

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA**

IN

OA. No. 83/2023/EZ

IN THE MATTER OF:

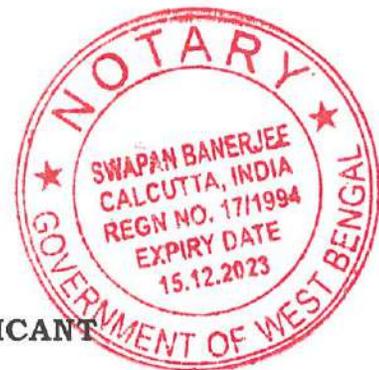
ANKUR SHARMA

...APPLICANT

VERSUS

THE STATE OF WEST BENGAL & ORS.

...RESPONDENTS



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 Filed through Counsel

Dated: 7/12/, 2023

Place: Kolkata

Sl. No. 8

43

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA**

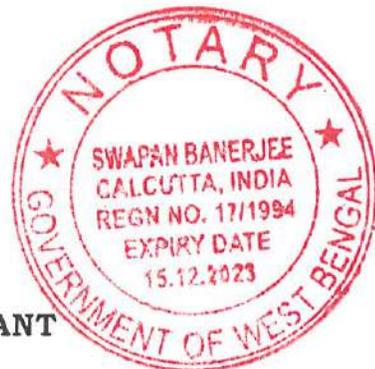
IN

OA. No. 83/2023/EZ

IN THE MATTER OF:

ANKUR SHARMA

...APPLICANT



VERSUS

THE STATE OF WEST BENGAL & ORS.

...RESPONDENTS

**COUNTER AFFIDAVIT ON BEHALF OF THE RESPONDENT NO. 05
i.e., CENTRAL POLLUTION CONTROL BOARD**

I, Mrinal Kanti Biswas S/o Shri Saroj Kumar Biswas, aged about 42, by Religion-Hindu, by Occupation-Service, having office at the Regional Directorate, Central Pollution Control Board, 1582, Rajdanga Main Road, Kolkata-700107, do hereby solemnly affirm and declare as under:

1. That I am working as Regional Director in the Central Pollution Control Board (hereinafter referred to as 'CPCB'), Regional Directorate Kolkata and have been authorized to file the present affidavit on behalf of the Respondent No. 05 i.e. the Member Secretary of CPCB. I am well conversant with the facts of the application from the records maintained by the offices of the CPCB hence, I am competent to swear this independent response on behalf of the CPCB.

2. That I have read and understood the contents of the present Counter Affidavit. The contents thereof are true and correct and nothing material has been concealed therefrom.

Preliminary Submissions:

3. It is humbly submitted that the Hon'ble National Green Tribunal (NGT), Eastern Zone (EZ) Bench, Kolkata vide order dated 02.08.2023 directed as follows:

17.“....we deem it appropriate to constitute a Committee comprising of the following Members:- (i) Senior Scientist, West Bengal Pollution Control Board, (ii) Senior Scientist, Central Pollution Control Board (iii) Principal Secretary, Department of Environment, Govt. of West Bengal, or his nominee of a senior rank, and (iv) Municipal Commissioner, Howrah Municipal Corporation, or his nominee of a senior rank.

.... The Committee shall visit the site in question within 10 days and submit its report within a further period of two weeks on affidavit. The Committee shall, in case violations are found, not only determine the Environmental Compensation against the violator but shall also recommend disciplinary action against the officer responsible for disregarding the orders of the Tribunal.

.....The West Bengal Pollution Control Board shall file the Report of the Committee on affidavit.”

A copy of the order dated 02.08.2023 is annexed as **Annexure-I**.

4. That in compliance to the above mentioned direction of the Hon'ble National Green Tribunal, Eastern Zone Bench, [hereinafter



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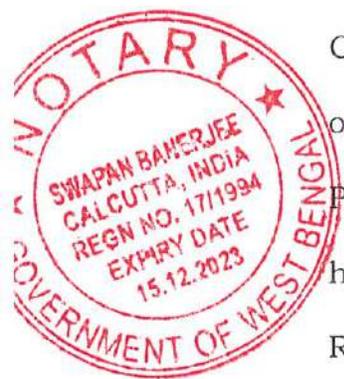
referred to as “NGT(EZB)”, Committee carried out a visit of the impugned site on 29.08.2023 and affidavit containing Committee report dated 19.09.2023 was filed by the West Bengal Pollution Control Board (hereinafter referred to as “WBPCB”). A copy of the affidavit is annexed as **Annexure-II**.

Para-wise Reply to the Original Application:

5. That the averment made under Para 1 contains the information about the present Applicant and is matter of fact, hence, need no comment from this Answering Respondent No. 5.
6. That the averment made under Para 2 is regarding gross pollution and environmental damage caused due to operation of hot mix plant by the Howrah Municipal Corporation (hereinafter referred to as “HMC”), in this regard, it is humbly submitted that Central Pollution Control Board (hereinafter referred to as “CPCB”) vide letter dated 12.07.2023 communicated the Standards of Hot Mix Plants notified by MoEF&CC vide notification G.S.R. 376 (E) dated 18.05.2023 under Environment (Protection) Rules, 1986, in Schedule I, to all the State Pollution Control Boards/Pollution Control Committees (hereinafter referred to as “SPCBs/PCCs”) for its implementation. Further, it is submitted that WBPCB is the agency to grant Consent to Establish (hereinafter referred to as “CTE”)/Consent to Operator (hereinafter referred to as “CTO”) for operation of Hot mix plants in the state, as stipulated under Air (Prevention and Control of Pollution) Act, 1981. A copy of the CPCB letter dated 12.07.2023 is annexed as **Annexure-III**.
7. That the averments made under Paras 3 and 4 are matter of record, hence need no comment from this Answering Respondent.



8. That the averment made under Paras 5 to 12 is regarding gross pollution caused due to operation of hot mix plant by HMC, in this regard, it is humbly submitted that the reply given at Para 6 of this counter affidavit is reiterated.
9. That the averment made under Para 13, is a matter of record, hence need no comment from this Answering Respondent.
10. That in reply to the averment made under Para 14, it is humbly submitted that the reply given at Para 6 of this counter affidavit is reiterated.
11. That the averment made under Para 15, is a matter of record, hence need no comment from this Answering Respondent.
12. That in reply to the averments made under Paras 16 and 17, it is humbly submitted that the reply given at Para 6 of this counter affidavit is reiterated.
13. That the averment made under Para 18 is regarding no CTE/CTO has been obtained from WBPCB, in this regard, it is submitted 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, "Hot mix plants" have been categorized under "Orange Category" and required to obtain CTE/CTO for operation of Hot mix plants from WBPCB. A Copy of the CPCB modified direction is annexed as **Annexure-IV**.



14. That the averment made under Para 19, is a matter of record, hence need no comment from this Answering Respondent.
15. That the averment made under Para 20 is regarding the air quality of Howrah city is being devastated due to operation of Hot mix plant by HWC, in reply, it is submitted that the Ambient Air Quality of Howrah, West Bengal reported during January, 2023 to July, 2023 in terms of PM₁₀ and PM_{2.5} were found in the range of 13 to 407 µg/m³ and 5 to 237 µg/m³, respectively. It was observed that during January, 2023 to March, 2023, in most of occasions, the air quality in terms of PM₁₀ and PM_{2.5} exceeded the National Ambient Air Quality Standards. However, no direct conclusions can be drawn regarding impact on ambient air quality due to operation of the Hot Mix Plant. The data indicate that air quality may have been influenced by local factors rather than the emissions from Hot Mix Plant. The other local factors contributing to the impact can be vehicle traffic, natural dust, DG sets, etc. A graphical representation of said air quality data is annexed as **Annexure-V**.
16. That the averments made under Paras 21 to 23, are matter of record, hence need no comment from this Answering Respondent.
17. That in reply to the averment made under Para 24, it is humbly submitted that the reply given at Para 15 of this counter affidavit is reiterated.
18. That the averments made under Paras 25 and 26, are matter of record, hence need no comment from this Answering Respondent.



19. That with regard to the averments made under the heading Grounds under Paras A-M of the Original Application, it is humbly submitted that the reply in this regard have been made in the above Paras.

20. That I have read and understood the contents of the present Counter Affidavit. The contents thereof are true and correct and nothing material has been concealed therefrom.

A K Biswas
DEPONENT

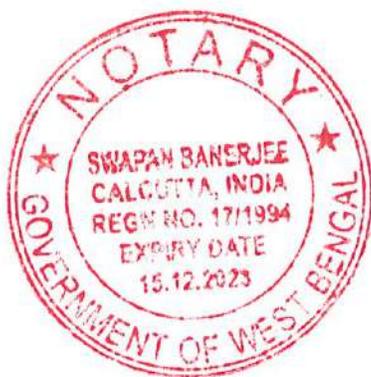
VERIFICATION

I, Mrinal Kanti Biswas, the above named deponent do hereby verify that the contents of the above affidavit are true and correct to my knowledge based on official records no part of it is false and nothing material has been concealed there from.

Signed and verified on this 7th day of December, 2023 at Kolkata.



A K Biswas
DEPONENT



Solemnly affirmed and declared
before me on identification

Swapan Banerjee

SWAPAN BANERJEE
Notary, Calcutta, India
Govt. of W.B. Regn. No: 17/1994
Calcutta City Courts' Bar
Association (2nd Floor)
Calcutta-700 001

Identified by me

Suresh Chandra Kumar
Advocate

7 DEC 2023

Item No.01

Court No.1

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA
(THROUGH PHYSICAL HEARING WITH HYBRID MODE)**

Original Application No.83/2023/EZ

Ankur Sharma

Applicant(s)

Versus

The State of West Bengal & Ors.

Respondent(s)

Date of hearing: 02.08.2023

**CORAM: HON'BLE MR. JUSTICE B. AMIT STHALEKAR, JUDICIAL MEMBER
HON'BLE PROF. A. SENTHIL VEL, EXPERT MEMBER**

For Applicant(s) : Mr. Ankur Sharma, in person (in Virtual Mode)

ORDER

1. Heard Mr. Ankur Sharma, the Applicant in person, present in Virtual Mode.
2. This Original Application has been filed by the Applicant alleging that within the Howrah Municipal Corporation, Hot Mix Plants are in operation near 'Dalal Pukur' on Mahendra Bhattacharya Road, which is an extension of N.S. Road and close to the house of the Applicant. It is stated that a new layer of asphalt has been applied on a small stretch of N.S. Road within the jurisdiction of the Howrah Police Station using Hot Mix technology.
3. It is further stated that on 19.07.2023 the Applicant noticed that hot mix asphalt was being brought on polluting three wheelers and was being laid on a stretch of the said Road and on enquiry it was informed that reconstruction of N.S. Road is being carried on and a Hot Mix Plant has been set-up near 'Dalal Pukur' on Mahendra Bhattacharya Road being the extension of N.S. Road.



4. It is stated that Applicant thereafter rushed to the Dalal Pukur and noticed a huge Hot Mix Plant had been set-up near the lake emitting thick black smoke in which plastic and wood were being used as fuel. The name of the contractor was not available anywhere through any display board to show that he has been engaged by the Howrah Municipal Corporation.
5. It is further stated that on 11.12.2022 while passing along Deshpran Shasmal/Panchanantala Road, Howrah, the Applicant noticed that gross pollution was being carried out by the Howrah Municipal Corporation due to the use of Hot Mix Plant emitting thick black smoke which was causing considerable air pollution in the area.
6. It is stated that thereafter the Applicant sent a complaint vide e-mail dated 20.07.2023 at 10:45 hours (Annexure-P-2 to the Original Application), to the Commissioner, Howrah Municipal Corporation and the West Bengal Pollution Control Board, but no action has been taken till date. It is also stated that another complaint letter vide e-mail dated 12.12.2022 at 11:45 PM was sent by the Applicant to the Commissioner, Howrah Municipal Corporation, copy of which has been filed at page no. 27 of the paper book. Photographs have also been filed as Annexure-P-1 & P-2 (page nos. 18, 19, 20, 21, 24 & 26) to the Original Application.
7. The Applicant has also referred to the directions given by the Tribunal in its order dated 02.05.2022 passed in Original Application No.171/2016/EZ with M.A. No. 57/2018/EZ (*Subhas Dutta Vs. State of West Bengal & Ors.*), wherein the Tribunal had taken note of emissions emerging from Hot Mix Plants. Para 13 of the order reads as under:-



13. Kolkata - Howrah twin Cities (in KMDA) are included in the nonattainment cities (NACs). They are required to execute Clean Air Action Plan, 2020 under NCAP which includes identification sources contributing to air pollution. The relevant information particularly relating to Hot Mix Plants with reference to short and medium term actions are given:

"1.5 Hot-mix plants for road construction and cement batching

Kolkata Municipal Corporation, as well as the Kolkata Metropolitan Development Area have been witnessing a boom. Greenfield projects, in terms of commercial, residential and mixed land-use area development, as well as expansion of existing areas has led to the intensive increase in emissions emerging from concrete batching as well as from asphalt mixing plants, known as hot-mix plants.

The Eastern Zone bench of the NGT took notice of the emissions emerging from these hot-mix plants, and in a series of orders dated 18 September 2018 and 01 October 2018, banned the operation of all Hot Mix plants within Kolkata and Howrah. The order also asks the state government, KMC, and the WB PWD to 'adopt more environment friendly and cleaner methods for the purpose'. The KMC also moved the NGT on 01 October 2018 to get a 4-month window to continue to operate the KMC run hot-mix plants within Kolkata. The deadline of 31 January 2019 has been set for these plants by the KMC to finish the ongoing repair of roads across Kolkata and Howrah. However, it must be noted that the longer term plan of the KMC for its hotmix plants is to relocate these to areas such as Dum Dum and Rajarhat that are outside the jurisdiction of KMC. While this may suffice for the purpose of the NGT order, the emissions from these re-located plants, along with others within the KMDA will continue to affect air quality in the Kolkata-Howrah airshed. The KMC has begun implementation of this order, through the constitution of a panel of experts from WBPCB, IIT-Kharagpur, KMDA, Hooghly River Bridge Commissioners (HRBC) and KMC, with a mandate to monitor emissions from existing hot-mix plants,



and suggest technical, technological and other measures to reduce the emissions from this sector.

xxxxxx.....xxx

3. BRICK KILNS, HOT-MIX PLANTS AND STONE CRUSHERS

| Sr. no. | Action points | Agency responsible | Timeline |
|-----------------------------------|--|--|-----------------|
| Short-term priority action | | | |
| 3.1 | There are about six brick kilns in close vicinity of the city. Enforce restrictions on operations of brick kilns within urban airshed zones during high pollution periods; allow only those brick kilns that comply with rectangular zig-zag design with induced draft or those with improved technology. Initiate phasing out of traditional brick kilns. | Dept. of land and Land Reform WBPCB, KMDA, HMC, Department of MSME | 6 months |
| 3.2 | Relocate and discourage any hot-mix plants within Hourah boundaries. Shut down small and mobile hot-mix plants. | HMC, WB PWD, NHAI and other road operating agencies | Immediately |
| Medium-term action | | | |
| 3.3 | Identify and convert all brick kilns to rectangular design. zigzag technology. If | Department of Land and Land Reform, WBPCB, CPCB, ICE and MSME | 1 year |



| | | | |
|-----|--|--|-----------------------|
| | <i>any FCBT natural draft kilns are found they need to be converted to induced draft kilns with rectangular zigzag design.</i> | | |
| 3.4 | <i>Prescribe design specifications for improved kilns and ensure compliance checking of conversion. Ensure provision of infrastructure in terms of viewing platform and chimney emission testing point for compliance.</i> | <i>CPCB, WBPCB, Department of ICE, MSME</i> | <i>1 year</i> |
| 3.5 | <i>Establish a protocol for using cleaner fuels & technology for asphalt mixing and minimizing the number of hot-mix plants.</i> | <i>MoRTH, HMC, WB PWD, NHAI and other road operating agencies</i> | <i>2 years</i> |

8. We find that the Tribunal while disposing of the said Original Application had constituted a Joint Committee comprising of; (i) Secretary Environment, Government of West Bengal, (ii) Secretary Transport, Government of West Bengal, (iii) Secretary Urban Development, Government of West Bengal, (iv) Secretary Local Bodies, Government of West Bengal, (v) Central Pollution Control Board, and (vi) State Pollution Control Board, to prepare/update Action Plan for Kolkata Metropolitan Area for control of air pollution with Secretary Environment, Government of West Bengal, as the



Nodal Agency for compliance. This Joint Committee was directed to come up with an updated plan within three months. Para 16 of the order reads as under:-

"16. In the light of above discussion, we direct constitution of a joint Committee comprising Secretary Environment, Secretary Transport, Secretary Urban Development, Secretary Local Bodies, (all West Bengal Govt), CPCB and State PCB to prepare/update action plan for Kolkata metropolitan Area for control of air pollution. Secretary Environment will be nodal agency for compliance. The joint Committee may meet within one month and finalise/update its plan within three months. It may consider outline of suggested plans in the order dated 8.10.2018, quoted in para 11 and 12 above and other plans finalised by AQMC in respect of NACs in the State of West Bengal, in pursuance of the said order. It will be open to any stake holder to put forward suggestions for consideration of the Committee. The Committee will also be free to interact with any other expert/institution/department on the subject."

9. The two orders of the Tribunal dated 18.09.2018 and 01.10.2018 referred to in para 13 of the final order of the Tribunal dated 02.05.2022 read as under:-

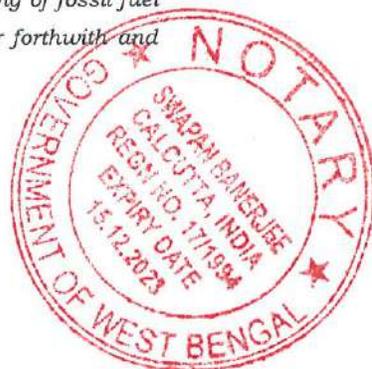
"(Order dated September 18, 2018)

.....XXX.....XXX.....XXX.....

2. The affidavits filed by the respondents in reply to the application appear to contain statements which are unsatisfactory and grossly wanting of compliance of the directions issued in Original Application No.33/2014. This would be evident from the supplementary affidavit filed by the applicant on 24.11.2017 which illustrates the brazen violation of the directions. Hot mix plants appears to be in use rampantly for road repairs and also use of fossil fuel in the heart of the city of Kolkata adding tremendously to the already polluted air.

.....XXX.....XXX.....XXX.....

4. We, therefore, direct the state respondents, the State Public Works Department and the Kolkata Municipal Corporation to ensure that the use of Hot Mix Plants and burning of fossil fuel is discontinued for road construction and repair forthwith and



adopt more environment friendly and cleaner methods for the purpose as already directed earlier."

"(Order dated October 01, 2018)

.....XXX.....XXX.....XXX.....

4. We reiterate our order dated 18.09.2018 and direct closure of all Hot Mix Plants failing which exemplary penalty of not less than Rs. 5 lakh shall be imposed upon the Kolkata Municipal Corporation and other authorities apart from taking appropriate steps against the erring officers for non-compliance of the directions."

10. It is alleged that in spite of the directions given in the final order of the Tribunal, nothing has been done till date.
11. In our opinion, matter requires consideration.
12. Issue notice to the Respondents, returnable within four weeks.
13. Mr. Sudip Kumar Dutta, learned Counsel appearing (in Virtual Mode), accepts notice on behalf of the Respondent Nos.1&2, State Respondents, Government of West Bengal.
14. Mr. Dipanjan Ghosh, learned Counsel appearing (in Virtual Mode), accepts notice on behalf of the Respondent No.3, West Bengal Pollution Control Board.
15. Ms. Amrita Pandey, learned Counsel appearing (in Virtual Mode), accepts notice on behalf of the Respondent No.4, Howrah Municipal Corporation.
16. All the Respondents shall file their counter-affidavits within four weeks.
17. Considering the allegations made, we deem it appropriate to constitute a Committee comprising of the following Members:-
 - (i) Senior Scientist, West Bengal Pollution Control Board,
 - (ii) Senior Scientist, Central Pollution Control Board,
 - (iii) Principal Secretary, Department of Environment, Govt. of West Bengal, or his nominee of a senior rank, and



- (iv) Municipal Commissioner, Howrah Municipal Corporation, or his nominee of a senior rank,
18. The Committee shall visit the site in question within 10 days and submit its report within a further period of two weeks on affidavit. The Committee shall, in case violations are found, not only determine the Environmental Compensation against the violator but shall also recommend disciplinary action against the officer responsible for disregarding the orders of the Tribunal.
19. The Howrah Municipal Corporation shall be the Nodal Office for all logistic purposes.
20. The West Bengal Pollution Control Board shall file the Report of the Committee on affidavit.
21. The Applicant shall implead the Central Pollution Control Board in the array of Respondents as Respondent No.5 within 24 hours.
22. Mr. Surendra Kumar, learned Counsel who is present in Court, accepts notice on behalf of the newly added Respondent No.5, he shall also file his counter-affidavit within four weeks.
23. The Applicant shall serve e-copy/soft copy of the Original Application along with all its annexures upon Mr. Sudip Kumar Dutta, Mr. Dipanjan Ghosh, Ms. Amrita Pandey and Mr. Surendra Kumar, Counsel for the Respondents within 24 hours.
24. **List on 04.09.2023.**

.....
B. Amit Sthalekar, JM

.....
Prof. A. Senthil Vel, EM

August 02, 2023,
 Original Application No.83/2023/EZ
 AK



BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA

ORIGINAL APPLICATION NO. 83/2023/EZ

ANKUR SHARMA

..... APPLICANT(S)

VERSUS

THE STATE OF WEST BENGAL & ORS.

..... RESPONDENT(S)

AFFIDAVIT ON BEHALF OF THE RESPONDENT NO. 03, THE
WEST BENGAL POLLUTION CONTROL BOARD.

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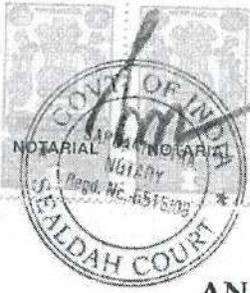
| SL No | PARTICULARS | ANNEXURE | PAGE |
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FILED BY

DIPANJAN GHOSH
ADVOCATE
W.B.P.C.B



SL NO-24 OF 19/9/23
2



BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA

ORIGINAL APPLICATION NO. 83/2023/EZ

ANKUR SHARMA

..... APPLICANT(S)

VERSUS

THE STATE OF WEST BENGAL & ORS.

..... RESPONDENT(S)

AFFIDAVIT ON BEHALF OF THE RESPONDENT NO. 03, THE
WEST BENGAL POLLUTION CONTROL BOARD.

Most Respectfully Sheweth

I, Sri Subrata Ghosh, son of Shri Biswanath Ghosh, aged about 59 years, by Religion - Hindu, by Occupation- Service, residing at Narkelbagan, Gorosthan, Chinsurah, District-Hooghly, do hereby solemnly declare and say as follows:-

01. That, I am the Chief Engineer, West Bengal Pollution Control Board (hereinafter will be referred to as the 'State Board') and look after this case and as such I am well acquainted with the facts and



19 SEP 2023

circumstances of the case. I have been duly authorized by the Respondent no. 03 to affirm this Affidavit on its behalf and as such, I am competent to do so.

02. That, this affidavit is being affirmed in pursuance to the solemn order passed by the Hon'ble Tribunal dated 02.08.2023 & 04.09.2023.

03. That, in compliance to the order of the Hon'ble National Green Tribunal, the Committee constituted by the Hon'ble National Green Tribunal visited the site in question on 29.08.2023.

Copy of the inspection report of the State Board dated is annexed herewith and marked with the letter "R".

That the inspection report reveals as follows :-

- a) The site near "Dalalpukur" where the hot mix plant had been set up, as physically identified by the HMC engineers, was found to be clear and no such plant was spotted in the area.
- b) Work order for improvement of Netaji Subhas Road by Bituminous (Mastic Asphalt) work from Mullick Fatak to Shymasree Cinema Hall) junction of Netaji Subhas Road was accorded by HMC in favour of M/s. Soumik Enterprise, 7, Kakrapara Lane, Santragachi, Howrah vide work order dated



19 SEP 2023

05.07.2023.

- c) The Hot Mix plant was set up on Mahendra Bhattacharya Road, being an extension of Netaji Subhas Road near a water body locally known as Dalalpukur, as the place was less congested.
- d) At the time of inspection, no evidence of operation was found. It was learnt on enquiry, the Hot Mix Plant in question, was stopped as per direction of Howrah Municipal Corporation on the basis of Public Grievance complaints.
- e) As informed by the officers of Howrah Municipal Corporation, their own Hot Mix Plant had stopped functioning long back.



04. That, the inspection report also reveals that the Committee has assessed the Environmental Compensation of Rs. 2,34,375/- (Rupees two lac thirty four thousand three hundred seventy five) only for violation of the environmental norms for the period 20th July, to 5th August, 2023. The assessment has been done by using methodology as mentioned in the report of the Central Pollution Control Board "In-house Committee on Methodology for Assessing Environmental Compensation and Action Plan to Utilize the Fund."



19 SEP 2023

05. That, the Committee has suggested as the work had been allotted by Howrah Municipal Corporation to the contractor M/s. Soumik Enterprise to operate abide by all Rules and Regulations etc., it is the negligence on the part of the contractor for such violation.

6. It is therefore respectfully prayed that Hon'ble Tribunal may pass such order/orders as it deems fit and proper in the interest of justice.

Soumik Enterprise
DEPONENT



19 SEP 2023



VERIFICATION

I, Sri Subrata Ghosh, son of Shri Biswanath Ghosh, aged about 59 years, by Religion - Hindu, by Occupation- Service, residing at Narkelbagan, Gorosthan, Chinsurah, District-Hooghly, do hereby solemnly declare and say as follows:-

1. That, I am the Chief Engineer, West Bengal Pollution Control Board and I am well acquainted with the facts and circumstances of the instant Original Application.
2. That, the statements made in paragraph 1 of this affidavit is true to my knowledge and belief.
3. That, the statements made in paragraphs 2 to 5 of this affidavit are my information derived from the records available in the office of the State Board which I verily believe to be true and the rest are my respectful submission before this Hon'ble Tribunal.

Sri Subrata Ghosh
DEPONENT

Identified and Settled by me

Dipayan Ghosh

Advocate

WBPCB

Solemnly Affirmed &
Declared Before Me
On Identification By

Sarbani Mitra
SARBANI MITRA
NOTARY
Regd. No.-5515/08

19 SEP 2023



Report in the matter of Original Application No. 83/2023/EZ (Regarding operation of hot mix plant within Howrah Municipal Corporation, Mr. Ankur Sharma Vs The State of West Bengal & Ors.) vide Hon'ble NGT order (Eastern Zone Bench, Kolkata) dated 02.08.2023.

The Hon'ble National Green Tribunal, Eastern Zone Bench constituted a Committee, comprising Senior Scientist, West Bengal Pollution Control Board, Senior Scientist, Central Pollution Control Board, Principal Secretary, Department of Environment Govt. of West Bengal or his nominee, Municipal Commissioner, Howrah Municipal Corporation or his nominee, in the matter. The Howrah Municipal Corporation was to act as the nodal agency for all logistic purpose.

Pursuant to the order of the Hon'ble NGT, the Committee comprising of the following members was constituted as per nominations received from the participating departments/ offices.

1. Sri Pradip Acharyya, WBCS (Exe), Additional Secretary, Environment Department
2. Sri Sandeep Roy, Scientist-D, Regional Directorate, Central Pollution Control Board
3. Smt. Rita Datta, Environmental Engineer, Howrah Regional Office, WBPCB
4. Sri Manas Das, Secretary, Howrah Municipal Corporation representing the Commissioner, HMC

Accordingly, the members of the committee accompanied by Sri Prthwish Roy, Exe. Engineer (Roads) & Sri Goutam Nag, Asst. Engineer (Roads), HMC visited the areas on 29.08.2023 at 13:00 hrs.

The observations of the constituted Committee are as follows:

1. The site near "Dalalpukur" where the hot mix plant had been set up as physically identified by the HMC engineers was found to be clear and no such plant was spotted in the area.
2. The work for which the hot mix plant was used was improvement of a stretch of road. As per the documents available to the committee the following work was undertaken:

| | |
|---------------------|---|
| Name of Work | Improvement of "Netaji Subhash Road" by Bituminous (Mastic Asphalt) work from Mullick Fatak to Shymasree Cinema Hall (Jn. of N.S. Road) under ward no-24,26,27 & 28 HMC |
|---------------------|---|



8

| | |
|--------------------------------|---|
| Contractor allotted work order | Soumik Enterprise 7, Kankrapara Lane, Santragachi, Howrah-711104 |
| Issue Date of work order | 05.07.23 |

3. The area of the above work was atleast at an approx. distance of 1.5 km from the site and it was informed during the visit that wheel barrows were used for carrying the material to the place of work.
4. The work had been carried out at night time as it is a very congested stretch. Also the hot mix plant had been set up on Mahendra Bhattacharya Road which is an extension of N.S. Road near a water body locally known as Dalalpukur, in a place which was likely to cause less congestion.
5. As per the Howrah Municipal Corporation, initial road dressing was started on 09.07.2023. Later bituminous work was started. The Bituminous work was stopped on 08.08.2023.
6. The area where the work was undertaken as identified by the HMC engineers was also visited and it was observed that no work was being carried out at the time.
7. As per the Howrah Municipal Corporation no communication was received by them regarding the non-operation of hot mix plant. However a clause was included in the contract to abide by all applicable clauses rules regulations laws acts etc. in force at present and or any other applicable rules in force which are relevant in the context of the job or would be in force during the period of contract.
8. As per the Howrah Municipal Corporation their own hot mix plant has stopped functioning long back.

On the day of inspection, i.e. 29.08.2023, committee found no evidence of operation of Hot Mix Plant as Howrah Municipal Corporation already directed them to stop the operation of Hot Mix Plant, as Howrah Municipal Corporation received Public Complaint (PGC) in this regard.



9

Considering the environment violation in past (from 20th July – 5th Aug 23), the Committee members were in opinion to calculate Environmental Compensation (EC) based on methodology given in "Report of the CPCB In-house Committee on Methodology for Assessing Environmental Compensation and Action Plan to Utilize the Fund" formulated in response to OA No. 593/2017(PB), for an industry can be assessed using the following formulae:

$$EC = PI \times N \times R \times S \times LF$$

.....(1)

Where,

EC is Environmental Compensation in ₹
 PI = Pollution Index of industrial sector
 N = Number of days of violation took place
 R = A factor in Rupees (₹) for EC
 S = Factor for scale of operation
 LF = Location factor

The above formulae incorporate the anticipated severity of environmental pollution in terms of Pollution Index, duration of violation in terms of number of days, scale of operation in terms of micro & small/medium/large industry and location in terms of proximity to large habitations.

Based on the concept of Pollution Index (PI) as used by CPCB for classification (Final Document on Revised Classification of Industrial Sectors Under Red, Orange, Green and White Categories, February 29, 2016) of industries Hot Mix Plant considered under Orange Category. Any of the industrial sector having only air pollution (A) the score will be normalized to 100 as per the following formula –

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

Thus Hot Mix Plant has a normalized PI of 50.

Further, N is the number of days of violation i.e., the period between the date of start of Improvement Work for improvement of Netaji Subhash Road by Bituminous (Mastic Asphalt) and the date of close down of the mentioned job. Therefore N is 30 days.

R is a factor in rupees for estimating environmental compensation which as per CPCB guidelines is taken as Rs. 250.



S is a factor representing the scale of operation of the industry and in this case it is considered as small scale and therefore value of S is 0.5.

LF is the location factor depending on the population of the area as per recent census 2011 is below 1 million, so LF may be taken as 1.25 following CPCB's guidelines.

| S. No. | Population* (million) | Location Factor# (LF) |
|--------|-----------------------|-----------------------|
| 1 | 1 to <5 | 1.25 |
| 2 | 5 to <10 | 1.5 |
| 3 | 10 and above | 2.0 |

*Population of the city/town as per the latest Census of India
 #LF will be 1.0 in case unit is located >10km from municipal boundary
 LF is presumed as 1 for city/town having population less than one million

Now, using formulae (1), environmental compensation is:

$$EC = P_i \times N \times R \times S \times LF$$

$$EC = 50 \times 30 \times 250 \times 0.5 \times 1.25$$

$$= \text{INR } 2,34,375$$

(Rupees Two lakh thirty four thousand three hundred seventy five only)

As the work had been allotted by Howrah Municipal Corporation to a contractor and it had been mentioned in the contract that they were to abide by all applicable clauses rules regulations laws acts etc it is a negligence on the part of the contractor in compliance of existing order.


 Pradip Acharya, WBCS (Exe)
 Additional Secretary,
 Environment Department, GoWB


 Manas Das, Secretary,
 Howrah Municipal Corporation


 Sandeep Roy, Scientist-D,
 Regional Directorate,
 Central Pollution Control Board


 Rita Datta, Environmental Engineer,
 Howrah Regional Office, WBPCB





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

Speed Post/E-mail

CP-31/1/2022-IPC-IV-HO-CPCB-HO

July 12, 2023

To,

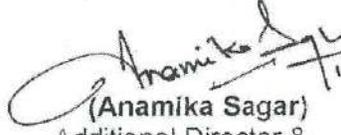
The Member Secretary,
All SPCBs/PCCs
(As per the list)

**Subject: Implementation of Environmental Standards for Hot Mix Plants in States/
Union Territories-reg.**

Madam/Sir,

Ministry of Environment, Forest and Climate Change has notified Environmental Standards for Hot Mix Plants vide notification no. G.S.R. 376 (E) dated 18.05.2023. Copy of notification is enclosed herewith for ready reference and its implementation in your State/Union Territory.

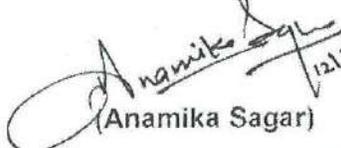
Yours faithfully


(Anamika Sagar)
Additional Director &
Divisional Head (IPC-IV & V)

Encl.: As above

Copy to:

All Regional Directorates : For information and with request to follow-up.
Central Pollution Control Board please.
(list enclosed)


(Anamika Sagar)

'परिवेश भवन' पर्वी अर्जुन नगर, दिल्ली-110032

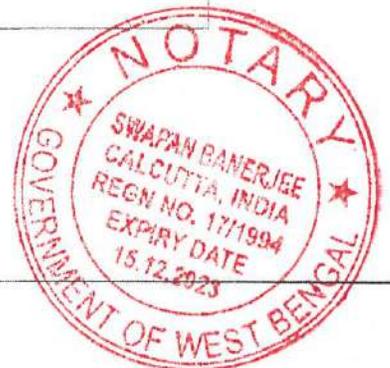
Parivesh Bhawan, East Arjun Nagar, Delhi-110032

दूरभाष/Tel : 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in



List of all State Pollution Control Board & Pollution Control Committee

| | |
|--|--|
| 1. The Member Secretary Andhra Pradesh Pollution Control Board D. No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamalavari Street, Kasturibaipet, Vijayawada - 520010 | 2. The Member Secretary Arunachal Pradesh State Pollution Control Board Govt. of Arunachal Pradesh, Department of Environment & Forest, Paryavaran Bhawan, Yupia Road, PapuNalah, Naharlagun - 791110 |
| 3. The Member Secretary Pollution Control Board- Assam, Bamunimaidam, Guwahati - 781021 (Assam) | 4. The Member Secretary Bihar State Pollution Control Board Parivesh Bhawan, Plot No. NS-B/2, Paliputra Industrial Area, Patliputra, Patna - 800023 (Bihar) |
| 5. The Member Secretary Chhattisgarh State Environment Conservation Board, Paryavas Bhawan, North Block Sector-19, Naya Raipur - 492002 (Chhattisgarh) | 6. The Member Secretary Goa State Pollution Control Board Nr. Pilerne Industrial Estate, Opposite Saligao Seminary, Saligao Bardez- 403511 (Goa) |
| 7. The Member Secretary Gujarat Pollution Control Board Paryavaran Bhavan, Sector 10-A, Gandhi Nagar 382010 (Gujarat) | 8. The Member Secretary Haryana State Pollution Control Board C-11, Sector-6, Panchkula- 134109 (Haryana) |
| 9. The Member Secretary Himachal Pradesh State Pollution Control Board Him Parivesh, Phase-III, New Shimla - 171009 | 10. The Member Secretary J&K State Pollution Control Committee, Parivesh Bhawan, Shiekh-ul- Campus, behind Govt. Silk Factory, Raj Bagh, Srinagar - 190008 (J&K) |
| 11. The Member Secretary Jharkhand State Pollution Control Board T.A. Bldg., HEC, P. O. Dhurwa, Ranchi-834004 (Jharkhand) | 12. The Member Secretary Karnataka State Pollution Control Board "Parisara Bhavan", #49,4th & 5th Floor, Church Street, Bangalore 560 001 |
| 13. The Member Secretary Kerala State Pollution Control Board Head Office, Pattom. P. O Thiruvananthapuram- 695 004 (Kerala) | 14. The Member Secretary Madhya Pradesh Pollution Control Board Paryavaran Parisar, E-5, Arera Colony, Bhopal - 462016 (Madhya Pradesh) |



| | |
|---|---|
| 15. The Member Secretary Maharashtra Pollution Control Board, Kalpataru Points, 3rd & 4th Floor, Sion Matunga Scheme Road No.6 Opp. Cine Planet, Sion Circle, Sion (E), Mumbai-400022 | 16. The Member Secretary Manipur Pollution Control Board Lamphalpat, Imphal - 795004 (Manipur) |
| 17. The Member Secretary Meghalaya State Pollution Control Board, "ARDEN", Lumpynggad, Shillong- 793014 (Meghalaya) | 18. The Member Secretary Mizoram Pollution Control Board New Secretariat Complex, Khatla, Aizawl - 796001 (Mizoram) |
| 19. The Member Secretary Nagaland Pollution Control Board Signal Point, Dimapur - 797112 (Nagaland) | 20. The Member Secretary Odisha State Pollution Control Board Paribesh Bhawan, A-118, Nilakantha Nagar, Unit VIII Bhubaneswar-751012 (Odisha) |
| 21. The Member Secretary Punjab Pollution Control Board Vatavaran Bhawan, Nabha Road Patiala 147 001 (Punjab) | 22. The Member Secretary Rajasthan Pollution Control Board, A-4, Institutional Area, Jalana Dungri, Jaipur 302 004 (Rajasthan) |
| 23. The Member Secretary Sikkim State Pollution Control Board State Land Use & Environment Cell Govt. of Sikkim, Deorali Gangtok - 737102 (Sikkim) | 24. The Member Secretary Tamil Nadu Pollution Control Board 76, Anna Salai, Guindy Industrial Estate, Race View Colony, Guindy, Chennai-600032 (Tamil Nadu) |
| 25. The Member Secretary Telangana State Pollution Control Board Paryavarana Bhawan, A-III, Industrial Estate, Sanathnagar, Hyderabad-500018 (Telangana) | 26. The Member Secretary Tripura State Pollution Control Board Parivesh Bhawan, Pandit Nehru Complex P.O. Kunjaban, Gorkhabasti, Agartala - 799 006 (Tripura) |
| 27. The Member Secretary Uttar Pradesh Pollution Control Board IIIrd Floor PICUP Bhawan Vibhuthi Khand, Gombi Nagar, Lucknow - 226 020, (Uttar Pradesh) | 28. The Member Secretary Uttarakhand Pollution Control Board Gaura Devi Bhawan, 46 B IT Park Sahastradhara, Dehradun - 248 001 (Uttarakhand) |



| | |
|--|--|
| <p>29. The Member Secretary West Bengal Pollution Control Board Paribesh Bhavan, 10-A, Block LA, Sector III, Salt Lake City, Kolkata-700 091 (West Bengal)</p> | <p>30. The Member Secretary Andaman & Nicobar Islands Pollution Control Committee, Department of Science & Technology, Dollyganj Van Sadan, Haddo P.O. Port Blair-744102 (Andaman & Nicobar)</p> |
| <p>31. The Member Secretary Chandigarh Pollution Control Committee Paryavaran Bhawan, Ground Floor, Sector-19 B, Madhya Marg, Chandigarh - 160 019</p> | <p>32. The Member Secretary Pollution Control Committee, UTs of Daman, Diu and Dadra & Nagar Haveli Fort Area, Court Compound, Moti Daman - 396 220</p> |
| <p>33. The Member Secretary Delhi Pollution Control Committee, Government of N.C.T. Delhi 4th Floor, ISBT Building, Kashmere Gate, Delhi-110 006</p> | <p>34. The Member Secretary Lakshadweep Pollution Control Committee Department of Science, Technology & Environment, Kavarati-682555</p> |
| <p>35. The Member Secretary Puducherry Pollution Control Committee 'B' Block, Ground Floor, Chief Secretariat, Puducherry-605 001</p> | <p>36. The Member Secretary Ladakh Pollution Control Committee Wildlife Office Building, Near Council Secretariat, Opposite Police Station Housing Colony, Leh-194101 (Ladakh)</p> |



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List of all Regional Directorates

| | |
|--|---|
| 1. Regional Director (Bengaluru) Central Pollution Control Board A-Block, Nisarga Bhavan 1st and 2nd Floors, 7th D Cross Thimmaiah Road, Shivanagar Bengaluru-560079 | 2. Regional Director (Bhopal) Central Pollution Control Board Parivesh Bhawan, Paryavaran Parisar E-5, Arera Colony Bhopal - 462016 |
| 3. Regional Director (Kolkata) Central Pollution Control Board "South end Conclave" Block-502 5th & 6th Floor, 1582, Razidanga, Main Road Kolkata-700107 | 4. Regional Director (Lucknow) Central Pollution Control Board PICUP Bhawan, Vibhuti Khand, Gomti Nagar Lucknow-226020 |
| 5. Regional Director (Shillong) Central Pollution Control Board "TUM-SIR". Lower Moti nagar, Near Fire Brigade H.Q., Shillong-793014 | 6. Regional Director (Vadodara) Central Pollution Control Board Parivesh Bhawan, Opp. Ward No. 10 VMC Office Subhanpura, Vadodara - 390023 |
| 7. Regional Director (Chennai) Central Pollution Control Board 77-A, 2nd Floors, South Avenue Road Ambattur Industrial Estate Ambattur Taluk, Thiruvallur District Chennai-600058 | 8. Regional Director (Chandigarh) Central Pollution Control Board Second Floor, BSNL Telephone Exchange, Sector-49, Chandigarh - 160047 |
| 9. Regional Director (Pune) Central Pollution Control Board Row House No. 1, Nisarg Vihar, Balewadi Pune-411045 | |




भारत का राजपत्र
The Gazette of India

सी.जी.-डी.एल.-अ.-19052023-245956
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असाधारण
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i)
PART II—Section 3—Sub-section (i)

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

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नई दिल्ली, शुक्रवार, मई 19, 2023/वैशाख 29, 1945
NEW DELHI, FRIDAY, MAY 19, 2023/VAISAKHA 29, 1945

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 18 मई, 2023

सा.का.नि. 376(अ).—कतिपय प्रारूप नियम अर्थात् पर्यावरण (संरक्षण) संशोधन नियम, 2022, पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (3) के अधीन यथापेक्षित, भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अधिसूचना संख्या सा.का.नि. 805 (अ), तारीख 4 नवंबर, 2022 द्वारा भारत के राजपत्र, असाधारण, भाग II, खंड 3, उपखंड (i) में प्रकाशित किए गए थे जिसमें उन सभी व्यक्तियों से, जिनका इसमें प्रभावित होना संभाव्य है, उस तारीख से, जिसको उक्त अधिसूचना में अंतर्विष्ट राजपत्र की प्रतियां जनता को उपलब्ध करा दी गई थी, साठ दिनों के अवमान से पूर्व, आक्षेप और सुझाव आमंत्रित किए गए थे ;

और, पूर्वोक्त अधिसूचना अंतर्विष्ट करने वाली राजपत्र की प्रतियां 7 नवंबर, 2022 को जनता को उपलब्ध करा दी गई थी ;

अतः, अब, केन्द्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29), की धारा 6 और धारा 25 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, पर्यावरण (संरक्षण) नियम, 1986 का और संशोधन करने के लिए निम्नलिखित नियम बनाती है, अर्थात् :-

1. संक्षिप्त नाम और प्रारंभ.—(1) इन नियमों का संक्षिप्त नाम पर्यावरण (संरक्षण) दूसरा संशोधन नियम, 2023 है।

3215 GI/2023

(1)



(2) ये राजपत्र में इस अधिमूचना के प्रकाशन की तारीख से छह माह के अवमान पर प्रवृत्त होंगे।

2. पर्यावरण (संरक्षण) नियम, 1986 की अनुसूची-1 में, क्र.सं. 115 और उममे संबंधित प्रविष्टियों के प निम्नलिखित क्र.सं. और प्रविष्टियां अंतस्थापित की जाएगी, अर्थात्:-

| क्रम सं. | उद्योग | मानदंड | मानक |
|----------|-------------------|---|------|
| (1) | (2) | (3) | (4) |
| "116 | हॉट मिक्स संयंत्र | स्टेक उत्सर्जन में विविक्त कण सांद्रता (mg/Nm ³) | |
| | | बैच टाइप हॉट मिक्स संयंत्र | 150 |
| | | ड्रम टाइप हॉट मिक्स संयंत्र | 300 |

टिप्पणियां :-

- (i) हॉट मिक्स संयंत्र के लिए न्यूनतम स्टेक ऊंचाई की गणना इस प्रकार की जाएगी: स्टेक ऊंचाई (एच_{एल})=14 (क जहां क्यू किलोग्राम/घंटे में एसओ₂ उत्सर्जन दर है।
- (ii) केवल राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समितियों द्वारा विनिर्दिष्ट स्वीकृत ईंधन का ही प्रयोग जाएगा।
- (iii) माल की संभलार्ई से होने वाले उत्सर्जन को पानी के छिड़काव अथवा धूल उत्सर्जन के स्थलों को ढककर नियंत्रित जाएगा।
- (iv) परिसर के अंदर की सड़कों, कार्य किए जाने वाले प्लेटफार्म, लोडिंग तथा अनलोडिंग क्षेत्रों को पक्का किया ज तथा हमेशा स्वच्छ रखा जाएगा।
- (v) पर्यावरण (संरक्षण) अधिनियम, 1986 के अधीन ध्वनि प्रदूषण (विनियमन तथा नियंत्रण) नियम, 200 अनुपालन किया जाएगा और श्रमिकों को व्यक्तिगत सुरक्षा उपकरण प्रदान किए जाएंगे।
- (vi) परिधि के किनारे हरित पट्टी विकसित की जाएगी।
- (vii) रेडियो में पुनर्चक्रित आसफाल्ट पेवमेंट (आरएसपी)के उपयोग की अनुमति दी जाएगी।
- (viii) किसी भी निरस्त प्रक्रिया की या हॉट मिक्स की बची सामग्री प्रक्रिया में पुनर्चक्रित की जाएगी।
- (ix) प्रचालन चरण के अंत में अर्थात् संयंत्र को हटाने के बाद, कार्य-स्थल को पुनः बहाल किया जाए।
- (x) राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समितियां, उपलब्ध प्रौद्योगिकी और विद्यमान पर्यावरणीय स्थिति आधार पर हॉट मिक्स संयंत्रों को अनुमति देने हेतु उनके आकार और क्षमता का विनिश्चय कर सकेंगी।
- (xi) हॉट मिक्स संयंत्र को निम्नलिखित स्थान निर्धारण संबंधी मापदंडों से स्थापित किया जाएगा।
 - (क) शहरों और कस्बों की सीमा से 1 कि.मी. दूर,
 - (ख) आवासों से 0.5 कि.मी. दूर,
 - (ग) राष्ट्रीय या राज्य राजमार्गों (मध्य रेखा से) 0.2 कि.मी. दूर,
 - (घ) विद्यालयों/कालेजों तथा मंदिरों से 0.5 कि.मी. दूर,
 - (ङ) अस्पताल, न्यायालय तथा पर्यटन स्थल से 1 कि.मी. दूर,
- (xii) उपर्युक्त पैरा (xi) स्थल निर्धारण मापदंडों को पूरा न करने वाले विद्यमान हॉट मिक्स संयंत्रों के मामले में, इस प्लानट परिधि पर जीआई शीटों की न्यूनतम 6 मीटर ऊंची दीवार बननी चाहिए।



(xiii) हॉट मिक्स संयंत्र नीचे उल्लिखित उपयुक्त वायु प्रदूषण नियंत्रण उपकरणों से युक्त होने चाहिए ताकि मानकों को प्राप्त करने के लिए इष्टतम दक्षता सुनिश्चित की जा सके :

- क. ड्रम के प्रकार: वेट स्क्रबर सहित साइक्लोन/मल्टी-क्लोन
ख. ब्रैच के प्रकार: ब्रैग फिल्टर्स सहित मल्टी-क्लोन

[फा. सं. क्यू-15017/14/2018-सीपीडब्ल्यू]

नरेश पाव गंगवार, अपर सचिव

टिप्पणी : मूल नियम, भारत के राजपत्र, असाधारण, भाग II, खंड 3, उपखंड (i) में तारीख 19 नवंबर, 1986 द्वारा प्रकाशित किए गए थे और अधिसूचना संख्या सा.का.नि. 373(अ), 16 मई, 2023 द्वारा अंतिम बार संशोधित किए गए।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
NOTIFICATION

New Delhi, the 18th May, 2023

G.S.R. 376(E).—Whereas, certain draft rules, namely the Environment (Protection) Amendment Rules, 2022 were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i) as required under sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986. *vide* notification of the Government of India, Ministry of Environment, Forest and Climate Change, number G.S.R. 805 (E), dated the 04th November, 2022, inviting objections or suggestions from any person likely to be affected thereby within a period of sixty days from the date on which copies of the Gazette containing the said notification were made available to the public;

And whereas, copies of the Gazette containing the aforesaid notification were made available to the public on the 07th November, 2022;

Now, therefore, in exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely: -

1. **Short title and commencement.**—(1) These rules may be called the Environment (Protection) Second Amendment Rules, 2023.

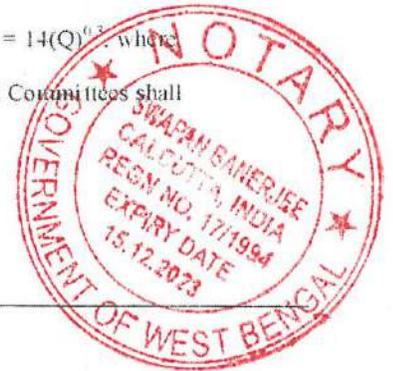
(2) They shall come into force on expiry of period of six months from the date of publication of this notification in the Official Gazette.

2. In the Environment (Protection) Rules, 1986, in Schedule-I, after serial number 115 and the entries relating thereto, the following serial number and entries shall be inserted, namely: -

| Sl. No. | Industry | Parameter | Standards |
|---------|---------------|--|-----------|
| (1) | (2) | (3) | (4) |
| 116 | Hot Mix Plant | Particulate Matter Concentration (mg/Nm ³) in stack emission | |
| | | Batch type Hot Mix Plant | 150 |
| | | Drum type Hot Mix Plant | 300 |

Notes:

- (i) The minimum stack height for Hot Mix Plant shall be calculated as: Stack height (H_s) = 14(Q)^{0.3}, where Q is the SO₂ emission rate in kg/hr.
(ii) Only approved fuel as specified by State Pollution Control Boards or Pollution Control Committees shall be used.



- (iii) Dust emission from material handling shall be contained with water sprinkling or by covering the point of dust emission.
- (iv) The internal roads, working platform, loading and unloading areas in premises should be paved and clean all times.
- (v) Provisions of the Noise Pollution (Regulation and Control) Rules, 2000 shall be followed and workers shall be provided with personal protective equipments.
- (vi) The green belt shall be developed along the periphery.
- (vii) Use of Recycled Asphalt Pavement (RAP) shall be allowed in the aggregates.
- (viii) Any process rejects or left over of the hot mix shall be recycled in the process.
- (ix) The site shall be reinstated at the end of operation phase i.e. after dismantling the plant.
- (x) State Pollution Control Boards or Pollution Control Committees may decide the size and capacity permit hot mix plants based on available technology and prevailing environmental conditions.
- (xi) The Hot Mix Plant shall be installed from the following siting criteria, namely: -
 - (a) 1 km from boundary of cities and towns;
 - (b) 0.5 km from habitation;
 - (c) 0.2 km from National or State Highways (from Centre Line);
 - (d) 0.5 km from Schools or Colleges and temples;
 - (e) 1 km from Hospital, court and tourist spot.
- (xii) In case existing hot mix plants are not able to meet above siting criteria at para (xi) above, the units shall be allowed with the condition that minimum 6 metre high compound wall of GI sheets along periphery shall be installed.
- (xiii) The hot mix plant shall be equipped with appropriate air pollution control devices as mentioned below as to ensure optimum efficiency to achieve the standards, namely: -
 - (a) Drum Type: Cyclone or multi-classes with wet scrubber;
 - (b) Batch Type: Multi-classes with bag filters.

[F. No. Q-15017/14/2018-

NARESH PAL GANGWAR, Addl

Note : The principle rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section 3, vide number S.O. 844 (E) dated the 19th November 1986 and last amended, vide notification G.S.R. 373(E) dated the 16th May 2023.





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.

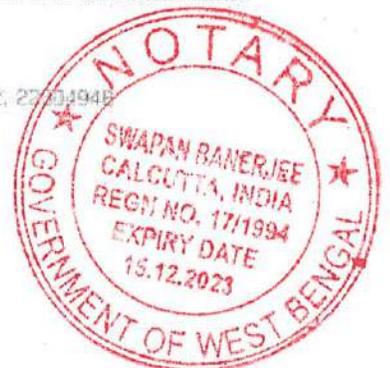
WHEREAS, the issue regarding classification of industries was deliberated upon in the 56th Conference of Chairmen & Member Secretaries of CPCB & SPCBs/PCCs held on August 31, 2010 and a working group comprising of representatives from SPCBs & CPCB was constituted to prepare a consolidated list of industrial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

'परिवेश भवन' पूर्वी अरजुन नगर, दिल्ली-110032

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

दूरभाष / Tel. : 43102030, फ़ैक्स / Fax : 22305793, 22307078, 22307079, 22301932, 22301948

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

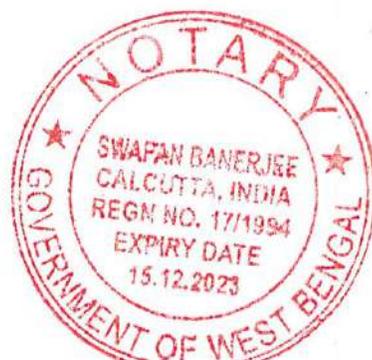
WHEREAS, there shall be no necessity of obtaining the Consent to Operate" for White category of industries and an intimation to concerned SPCB / PCC shall suffice;

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.

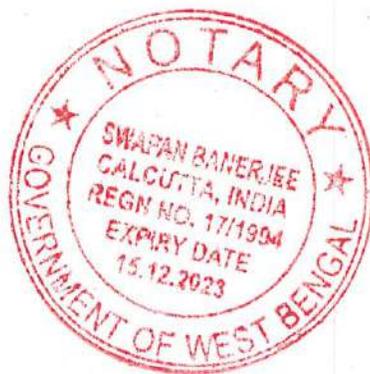
WHEREAS the new categorization system shall also facilitate in self-assessment by industries;

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 :

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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) 5.3.16
Member Secretary

5/5



Final Document
on
Revised
Classification
of
Industrial Sectors
Under

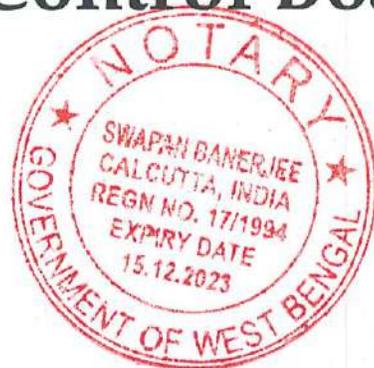
Red, Orange, Green and White Categories
(February 29, 2016)



Central Pollution Control Board

Delhi

1



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.

2



- | | |
|---|------------------|
| 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 |

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 dying/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).

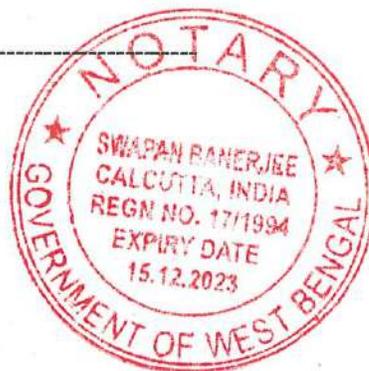
The salient features of the 'Re-categorization' Exercise are as follows :

- 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.

3



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:

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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.

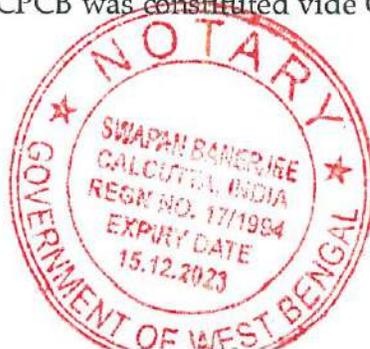
| | |
|--|----------|
| Air Pollution Score based on parameters namely PM, CO, NO _x , SO _x , HMs, Benzene, Ammonia and other toxic parameters relevant to the industry. | 40 Marks |
| Water Pollution Score based on parameters namely pH, TSS, NH ₃ -N, BOD, Phenol and other toxic pollutants relevant to the industry. | 40 Marks |
| Hazardous wastes (land fillable, incinerable, recyclable) as generated by the industry. | 20 Marks |
| Note : <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

6



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

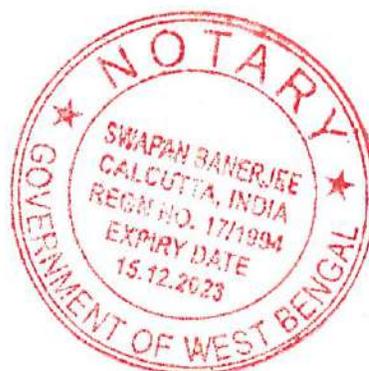
- The categorization is made on the basis of following:
 - Quality of emissions (air pollutants) generated
 - Quality of effluents (water pollutants) generated
 - Types of hazardous wastes generated
 - Consumption of resources

- 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 .

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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. <p>(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)</p> | 25 |
| W13 | Non toxic- polluted waste-water having BOD below 1000 mg/l and the pollutants are easily biodegradable. <p>(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)</p> | 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. <p>(Presence of criteria water pollutants having prescribed standard limits more than 250 mg/l. For details appendix 1 may be referred)</p> | 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. <p>(Presence of criteria water pollutants having prescribed standard limits more than 250 mg/l. For details appendix 1 may be referred)</p> | 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 |



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| | | |
|---|---|----|
| | 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 $W = W1+W2$ | | |



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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.



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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 | | | |



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Appendix 2

- 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



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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 |



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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 :

1. 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 -

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

2. 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 -

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

3. 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 -

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

4. 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 -

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



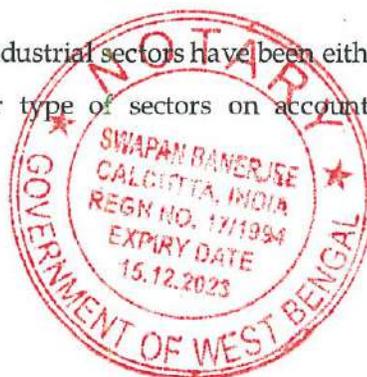
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G : Developments :

- 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



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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 | |
| | | | | | | | | | (1+2) = (3 to 7) |
| 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) |

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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. |



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|----|----|--|----|---|----|----|---|----|----|------|-----|--|
| 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. |

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|-----|----|---|----|----|----|----|----|----|----|------|-----|--|
| 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. |

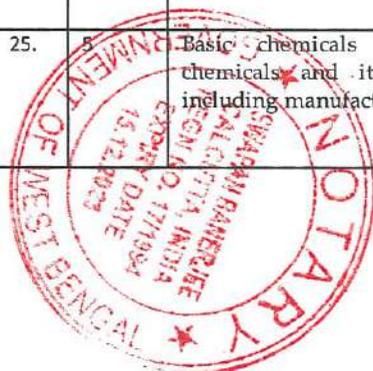


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|-----|----|--|----|----|----|----|----|----|----|-------|-----|--|---|
| | | | | | | | | | | | | | iv. These chemicals are highly hazardous and cause serious diseases among the workers. especially ability of blood to carry oxygen leading to headaches, 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 (coking) coal tar distillation or fuel gas making | 30 | - | 30 | 20 | - | 20 | 20 | 70 | R-R | | It is a kind of petrochemical industry. |

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|-----|----|---|----|----|----|----|---|----|----|----|-----|--|
| 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. |



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|-----|----|--|----|----|----|----|----|----|----|----|-----|---|
| | | | | | | | | | | | | iii. Water pollution score normalized to 100 is undertaken. iv. The earlier Red category industrial sector namely "Hydrocyanic acid and its derivatives" is also merged under this industrial sector. |
| 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 | i. It is mainly water polluting industry having effluents which are toxic and not easily biodegradable. ii. Water pollution score normalized to 100 is undertaken. |
| 28. | 10 | Chlorine, fluorine, bromine, iodine and their compounds | 30 | - | 30 | - | - | - | - | 75 | R-R | i. It is mainly water polluting industry having effluents which are toxic and not easily biodegradable. ii. Water pollution score normalized to 100 is undertaken. |
| 29. | 16 | Dyes and Dye- Intermediates | 30 | - | 30 | 20 | 5 | 25 | 20 | 75 | 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. |
| 30. | 26 | Health-care Establishment (as defined in BMW Rules) | 20 | 10 | 30 | - | - | - | - | 75 | R-R | i. Mainly water polluting. ii. The water pollution score is normalized to 100 & valid for Hospitals having total waste-water generation > 100 KLD. iii. The hospitals with incinerator will be categorized as Red irrespective of the quantity of the waste-water generation. 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. |
| 31. | 29 | Hotels having overall waste-water generation @ 100 KLD and more. | 20 | 10 | 30 | 15 | - | 15 | - | 75 | R-R | i. Mainly water polluting. Small boiler may be installed. ii. The water pollution score is normalized to 100 & valid for Hotels having waste-water generation > 100 KLD. 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. iv. The hotels having more than 20 rooms and waste-water generation less than 10 KLD and |



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|-----|----|---|----|----|----|----|----|----|----|----|-----|--|
| | | | | | | | | | | | | 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-capaditors, 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. |

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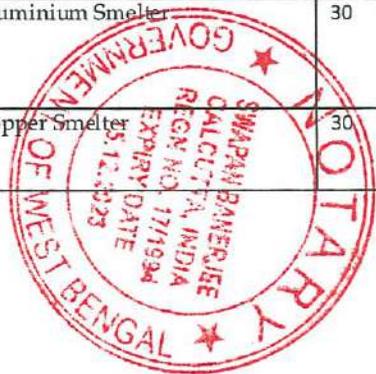


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|-----|----|--|----|----|----|----|----|----|----|----|-----|--|
| 36. | 52 | Nuclear power plant | 10 | - | 10 | 30 | - | 30 | 15 | 75 | R-R | <ul style="list-style-type: none"> i. Mainly air polluting due to incinerator. Others - cooling water. ii. 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 work shop/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. |



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| | | | | | | | | | | | | 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 |



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| | | | | | | | | | | | | | 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. |



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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 |



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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 laddoo 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. |



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|-----|----|---|----|----|----|----|----|------|----|-------|-----|--|
| 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. |

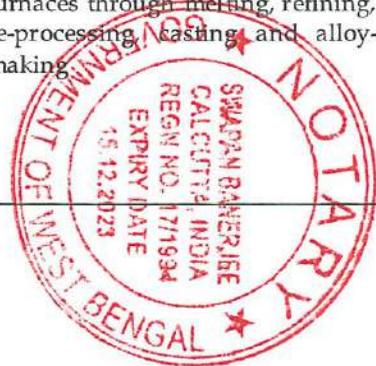
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| 17. | 2 | Aluminium & copper extraction from scrap using oil fired furnace (dry process only) | -- | -- | -- | 20 | -- | 20 | 10 | 50 | O-O | i. Normalized Air pollution score. ii. Significant air pollution due to melting (emissions of SO ₂ , PM). |
| 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. |



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|-----|----|--|----|----|----|----|----|----|----|----|-----|---|
| 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, pelletising, 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> |

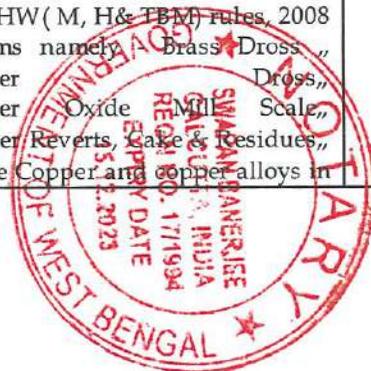


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| | | | | | | | | | | | | | <p>iii. For lead, the normalized air pollution score will be = $(100 \times 25) / 40 = 62.5$ and is categorized as Red.</p> <p>iv. For Induction Furnace clubbed with AOD furnace - separate calculation shall be made based 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. | |



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|-----|----|--|----|----|----|----|----|----|----|----|-----|---|
| 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. |



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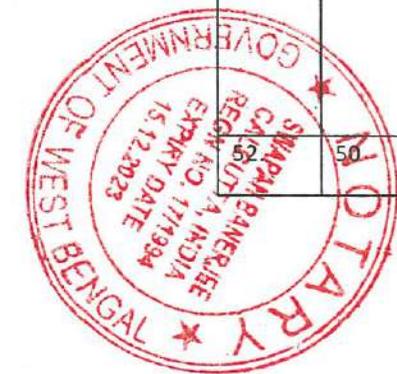
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| | | dispersible form,, Slags from copper processing for further processing or refining ,, Insulated Copper Wire,, Scrap/copper with PVC sheathing including ISRI-code material namely "Druid" ,, Jelly filled Copper cables ,, Zinc Dross-Hot dip Galvanizers 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 | <p>i. This score is valid for the foundries having capacity < 5 MT/hr as such units require the coal/coke @ < 500 kg/hr.</p> <p>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.</p> |
| 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. |



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|-----|----|--|----|----|----|----|----|----|----|----|-----|---|
| 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 KIO3 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. |
| | 50 | New highway construction project | - | - | - | 20 | - | 20 | - | 50 | R-O | Mainly air polluting project. |

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|-----|----|--|----|----|----|----|----|----|----|----|-----|--|
| 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. |



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|-----|----|---|----|----|----|----|----|----|----|----|-----|--|
| 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. |
| | 74 | Wire drawing and wire netting | 20 | -- | 20 | -- | -- | -- | -- | 50 | O-O | Mainly water polluting. WP score is normalized to 100. |

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|-----|----|--|----|----|----|----|----|----|----|----|-----|---|
| 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. |

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|-----|----|---|----|----|----|----|----|----|----|-------|-----|---|
| 80. | 29 | Foam manufacturing | -- | -- | -- | 20 | -- | 20 | 15 | 58 | O-O | i. Raw material is polyurethane, latex etc. ii. Emissions of VOCs and HAPs. CH ₃ Cl ₂ and similar compounds as blowing agents. iii. Outdated raw materials and spoiled slots are discarded as HW. |
| 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 refectories 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 :
 - 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

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- 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:

| SI No. | Original SI No. | Industry Sector | Original Category | Remarks |
|--------|-----------------|---|-------------------|--|
| 1 | 24 | Excavation of sand from the river bed (excluding manual excavation) | O | 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. |
| 2 | 39 | Infrastructure Development Project | O | Vast variety of such projects come under such category. This is to be decided by the concerned SPCB in line of EIA Notification, 2006. |
| 3 | 53 | Power press | O | Very vague term hence deleted. Such types of general engineering units have already been covered. |

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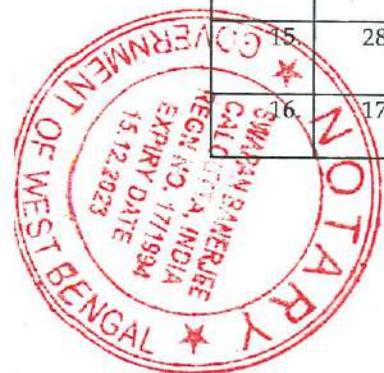
Table G-4 : Final List of Green Category of Industrial Sectors

| 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. |

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|-----|----|---|----|----|----|----|----|----|----|----|-----|---|
| 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. |



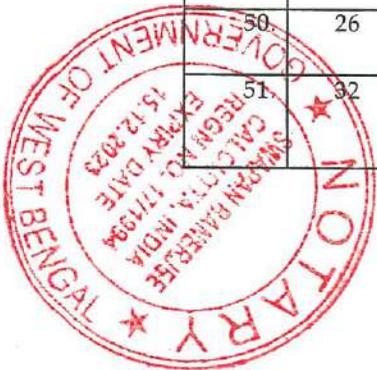
| | | | | | | | | | | | | |
|-----|----|--|----|----|----|----|----|----|----|----|-----|--|
| 27. | 50 | Lubricating oil, greases or petroleum based products (only blending at normal temperature) | -- | -- | -- | 10 | -- | 10 | -- | 25 | G-G | Minor fumes at the time of transfers from one container 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 |



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|-----|----|--|----|----|----|----|----|----|----|----|-----|---|
| | | | | | | | | | | | | 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 od our. |
| 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 |

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|-----|----|--|----|----|----|----|----|----|----|-------|-----|---|
| 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. |

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|-----|----|---|----|----|----|----|----|----|----|------|-----|--|
| | | | | | | | | | | | | <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> |

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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 :

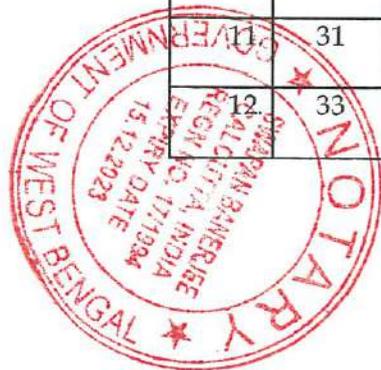
| Sl No | Origin al Sl No. | Industry Sector | Original Categor y | Remarks |
|-------|------------------|---|--------------------|--|
| 1 | 47 | Jobbing and Machining | G | Vague category to be deleted, as such activities have already been covered in other categories. |
| 2 | 66 | Reel manufacturing | 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 |

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|-----|----|--|----|----|----|----|----|----|----|----|-----|
| 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 |

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|-----|----|---|----|----|----|----|----|----|----|----|-----|
| 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



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Annexure



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

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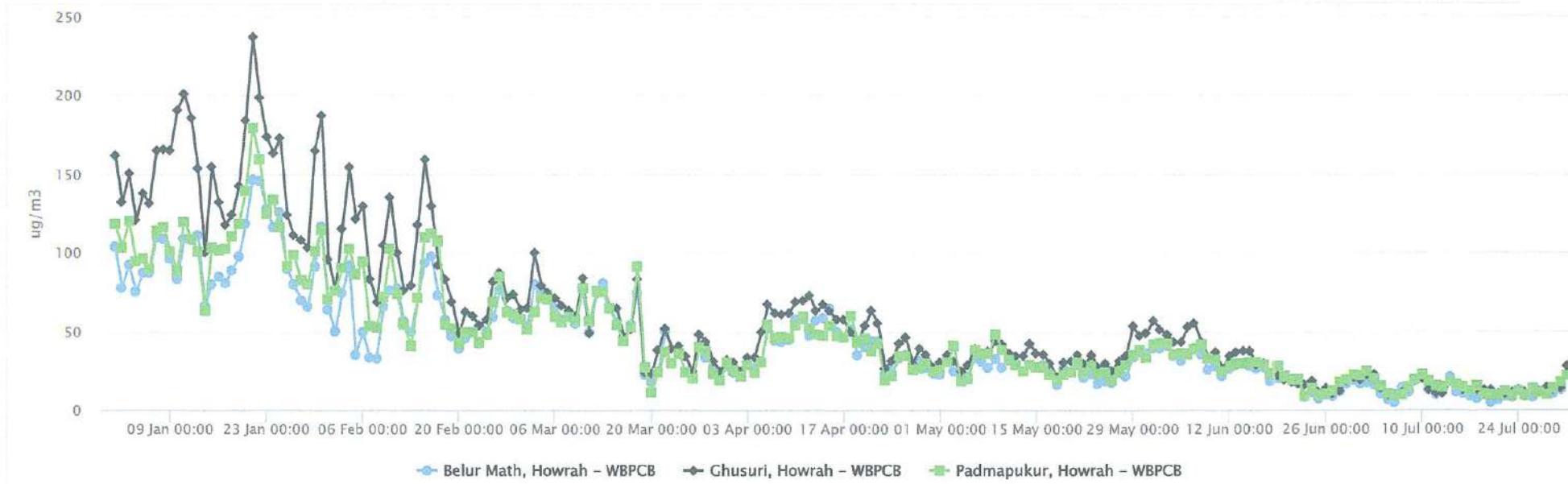


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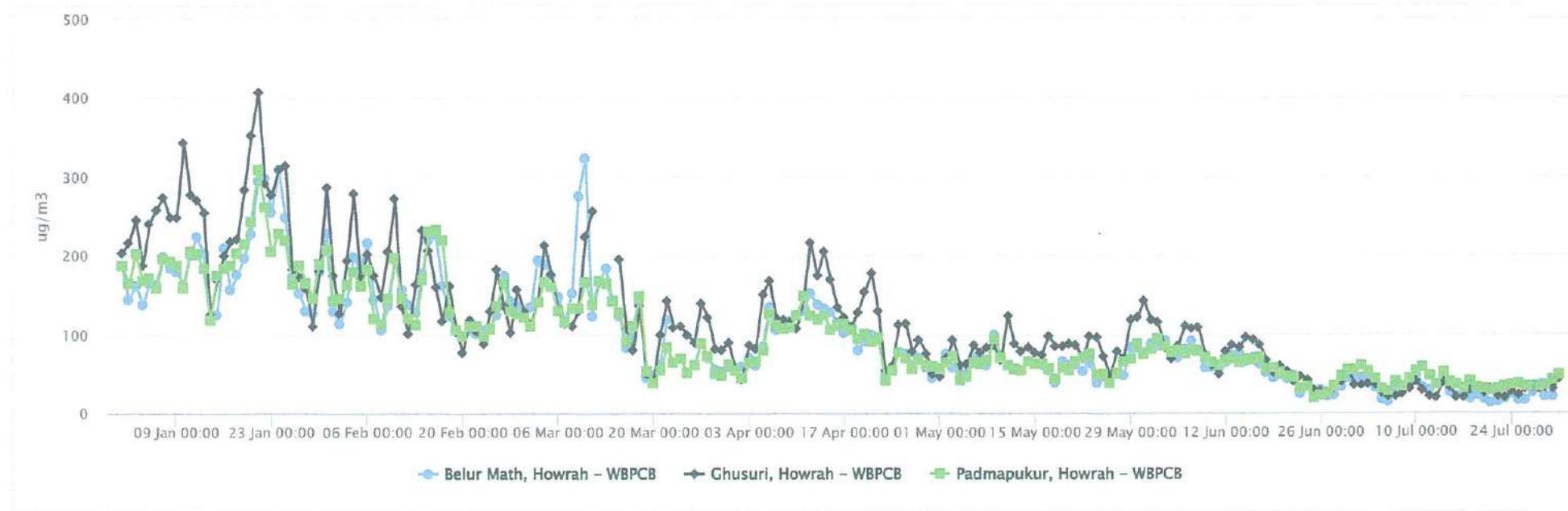
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NOTE: The data available at the p



Annexure - V

PM10



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NOTE: The data available at the p

