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PART-IIA

GOVERNMENT OF MEGHALAYA

ORDERS BY THE GOVERNOR

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NOTIFICATIONS

The 26th September, 2016.

No.MPCB/INV-3/2016/8.—In pursuance of the directions under Section 18(l)(b) of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981 on adoption of harmonization of the classification of Industrial Sectors under Red/Orange/Green/White categories by all the State Pollution Control Boards in the Country and the Resolution passed by the Meghalaya State Pollution Control Board to this effect *vide* Resolution No. 4 in its meeting held on 20th June, 2016, the classification of Industrial Sectors for the purpose of regulation under the Consent mechanism provisions of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, shall be in accordance with the schedule of categorization of industrial sectors appended to this notification with immediate effect.

C. P. MARAK,
Chairman,
Meghalaya State Pollution Control Board.

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 Water (Prevention and Control of Pollution) Cess (Amendment) Act, 2003, Standards so far prescribed for various pollutants under Environment (Protection) Act, 1986 and Doon Valley Notification, 1989 issued by MoEFCC. The Pollution Index PI of any industrial sector is a number from 0 to 100 and the increasing value of PI denotes the increasing degree of pollution load from the industrial sector. Based on the series of brain storming sessions among CPCB, SPCBs and MoEFCC, the following criteria on 'Range of Pollution Index' for the purpose of categorization of industrial sectors is finalized.

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

The newly introduced White category of industries pertains to those industrial sectors which are practically non-polluting such as Biscuit trays etc. from rolled PVC sheet (using automatic vacuum forming machines), Cotton and woolen hosiers making (Dry process only without any 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.

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 (MoEF&CC) 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 restricts 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 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 categorizations 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 adopted during the Conferences:

1. *A 'Working Group' comprising o f 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, NOx, SOx, 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 (landfillable, incinerable, recyclable) as generated by the industry.	*20 Marks*
Note : • *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 w.r.t 100*	

4. *Based on the score of the Pollution Index, following categorization be made :*
   - *Type of industries, if scores 60 and above be categorized as Red*
   - *Type of industries, if scores from 30 to 59 be categorized as Orange*
   - *Type of industries, if scores from 15 to 29 be categorized as Green*
   - *Type of industries, if less than 15 be categorized as White or non-polluting industry.*

5. *SPCBs/PCCs may issue consent to the industries*
   - *Red category of industries for 5 years.*
   - *Orange category of industries for 10 years.*
   - *Green category of industries for 15 years.*
   - *No necessity of consent for non-polluting industries.*
6. *No red categories of industries will be permitted to establish in eco-sensitive areas and protected areas.*

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

- Accordingly, a Committee comprising the Chairmen of CPCB, APPCB, TNPCB, MPPCB, MPCB, PPCB, WBPCB and MS, CPCB was constituted vide CPCB OM dated 23.04.2015 to review & classify industrial sectors into different categories based on criteria of respective pollution potential.

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

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

F: Scoring Methodology:

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

Table F-1: Water Pollution Scoring Methodology

Sl. No	Activity / Types of Discharges	Score
Part A: Score W1: Score based on types of expected criteria water-pollutants present in industrial processes waste waters. **Maximum of the following seven categories is to be taken.**		
W11	Waste-water which is polluted and the pollutants are - • not easily biodegradable (very high strength waste waters having BOD > 5000 mg/l); or • toxic; or • both toxic and not easily biodegradable. (Presence of criteria water pollutants having prescribed standard limits up-to 10 mg/l or having BOD > 5000 mg/l). For details appendix 1 may be referred)	30
W12	Non-toxic high strength polluted waste-water having BOD in the range of 1000-5000 mg/l and the pollutants are biodegradable. (Presence of criteria water pollutants having prescribed standard limits from 11 mg/l to 250	25

	mg/l and having BOD strength in the range of 1000-5000 mg/l). For details appendix 1 may be referred)	
W13	Non toxic-polluted waste-water having BOD below 1000 mg/l and the pollutants are easily biodegradable. (Presence of criteria water pollutants having prescribed standard limits from 11mg/l to 250 mg/l and having BOD strength below 1000 mg/l). For details appendix 1 may be referred)	20
W14	Waste-water generated from the chemical processes and which is polluted due to presence of high TDS (total dissolved solids) of inorganic nature. Presence of criteria water pollutants having prescribed standard limits more than 250 mg/l. For details appendix 1 may be referred)	15
W15	Waste-water generated from the physical unit operations / processes and which is polluted due to presence of TDS (total dissolved solids) of inorganic nature and of natural origin like fresh-water RO rejects, boiler blow-downs, brine solution rejects etc. (Presence of criteria water pollutants having prescribed standard limits more than 250 mg/l. For details appendix 1 may be referred)	12
W16	Non-toxic polluted waste-water from those units which are: • 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 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.	12
W17	Waste-water from cooling towers and cooling-re-circulation processes	10
Part B: Score W2 : Score based on huge discharges of any kind (Penalty Clause)		
W2	Industry having overall liquid waste generation of 100 KLD or more including industrial & domestic waste-water.	10
Overall Water Pollution Score W = W1+W2		

Appendix 1

- **Water Pollutants covered under Group W11:**
  - ✓ Free available Chlorine, Total residual chlorine, Fluoride (as F), Sulphide (as S), Free Ammonical Nitrogen, Dissolved phosphates (as P), Free ammonia (as NH3), Nitrate Nitrogen, Mercury (As Hg), Selenium (as Se), Hexa-valent chromium (as Cr + 6), Lead (as Pb), Tin, Vanadium (as V), Cadmium (as Cd), Manganese (as Mn), Total chromium (as Cr), Copper (as Cu), Iron (as Fe), Nickel (as Ni), Zinc (as Zn), Benzene, Arsenic (as As), Benzo-a-pyrene, Cyanide (as CN), Phenolic compounds (as C_6H_5OH), 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 27^0C), Total Kjeldahl nitrogen (TKN), Ammonical nitrogen (as N), Suspended solids, Total nitrogen (as N), Chemical oxygen demand and
  - ✓ BOD strength of waste water is below 1000 mg/l

- **Water Pollutants covered under Group W14 and W15:**
  Chlorides as Cl, Colour, Total dissolved solids (TDS - Inorganic)

- **Water Pollutants covered under Group W16**
  - ✓ BOD strength of waste water is below 200 mg/l and overall discharge is less than 10 KLD.

Table F-2: Air Pollution Score

Sl. No.	Air Pollutants	'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 upto 2 mg/Nm3	30
2	Group A1B	Presence of criteria air pollutants having prescribed standard from 3 to10 mg/Nm3	25
3	Group A1C	Presence of criteria air pollutants having prescribed standard from 11 to 50 mg/Nm3	20
4	Group A1D	Presence of criteria air pollutants having prescribed standard from 51 to 250 mg/Nm3	15
5	Group A1E	Presence of criteria air pollutants having prescribed standard from 251mg/Nm3 & above	10
6	Group A1F	• Generation of fugitive emissions of Particulate Matters which are: o Not generated as a result of combustion of any kind of fossil-fuel. o Generated due to handling / processing of materials without involving the use of any kind of chemicals. o Which can be easily contained /controlled with simple conventional methods	10
7	Group A1G	• Generation of Odours which are : o Generated due to application of binding gums / cements /adhesives /enamels o 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	• 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	• 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			

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, NOx
- Air Pollutants covered under Group A1E: NOx with liquid-fuel, SO2 with liquid-fuel

Table F-3: Hazardous Waste Generation Score

Sl. No.	**Types of Hazardous Waste Generated as per** Schedule 1/Schedule 2 of Hazardous Waste (Management, Handling & Trans-boundary Movement) Rules, 2008. **Maximum of the following four categories is to be taken**	Score
HW1	• Land disposable HW which requires special care & treatment for stabilization before disposal.	20
HW2	• Incinerable HW	15
HW3	• 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	• Recyclable HW, which are easily recyclable with proven technologies.	10

Table F-4: Calculation Sheet

Industrial Sector -.....

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

Note:

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 –

   Normalized Score = {100 x W (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 –

   Normalized Score = {100 x (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 –

   Normalized Score = {100 x (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 –

   Normalized Score = {100 x (W+H)} / 60

G: Developments:

i. The existing Red (85 sectors), Orange (73 sectors) and Green (86 sectors) i.e a total of 244 industrial sectors have been assessed as per the proposed formula by the Working Group. For this purpose, concerned Engineers/Scientists from the Member SPCBs were also involved & consulted during May 28-29, 2015.

ii. After careful examination and consideration of the suggestions of concerned stake-holders the "Draft Document on Revised Concept of Categorization of Industrial Sectors" was prepared by the Committee and circulated to all the SPCBs, PCCs and concerned Ministries for their information & comments. The 'Draft Document' was uploaded on the website of CPCB also for information & comments of one & all.

iii. The matter was discussed during the 170 Board Meeting also and issues raised by the Board Members pertaining to some of the industrial sectors were clarified.

iv. Responses were received from various concerned Ministries, SPCBs, Industrial Associations including individuals.

v. Based on the above, final meeting was convened by the Secretary, MoEFCC with CPCB and senior officers of MoEFCC on January 06, 2016 to resolve the issues appropriately and finalize the 'Re-categorization'. Accordingly, following modifications in the 'Range of Pollution Index 'for the purpose of categorization of industrial sectors were suggested :

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

vi. Based on the final criteria as described in v above , the final categorization is as follows:

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

vii. In the proposed categorization, some of the industrial sectors have been either deleted due to duplication or merged with similar type of sectors on account of same characteristics of pollution generation. In a similar way, some of the industrial sectors are split into more sectors on account of variation in the raw materials/manufacturing process. As a result final totals of the existing and proposed categorization are different

viii. The industrial sector which doesn't fall under an y of the above four categories (Red, Orange, Green and White), decision with regard to its categorization will be taken at the level of concerned SPCB/PCC by a committee headed by the Member Secretary, SPCB/PCC and comprising of two senior cadre Engineers/Scientists of the SPCB/PCC in accordance with the scoring-criteria specified in this document.

ix. The summary is presented in the following Table G-1 and final lists of Red, Orange, Green and White categories of industries are presented in Tables G-2, G-3, G-4 and G-5 respectively, which are self explanatory.

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

Sl. No.	Original Categorization	Initial Nos.	Addition by Splitting into further classes	Deletion/Shifting to foot-note due to vague term/ Merger / other reasons	Re-categorization to Red	Re-categorization to Orange	Re-categorization to Green	Re-categorization to White	Check
		1	2	3	4	5	6	7	(1+2) = (3to 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)**

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

Sl No.	Orgni 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 purpose
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, 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 H&OW (M & TBM) rules, 2016 – 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 if pollution

5	66 E	DG Set of capacity > 5MVA	-	-	-	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 @ 12hrs/day although many of the DG sets run for more than this period.
6	31	Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black	10	-	-	20	5	25	10	62.5	R-R	Mainly air polluting. Air pollution score is normalized to 100.
7	39	Lead acid battery manufacturing (excluding assembling and charging of lead-acid battery in micro scale)	10	-	10	25	-	25	10	62.5	R-R	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. 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	.0	-	20	-	62.5	R-R	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 9 and to remove impurities. Steps used in beneficiation depend on the type of rock. ii. The water & air pollution scores are normalized to 100.

9	66	Power generation plant [except Wind and Solar renewable power plants of all capacities and Mini Hydel power plant of capacity <25MW]	10	-	10	'5	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 H & OW(M & TBM) rules, 2016 – 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 o f 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	Fibre 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 compound, Copper Chloride etc. iv. These chemicals are highly hazardous and cause serious

												diseases among the workers, especially ability of blood to carry oxygen leading to headaches, methemoglobinemia and kidney problems, skin problem, thyroid metal fume etc.
15	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of H & OW(M & TBM) rules, 2016 - Items namely - Dismantlers Recycling Plants - Components of waste electrical and electronic assembles comprising accumulators and other batteries included on list A, mercury-switches, activated glass cullets from cathode-ray tubes and other activated glass and PCB-capacitors, or any other component contaminated with Schedule 2 constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they exhibit hazard characteristics indicated in part C of this Schedule.	-	-	-	30	0	30	10	67	R-R	Mainly air polluting and hazardous waste generating. Air & HW pollution scores are jointly normalized to 100.
16	47	Milk processes and dairy products (integrated project)	20	10	30	20	5	25	-	68.75	R-R	i. Water as well as air polluting due to use of boilers.

												ii. Water & air pollution scores are normalized to 100.
17	63	Phosphorous and its compounds	30	-	30	25	-	25	-	68.75	R-R	Water pollution & air pollution containing compounds of phosphorous are expected
18	61	Pulp & Paper (waste paper based without bleaching process to manufacture Kraft paper)	20	10	30	15	10	25	0	68.75	R-R	Mainly water & air polluting. Water & air pollution scores are normalized to 100.
19	13	Coke making, liquefaction, coal tar distillation or fuel gas making	30	-	30	20	-	20	20	70	R-R	It is a kind of petrochemical industry.
20	41	Manufacturing of explosives, detonators, fuses including management and handling activities	30	-	30	20	-	20	20	70	R-R	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	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 quantities 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	i. The Airports are generating mainly the wastewaters. 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	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	i. Standards prescribed for Inorganic Chemicals are adopted. ii. It is mainly water polluting industry having effluents which are toxic and not easily biodegradable. 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 t his 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 Indus tries '. ii. Such types of industrial sectors generate all sorts of pollution.
30	26	26 Health-care Establishment (as defined in BMW Rules), 2016	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 wastewater 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 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 H & OW(M & TBM) rules, 2016 - Items namely - Lead acid battery plates and other lead scrap/ashes/residues not covered under Batteries	30	-	30	5	-	25	20	75	R-R	All the three types of pollutants are generated.

		(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".										
33	34	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of H & OW(M & TBM) rules, 2016 - 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 cullet's from cathode-ray tubes and other activated glass and PCB-capacitors, or any other component contaminated with Schedule 2 constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they exhibit hazard characteristics indicated in part C of this Schedule.	30	-	30	25	-	25	20	75	R-R	All the three types of pollutants are expected.
34	43	Manufacturing of glue and gelatin	30	10	40	20	-	20	-	75	R-R	Highly water polluting & obnoxious air polluting.

35	49	Mining and ore beneficiation	30	10	40	15	5	20	-	75	R-R	Both air and water polluting. Score is normalized with air & water pollution.
36	52	Nuclear power plant	10	-	10	30	-	30	15	75	R-R	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	i. This industrial sector is the one among the '17 categories of Highly Polluting industries' ii. Such types of industrial sector generate all sorts of pollution.
38	64	Photographic film and its chemicals	30	-	30	-	-	-	-	75	R-R	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 centres	20	10	30	-	-	-	10	75	R-R	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 centres having discharge more than 100 KLD. iii. Service Centres 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	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, SBO etc which are having toxic effluents. Additional, fuel consumption is also on higher-side.
42	70	Ship Breaking Industries	30	-	30	30	-	30	20	80	R-R	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
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 harbor, jetties and dredging operations	30	10	40	15	10	25	20	85	R-R	This category contains all sorts of pollution.
47	77	Synthetic fibres 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	25	10	35	-	-	-	-	87.5	R-R	Mainly water polluting and abnoxious odour generating

		26.03.2001) and meat processing industries, bone mill, processing of animal horn, hoofs and other body parts.										industry. The water pollution score is normalize to 100.
50	2	Aluminium Smelter	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting industries'. ii. This sector is generating all sorts of pollution i.e. air, water and HW.
51	12	Copper Smelter	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting Industries'. ii. Integrated Copper Smelters contain all sorts of pollution.
52	20	Fertilizer (basic) (excluding formulation)	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting industries'. ii. Generates all sorts of pollution.
53	37	Iron & Steel (involving processing from ore/ integrated steel plants) and or Sponge Iron units.	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting industries' ii. Such types of industrial sectors generate all sorts of pollution.
54	61	Pulp & Paper (waste paper based units with bleaching	25	10	35	25	10	35	20	90	R-R	Waste paper based pulp & paper mills with bleaching

		process to manufacture writing & printing paper)										process generate all sorts of pollution.
55	85	Zinc Smelter	30	10	40	20	10	30	20	90	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting industries' ii. Integrated Zinc Smelter generates all sorts of pollution problems.
56	55	Oil Refinery (mineral oil or petro Refineries)	30	10	40	25	10	35	20	95	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting industries' ii. Such types of industrial sectors generate all sorts of pollution.
57	59	Petrochemicals Manufacturing (including processing of Emulsions of oil and water)	30	10	40	25	10	35	20	95	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting industries' ii. Such types of industrial sectors generate all sorts of pollution. iii. The earlier red category industrial sector namely "Processing of Emulsions of Oil & Water" is merged with this industrial sector.
58	60	Pharmaceuticals	30	10	40	30	5	35	20	95	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting industries'.

												ii. Such types of industrial sectors generate all sorts of pollution.
59	61	Pulp & Paper (Large-Agro + wood), Small Pulp & Paper (agro based-wheat straw/rice husk)	30	10	40	25	10	35	20	95	R-R	i. This industrial sector is the one among the '17 categories of Highly Polluting industries'. ii. Large /Small Agro based Pulp & Paper mills contribute all sorts of pollution problems.
60	15	Distillery (molasses/grain/ yeast based)	30	10	40	-	-	-	-	100	R-R	Mainly water polluting industry. Final score is the normalized water pollution score.

Note:

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

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

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:

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	R	i. All such facilities are classified as Red but special category projects as these are parts of pollution control facilities.

		land fill site)		ii. In case of CETP, the categorization will depend upon the category of member industries being served.
2	18	Processing of Emulsions of Oils & Water		It is a part of Petrochemical industries. Transferred and merged with the industrial sector namely 'Petrochemicals' at Sl. No. 54.
3	27	Heave engineering including ship building (with investment on Plant & Machineries more than Rs.10 crores)	R	Most of the pollution generating process/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 merge 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/ are/ export processing zones/ SEZs/ biotech parks/ leather complex	R	The classification will depend upon the category (ies) of the industries operating/ proposed to be permitted in the area. In this context, guidelines prescribed in EIA Notification, 2006 shall be followed.
6	33	Industrial inorganic gases namely- a) Chemical gas- Acetylene, hydrogen, chlorine, fluorine, ammonia, sulphur dioxide, ethylene, hydrogen-sulphide, phosphine b) Hydrocarbon gases- methane, ethane, propane	R	These gases are generally secondary products and produced alongwith other main products. To be classified as per the main parent plant
7	69	Reprocessing of used oils & waste oils	R	i. The industry generates mainly the air pollution and oil bearing hazardous wastes. The normalized (air pollution & HW generation score is 58.33. ii. To be deleted as already covered under HW Recyclers/ Re-processors (used oils/ Waste Oils) under Orange Category.

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

Sl No.	Orgnl Sl 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/ finances)	20	-	20	15	-	15	-	43.75	O-O	
3.	10	Chanachur and ladoo from puffed and beaten rice (muri and shira) using husk fired oven.	20	-	20	15	-	15	-	43.75	O-O	Normal water and air pollution
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 and air pollution generated.
7.	30	Food and food processing including fruits and vegetable processing	20	-	20	15	-	15	-	43.75	O-O	Normal water and air pollution generated.
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 emission of H_2SO_4 are generated.

10.	45	Manufacturing of tooth powder, toothpaste, talcum powder and other cosmetics 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 emission 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 sent acids are generated.
15.	14	Cotton spinning and weaving (medium and large scale)	-	-	-	15	-	37.5	10	47.5	**O-O**	Mainly air polluting industry. Sources of air pollution (PM) are the fine particles of cotton from spinning process. Air pollution score is normalized to 100.
16.	1	Almirah, Grill Manufacturing (Dry Mechanical Process)	-	-	-	20	-	20	-	50	**O-O**	Air pollution due to spray painting (emissions of VOCs). Units without painting

												operations shall be categorized as White.
17.	2	Aluminium & copper extraction from scrap using 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 SO2, 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 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	Brickfield (excluding fly ash brick manufacturing using lime process)	20	-	20	20	-	20	-	50	**O-O**	Significant are pollution
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) emission. 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 Refractory's	-	-	-	20	-	20	-	50	**R-O**	i) Mainly air polluting industry. ii) This score is for the units

												having coal consumption < than 12 MT/ day iii)For the units having coal consumption > 12 MT/day, the normalized air pollution score will be 62.5 and shall be categorized as Red.
23.	11	Coal washeries	15	10	25	15	-	15	-	50	**R-O**	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. ii. Water & air pollution scores are jointly normalized to 100.
24.	16	Dairy and dairy products (small scale)	20	-	20	20	-	20	-	50	**O-O**	Water and air polluting both.
25.	18	DG set capacity > 1MVA but < 5MVA	-	-	-	20	-	20	-	50	**O-O**	Mainly air polluting. Air pollution score is normalized to 100.
26.	17	Dry coal processing, mineral processing, industries involving ore sintering, pelletisating grinding & pulverization.	-	-	-	20	-	20	-	50	**R-O**	Mainly air polluting industry. Final score is the normalized air pollution score.
27.	19	Fermentation industry including manufacture of yeast, beeer, distillation of alcohol (Extra Neutral Alcohol)	20	-	20	-	-	-	-	50	**R-O**	i. Mainly water polluting industry. This is the normalized water pollution score for units having discharge < 100 KLD. ii. For the units having discharge > 100 KLD, the

												normalized water pollution score will be 75 and shall be accordingly categorized as Red.
28.	21	Fettous and Non-ferrous metal extraction involving different furnaces through melting, refining, re-processing, casting and alloy-making	-	-	-	15	5	20	10	50	**R-O**	i. Mainly air polluting. ii. This score is applicable to secondary production of ferrous & non-ferrous metals (excluding lead) up-to 1 MT/hour production. iii. For lead, the normalized air pollution score will be = (100*25)/40 =62.5 and is categorized as Red. 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*25)/40=62.5 and is categorized as Red.

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.	20	Fish processing and packing (excluding chilling of fishes)	20	-	20	-	-	-	-	50	**O-O**	Mainly water polluting. WP score is normalized to 100.
32.	31	Forging of ferrous and non-ferrous metals (using oil and gas fired furnaces)	-	-	-	20	-	20	-	50	**O-O**	Heating furnace. Mainly air polluting.
33.	32	Formulation/ pelletization of camphor tablets, naphthalene balls from camphor/ naphthalene powder	-	-	-	20	-	20	-	50	**O-O**	Mainly air polluting. Emissions of Benzene, HC are expected.
34.	33	Glass ceramics, eathen potties 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 is recycling/ reprocessing/ recovery/ reuse of Hazardous Waste under schedule iv of H & OW(M & TBM) rules, 2016 – 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 in recycling/ re-proceesing/ recovery/ reuse of Hazardous waste under schedule iv of H & OW(M & TBM) rules, 2016 – Items namely – Brass Dross, copper Dross, copper oxide Mill Scale, copper Reverts, Cake & Residues, Waste Copper and Copper alloys in dispersible form, Slags from copper processing for further processing or refining insulated copper Wire, Scrap/ copper with PVC sheathing including ISRI-code material namely "Druid" Jelly filled copper cables, Zinc Dross-Hot dip Galvanizer SLAB, Zinc Dross-Bottom Dross, Zoinc 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	10	-	10	20	-	20	10	50	**R-O**	Mainly air polluting.
42.	35	Industry or processes involving foundry operations	-	-	-	20	-	20	-	50	**R-O**	i. This score is valid for the foundries having capacity <5

												MT/hr as such units require the coal/ coke @ <500 kg/hr. ii. The units having capacity of 5 MT/hr and more than 500 kg/hr and the normalized score will be 62.5 and classified accordingly as Red.
43.	40	Lime manufacturing (using lime kiln)	-	-	-	20	-	20	-	50	**R-O**	Mainly air polluting
44.	41	Liquid floor cleaner, black phenyl, liquid soap, glycerol mono-strearate manufacturing.	20	-	20	20	-	20	-	50	**O-O**	Both air and water pollution are generated.
45.	42	Manufacturing of glass	10	-	-	20	-	20	-	50	**R-O**	i. Mainly air pollution (melting at 15000^{0}C and refining. 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.
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 polluting 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**	i. Water and air polluting industry. Boiler is used for steam generation.

												ii. Water & air pollution scores are normalized to 100.
50.	46	Manufacturing of iodized salt from crude/ raw salt	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 adhesive. 2. Without boiler, it will be a green category industry.
52.	50	New highway construction project	-	-	-	20	-	20	-	50	**R-O**	Mainly air polluting project.
53.	51	Non-alcoholic beverages (soft drink) & bottling of alcohol/ non alcoholic products.	20	-	20	15	5	20	-	50	**R-O**	i. Both air and water polluting. Score is normalized with air & water pollution. This score is valid for industries having waste-water generation <100 KLD. ii.For the units having waste-water generation > 100 KLD the normalized score would be 62.5 and categorized as Red.
54.	49	Paint blending and mixing (Ball mill)	20	-	20	20	-	20	10	50	**O-O**	Both air and water pollution are generated.
55.	62	Paints and varnishes (mixing and blending)	20	0	0	20	0	20	0	50	**G-O**	Waste water 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	Portable 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-water 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. Other-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 generated.
63.	72	Steel and steel products using various furnaces like blast furnace/ open hearth furnace/ induction furnace/ arc furnace/ submerged arc furnace/ basic oxygen furnace/ hot rolling reheated furnace	10	-	10	0	-	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**	iii. Mainly air polluting. Air pollution score is normalized to 100.
65.	75	Surgical and medical products including prophylactics an latex	20	-	20	20	-	20	-	50	**R-O**	iv. Both air and water polluting. Air and water pollution score is normalized to 100.

66.	85	Tephlon based products	0	0	0	20	0	20	0	50	**G-O**	Due to spraying applications, emissions (HC) are generated.
67.	70	Thermocol manufacturing (with boiler)	-	-	-	20	-	20	-	50	**O-O**	Polystyrene is heated. Mainly air polluting with boiler.
68.	82	Tobacco products including cigarettes and tobacco/ opium processes	20	-	20	20	-	20	-	50	**R-O**	Such industries generate both air as well as water pollution. These scores are normalized to 100.
69.	72	Transformer repairing/ manufacturing (dry process only)	-	-	-	20	-	20	10	50	**O-O**	Mainly air polluting because of ovens, shot-blasting etc.
70.	73	Tyres and tubes vulcanization/ hot retreating	10	-	10	20	-	20	-	50	**O-O**	Mainly air polluting. Emissions of PM, VOCs and obnoxious odour are generated.
71.	83	Vegetable oil manufacturing including solvent extraction and refinery/ hydrogenated oils	20	-	20	15	5	20	10	50	**R-O**	i. All sorts of pollution are generated. ii. This score is valid for plants having waste-water generation <100 KLD. iii. If the waste-water generation is more than 100 KLD, the unit shall be classified as Red.
72.	74	Wire drawing and write netting	20	-	20	-	-	-	-	50	**O-O**	Mainly water polluting. WP score is normalized to 100.
73.	21	Dry battery (excluding manufacturing of electrodes) and assembling & charging of acid 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 released	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	0	-	20	-	56	**R-O**	i. Rice Mills are generating both air and water pollution. Waste-waters are having high strength in respect of BOD. ii. This is the normalized air & water pollution score for units having waste-water generation < 100 KLD and fuel consumption less than 12 MTD. iii. For units having waste-water generation > 100 KLD or fuel consumption > 12 MTD or both, the unit shall be classified as Red.
80.	29	Foam manufacturing	-	-	-	20	-	20	15	58	**O-O**	i. Raw material polyurethane, latex etc. ii. Emissions of VOCs and HAPs. CH2Cl2 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 H & OW(M & TBM) rules, 2016 – 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 H & OW(M & TBM) rules, 2016 – 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. SO2, CO, NOx 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*

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:*

Sl No.	Original Sl No.	Industry Sector	Original Category	Remarks
1	24	Excavation of sand from the river bed (excluding manual excavation)	O	Since such type 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 comes 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.

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	-	-	-	10	-	10	-	25	G-G	Minor air pollution due to some fugitive PM emissions

		wastes										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)	-	-	-	0	-	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. pollution (PM) are pulverizes and mixers.
15	28	Cotton spinning and weaving (small scale)	-	-	-	10	-	10	-	25	G-G	Minor PM emissions from spinning process.
16	17	Dal Mills	-	-	-	10	-	10	-	25	O-G	Some fugitive emissions of PM.
17	29	Decoration of ceramic cups and plates by electric furnace	-	-	-	10	-	10	-	25	G-G	Fumes of enamels. Minor air pollution.
18	19	Digital printing on PVC clothes	-	-	-	10	-	10	-	25	O-G	Minor emissions/ odour generations are expected.
19	25	Facility of handling, storage and transportation of food grains in bulk	-	-	-	10	-	10	-	25	O-G	Some fugitive emissions of PM during handling of grains.
20	36	Flour mills (dry process)	-	-	-	10	-	10	-	25	G-G	Fugitive dust emissions
21	41	Glass , ceramic, earthen potteries, tile and tile manufacturing using electrical kiln or not involving fossil fuel kiln	-	-	-	10	-	10	-	25	G-G	Minor fugitive emissions only.
22	34	Glue from starch (physical mixing) with gas / electrically operated oven /boiler.	-	-	-	10	-	10	-	25	O-G	Some fugitive emissions of PM during mixing of raw materials.

23	42	Gold and silver smithy (purification with acid smelting operation and sulphuric acid polishing operation) (using less or equal to 1 litre of sulphuric acid/ nitric acid per month)	-	-	-	10	-	10	-	25	G-G	Minor fumes from cleaning process.
24	36	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	• 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_2S, CH_4, etc and fugitive PM emission.
34	69	Power looms (without dye and bleaching)	-	-	-	10	-	10	-	25	G-G	Minor emissions of PM.
35	71	Puffed rice (muri) (using gas or electrical heating system)	-	-	-	10	-	10	-	25	G-G	Minor emissions of PM.
36	57	Pulverization of bamboo and scrap wood	-	-	-	10	-	10	-	25	O-G	Some fugitive emissions of PM are expected.
37	72	Ready mix cement concrete	-	-	-	10	-	10	-	25	G-G	PM emissions.
38.	73	Reprocessing of waste cotton	--	--	--	10	--	10	--	25	G-G	PM emissions.
39.	60	Rice mill (Rice hullers only)	--	--	--	10	--	10	--	25	O-G	PM emissions are generated. Mainly air polluting. AP score is normalized to 100
40	62	Rolling mill (gas fired) and cold rolling mill	10	-	10	10	-	10	-	25	O-G	Mainly air polluting. AP score is normalized to 100
41.	75	Rubber goods industry (with gas operated baby boiler)	--	--	--	10	--	10	--	25	G-G	Some PM emissions and obnoxious odour.
42.	63	Saw mills	--	--	--	10	--	10	--	25	O-G	Mainly air polluting PM and noise are generated.
43	77	Soap manufacturing (hand made without steam boiling/ boiler)	10	-	10	-	-	-	-	25	G-G	Small quantities of waste-water are generated.

44.	80	Spice grinding (upto-20 HP motor)	-	-	-	10	-	10	-	25	**G-G**	Small quantities of fugitive emissions of raw materials.
45	66	Spice grinding (>20 hp motor)	-	-	-	10	-	10	-	25	**O-G**	Mainly air polluting. Fugitive emissions of PM.
46.	81	Steel furniture without spray painting	-	-	-	10	-	10	-	25	**G-G**	Obnoxious gases from welding as well as noise pollution.
47	82	Steeping and processing of grains	10	-	10	-	-	-	-	25	**G-G**	Washing waters are generated.
48	86	Tyres and tube retreating (without boilers)	-	-	-	10	-	10	-	25	**G-G**	Due to applications of binding gum / adhesives / cement, some obnoxious fumes
49	22	Chilling plant and ice making without using ammonia	12	-	12	-	-	-	-	30	**G-G**	Cooling water and brine water circuits. Spillages / blow down may take place
50.	26	CO2 recovery	12	--	12	-	--	--	--	30	**G-G**	Normal water pollution from scrubbing action
51.	32	Distilled water (without boiler) with electricity as source of heat	12	-	12	-	-	-	-	30	**G-G**	TDS as distillation residues
52	45	Hotels (up to 20 rooms and without boilers)	12	-	12	-	-	-	-	30	**G-G**	This score is valid for hotels having overall waste-water generation less than 10 KLD
53	53	Manufacturing of optical lenses (using electrical furnace)	12	-	12	-	-	-	-	30	**G-G**	Small quantities of waste-waters containing TDS, SS are generated.
54	58	Mineralized water	12	-	12	-	-	-	-	30	**G-G**	RO Rejects
55	68	Tamarind power manufacturing	12	-	12	15	-	15	-	33.75	**O-G**	• 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**	• 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**	• Mainly air pollution due to loading, unloading, storage and transportation of the minerals. • Waste-water generation mainly during rains only.
60	54	Oil and gas transportation pipeline	-	-	-	10	5	15	-	37.5	**R-G**	• 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**	Seasoning of wood in steam heated chamber. Air pollution score is normalized to 100.
62	84	Synthetic detergent formulation	-	-	-	15	-	15	-	37.5	**G-G**	• 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	With boiler, it is an orange category industry. Without boiler, it will be green category industry.

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

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	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	• 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	Remarks 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 dying/washing operation)	-	-	-	-	-	-	-	-	G-W
11	31	Diesel pump repairing and servicing (complete mechanical dry process)	-	-	-	-	-	-	-	-	G-W
12	33	Electric lamp (bulb) and CFL manufacturing by assembling only	-	-	-	-	-	-	-	-	G-W
13	34	Electrical and electronic item assembling (completely dry process)	-	-	-	-	-	-	-	-	G-W
14	23	Engineering and fabrication units (dry process without any heat treatment/ metal surface finishing operations/ painting)	-	-	-	-	-	-	-	-	O-W
15	35	Flavoured betel nuts production/ grinding (completely dry mechanical operations)	-	-	-	-	-	-	-	-	G-W
16	37	Fly ash bricks/ block manufacturing	-	-	-	-	-	-	-	-	G-W
17	38	Fountain pen manufacturing by assembling only	-	-	-	-	-	-	-	-	G-W
18	39	Glass ampules and vials making from glass tubes	-	-	-	-	-	-	-	-	G-W
19	40	Glass putty and sealant (by mixing with machine only)	-	-	-	-	-	-	-	-	G-W
20	43	Ground nut decorticating	-	-	-	-	-	-	-	-	G-W

21	44	Handloom/ carpet weaving (without dying and bleaching operation)	-	-	-	-	-	-	-	-	G-W
22	48	Leather cutting and stitching (more than 10 machine and using motor)	-	-	-	-	-	-	-	-	G-W
23	51	Manufacturing of coir items from coconut husks	-	-	-	-	-	-	-	-	G-W
24	52	Manufacturing of metal caps containers etc	-	-	-	-	-	-	-	-	G-W
25	55	Manufacturing of shoe brush and wire brush	-	-	-	-	-	-	-	-	G-W
26	57	Medical oxygen	-	-	-	-	-	-	-	-	G-W
27	60	Organic and inorganic nutrients (by physical mixing)	-	-	-	-	-	-	-	-	G-W
28	61	Organic manure (manual mixing)	-	-	-	-	-	-	-	-	G-W
29	63	Packing of powdered milk	-	-	-	-	-	-	-	-	G-W
30	64	Paper pins and u clips	-	-	-	-	-	-	-	-	G-W
31	58	Repairing of electric motors and generators (dry mechanical process)	-	-	-	-	-	-	-	-	O-W
32	74	Rope (plastic and cotton)	-	-	-	-	-	-	-	-	G-W
33	76	Scientific and mathematical instrument manufacturing	-	-	-	-	-	-	-	-	G-W
34	78	Solar module non conventional energy apparatus manufacturing unit	-	-	-	-	-	-	-	-	G-W

35	79	Solar power generation through solar photovoltaic cell, wind power and mini hydel power (less than 25 MW)	-	-	-	-	-	-	-	-	G-W
36	83	Surgical and medical products assembling only (not involving effluent / emission generating processes)	-	-	-	-	-	-	-	-	G-W

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

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

C. P. MARAK,
CHAIRMAN
Meghalaya State Pollution Control Board
Shillong

The 29th September, 2016.

The following Licence is hereby published for general information of the public.

LICENCE

TO SOLEMNISE MARRIAGE AND GRANT A CERTIFICATE OF MARRIAGE
No.JHADC/GENL/MARR-303

No.JHADC/GENL/MARR/62/87.—Under Section 6 of the Indian Christian Marriage Act, 1872 (Act No.XIV of 1872) as adopted and made applicable by the Jaintia Hills Autonomous District Council, a Licence is hereby granted to **Rev. T. Sandolar Lyngdoh, Pastor** of the **Shangpung Presbytery** belonging to the **Khasi Jaintia Presbyterian Synod Mihngi** enabling him to solemnise marriage in accordance with the relevant provisions and procedure of the Act aforesaid and to grant a Certificate of Marriage to persons one or both are Christian belonging to the **Presbyterian Church of India.**

This licence is applicable to the areas within Jaintia Hills only and may be revoked by a like Notification in the official Gazette.

Secretary,
Executive Committee,
Jaintia Hills Autonomous District Council,
Jowai.

The 29th September, 2016.

The following Licence is hereby published for general information of the public.

LICENCE

TO SOLEMNISE MARRIAGE AND GRANT A CERTIFICATE OF MARRIAGE
No.JHADC/GENL/MARR-304

No.JHADC/GENL/MARR/62/87.—Under Section 6 of the Indian Christian Marriage Act, 1872 (Act No.XIV of 1872) as adopted and made applicable by the Jaintia Hills Autonomous District Council, a Licence is hereby granted to **Rev. D. F. Dkhar, Pastor** of the **Rymbai Presbytery** belonging to the **Khasi Jaintia Presbyterian Synod Mihngi** enabling him to solemnise marriage in accordance with the relevant provisions and procedure of the Act aforesaid and to grant a Certificate of Marriage to persons one or both are Christian belonging to the **Presbyterian Church of India.**

This licence is applicable to the areas within Jaintia Hills only and may be revoked by a like Notification in the official Gazette.

Secretary,
Executive Committee,
Jaintia Hills Autonomous District Council,
Jowai.

The 29th September, 2016.

The following Licence is hereby published for general information of the public.

LICENCE

TO SOLEMNISE MARRIAGE AND GRANT A CERTIFICATE OF MARRIAGE
No.JHADC/GENL/MARR-305

No.JHADC/GENL/MARR/62/87.—Under Section 6 of the Indian Christian Marriage Act, 1872 (Act No.XIV of 1872) as adopted and made applicable by the Jaintia Hills Autonomous District Council, a Licence is hereby granted to **Rev. Dewanker Dhar, Pastor** of the **Pnar Thor Sepngi Presbytery** belonging to the **Khasi Jaintia Presbyterian Synod Mihngi** enabling him to solemnise marriage in accordance with the relevant provisions and procedure of the Act aforesaid and to grant a Certificate of Marriage to persons one or both are Christian belonging to the **Presbyterian Church of India.**

This licence is applicable to the areas within Jaintia Hills only and may be revoked by a like Notification in the official Gazette.

Secretary,
Executive Committee,
Jaintia Hills Autonomous District Council,
Jowai.

The 30th September, 2016.

No.DC.VII/Genl/PF/282/92-2016/138.—Under the provision of Section 3 and 4 of the United Khasi-Jaintia Hills District (Christian Marriage) Act, 1954 (United Khasi Jaintia Hills) (Act No. 11 of 1954) read with Section 6 of the Indian Christian Marriage, Act 1872, (Act No.XV of 1872), the Executive Committee, Khasi Hills Autonomous District Council, is pleased to grant license to Rev. R. T. Shangdiar of Khasi Jaintia Presbyterian Synod Sepngi authorising him to grant certificate(s) of Marriage or Marriages between person(s) one or both of whom is or are Christian living within the jurisdiction of the Khasi Hills Autonomous District Council, subject however, to revocation at anytime as may be notified.

B. BASAIAWMOIT,
Secretary to the Executive Committee,
Khasi Hills Autonomous District Council
Shillong.