues	12
7	Siting criteria	12
8	Regulatory/ Monitoring Mechanism for Poultry Farms	13

1.0 Background

Guidelines for Poultry farms were developed in the year 2015, which was applicable to poultry farms handling above 1.0 lac birds. As per CPCB classification of industrial sectors, 'Poultry, Hatchery and Piggery' are categorized into 'Green'.

In the matter of O.A. No. 681 of 2017, Hon'ble NGT, passed the following order on 16th September, 2020:

'...Accordingly we allow this application and direct CPCB to revisit the guidelines for categorizing the poultry farms as Green category and exempting their regulation under Air, Water & EP Act. CPCB may issue fresh appropriate orders within three months and in if no further order is issued, all the State PCBs/PCCs will require enforcement of consent mechanism under the above acts after 01.01.2021 for all Poultry Farms above 5000 birds in the same manner as is being done for farms having more than one lac birds. Till then, even without such consent mechanism, the state PCBs/PCCs may strictly enforce the environmental norms and take appropriate remedial action against the any violation of water, air and soil standards statutorily laid down.'

Subsequent to the aforesaid order, Hon'ble NGT (PB) in the matter of O.A. No. 320/2021 (Gauri Maulekhi Vs. Union of India &Ors) passed the following order on 10.12.2021

"...Accordingly, we direct that while the impugned guidelines be immediately enforced, all poultry farms above 5000 birds will also be covered by the said guidelines latest from 1.1.2023. The siting criteria should apply to all consents/renewals hereafter for the above size of the poultry farms. CPCB may issue revised guidelines to all the State PCBs/PCCs in terms of the above order within one month."

2.0 Poultry farming

Poultry farms refers to breeding, hatcheries, layer and broiler farms. Poultry farming is the rearing of domesticated birds such as chickens, turkeys, ducks, goose etc. for the purpose of farming meat or eggs for food. Chickens raised for eggs are usually called laying hens or layers while chickens raised for meat are often called broilers. Chicken are most numerous and popular domesticated poultry species, while other species, e.g. duck, goose form a very small proportion of activities in comparison. Poultry farming in India has witnessed a spectacular growth and transformed itself into a vibrant agri- industry. The leading states having poultry farms are Tamil Nadu, Andhra Pradesh, Telangana, West Bengal followed by Maharashtra, Karnataka, Assam, Haryana, Kerala and Odisha.

As per the 20thlivestock census carried out by Department of Animal Husbandry & Dairying, Ministry of Fisheries, Animal Husbandry & Dairying, the state-wise number of poultries (birds) are given below:

SI.No.	States/UTs	Nos of Poultry (birds) in millions
1	Andhra Pradesh	107.863
2	Arunachal Pradesh	1.599
3	Assam	46.712
4	Bihar State	16.525
5	Chhattisgarh	18.711
6	Goa State	0.349
7	Gujarat	21.773
8	Haryana State	46.24
9	Himachal Pradesh	1.341
10	Jammu & Kashmir	7.366
11	Jharkhand	24.832
12	Karnataka State	59.494
13	Kerala State	29.771
14	Madhya Pradesh	16.659
15	Maharashtra	74.297
16	Manipur	5.897
17	Meghalaya	5.379
18	Mizoram	2.047
19	Nagaland	2.838
20	Odisha	27.439
21	Punjab	17.649
22	Rajasthan	14.622
23	Sikkim State	0.580
24	Tamil Nadu	120.781
25	Telangana State	79.999
26	Tripura	4.168
27	Uttar Pradesh	12.515
28	Uttarakhand	5.018
29	West Bengal	77.322
30	Andaman & Nicobar Islands	1.289
31	Chandigarh	0.048
32	Dadra Nagar Haveli	0.089
33	Daman & Diu	0.018
34	Delhi	0.043
35	Lakshadweep	0.226
36	Pondicherry	0.236
Total		851.809

3.0 Poultry Farming Process

The poultry farming consist of the following unit operations.

- Breeder Farms (Breeding)

- Hatchery Farm (Hatching)
- Layer farm &
- Broilers

3.1 Breeder Farms(Breeding)

Breeder farms specialize in the production of fertilized eggs for either broiler or egg production. Specific ratios of male/female breeders are used to ensure the fertility of hatching eggs. In India both layer and broiler breeders are predominantly housed in cages and the fertile eggs are obtained by artificial insemination. The eggs are collected daily, assessed for quality and stored in plastic / pulp trays in a controlled environment before being transferred to the hatchery for the production of commercial chicks. At the end of their productive phase, breeders are removed and sold for meat processing or byproducts.

3.2 Hatchery farms (Hatching)

The eggs collected from Breeder farms are hatched at special hatcheries. These are centralized facilities and receive fertilized eggs from its own or several other breeder farms. The eggs are stored for a period of 4 to 10 days before being placed in incubators that control temperature and humidity to stimulate embryonic development. Hatching typically takes 21 days. The chicks are vaccinated, graded for uniform quality and dispatched to destinations for further rearing. The day-old broiler chicks are delivered to broiler farms straight run (un-sexed). Chicks from egg laying stock are gender sorted and the female chicks alone are delivered for egg production while male chicks are killed and disposed-off.

3.3 Layer (Egg production)

In the layer farms, egg laying hens are reared for egg production. Typical egg laying cycle starts around 18 weeks age of the bird and continues upto 72–75 weeks of age and thereafter diminished gradually to become uneconomical. Birds less than six months of age are termed as pullets and are raised either on floor or on the cages little away from adult farms located in the same or at different premises. The birds are kept and raised in three different houses based on its age i.e. a) Chick house: 0 to 45 days, b) Grower House: 45 days to 18 weeks and c) Layer House: 18 weeks to 72 to 75 weeks. The birds start laying eggs from 18 weeks onwards.

There are two phases of growing period i.e. brooding and growing phase. The brooding phase extends from day one to three to four weeks depending upon the season of rearing. During this period, the birds are provided extra warmth in an enclosed quarter by means of gas brooders, electric hovers, infra-red bulbs or coal brooders. After this initial period, the birds are moved to growing establishments which are typically open houses. The brooding and growing houses may be deep litter type or cage type. After the completion of the growing phase, the birds are moved to laying cages where they remain there till the end of their laying cycle (72 to 75 weeks of age).

3.4 Broiler (Meat Production)

Broiler birds are raised especially for meat production for 40 to 45 days or up to weight gain of 2.5 to 3.0 Kg. Most of broiler birds gain slaughter weight (2.5 kg to 3.0 kg) within 40 to 45 days. Broilers are most commonly reared in deep litter shed, where feed and water is given by hanging feeder and watering. After cleaning of the deep litter shed, rice husk, saw dust, groundnut hulls, wood shavings, and dried leaves bed of 3" thickness is prepared by scratching. Chicks are moved in the shed freely. Depending on the weight of the bird, the birds are sold for slaughtering from 40th to 45th days.

The rearing of birds is of two types:

3.4.1 Deep Litter System

Birds are kept on litter floor which is covered with different kinds of agro materials like rice husk, saw dust, groundnut hulls, wood shavings and dried leaves etc. depending on their availability. Initially, the depth of the agro material is approx 5 to 6 cm and then topped up by another 5 to 6 cm as the birds grow in size. The birds may remain on this system upto six weeks in case of broilers from where they go for slaughtering. In case of layer, they remain upto 18 weeks of age or may be shifted to cages. The majority of broilers are housed in deep litter sheds. Feed and water are provided manually in small farms and with automatic equipment in large farms.

3.4.2 Cage System

This is widely practiced system for housing commercial layers, breeder layers and of late even broiler breeders. The birds are generally housed in cages erected on raised platforms in open sheds. These cages are arranged in rows. Three or four birds are accommodated in each cage with provision of drinking water and feeding. The water is provided through a nipple fitted to a closed pipe running at head height of the bird. Feed is placed in a trough attached to the front of the cage and distributed often manually or by automation. The droppings of birds slip through perforations instantaneously and are collected on the floor.

4.0 Classification of Poultry Farms

Backyard poultry is typically owned by small and marginal farmer and comprises of few birds, largely for self-consumption and very small quantities get commercially sold. The poultry farming practiced by the rural and tribal farmers under free range or backyard or semi-intensive systems is usually referred to as rural poultry farming.

Based on the number of handling of birds, Poultry farms may be classified into three categories.

- Small (5,000-25,000 bird)
- Medium (above 25,000-1,00,000 birds).
- Large (above 1,00,000 birds)

The poultry farms under small category are in un-organized sector run by economically weaker farmers and are of rural background.

5.0 Environmental issues & Current practices to address the environmental issues in Poultry Farms

Environmental nuisance arising from poultry farms is due to the generation of NH_3 & H_2S gases causing odor, dust from feed mill, storage & management of Solid Waste (Manure, Dead Birds and Hatchery Waste) also causing odour & water from cleaning operations. Breeding of flies and rodents etc. are the other issues in poultry farms.

(i) Gaseous emission (NH_3 & H_2S) and Feed Mill Dust

- The gaseous emission viz Ammonia (NH_3) and Hydrogen Sulphide (H_2S) are emanated from the excreta generated from the birds causes odour. The odour is produced due to anaerobic conditions in the litter occurs due to its storage at one place for longer period. The general practice followed by poultry farms to control odour is by maintaining good ventilation and free flow of air.
- Dust is generated from the feed mill operation during mixing and grinding of various ingredients of feed. The feed mill operations are typically located inside the mill buildings. Dust extraction systems are generally used to collect the dust and to improve the shop floor environment.

(ii) Solid Waste

Sources of solid waste are (i) Poultry droppings/Manure/Litter (ii) Dead Birds & (iii) Hatchery Waste.

- In case of cage system, excreta are collected just below the bird cages directly on ground, made of stone slabs or concrete or impermeable compacted clay. Litter is collected and kept dry by maintaining good ventilation and free air flow to undergo aerobic composting. The manure is removed once in four to six months & sold to the farmers. In deep litter system, excreta are collected in bed made up of agro residue (rice husk, saw dust, groundnut hulls, wood shavings, and dried leaves) itself. Once in a day or two days the bed is scratched for mixing of litter. Once the chicken is sold for meat, the bed (rice husk, saw dust, groundnut hulls, wood shavings, and dried leaves) is removed once the cycle of 42 to 45 days gets over along with the excreta and sold as

manure. The shed is washed and lime is applied as disinfectant and allows the area for quarantine period.

- Death of the birds in poultry farms is a common phenomenon and their disposal is an issue. Dead birds cause nuisance, odor and aesthetic problems like disease, insect, rodent and predator problems if the birds are not disposed immediately. Dead birds are either burned at relatively high temperatures using different fuels which causing atmospheric pollution and also odour nuisance or buried in the burial pit in the premises.
- During hatching operation, large quantity of solid waste comprising of egg shells, unhatched eggs, dead embryos and chickens and a viscous liquid from eggs etc is generated. This waste is disposed through open burning or through rendering plant.

(iii) Waste water generation from cleaning operation

- Water in poultry farms is used for drinking of birds, sprinkling during the summer and for cleaning sheds and equipment in between batch replacement.
- As such there is no process waste water generation from the poultry farming. However, wastewater is generated during cleaning operations. The waste water is collected in holding tank and utilized in gardening in the premises.

(iv) Other issues:

- Breeding of flies and rodents, etc. are the other issues in poultry farms

6.0 Environmental Guidelines for Poultry Farms farms:

Following are the revised guidelines addressing environmental issues of Poultry Farms.

6.1 Gaseous emission (NH₃ & H₂S) and Feed Mill Dust

(i) Minimization of odour/gaseous pollution

- Proper ventilation and free flow of air over manure collection points to keep it dry shall be ensured.
- Manure should be protected from Run-off water and from unwanted pests/insects.
- Well-designed storage facilities should be provided to contain manure /litter.
- Carcasses of dead birds shall be promptly collected on regular basis and disposed appropriately without damaging the environment as per the prescribed methods under section 6.2 (iii) of the guidelines.

(ii) Dust from Feed Mills

- Feed mill and Go-down should be located on a well elevated ground preferably near the entrance of the farm and isolated from other poultry sheds.
- Dust collector system should be installed to control emissions from mixing and grinding section of the feed mill.
- Workers in the feed mill shall be provided with dust masks to protect them from dust.
- Provision for vehicle tyre dip shall be made at the entrance to remove impurities/dust carried by vehicle tyres;
- Floor of the feed mill and Go-down shall be concrete and raised above the ground level by a minimum of 2 feet.

6.2 Management of solid wastes (Solid Wastes contains Manure/litter, Hatchery Debris and Dead Birds)

(i) Manure handling and disposal

- Proper ventilation and free flow of air over manure collection points to keep it dry (by blowing dry air over it or by conveying ventilation air through the manure pit) shall be ensured to prevent obnoxious odour in the area.
- Poultry housing shall be ventilated allowing sufficient supply of fresh air to remove humidity, dissipate heat and prevent build-up of gases such as methane, carbon dioxide, ammonia, etc.
- Excreta shall be scratched at least once in two days as needed for mixing of litter and to keep bedding material (rice husk, saw dust, wood shavings etc.) dry in case of deep litter houses the waste material. This waste shall be utilised for composting after completion of the cycle.
- Manure collected under cages on high raised platforms shall be stored for further processing and utilized by using following options:

Sl. No.	Poultry Farms	Methods for Disposal/Utilization of manure
1.	Small Poultry Farms	<ul style="list-style-type: none"> • Composting
2.	Medium & Large Poultry Farms	<ul style="list-style-type: none"> • Composting or Biogas production for disposal/utilization of manure/litter • Combination of any of the methods for disposal/utilization of manure/litter
3.	Poultry Farms in Cluster	<ul style="list-style-type: none"> • Common facilities for Biogas production or Composting or their combination

- Land application of manure to the nutritional requirements of soil and crop shall be balanced.
- The litter / manure storage facilities shall be minimum 2 m above the water table and of adequate size based on type and number of birds handled. Its base should be constructed with stone slabs or concrete or impermeable compacted clay.

- Manure shall be protected from run off water and cover it to avoid dust and odours in storage pits. The dry manure dump shall be covered with permanent roof or with plastic / similar material to prevent air emissions and the precipitation falling on it.
- Mortalities on farm by proper animal care and disease prevention program shall be reduced.
- Proper facilities (Burial Pit/Composting/Incineration) shall be provided for Collection, storage, transport and disposal of dead birds
- Domestic hazardous wastes (vaccines, vials, medicines, syringes, etc.) shall be disposed as per provisions of “Solid Waste Management Rules, 2016”.

Composting of Manure:

- Proper mixing the waste with a carbon rich material (e.g., paddy straw / husk, wood shavings) should be done in the pits. Carbon to nitrogen ratios of 20-25:1 is usually recommended. Pure manure can also be composted following the procedure and monitoring all parameters. The composting facilities may be designed through expert institutions in the field as per the size of poultry farms.
- Periodic stirring of compost material should be done for its proper mixing.
- Moisture levels should be maintained between 35 to 50%.
- Temperature monitoring should be done to determine composting conditions.

(ii) Hatchery Waste

- Efforts shall be made in converting the shells to animal feed to supply as a source of calcium, especially for poultry feeds.
- Extrusion with soya bean meal can be used to make a shell/hatchery meal.
- Un-hatched eggs shall be disposed of by composting or rendering.

(iii) Dead Birds Disposal

The dead birds arising from day to day farm activity shall be separated from other live birds promptly and stored in closed containers and disposed off within 24 hours by following any of the disposal methods.

A) Burial Method:

- The dead birds arising from day to day farm activity should be separated from other live birds promptly and should be stored in closed containers \ disposed off within 24 hours
- The dead bird burial pit shall be of minimum 3 to 4 m in depth and 0.8 to 1.2 m diameter and this size may vary as per the capacity of poultry farm and shall be located above minimum 3 m from the ground water table.

- The dead bird burial pit shall be provided with a vermin/fly proof cover made up of wooden / metal / concrete having a central operable lid of proper size for day to day dropping of carcasses.
- Carcasses shall be covered by a thin layer of soil (at least 40 cm deep) along with calcium hydroxide.
- When the pit is full, a compacted soil cover of 0.5 m shall be provided with the top of the covered soil well above the ground level.
- The distance between any two burial pits should not be less than 1 m.

B) Composting

- The composting facility shall not be located within 300 m from the nearest dwelling and 100 m from any well or water course.
- The capacity of the composting facility shall be sufficient to handle the average mortalities on the farm.
- The roof of the composting facility shall be permanent with concrete bottom.
- The composting facility shall be secured with link mesh all around raised to a height of 1.5 m above the ground level to avoid the predation by straw dogs etc.
- A proper mixture of smaller and larger particle sizes to obtain an optimum air exchange within the mixture and build-up of temperature.
- Moisture content of the composting pile shall be approximately 60%. More than this may result in odour problems and less than this will reduce the efficiency of the composting process.
- Carbon and nitrogen are vital nutrients for the growth and reproduction of bacteria and fungi. The carbon-to-nitrogen ratio shall be in the range of 20:1 and 25:1 for proper composting. This is obtained by carefully balancing the dead bird and carbon sources.
- The optimum temperature for composting is 54 to 66°C which pasteurizes the compost. If temperature falls below 49°C after a week or so, the material should be moved to the secondary stage unit. To facilitate the easy transfer of the first stage material to the secondary stage, the proper designing of the primary stage (first stage) facility is desirable as illustrated in figure 5.5. Failure to do so will result into poor compost. The temperature in the secondary stage unit will begin to raise as beneficial bacterial activity begins and will peak in 5 to 10 days.

6.3 Waste water Management

- The waste water generated from the cleaning operations (after each batch removal) shall be collected in appropriate holding tank and put to use in the green belt. Efforts may be made for dry cleaning of the sheds with use of disinfectant so as to avoid use of water.

- Water use and spills from drinking devices shall be reduced by preventing overflow or leakages and using calibrated, well-maintained self-watering devices;
- Improve drainage, reduce standing water and water ditches to control mosquitoes and flies
- Use of pressure pumps, hot water or steam in cleaning activities instead of cold water and plain water scrubs may be encouraged to improve sanitation and reduce the quantities of wash water.

6.4 Other issues

- *Control of Flies:* Proper treatment and disposal of manure, ventilation of sheds, control of temperature, good sanitation, swift repairs of leaks, avoidance of feed spills, prompt removal of broken eggs and dead birds shall be ensured for control of flies in the poultry farms. The farm should have provisions of wire nettings, traps, fly-repellents, insecticides etc.
- *Control of Rodents:* Methods for the control of rodents may include: i) Exclusion ii) Trapping Glue boards iii) Tracking powder iv) rodent proof doors and windows to eliminate rodents/pest infestation.
- As per Bureau of Indian Standards 1374: 2007, on poultry feed specifies that the use of antibiotic growth promoters is not recommended in poultry feed, hence use of antibiotics should not be mixed with feed or administered for non-therapeutic purposes without prescription for diseased birds. ***Regulation for use of antibiotics shall be regulated as per the advisory/directions issued by Department of Animal Husbandry, Dairying and Fisheries and Ministry of Health and the Drug Controller General of India.***

7 Siting Criteria

New Poultry Farms (Set up after issuance of Guidelines) should preferably be established

- 500 m from residential zone in order to avoid nuisance caused due to odour& flies
- 100 m from major water course like River, Lakes, canals and drinking water source like wells, summer storage tanks, in order to avoid contamination due to leakages/spillages, if any.
- 100 m from national Highway (NH) and 50 m from State Highway (SH) in order to avoid nuisance caused due to odour& flies.
- 10-15 m from rural roads/internal roads/village pagdandis
- The Poultry sheds should not be located within 10 m from farm boundary for cross ventilation and odour dispersion

8.0 Regulatory/ Monitoring Mechanism for Poultry Farms

- SPCBs/PCCs shall upload Environmental Guidelines on their website.
- Guidelines shall be applicable to all the category of Poultry Farms.
- Poultry Farms handling birds above 25,000 at single location will have to obtain consent to establish (CTE) and consent for operate (CTO) under the Water Act, 1974 & Air Act 1981 from State Pollution Control Board/Pollution Control Committee.
- As per the directions of Hon'ble NGT dated 10.12.2021 (O.A. No. 320/2021: Gauri Maulekhi Vs. Union of India & Ors, poultry farms handling above 5,000 birds at single location shall also obtain consent to establish (CTE) and consent for operate (CTO) under the Water Act, 1974 & Air Act 1981 from State Pollution Control Board/Pollution Control Committee w.e.f. 01.01.2023
- The Poultry Farms are categorized under "Green" Category, therefore validity of consent will be 15 yrs.
- Animal Husbandry Department of the State/Districts to assist the poultry farms for implementation of Guidelines.

Speed Post

CPCB/IPC-V/NGT/Poultry/2022

Dated: 10.01.2022

To

The Member Secretary
All SPCBs/PCCs
(List enclosed)

Sub: Environmental Guidelines for poultry farms in light of Hon'ble NGT order dated 10.12.2021 in the matter of O.A. No. 320/2021 of Gauri Maulekhi Vs. Union of India & Ors.

Sir,

Kindly refer to Environmental Guidelines for poultry farms issued by CPCB vide letter dated 17.08.2021 in light of Hon'ble NGT order 16.09.2020 in the matter of O.A. No. 681 of 2017 (Gauri Maulekhi Vs. Union of India & Ors).

Further Hon'ble NGT vide its order dated 10.12.2021 in the matter of O.A. No. 320/2021 (Gauri Maulekhi Vs. Union of India & Ors) has directed to make these guidelines applicable for poultry farms having birds above 5000. Accordingly a copy of Environmental Guidelines is attached in compliance of Hon'ble NGT Order for implementation.

These Guidelines are also available on CPCB website at the following link:

<https://cpcb.nic.in/openpdf.php?id=TGF0ZXN0RmlsZS8zNDFfMTY0MTgwNzg1Nl9tZWVpYXBob3RvMjgucGRm>

This is issued with the approval of Competent Authority.

Yours faithfully

(S.K. Gupta)

AD & Div. Head IPC-V

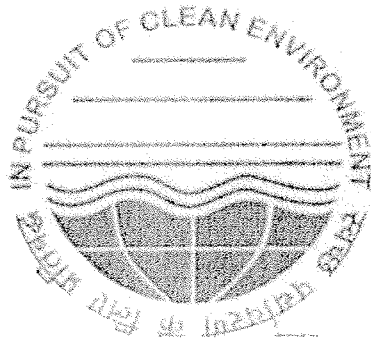
Encl.: as above

Copy to:

- 1 PS to CCB : for information of CCB, please.
- 2 PS to MS : for information of MS, please.
- 3 The Regional Directorates ; for information & follow-up, please.
Central Pollution Control Board,
(List enclosed)

(S.K. Gupta)

Environmental Guidelines for Poultry Farms



Central Pollution Control Board
(Ministry of Environment, Forest and Climate Change, Govt. of India)
Parivesh Bhawan, East Arjun Nagar
Delhi-110032

(January 2022)

CONTENT

Particulars		Page no
1.	Background	03
2.	Poultry farming	03
3.	Poultry Farming Process	04
3.1	Breeder Farms	05
3.2	Hatchery Farm	05
3.3	Layer (Egg Production)	05
3.4	Broiler	06
	3.4.1 Deep Litter System	
	3.4.2 Cage System	
4.	Classification of poultry farms	06
5.	Environmental issues & Current practices to address the environmental issues in Poultry Farms	07
	(i) Gaseous emission (NH ₃ & H ₂ S) and Feed Mill Dust	07
	(ii) Solid Waste	07
	(iii) Waste water generation from cleaning operation	08
	(iv) Other issues	08
6	Environmental Guidelines for Poultry Farms	08
6.1	Gaseous emission (NH ₃ & H ₂ S) and Feed Mill Dust	08
	(i) Minimization of odour/gaseous pollution	08
	(ii) Dust from Feed Mills	09
6.2	Management of solid wastes (Solid Wastes contains Manure/litter, Hatchery Debris and Dead Birds)	09
	(i) Manure handling and disposal	09
	(ii) Hatchery waste	10
	(iii) Dead bird disposal	10
6.3	Waste water Management	11
6.4	Other Issues	12
7	Siting criteria	12
8	Regulatory/ Monitoring Mechanism for Poultry Farms	13

1.0 Background

Guidelines for Poultry farms were developed in the year 2015, which was applicable to poultry farms handling above 1.0 lac birds. As per CPCB classification of industrial sectors, 'Poultry, Hatchery and Piggery' are categorized into 'Green'.

In the matter of O.A. No. 681 of 2017, Hon'ble NGT, passed the following order on 16th September, 2020:

'...Accordingly we allow this application and direct CPCB to revisit the guidelines for categorizing the poultry farms as Green category and exempting their regulation under Air, Water & EP Act. CPCB may issue fresh appropriate orders within three months and in if no further order is issued, all the State PCBs/PCCs will require enforcement of consent mechanism under the above acts after 01.01.2021 for all Poultry Farms above 5000 birds in the same manner as is being done for farms having more than one lac birds. Till then, even without such consent mechanism, the state PCBs/PCCs may strictly enforce the environmental norms and take appropriate remedial action against the any violation of water, air and soil standards statutorily laid down.'

Subsequent to the aforesaid order, Hon'ble NGT (PB) in the matter of O.A. No. 320/2021 (Gauri Maulekhi Vs. Union of India &Ors) passed the following order on 10.12.2021

"...Accordingly, we direct that while the impugned guidelines be immediately enforced, all poultry farms above 5000 birds will also be covered by the said guidelines latest from 1.1.2023. The siting criteria should apply to all consents/renewals hereafter for the above size of the poultry farms. CPCB may issue revised guidelines to all the State PCBs/PCCs in terms of the above order within one month."

2.0 Poultry farming

Poultry farms refers to breeding, hatcheries, layer and broiler farms. Poultry farming is the rearing of domesticated birds such as chickens, turkeys, ducks, goose etc. for the purpose of farming meat or eggs for food. Chickens raised for eggs are usually called laying hens or layers while chickens raised for meat are often called broilers. Chicken are most numerous and popular domesticated poultry species, while other species, e.g. duck, goose form a very small proportion of activities in comparison. Poultry farming in India has witnessed a spectacular growth and transformed itself into a vibrant agri- industry. The leading states having poultry farms are Tamil Nadu, Andhra Pradesh, Telangana, West Bengal followed by Maharashtra, Karnataka, Assam, Haryana, Kerala and Odisha.

As per the 20th livestock census carried out by Department of Animal Husbandry & Dairying, Ministry of Fisheries, Animal Husbandry & Dairying, the state-wise number of poultries (birds) are given below:

Sl.No.	States/UTs	Nos of Poultryes (birds) in millions
1	Andhra Pradesh	107.863
2	Arunachal Pradesh	1.599
3	Assam	46.712
4	Bihar State	16.525
5	Chhattisgarh	18.711
6	Goa State	0.349
7	Gujarat	21.773
8	Haryana State	46.24
9	Himachal Pradesh	1.341
10	Jammu & Kashmir	7.366
11	Jharkhand	24.832
12	Karnataka State	59.494
13	Kerala State	29.771
14	Madhya Pradesh	16.659
15	Maharashtra	74.297
16	Manipur	5.897
17	Meghalaya	5.379
18	Mizoram	2.047
19	Nagaland	2.838
20	Odisha	27.439
21	Punjab	17.649
22	Rajasthan	14.622
23	Sikkim State	0.580
24	Tamil Nadu	120.781
25	Telangana State	79.999
26	Tripura	4.168
27	Uttar Pradesh	12.515
28	Uttarakhand	5.018
29	West Bengal	77.322
30	Andaman & Nicobar Islands	1.289
31	Chandigarh	0.048
32	Dadra Nagar Haveli	0.089
33	Daman & Diu	0.018
34	Delhi	0.043
35	Lakshadweep	0.226
36	Pondicherry	0.236
Total		851.809

3.0 Poultry Farming Process

The poultry farming consist of the following unit operations.

- Breeder Farms (Breeding)

- Hatchery Farm (Hatching)
- Layer farm &
- Broilers

3.1 Breeder Farms(Breeding)

Breeder farms specialize in the production of fertilized eggs for either broiler or egg production. Specific ratios of male/female breeders are used to ensure the fertility of hatching eggs. In India both layer and broiler breeders are predominantly housed in cages and the fertile eggs are obtained by artificial insemination. The eggs are collected daily, assessed for quality and stored in plastic / pulp trays in a controlled environment before being transferred to the hatchery for the production of commercial chicks. At the end of their productive phase, breeders are removed and sold for meat processing or byproducts.

3.2 Hatchery farms (Hatching)

The eggs collected from Breeder farms are hatched at special hatcheries. These are centralized facilities and receive fertilized eggs from its own or several other breeder farms. The eggs are stored for a period of 4 to 10 days before being placed in incubators that control temperature and humidity to stimulate embryonic development. Hatching typically takes 21 days. The chicks are vaccinated, graded for uniform quality and dispatched to destinations for further rearing. The day-old broiler chicks are delivered to broiler farms straight run (un-sexed). Chicks from egg laying stock are gender sorted and the female chicks alone are delivered for egg production while male chicks are killed and disposed-off.

3.3 Layer (Egg production)

In the layer farms, egg laying hens are reared for egg production. Typical egg laying cycle starts around 18 weeks age of the bird and continues upto 72–75 weeks of age and thereafter diminished gradually to become uneconomical. Birds less than six months of age are termed as pullets and are raised either on floor or on the cages little away from adult farms located in the same or at different premises. The birds are kept and raised in three different houses based on its age i.e. a) Chick house: 0 to 45 days, b) Grower House: 45 days to 18 weeks and c) Layer House: 18 weeks to 72 to 75 weeks. The birds start laying eggs from 18 weeks onwards.

There are two phases of growing period i.e. brooding and growing phase. The brooding phase extends from day one to three to four weeks depending upon the season of rearing. During this period, the birds are provided extra warmth in an enclosed quarter by means of gas brooders, electric hovers, infra-red bulbs or coal brooders. After this initial period, the birds are moved to growing establishments which are typically open houses. The brooding and growing houses may be deep litter type or cage type. After the completion of the growing phase, the birds are moved to laying cages where they remain there till the end of their laying cycle (72 to 75 weeks of age).

3.4 Broiler (Meat Production)

Broiler birds are raised especially for meat production for 40 to 45 days or up to weight gain of 2.5 to 3.0 Kg. Most of broiler birds gain slaughter weight (2.5 kg to 3.0 kg) within 40 to 45 days. Broilers are most commonly reared in deep litter shed, where feed and water is given by hanging feeder and watering. After cleaning of the deep litter shed, rice husk, saw dust, groundnut hulls, wood shavings, and dried leaves bed of 3" thickness is prepared by scratching. Chicks are moved in the shed freely. Depending on the weight of the bird, the birds are sold for slaughtering from 40th to 45th days.

The rearing of birds is of two types:

3.4.1 Deep Litter System

Birds are kept on litter floor which is covered with different kinds of agro materials like rice husk, saw dust, groundnut hulls, wood shavings and dried leaves etc. depending on their availability. Initially, the depth of the agro material is approx 5 to 6 cm and then topped up by another 5 to 6 cm as the birds grow in size. The birds may remain on this system upto six weeks in case of broilers from where they go for slaughtering. In case of layer, they remain upto 18 weeks of age or may be shifted to cages. The majority of broilers are housed in deep litter sheds. Feed and water are provided manually in small farms and with automatic equipment in large farms.

3.4.2 Cage System

This is widely practiced system for housing commercial layers, breeder layers and of late even broiler breeders. The birds are generally housed in cages erected on raised platforms in open sheds. These cages are arranged in rows. Three or four birds are accommodated in each cage with provision of drinking water and feeding. The water is provided through a nipple fitted to a closed pipe running at head height of the bird. Feed is placed in a trough attached to the front of the cage and distributed often manually or by automation. The droppings of birds slip through perforations instantaneously and are collected on the floor.

4.0 Classification of Poultry Farms

Backyard poultry is typically owned by small and marginal farmer and comprises of few birds, largely for self-consumption and very small quantities get commercially sold. The poultry farming practiced by the rural and tribal farmers under free range or backyard or semi-intensive systems is usually referred to as rural poultry farming.

Based on the number of handling of birds, Poultry farms may be classified into three categories.

- Small (5,000-25,000 bird)
- Medium (above 25,000-1,00,000 birds).
- Large (above 1,00,000 birds)

The poultry farms under small category are in un-organized sector run by economically weaker farmers and are of rural background.

5.0 Environmental issues & Current practices to address the environmental issues in Poultry Farms

Environmental nuisance arising from poultry farms is due to the generation of NH_3 & H_2S gases causing odor, dust from feed mill, storage & management of Solid Waste (Manure, Dead Birds and Hatchery Waste) also causing odour & water from cleaning operations. Breeding of flies and rodents etc. are the other issues in poultry farms.

(i) Gaseous emission (NH_3 & H_2S) and Feed Mill Dust

- The gaseous emission viz Ammonia (NH_3) and Hydrogen Sulphide (H_2S) are emanated from the excreta generated from the birds causes odour. The odour is produced due to anaerobic conditions in the litter occurs due to its storage at one place for longer period. The general practice followed by poultry farms to control odour is by maintaining good ventilation and free flow of air.
- Dust is generated from the feed mill operation during mixing and grinding of various ingredients of feed. The feed mill operations are typically located inside the mill buildings. Dust extraction systems are generally used to collect the dust and to improve the shop floor environment.

(ii) Solid Waste

Sources of solid waste are (i) Poultry droppings/Manure/Litter (ii) Dead Birds & (iii) Hatchery Waste.

- In case of cage system, excreta are collected just below the bird cages directly on ground, made of stone slabs or concrete or impermeable compacted clay. Litter is collected and kept dry by maintaining good ventilation and free air flow to undergo aerobic composting. The manure is removed once in four to six months & sold to the farmers. In deep litter system, excreta are collected in bed made up of agro residue (rice husk, saw dust, groundnut hulls, wood shavings, and dried leaves) itself. Once in a day or two days the bed is scratched for mixing of litter. Once the chicken is sold for meat, the bed (rice husk, saw dust, groundnut hulls, wood shavings, and dried leaves) is removed once the cycle of 42 to 45 days gets over along with the excreta and sold as

manure. The shed is washed and lime is applied as disinfectant and allows the area for quarantine period.

- Death of the birds in poultry farms is a common phenomenon and their disposal is an issue. Dead birds cause nuisance, odor and aesthetic problems like disease, insect, rodent and predator problems if the birds are not disposed immediately. Dead birds are either burned at relatively high temperatures using different fuels which causing atmospheric pollution and also odour nuisance or buried in the burial pit in the premises.
- During hatching operation, large quantity of solid waste comprising of egg shells, unhatched eggs, dead embryos and chickens and a viscous liquid from eggs etc is generated. This waste is disposed through open burning or through rendering plant.

(iii) Waste water generation from cleaning operation

- Water in poultry farms is used for drinking of birds, sprinkling during the summer and for cleaning sheds and equipment in between batch replacement.
- As such there is no process waste water generation from the poultry farming. However, wastewater is generated during cleaning operations. The waste water is collected in holding tank and utilized in gardening in the premises.

(iv) Other issues:

- Breeding of flies and rodents, etc. are the other issues in poultry farms

6.0 Environmental Guidelines for Poultry Farms farms:

Following are the revised guidelines addressing environmental issues of Poultry Farms.

6.1 Gaseous emission (NH₃ & H₂S) and Feed Mill Dust

(i) Minimization of odour/gaseous pollution

- Proper ventilation and free flow of air over manure collection points to keep it dry shall be ensured.
- Manure should be protected from Run-off water and from unwanted pests/insects.
- Well-designed storage facilities should be provided to contain manure /litter.
- Carcasses of dead birds shall be promptly collected on regular basis and disposed appropriately without damaging the environment as per the prescribed methods under section 6.2 (iii) of the guidelines.

(ii) Dust from Feed Mills

- Feed mill and Go-down should be located on a well elevated ground preferably near the entrance of the farm and isolated from other poultry sheds.
- Dust collector system should be installed to control emissions from mixing and grinding section of the feed mill.
- Workers in the feed mill shall be provided with dust masks to protect them from dust.
- Provision for vehicle tyre dip shall be made at the entrance to remove impurities/dust carried by vehicle tyres;
- Floor of the feed mill and Go-down shall be concrete and raised above the ground level by a minimum of 2 feet.

6.2 Management of solid wastes (Solid Wastes contains Manure/litter, Hatchery Debris and Dead Birds)

(i) Manure handling and disposal

- Proper ventilation and free flow of air over manure collection points to keep it dry (by blowing dry air over it or by conveying ventilation air through the manure pit) shall be ensured to prevent obnoxious odour in the area.
- Poultry housing shall be ventilated allowing sufficient supply of fresh air to remove humidity, dissipate heat and prevent build-up of gases such as methane, carbon dioxide, ammonia, etc.
- Excreta shall be scratched at least once in two days as needed for mixing of litter and to keep bedding material (rice husk, saw dust, wood shavings etc.) dry in case of deep litter houses the waste material. This waste shall be utilised for composting after completion of the cycle.
- Manure collected under cages on high raised platforms shall be stored for further processing and utilized by using following options:

Sl. No.	Poultry Farms	Methods for Disposal/Utilization of manure
1.	Small Poultry Farms	• Composting
2.	Medium & Large Poultry Farms	• Composting or Biogas production for disposal/utilization of manure/litter • Combination of any of the methods for disposal/utilization of manure/litter
3.	Poultry Farms in Cluster	• Common facilities for Biogas production or Composting or their combination

- Land application of manure to the nutritional requirements of soil and crop shall be balanced.
- The litter / manure storage facilities shall be minimum 2 m above the water table and of adequate size based on type and number of birds handled. Its base should be constructed with stone slabs or concrete or impermeable compacted clay.

- Manure shall be protected from run off water and cover it to avoid dust and odours in storage pits. The dry manure dump shall be covered with permanent roof or with plastic / similar material to prevent air emissions and the precipitation falling on it.
- Mortalities on farm by proper animal care and disease prevention program shall be reduced.
- Proper facilities (Burial Pit/Composting/Incineration) shall be provided for Collection, storage, transport and disposal of dead birds
- Domestic hazardous wastes (vaccines, vials, medicines, syringes, etc.) shall be disposed as per provisions of "Solid Waste Management Rules, 2016".

Composting of Manure:

- Proper mixing the waste with a carbon rich material (e.g., paddy straw / husk, wood shavings) should be done in the pits. Carbon to nitrogen ratios of 20-25:1 is usually recommended. Pure manure can also be composted following the procedure and monitoring all parameters. The composting facilities may be designed through expert institutions in the field as per the size of poultry farms.
- Periodic stirring of compost material should be done for its proper mixing.
- Moisture levels should be maintained between 35 to 50%.
- Temperature monitoring should be done to determine composting conditions.

(ii) Hatchery Waste

- Efforts shall be made in converting the shells to animal feed to supply as a source of calcium, especially for poultry feeds.
- Extrusion with soya bean meal can be used to make a shell/hatchery meal.
- Un-hatched eggs shall be disposed of by composting or rendering.

(iii) Dead Birds Disposal

The dead birds arising from day to day farm activity shall be separated from other live birds promptly and stored in closed containers and disposed off within 24 hours by following any of the disposal methods.

A) Burial Method:

- The dead birds arising from day to day farm activity should be separated from other live birds promptly and should be stored in closed containers \ disposed off within 24 hours
- The dead bird burial pit shall be of minimum 3 to 4 m in depth and 0.8 to 1.2 m diameter and this size may vary as per the capacity of poultry farm and shall be located above minimum 3 m from the ground water table.

- The dead bird burial pit shall be provided with a vermin/fly proof cover made up of wooden / metal / concrete having a central operable lid of proper size for day to day dropping of carcasses.
- Carcasses shall be covered by a thin layer of soil (at least 40 cm deep) along with calcium hydroxide.
- When the pit is full, a compacted soil cover of 0.5 m shall be provided with the top of the covered soil well above the ground level.
- The distance between any two burial pits should not be less than 1 m.

B) Composting

- The composting facility shall not be located within 300 m from the nearest dwelling and 100 m from any well or water course.
- The capacity of the composting facility shall be sufficient to handle the average mortalities on the farm.
- The roof of the composting facility shall be permanent with concrete bottom.
- The composting facility shall be secured with link mesh all around raised to a height of 1.5 m above the ground level to avoid the predation by straw dogs etc.
- A proper mixture of smaller and larger particle sizes to obtain an optimum air exchange within the mixture and build-up of temperature.
- Moisture content of the composting pile shall be approximately 60%. More than this may result in odour problems and less than this will reduce the efficiency of the composting process.
- Carbon and nitrogen are vital nutrients for the growth and reproduction of bacteria and fungi. The carbon-to-nitrogen ratio shall be in the range of 20:1 and 25:1 for proper composting. This is obtained by carefully balancing the dead bird and carbon sources.
- The optimum temperature for composting is 54 to 66°C which pasteurizes the compost. If temperature falls below 49°C after a week or so, the material should be moved to the secondary stage unit. To facilitate the easy transfer of the first stage material to the secondary stage, the proper designing of the primary stage (first stage) facility is desirable as illustrated in figure 5.5. Failure to do so will result into poor compost. The temperature in the secondary stage unit will begin to raise as beneficial bacterial activity begins and will peak in 5 to 10 days.

6.3 Waste water Management

- The waste water generated from the cleaning operations (after each batch removal) shall be collected in appropriate holding tank and put to use in the green belt. Efforts may be made for dry cleaning of the sheds with use of disinfectant so as to avoid use of water.

- Water use and spills from drinking devices shall be reduced by preventing overflow or leakages and using calibrated, well-maintained self-watering devices;
- Improve drainage, reduce standing water and water ditches to control mosquitoes and flies
- Use of pressure pumps, hot water or steam in cleaning activities instead of cold water and plain water scrubs may be encouraged to improve sanitation and reduce the quantities of wash water.

6.4 Other issues

- *Control of Flies:* Proper treatment and disposal of manure, ventilation of sheds, control of temperature, good sanitation, swift repairs of leaks, avoidance of feed spills, prompt removal of broken eggs and dead birds shall be ensured for control of flies in the poultry farms. The farm should have provisions of wire nettings, traps, fly-repellents, insecticides etc.
- *Control of Rodents:* Methods for the control of rodents may include: i) Exclusion ii) Trapping Glue boards iii) Tracking powder iv) rodent proof doors and windows to eliminate rodents/pest infestation.
- As per Bureau of Indian Standards 1374: 2007, on poultry feed specifies that the use of antibiotic growth promoters is not recommended in poultry feed, hence use of antibiotics should not be mixed with feed or administered for non-therapeutic purposes without prescription for diseased birds. ***Regulation for use of antibiotics shall be regulated as per the advisory/directions issued by Department of Animal Husbandry, Dairying and Fisheries and Ministry of Health and the Drug Controller General of India.***

7 Siting Criteria

New Poultry Farms (Set up after issuance of Guidelines) should preferably be established

- 500 m from residential zone in order to avoid nuisance caused due to odour& flies
- 100 m from major water course like River, Lakes, canals and drinking water source like wells, summer storage tanks, in order to avoid contamination due to leakages/spillages, if any.
- 100 m from national Highway (NH) and 50 m from State Highway (SH) in order to avoid nuisance caused due to odour& flies.
- 10-15 m from rural roads/internal roads/village pagdandis
- The Poultry sheds should not be located within 10 m from farm boundary for cross ventilation and odour dispersion

8.0 Regulatory/ Monitoring Mechanism for Poultry Farms

- SPCBs/PCCs shall upload Environmental Guidelines on their website.
- Guidelines shall be applicable to all the category of Poultry Farms.
- Poultry Farms handling birds above 25,000 at single location will have to obtain consent to establish (CTE) and consent for operate (CTO) under the Water Act, 1974 & Air Act 1981 from State Pollution Control Board/Pollution Control Committee.
- As per the directions of Hon'ble NGT dated 10.12.2021 (O.A. No. 320/2021: Gauri Maulekhi Vs. Union of India & Ors, poultry farms handling above 5,000 birds at single location shall also obtain consent to establish (CTE) and consent for operate (CTO) under the Water Act, 1974 & Air Act 1981 from State Pollution Control Board/Pollution Control Committee w.e.f. 01.01.2023
- The Poultry Farms are categorized under "Green" Category, therefore validity of consent will be 15 yrs.
- Animal Husbandry Department of the State/Districts to assist the poultry farms for implementation of Guidelines.



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

F.No. Tech/03/PC(TN)/RDC/2024-25/27

03.04.2024

To

The Member Secretary
Tamil Nadu State Pollution Control Board
No.76, Mount Road, Guindy
Chennai-600032


Sub: Public complaint received against un-authorized poultry farm

Sir,

This has reference to the public complaint received by a letter from Mrs. Muthammal resident of D No.3/198 Servampatti, Chinnamanali Po 637216 Tiruchengode Taluk Nammakal dated 14/03/2024 regarding pollution caused by Poultry farm owned by Sri. Meiyazhagan located at Chinnamanali Village Tiruchengode Taluk Namakkal District. The complaint is self – explanatory (copy enclosed).

In view of the above, it is kindly requested to investigate the matter and provide the Action Taken Report (ATR), directly to the complainant with a copy to CPCB, with a copy to this office at the earliest, please

Yours faithfully


(H. D. Varalaxmi)
Regional Director

Encl: As above

क्षेत्रीय निदेशालय (चेन्नई) : द्वितीय तल, 77-ए, साउथ एवेन्यू रोड, अंबतूर औद्योगिक क्षेत्र, अंबूतर तालुक, तिरुवल्लूर जिला, चेन्नई - 600 058.

Regional Directorate (Chennai) : Second Floor, 77-A, South Avenue Road, Ambattur Industrial Estate, Ambattur Taluk, Thiruvallur District, Chennai - 600 058. Telephone : 044-29567019, 29998683 Email : rdchennai.cpcb@nic.in

प्रधान कार्यालय : परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली - 110 032.

Head Office : Parivesh Bhawan, East Ajrun Nagar, Delhi - 110 032.

दूरभाष / Telephone : 011-43102030, Fax : 22305793, 22307078, 22307079, 22301932, 22304948

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

फ़ा. न.: तक/03/पीसी(त.ना)/क्षे.नि.चे./2024-25/47

दिनांक: 03.04.2024

सेवा में

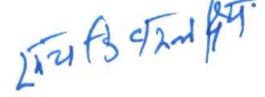
सदस्य सचिव
तमिलनाडु राज्य प्रदूषण नियंत्रण बोर्ड
नंबर 76, माउंट रोड, गिंडी
चेन्नई-600032

विषय: अनाधिकृत पोल्ट्री फार्म के खिलाफ प्राप्त हुई सार्वजनिक शिकायत
महोदय,

दिनांक 14/03/2024 को डी नंबर 3/198 सर्वमपट्टी, चिन्नमनाली पो 637216 तिरुचेंगोडे तालुक नम्मकल निवासी श्रीमती मुथम्मल से पत्र द्वारा प्राप्त सार्वजनिक शिकायत का संदर्भ में यह बताया गया है कि श्री मियाझागन के स्वामित्व वाले चिन्नमनाली ग्राम तिरुचेंगोडे तालुक नामक्कल जिला में स्थित पोल्ट्री फार्म के कारण प्रदूषण हो रहा है। तदस्वरूप शिकायत पत्र स्वतः स्पष्ट है (प्रतिलिपि संलग्न है)।

उपरोक्त को ध्यान में रखते हुए, आपसे अनुरोध है कि मामले की जांच करें और कार्रवाई रिपोर्ट (एटीआर) सीधे शिकायतकर्ता को प्रदान करें और एक प्रति इस कार्यालय को जल्द से जल्द भेजें।

निष्ठापूर्वक,



(एच. डि. वरलक्ष्मी)
क्षेत्रीय निदेशक

संलग्न : जैसा कि ऊपर बताया गया है



F.No. Tech/03/PC/TN/RDC/2024-25/ 522,523

September 09, 2024

To

The Member Secretary,
Tamilnadu Pollution Control Board,
No.76, Mount Road, Guindy,
Chennai – 600 032

Sub: Action taken report regarding public complaint on odour nuisance caused by Poultry farms- reg.

Ref : Complaint letter dt. 31.08.2024

Sir,

This has reference to the public grievance received from Smt. P. Muthammal regarding operating the poultry farms without obtaining permission from TNPCB and causing odour nuisance. The copy of the complainant letter is enclosed as annexure, which is self-explanatory.

In view of the above, it is kindly requested to investigate the matter and furnish the ATR directly to the complainant with a copy to CPCB, at the earliest.

Your faithfully,

(H. D. Varalaxmi)
Regional Director

Encl: As above

Copy to :

District Environmental Engineer,
Tamil Nadu Pollution Control Board
No 298/A, Salem Main Road,
Thiruvalluvar Nagar Kumarapalayam
Namakkal District – 638183

: For necessary action, please

(H. D. Varalaxmi)
Regional Director

क्षेत्रीय निदेशालय (चेन्नई) : द्वितीय तल, 40-ई, बीएसएनएल बिल्डिंग, थिरु-वी-का औद्योगिक एस्टेट, सिपेट रोड गिंडी, चेन्नई – 600032

दूरभाष: 044-29998683/044-29567019 ईमेल: rdchennai.cpcb@gov.in

Regional Directorate (Chennai): Second Floor, 40-E, BSNL Building, TVK Industrial Estate, CIPET Road Guindy, Chennai – 600032

Phone: 044-29998683/044-29567019 Email: rdchennai.cpcb@gov.in

प्रधान कार्यालय : परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली -110 032

Head Office: Parivesh Bhawan, East Arjun Nagar, Delhi – 110032

दूरभाष/Telephone: 011-43102030, Fax : 22305793, 22307078, 22307079, 22301932, 22304948

ई-मेल / E-mail: cpcb@nic.in वैबसाइट / Website : www.cpcb.nic.in



एफ.न. तकनीक/03/पीसी/आरडीसी(टीएन)/2024-25/522,523

09 सितंबर, 2024

सेवा में

सदस्य सचिव,
तमिलनाडु प्रदूषण नियंत्रण बोर्ड,
76, माउंट रोड, गिन्डी,
चेन्नई -600 032

विषय: मुर्गी फार्मों द्वारा उत्पन्न गंध प्रदूषण के संबंध में सार्वजनिक शिकायत पर की गई कार्रवाई की रिपोर्ट – संदर्भ

संदर्भ: शिकायत पत्र दिनांक 31.08.2024

महोदय ,

यह श्रीमती पी. मुथम्मल द्वारा प्राप्त सार्वजनिक शिकायत के संदर्भ में है, जिसमें TNPCB से अनुमति लिए बिना पोल्ट्री फार्म संचालित करने और गंध की परेशानी उत्पन्न करने की बात की गई है। शिकायतकर्ता के पत्र की प्रति संलग्न है, जो स्वविवेकी है।

उपरोक्त को देखते हुए, कृपया इस मामले की जांच करें और कार्रवाई रिपोर्ट (ATR) सीधे शिकायतकर्ता को प्रदान करें और इसकी एक प्रति सीपीसीबी को भी जल्द से जल्द भेजें।

निष्ठापूर्वक,

एच. डी. वरलक्ष्मी

(एच. डी. वरलक्ष्मी)
क्षेत्रीय निदेशक

संलग्न: उपरोक्त के साथ

प्रतिलिपि को:

जिला पर्यावरण अभियंता,
तमिलनाडु प्रदूषण नियंत्रण बोर्ड,
नं. 298/ए, सलैम मुख्य मार्ग,
थिरुवल्लुवर नगर, कुमारपालयम,
नमक्कल जिला - 638183

: कृपया आवश्यक कार्यवाही हेतु

एच. डी. वरलक्ष्मी

(एच. डी. वरलक्ष्मी)
क्षेत्रीय निदेशक

क्षेत्रीय निदेशालय (चेन्नई): द्वितीय तल, 40-ई, बीएसएनएल बिल्डिंग, थिरु-वी-का औद्योगिक एस्टेट, सिपेट रोड गिन्डी, चेन्नई - 600032

दूरभाष: 044-29998683/044-29567019 ईमेल: rdchennai.cpcb@gov.in

Regional Directorate (Chennai): Second Floor, 40-E, BSNL Building, TVK Industrial Estate, CIPET Road Guindy, Chennai - 600032

Phone: 044-29998683/044-29567019 Email: rdchennai.cpcb@gov.in

प्रधान कार्यालय: परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली -110 032

Head Office: Parivesh Bhawan, East Arjun Nagar, Delhi - 110032

दूरभाष/Telephone: 011-43102030, Fax : 22305793, 22307078, 22307079, 22301932, 22304948

ई-मेल / E-mail: cpcb@nic.in वैबसाइट / Website : www.cpcb.nic.in

**BEFORE THE HON'BLE NATIONAL
GREEN TRIBUNAL
SOUTHERN ZONE BENCH,
CHENNAI**

ORIGINAL APPLICATION NO. 288 OF 2024 (SZ)

IN THE MATTER OF

Mrs P Muthammal

.....Applicant

Vs

Regional Director,
Central Pollution Control Board (CPCB)
Chennai and Ors.

.....Respondent (s)

**REPLY ON BEHALF OF THE
RESPONDENT NO. 1,
CENTRAL POLLUTION
CONTROL BOARD (CPCB)**

Advocate N Nathami
Counsel for the 1st Respondent
(CPCB)