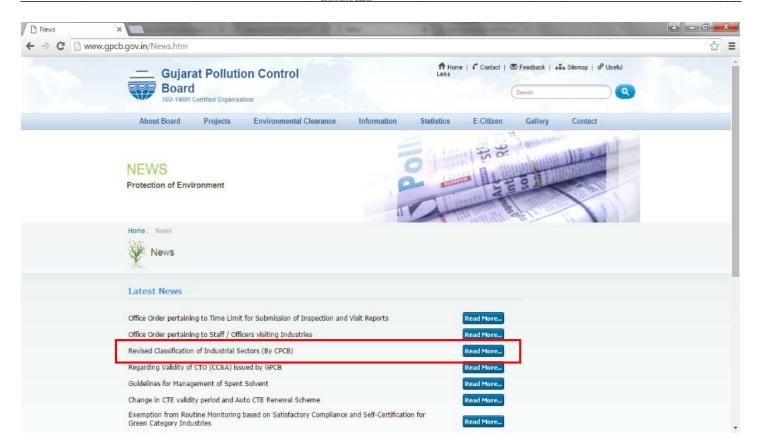


Sr. No.	Recommendation	Response (Yes/No/NA)	Supporting Materials
91	Enact a list of green industries applicable for the State.	Yes	URL of the webpage highlighting the list of green industries.
	://gpcb.gov.in/ vw.gpcb.gov.in/Portal/News/124_1_New_Cat_ROGW.po	df	











केन्द्रीय प्रदूषण नियंत्रण वोर्ड CENTRAL POLLUTION CONTROL BOARD (पर्यावरण एवं वन गंत्रालव, भारत सरवार) (MAISTRY OF ENVIRONMENT & FORESTS, GOVI. 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 Delbi 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 Delbi 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.

- 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.
- 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.
- 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: nkgcpcb@nic.in, nkgcpcb@hotmail.com.

Encl : As above

[N.K. Gupta] Incharge - ESS

To:

- 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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Final Document on Revised Classification of Industrial Sectors Under

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



Central Pollution Control Board Delhi



Executive Summary

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

The Ministry of Environment, Forest and Climate Change (MoEFCC) had brought out notifications in 1989, with the purpose of prohibition/ restriction of operations of certain industries to protect ecologically sensitive Doon Valley. The notification introduced the concept of categorization of industries as "Red", "Orange "and "Green" with the purpose of facilitating decisions related to location of these industries. Subsequently, the application of this concept was extended in other parts of the country not only for the purpose of location of industries, but also for the purpose of Consent management and formulation of norms related to surveillance / inspection of industries.

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

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

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



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



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

SI.	Orgnl	Industry Sector	W1	W2	W	A1	A2	A	Н	W+A+H	Revised	Remarks
No.	Sl. No.										Category	
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			1		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	-		1		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			1		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	1	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	1	1			25	O-G	Cooling water recirculation only.
14.	13	Coke briquetting (sun drying)	1			10	1	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.

cottage scale)



Decoration of ceramic cups 25 17. 10 G-G Fumes enamels. of and plates by electric furnace Minor air pollution. 18. 19 Digital printing on PVC 10 10 25 O-G Minor emissions clothes odour generations are expected. Facility of handling, storage 19. 25 O-G 10 10 Some fugitive emissions and transportation of food of PM during handling grains in bulk of grains. 20. 36 Flour mills (dry process) ----10 --10 --25 G-G Fugitive dust emissions. Glass , ceramic, earthen 25 G-G 21. 41 10 10 Minor fugitive -emissions only. potteries, tile and tile manufacturing using electrical kiln or not involving fossil fuel kiln Glue from starch (physical 22. 34 10 10 25 O-G Some fugitive emissions of PM during mixing of mixing) with gas electrically operated oven raw materials. /boiler. G-G 23. 42 Gold and silver smithy 10 10 25 Minor fumes (purification with cleaning process. smelting operation and sulphuric acid polishing operation) (using less or equal to 1 litre of sulphuric acid/ nitric acid per month) O-G 24. 36 Heat treatment with any of 10 10 10 25 Cooling waters and the new technology like minor heat fumes. ultrasound probe, induction Finalization hardening, ionization beam, categorization gas carburizing etc. subject to field verification. 25 G-G 25. 46 Insulation and other coated 10 10 Minor fumes due to papers (excluding paper or application of polypipe manufacturing) urethane 49 Leather foot wear and leather 25 G-G Minor fumes due to use 26. 10 10 products (excluding tanning of adhesives / gums. and hide processing except



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



										polluting. AP score is normalized to 100
40.	62	Rolling mill (gas fired) and cold rolling mill	10	 10	10	-	10	 25	O-G	Mainly air polluting. AP score is normalized to 100
41.	75	Rubber goods industry (with gas operated baby boiler)	-	 	10		10	 25	G-G	Some PM emissions and obnoxious odour.
42.	63	Saw mills	-	 	10	-	10	 25	O-G	Mainly air polluting. PM and noise are generated.
43.	77	Soap manufacturing (hand made without steam boiling / boiler)	10	 10				 25	G-G	Small quantities of waste-water are generated.
44.	80	Spice grinding (20 HP motor)	1	 	10	1	10	 25	G-G	Small quantities of fugitive emissions of raw materials.
45.	66	Spice grinding (20 hp motor)	1	 	10	-	10	 25	O-G	Mainly air polluting. Fugitive emissions of PM.
46.	81	Steel furniture without spray painting	1	 	10	-	10	 25	G-G	Obnoxious gases from welding as well as noise pollution.
47.	82	Steeping and processing of grains	10	 10		-		 25	G-G	Washing waters are generated.
48.	86	Tyres and tube retreating (without boilers)		 	10		10	 25	G-G	Due to applications of binding gum / adhesives / cement, some obnoxious fumes may generate.
49.	22	Chilling plant and ice making without using ammonia	12	 12		-		 30	G-G	Cooling water and brine water circuits. Spillages / blow down may take place
50.	26	CO2 recovery	12	 12				 30	G-G	Normal water pollution from scrubbing action
51.	32	Distilled water (without boiler) with electricity as source of heat	12	 12		-	-	 30	G-G	TDS as distillation residues



52.	45	Hotels (up to 20 rooms and without boilers)	12		12		-			30	G-G	This score is valid for hotels having overall waste-water generation less than 10 KLD.
53.	53	Manufacturing of optical lenses (using electrical furnace)	12		12		-		1	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	0-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	0-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	Air pollution due to use boiler for supply of steam. Air pollution score is normalized to 100.
62.	84	Synthetic detergent formulation		-	-	15	1	15	1	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	0-G	With boiler, it is an orange category industry. Without boiler, it will be green category industry.