

Final Report  
on  
Inventorization of 17 category/ GPI/ Red  
Category Industries



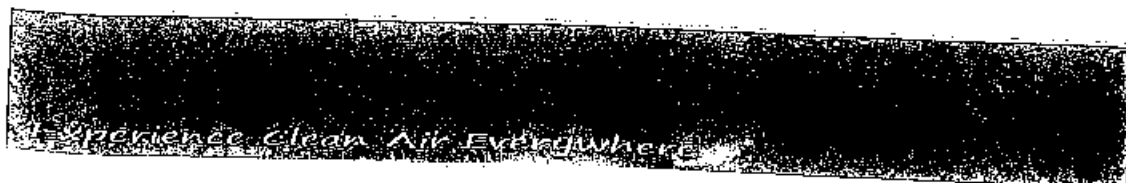
Prepared by

Working Group for "Inventorization of 17 category/ GPI/  
Red Category Industries "

Constituted by



Central Pollution Control Board



## Preface

This report is a result of the project scheme and guidelines formulated by the Central Pollution Control Board and the initiatives of the Working group members. Credit for the successful completion of the project goes entirely to the members of the Working group consisting of Maharashtra Pollution Control Board, Madhya Pradesh Pollution Control Board, Orissa State Pollution Control Board and Assam Pollution Control Board & Central Pollution Control Board and others who have contributed directly or indirectly in the execution of the project and in the preparation of the project report.

The members of the Working group would like to convey their gratitude to the Gujrat Pollution Control Board and Tamilnadu Pollution Control Board for providing technical knowledge-based support and guidance in finalising the report.

Active participation of all the members of the Working Group has made the task easy. Their Support is acknowledged with thanks.

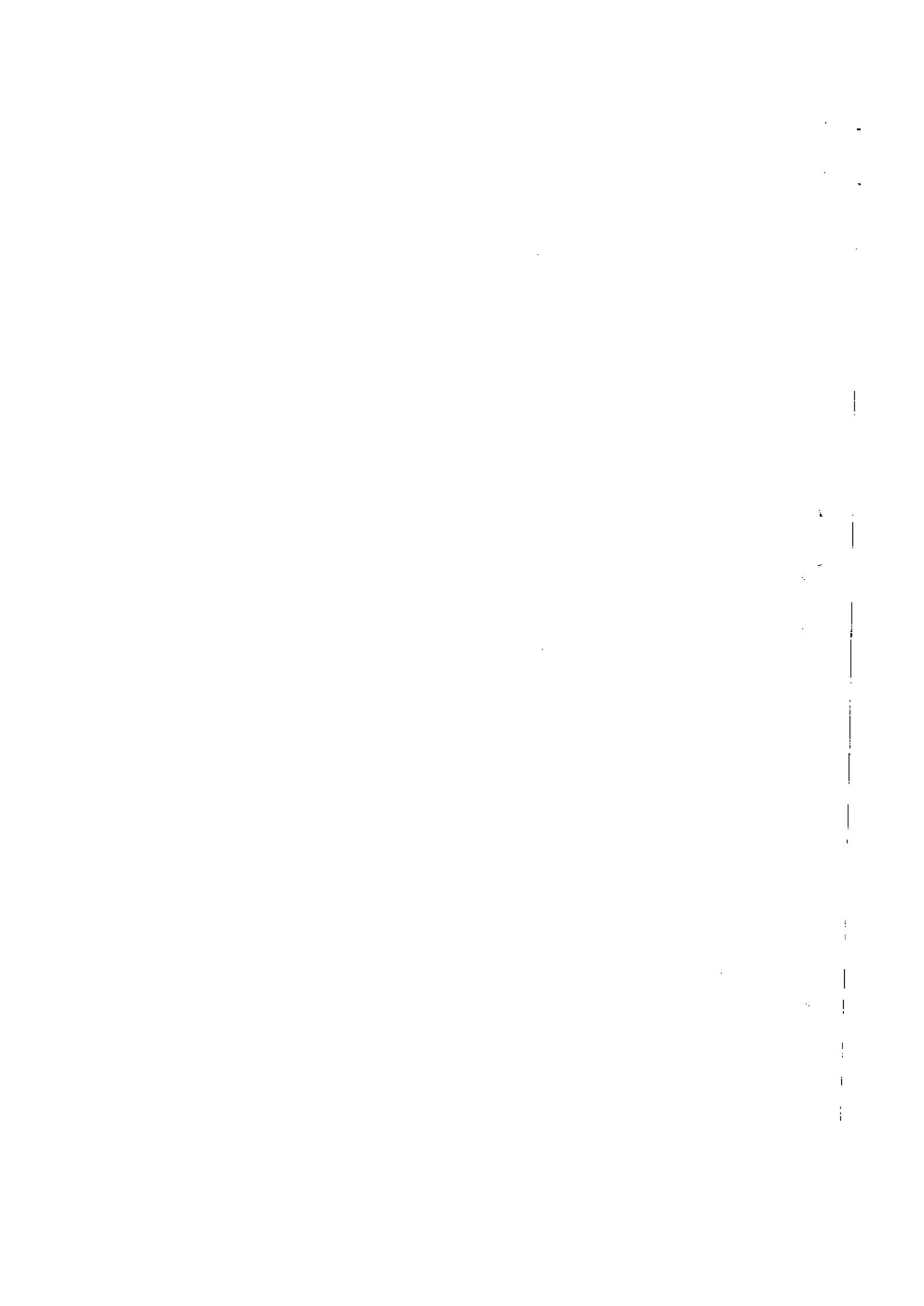
The Working group like to convey their gratitude to Shri J.S Kamyotra, Member Secretary, CPCB & Shri R.S Kori , Additional Director, CPCB for their immense support and guidance .

I believe that the findings and recommendations of the report would help moving the agenda forward in implementing the Environmental regulations and support the demands of industrial growth.

S.Mukherjee, IFS  
Member Secretary,  
West Bengal Pollution Control Board  
&  
Convener, Working Group

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## Members of the Working Group

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CPCB has constituted the Working Group on "Inventorization of 17 Category/ Grossly polluting Industries and Red Category Industries". The Composition of the Group are as follows:

**Convenor:**

West Bengal Pollution Control Board



**Members:**

Madhya Pradesh Pollution Control Board



Maharashtra Pollution Control Board



Orissa State Pollution Control Board

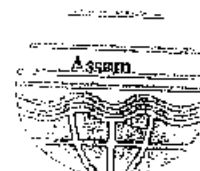


Central Pollution Control Board



&

Assam Pollution Control Board



## Background

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Industrial Development has prime importance in the development of mankind. However, protection of natural resources viz air, water, plants and animal life and above all the human being, from ill effects of pollution has prime concern to ensure sustainable industrial development.

In view of this, Government of India and different State Governments have enacted several legislations and regulations to minimise the impact of industrial pollution on the environment. In our country, SPCBs/ PCCs have been entrusted the statutory responsibility to ensure protection of environment and to regulate the impact of industrial pollution. Under the provisions of the Water Prevention and Control of Pollution Act 1974: Air Prevention and Control of Pollution Act, 1981 and Environment (Protection) Act, 1986 and the Rules thereunder obtaining Consent to Establish and then Consent to Operate is mandatory for each industry /activity having covered under the provisions of Law.

Ministry of Environment & Forest also notified "EIA notification,2006" for obtaining environmental clearance for good nos. of industrial activities and infrastructure projects.

In this regard Central Pollution Control Board previously had identified 54 types of industries under Red Category of Industries. However, it is observed that States have their own categorisation of industries covered under Red, Orange & Green Category; wherein, an industry cover under Red Category in one state may be in the category of Orange in other state. Therefore, there is an urgent need to rationalize the list of Red Categories of Industries to remove any ambiguity in categorisation of industries.

Apart from this it has been observed that a large no. of industries, processes are not covered in the list and / or the existing categories need changes due to changes in technology and or sensitivity of land uses, also advanced technologies in pollution prevention and control and waste minimisation has reduced pollution potentials of industries. Therefore, in order to facilitate process of grant of consent by bringing more transparency and also to ensure protection of natural resources it was proposed to consider the review of Categorisation of industries.

Considering the need, one working group for "Inventorization of 17 category of industries/ Grossly polluting industries and Red category industries " have been constituted by CPCB in pursuance of the decision taken in 56<sup>th</sup> Conference of Chairman and Member Secretaries, held in New Delhi,2010. This committee includes members from Pollution Control Boards of West Bengal, Assam, Orissa, Madhya Pradesh, Maharashtra & J&K.

## Chapter 1: Introduction

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During the 56<sup>th</sup> Conference of Chairman & Member Secretaries of Pollution Control Boards/ Pollution Control Committees held on 31<sup>st</sup> August, 2010 at New Delhi, it has been emphasized that inventorization of polluting industries and pollutants quantity generated by them and gaseous emissions emanated is essential to assess the pollution load in the environment by industrial sectors. It was recognized that an updated inventorization is also required for formulation of policy, monitoring enforcement & compliance.

India has an extensive environmental management system with a comprehensive set of environmental laws, specific statutory mandates, regulatory instruments and institutional frameworks to implement and enforce environmental policy objectives. It involves a shared responsibility between the Center and the States, with the Central Government having the responsibility for policy and regulatory formulations and the State Governments for ensuring implementation and enforcement of national policies and laws.

Central Pollution Control Board (CPCB) has already identified 54 types of industries under RED category of industries (TABLE-1.1) & 17 Category of highly polluting industries (TABLE 1.2). However, it is observed that different SPCBs / PCCs follow their own category list of Industries. So, the categorization of industries vary from State to State. Therefore, there is an urgent need to rationalize the list of Red category of industries to remove any ambiguity in categorization of industries.

It has been also assessed that refinement of the data base management of the 17 categories/ Grossly Polluting Industries under NRCD and Red Category industries is required along with harmonization of Red, Orange & Green categories of industries across the country. All Boards agreed on the need for uniform categorization of industries under the Red, Orange and Green industries.

CPCB has constituted the Working Group on "Inventorization of 17 Category/ Grossly polluting Industries and Red Category Industries" consisting of :

1. West Bengal Pollution Control Board, Convenor
2. Madhya pradesh Pollution Control Board, Member
3. Maharashtra Pollution Control Board
4. Orissa State Pollution Control Board
5. Assam Pollution Control Board
6. Central Pollution Control Board

The committee had several sittings and based on the review, statutory provisions of pollution control acts, industrial guidelines issued by Central Government/ State Governments and the field expertise of the members a draft new list of categorization of industries are proposed. This list has been prepared by considering the 54 Red category list identified by CPCB and other categorization list of industries followed by different SPCBs/PCCs.

An important attempt has been made to categorise the industries based on its pollution potential and likely impact of pollution on the environment, type of pollution viz. air, water, noise and hazard potential of an industry are given consideration to classify the industries. Whether possible, scale of industries (Large/ Medium/ Small based on their investment) and fuel use has been also given consideration.

CPCB designated the West Bengal Pollution Control Board to lead the Working Group on "Inventorization of 17 Category of Industries/ grossly polluting industries and Red category of industries" and issued the Terms of Reference of the Working Group vide memo no. MSCB/11/2010 dated 10<sup>th</sup> December, 2010, which include:-

- To prepare the methodology for preparation of inventory of 17 category & Grossly polluting industries;
- To update the National Inventory of Large Scale 17 category of highly polluting industries;
- To prepare the updated national inventory of grossly polluting industries;
- To prepare a uniform criteria /categorization all over the country on the types of the industries (viz. Electroplating, Asbestos etc.) falling under Red, Orange, Green categories of industries;
- To advice and help, SPCBs/PCCs for preparation of inventory as per standard format developed by CPCB for preparation of inventory under 17 category of highly polluting industries, grossly polluting industries & Red category of industries;
- To follow up with SPCBs/PCCs for getting the information/inventory



TABLE-1.1

Sl. No.	Existing List of 54 Red Category Industries as per Central Pollution Control Board
1.	Anodizing
2.	Asbestos and asbestos based industries
3.	Automobiles Manufacturing /Assembling
4.	Ceramic /Refractories
5.	Chemical, petrochemical and electro chemicals including manufacture of acids such as sulphuric acid, nitric acid, phosphoric acid and so on
6.	Chlorates, per-chlorates and peroxides
7.	Chlorine, fluorine, bromine, iodine, and their compounds
8.	Coke making , coal liquefaction, coal tar distillation or fuel gas making
9.	Common effluent treatment plant
10.	Dry coal processing/ mineral processing, industries like ore sintering, palletisation, and so on
11.	Explosives including detonators, fuses, and so on
12.	Fermentation industry including manufacture of yeast, beer and so on
13.	Fire crackers
14.	Foundries
15.	Glass and fibre glass production and processing
16.	Glue and gelatin
17.	Heavy engineering
18.	Hospitals
19.	Hot mix plants
20.	Hydrocyanic acid and its derivatives
21.	Incineration Plants
22.	Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black and so on
23.	Industrial inorganic gases namely:- a) Chemical gases: Acetylene, hydrogen, chlorine, fluorine, ammonia, sulphur dioxide, ethylene, hydrogen sulphide, phosphine b) Hydrocarbon gases: Methane, ethane, propane
24.	Industry or process involving electroplating operations
25.	Industry or process involving foundry operations
26.	Industry or process involving metal treatment or process such as pickling, paint stripping, heat treatment, phosphating or finishing and so on
27.	Lead re-processing and manufacturing including lead smelting
28.	Lime manufacturing
29.	Lubricating oils, greases or petroleum based products
30.	Milk processing and dairy products (integrated project)
31.	Mining or ore beneficiation
32.	Organic chemical manufacturing
33.	Parboiled rice mills
34.	Paints, Varnishes, (excluding blending/ mixing)

Sl. No.	Existing List of 54 Red Category Industries as per Central Pollution Control Board
35.	Petroleum products manufacturing and oil/crude oil/residue reprocessing
36.	Phosphate rock processing plant
37.	Phosphorous and its compounds
38.	Photographic films and its chemicals
39.	Pigments and intermediates
40.	Potable alcohol (IMFL) & distillation of alcohol
41.	Power generating plants (excluding DG sets)
42.	Processes involving chlorinated hydrocarbons
43.	Ship breaking
44.	Slaughter houses and meat processing industries
45.	Steel and steel products including coke plants involving use of any of the equipments such as blast furnaces, open furnace, induction furnace or an arc furnace and so on, or any of the operations or processes such as heat treatment, acid pickling, rolling or galvanising and so on
46.	Stone crusher
47.	Surgical and medical products involving prophylactics and latex
48.	Synthetic detergent and soap
49.	Synthetic fibre including rayon, tyre cord, polyester filament yarn
50.	Synthetic resins
51.	Synthetic rubber excluding molding
52.	Tobacco products including cigarettes and tobacco processing
53.	Vegetable oils including solvent extracted oils, hydrogenated oils
54.	Yarn/ textile processing involving any effluent/ emission- generating process

Table 1.2 : Existing list of 17 Category of Industries

1. Aluminium smelter
2. Cement
3. Chlor Alkali
4. Copper smelter
5. Distillery including Fermentation industry
6. Dyes and Dye-Intermediates
7. Fertilizer (basic) (excluding formulation)
8. Iron and Steel (involving processing from ore/ integrated steel plants and
9. Oil Refinery (Mineral Oil or Petro Refineries)
10. Pesticides (Technical) (excluding formulation)
11. Petrochemicals (Manufacture of and not merely use of as raw material)
12. Pharmaceuticals (excluding formulation).
13. Pulp and Paper (paper manufacturing with or without pulping)
14. Sugar (excluding Khandsari)
15. Thermal Power Plants
16. Zinc Smelter
17. Tanneries

## Chapter 2: Initiation of the Work

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Depending upon the pollution potential, existing list of industries are classified in to three different categories:

- o "RED" category units have maximum pollution potential. Considering the degree of pollution among the RED units, these are further classified into '17 Red category' units & and 'Other Red category' units
- o 'ORANGE' category units have moderate pollution potential.
- o 'GREEN' category units have least pollution potential.

The 1<sup>st</sup> meeting of the Working Groups on "Inventorization of 17 categories /GPI and Red category of Industries" was held on 12<sup>th</sup> April, 2011 at "Paribesh Bhawan " Kolkata.

The meeting was convened with the purpose for refinement of the data base management of the 17 categories /Grossly Polluting Industries and Red Category industries along with harmonization of Red, Orange and Green categories of industries across the country.

West Bengal Pollution Control Board has prepared a detailed report of the list of Red category industries followed by different SPCBs/PCCs vis a vis the existing list of 54 Red category list identified by CPCB. During the meeting, the existing list of 17 category industries have been reviewed. Since West Bengal Pollution Control Board has a vast list of RED category of industry which has been duly considered as basic reference during preparation of 17 category & Other Red category industries.

The draft list prepared during the 1<sup>st</sup> meeting was circulated among the other SPCBs/PCCs for their information and specific comments. Few SPCBs have sent their comments which were duly considered during the 2<sup>nd</sup> meeting of the Working Group held on 14<sup>th</sup> -15<sup>th</sup> June, 2011 at CPCB, New Delhi. During the meeting the list of other RED category industries was modified and revised list prepared. As advised by the Member Secretary /CPCB the working group also deliberated on Green category list of industries and draft list for the same was also prepared.

As decided during the 2<sup>nd</sup> meeting, list of industries which are not covered under Red or Green category of industries will fall under Orange category of industries depending on their pollution potential. Accordingly, an indicative list of Orange Category of industries has been prepared (Annexure-B)

**Chapter 3: Decision of 1<sup>st</sup> Meeting of the Working Group  
constituted by CPCB for "Inventorization of 17 Categories/Grossly  
Polluting Industries and Red Category of Industries"**

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The 1<sup>st</sup> Meeting of the Working Group was held on 12<sup>th</sup> April at 'Paribesh Bhawan ,Bidhannagar Kolkata -700098, West Bengal. During the meeting, a brief overview of Categorization of Industries followed by the West Bengal Pollution Control Board was presented. The existing list of 17 category of industries and Other 54 Red Category of Industries of CPCB have been reviewed considering the list of other SPCBs.

Following decisions are taken during the meeting:

- RED category industries are classified in two segments:-
  - a. 17 Red category and
  - b. Other Red category
  
- "Sponge Iron Units" are identified under 17 Red category list of industries and added with the item "Iron and Steel (involving processing from ore/ integrated steel plants and or Sponge Iron Units". (The list is given in Table 3.1)
  
- Considering the pollution potential, few industrial activities are included in the draft list of "Other RED category" of industries. (The comprehensive list is given in Table 3.2)
  
- The minutes & findings of the 1<sup>st</sup> meeting of the Working Group to be circulated among all the SPCBs/PCCs for their feedbacks/inputs. (Minutes is enclosed in Annexure I). Another Meeting to be organised to finalise the draft list on the basis of the feedbacks /comments received from the other SPCBs/PCCs.
  
- Industrial activities under "ORANGE" category also to be reviewed during preparation of draft list of "Other RED category" industry during the 2<sup>nd</sup> meeting.

**Table 3.1 : Draft list of 17 Red category of industries**

1. Aluminium smelter
2. Cement
3. Chlor Alkali
4. Copper smelter
5. Distillery including Fermentation industry
6. Dyes and Dye-Intermediates
7. Fertilizer (basic) (excluding formulation)
8. Iron and Steel (involving processing from ore/ integrated steel plants and or Sponge Iron Units)
9. Oil Refinery (Mineral Oil or Petro Refineries)
10. Pesticides (Technical) (excluding formulation)
11. Petrochemicals (Manufacture of and not merely use of as raw material)
12. Pharmaceuticals (excluding formulation).
13. Pulp and Paper (paper manufacturing with or without pulping)
14. Sugar (excluding Khandsari)
15. Thermal Power Plants
16. Zinc Smelter
17. Tanneries

**TABLE 3.2: Draft list of the Other Red Category industries**

Sl No.	List of Industries
✓ 1.	<u>Airports, Ports &amp; Harbours</u>
2.	Asbestos and asbestos based industries
3.	Automobiles Manufacturing <u>*(Automobile Assembling in ORANGE category)</u>
4.	Ceramic /Refractories
5.	Chemical, petrochemical and electro chemicals including manufacture of acids such as sulphuric acid, nitric acid, phosphoric acid and so on
6.	Chlorates, per-chlorates and peroxides
7.	Chlorine, fluorine, bromine, iodine, and their compounds
8.	Coke making , coal liquefaction, coal tar distillation or fuel gas making
✗ 9.	Common effluent treatment plant
✓ 10.	<u>Common Hazardous waste /Bio-medical waste /MSW disposal facilities</u>
✓ 11.	<u>Common Slaughter houses and meat processing industries, bone mill, processing of animal horns,hoofs and other body parts *(to be discussed in next meeting)</u>
✓ 12.	<u>Dredging Operation</u>
13.	Dry coal processing/ mineral processing, industries involving ore sintering, palletisation, <u>grinding ,pulvarization</u> and so on
14.	Explosives including detonators, fuses, and so on
15.	Fermentation industry including manufacture of yeast, beer and so on
16.	<u>Ferrous and Non ferrous metal extraction involving different furnaces through smelting ,refining, reprocessing,casting and alloy making etc.</u>
17.	Fire crackers
18.	<u>Fly ash export ,transport and disposal through pipeline by pneumatic pressure..</u>

19.	Glass and fibre glass production and processing (excluding molding) *( <u>Moulding in ORANGE Category</u> )
20.	<u>Health care establishment *(to be discussed in Next Meeting).</u>
21.	Heavy engineering ( <u>With investment on Plant &amp; Machineries more than ₹ 10 Crores</u> )
22.	Hot mix plants
23.	Hydrocyanic acid and its derivatives
24.	Incineration Plants
25.	Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black and so on
26.	Industrial inorganic gases namely:- a) Chemical gases: Acetylene, hydrogen, chlorine, fluorine, ammonia, sulphur dioxide, ethylene, hydrogen sulphide, phosphine b) Hydrocarbon gases: Methane, ethane, propane
27.	Industry or process involving foundry operations
28.	Industry or process involving metal treatment or process such as pickling, <u>electroplating</u> , paint stripping, heat treatment, phosphating or finishing and <u>anodising</u> and so on.
29.	Isolated storage of hazardous chemicals (as per schedule of Manufacture, Storage & Import of Hazardous Chemicals Rules, 1989), etc.
30.	<u>Lead acid battery manufacturing * (excluding assembling &amp; charging of acid lead battery in micro scale(&lt; ₹25 lakhs) - ORANGE category)</u>
31.	Lime manufacturing ( <u>Using Lime Kiln</u> )
32.	Lubricating oils, greases or petroleum based products
33.	<u>Manufacturing of Glue and gelatin</u>
34.	Milk processing and dairy products (integrated project)
35.	Mining or ore beneficiation , <u>Oil &amp; Gas extraction including CBM (offshore &amp; onshore extraction through drilling wells)</u>
36.	<u>Non alcoholic beverage or distillation of alcohol (ENA) *(potable alcohol (IMFL) by blending in ORANGE category)</u>
37.	<u>Oil and gas transportation pipeline</u>
38.	Organic chemical manufacturing
39.	Paints, Varnishes, <u>pigments and intermediate</u> (excluding blending/ mixing)
40.	Parboiled rice mills (* <u>Capacity to be discussed in Next Meeting</u> )
41.	Phosphate rock processing plant
42.	Phosphorous and its compounds
43.	Photographic films and its chemicals
44.	Power generating plants (excluding EG sets) *( <u>to be discussed in Next Meeting</u> )
45.	<u>Process involving coal fired boiler /furnace</u>
46.	Processes involving chlorinated hydrocarbons
47.	<u>Reprocessing of used oil, waste oil and manufacturing of petroleum products</u>
48.	Ship breaking

49.	Steel and steel products including <u>metallurgical coke (both recovery and non recovery)</u> plants involving use of any of the equipments such as blast furnaces, open hearth furnace, induction furnace or an arc furnace, <u>submerged arc furnace</u> & so on, or any of the operations or processes such as heat treatment, acid pickling, <u>hot rolling using reheating furnace</u> or galvanising and so on
50.	Stone crusher
51.	Surgical and medical products involving prophylactics and latex
52.	Synthetic detergent and soap ( <u>excluding formulation</u> )
53.	Synthetic fibre including rayon, tyre cord, polyester filament yarn
54.	Synthetic rubber excluding molding
55.	Synthetic resins
56.	Tobacco products including cigarettes and tobacco processing
57.	Vegetable oils including solvent extracted oils, hydrogenated oils
58.	<u>Yarn/ textile processing involving any effluent/ emission-generating process, bleaching, dyeing, printing and scouring</u>

Note: Items shown in colored underline is new inclusion/modification.

Based on first meeting :-

- The list of Red category of industries was modified .
- Types of Red categories of industries : 58 + 17 (categories of highly polluting industries)

= 75

## Chapter 4: Feedback from the various SPCBs/ PCCs on draft list of 17 & Other Red category industries

CPCB requested the SPCBs/PCCs to send their comments on draft list of 17 & Other Red category of industries and Water Cess rates. Some of the SPCBs/PCCs have submitted feedbacks. The list of RED/ORANGE/GREEN categories of industries of Kerala, Madhya Pradesh, Andhra Pradesh, Gujarat, Jharkhand, Karnataka, West Bengal and Maharashtra State Pollution Control Boards are also referred. (Annexure VI)

Major Observations are as follows:

### Orissa:-

1. Industries are classified as Red, Orange & Green based on their pollution potential. Any industry, if generating hazardous waste is considered under red category irrespective of its pollution potential.
2. The State Board heavily depends on Cess fund reimbursement from MoEF and an upward revision is felt overdue in view of the increasing budgetary expenses of the Board.
3. Cess is charged from the industries as per the rates notified by MoEF in 2003.

### Chandigarh:-

1. Industries are classified as Red, Orange & Green based on their pollution potential.
2. Cess rates should be enhanced according to present scenario.
3. Validity of Consent- Red: 5 years  
Orange: 10 years  
Green: 15 years

### Daman, Diu & Dadra Nagar Haveli:-

1. Existing Red Category industries- Distilleries, Chemicals (Plasticizers, organic & inorganic gases), metal industry, dyeing, asbestos. All other industries are classified as Orange/Green.
2. Validity of Consent- Red: 2 years, Orange: 3 years, Green: 5 years and white: 5 years
3. Cess is charged from the industries as per the rates notified by MoEF in 2003



**Assam:-**

1. Cess is charged from the industries as per the rates notified by MoEF in 2003.
2. Cess rates should be enhanced according to present scenario.

**Tamilnadu:-**

1. Cess rates should be enhanced according to present scenario. TNPCB has suggested revised rates for Cess depending upon the purpose for which water is consumed.
2. TNPCB has categorized industries in categories namely Ultra red , Red & Orange.
3. Validity of consent- Red : 1 year; Orange: 1 year till the industry install ETP, APCD, there about once in 2 years, Green: 2 years.

**Jammu & Kashmir**

1. No Cess is charged in J&K State as Cess Act is not adopted by the State.

**Chattisgarh -**

1. The SPCB adopted the criteria for classification under Red, Orange & Green category as fixed previously by MPPCB.
2. Cess is charged from the industries as per the rates notified by MoEF in 2003.

**West Bengal-**

1. Industries are categorised depending upon pollution potential.
2. Cess is charged from the industries as per the rates notified by MoEF in 2003. Apart from that , SPCB has fixed up consolidated rate of water cess for certain clusters of industries.
3. Cess rates should be enhanced according to present scenario;
4. Validity of Consent : Red- 2 years,  
Orange- 4 years,  
Green- 5 years.

## Chapter 5: Decision of 2<sup>nd</sup> Meeting of the Working Group constituted by CPCB for "Inventorization of 17 Categories/Grossly Polluting & Red Category Industries "

The 2<sup>nd</sup> meeting of the Working Group held on 14<sup>th</sup> -15<sup>th</sup> June,2011 at CPCB, New Delhi. Apart from the members of the Working Group, representatives from the Gujrat Pollution Control Board and Tamilnadu Pollution Control Board were also present as special invitee.

During the meeting Member Secretary, CPCB requested the Working Group to prepare a uniform list of Green category industries also. Accordingly, committee reviewed the list of Green category industries followed by the West Bengal Pollution Control Board as it include large nos. of industrial activities.

Participants of the meeting discussed the draft list of 17 Red category and Other Red category industries prepared during the 1<sup>st</sup> meeting of the Working Group and also give their views regarding preparation of draft list of Green category industries.

Following decisions are taken during the meeting :

- The draft list of "17 Red "category of industries has been finalised.
- Based on the feedbacks received and suggestions made by the participants, the draft list of the "Other Red category" industries prepared during the 1<sup>st</sup> meeting was revised further.
- The draft list of " Green" Category industries has been prepared .
- It has been unanimously agreed that rate of Water Cess need to be enhanced.

Based on second meeting :-

- The list of Other Red/Green category of Industries was modified .
- Types of Red categories of industries : 68 + 17 (categories of highly polluting industries) = 85
- Types of Green categories of industries: 68

## Chapter 6: Inventorization of 17 category/Grossly Polluting Industries

Rapid economic growth and the resulting changes in consumption patterns are drastically changing the nature and scale of impact on the country's environment and natural resources, thus testing the carrying capacity of the natural ecosystem upon which much of the country's economic growth depends.

Growth of the India's economy is led by robust performance of the industrial sector. Impressive growth in Indian economy is a reflection of growth trends in Industrial sector including iron and steel, mining, textiles, chemical & petrochemical, fertilizer, pharmaceuticals as well as electronics and information technology sector. Many of these industries belong to the Red category and have significant environmental consequences in terms of water effluents and or air emissions and hazardous waste.

It has been emphasized that inventorization of polluting industries and pollutants quantity generated by them and gaseous emissions emanated is essential to assess the pollution load in the environment by industrial sectors. It was recognized that an updated inventorization is also required for formulation of policy, monitoring enforcement & compliance.

As the SPCBs / PCCs are granting Consent to Establish/Consent to Operate and Authorization to industries under Red, Orange and Green categories in their respective states. Therefore a data bank pertaining to industries including the Red Categories will be available with SPCBs / PCCs. It is therefore needed that available information on Red category industries to be documented in prescribed format for proper assessment and analysis purpose. These will help to bring a more focused effort to integrating environmental constrained linked to good environmental management practices.

According to present definition Grossly Polluting Industries means Industries discharging effluents into a water course and a) handling hazardous substances or b) effluent having BOD load of 100kg/day or more or c) a combination of (a) & (b). Considering the present scenario and water pollution load in rivers & lakes and looking into the exhausted carrying capacity of most of the water bodies this criteria of 100kg BOD load /day needs to be reduced considerably. Hence, the working group felt the need of reviewing and redefining the criteria for identification of Grossly Polluting Industries.

The Working Group also felt that the allowable BOD load should be reduced from 100 kg/day to 25 kg/day. Working Group also recommends that the conclusion of the study report of ITAs doing study in River Basin management should also be taken into consideration at the level of MOEF.

## Chapter 7: Recommendations of the Working Group

- As per ToR issued by CPCB, a proforma for inventorization of Grossly polluting industries & 17 category industries has been prepared which is given in Table 7.1 & Table 7.2.

**Table 7.1: Format for Inventory of Grossly Polluting Industries\***

\*CETPs discharging in water bodies should also be considered as GPIs

Sl. No.	Sector / Size (L/M/S)	Type/ Group	Date of Commencement	Effluent Receiving Canal/ Water Body & Distance from the Unit	Concerned Receptant River & Distance from the Unit	Date of Inspection (mm/dd/yy)	Outlet Details	Water Quality				Effluent Quantity (in KLD)	Pollution Load Inlet (kg/day)	Pollution Load Outlet (kg/day)	ETP Operational Status	Name of the River/ Basin
								Parameter	permissible Limit	Before Treatment	After Treatment					

**Table 7.2 :Format for Inventory of 17 Red category Industries**

Inventory of Red / 17-Category of Industries												
Name & Address of Industry (with Geographical Coordinates)	Size of the Industry (L/M/S)	Type of Industry: viz. Sugar / Distillery / TPP etc.	Production Capacity	Consent Status (Air / Water) Present	Authorisation Status under HW (R, H&TB Movement) Rules	Water Consumption (cfd)	Effluent Generation (cfd)		Status of ETP (ANA) UC/UP	Status of APCE (ANA) UC/UP	Compliance Status (C/PC/ NC)	Remarks: legal status. Le. Notice Issued / court case filed etc.
							Water	Air				

A- Adequate, NA-Not adequate, UC- Under construction, UP- Under planning

APCE- Air pollution control equipment, C-complying, PC- Partially complying

NC- Not complying

As suggested during the 57<sup>th</sup> Conference of Chairmen & Member Secretaries, List of 17 Red Category & Other Red category industries are merged and list of Green category and Orange category of industries are modified considering pollution potential of the industrial activities.

THE FINAL LIST OF RED, GREEN AND ORANGE CATEGORY IS GIVEN IN TABLE 7.3, 7.4 & 7.5 RESPECTIVELY.

**Table 7.3 : List of Red category of industries**

Sl No.	List of RED category Industry
1.	Airports, and Commercial Air Strips
2. ✓	Aluminium smelter
3.	Asbestos and asbestos based industries
4.	Automobiles Manufacturing (Integrated facilities)
5.	Basic Chemicals and electro chemicals and its derivatives including manufacture of acids
6.	Ceramic , Refractories
7. ✓	Cement
8. ✓	Chlor Alkali
9.	Chlorates, perchlorates and peroxides
10.	Chlorine, fluorine, bromine, iodine, and their compounds
11.	Coal Washeries
12. ✓	Copper smelter
13.	Coke making , liquefaction, coal tar distillation or fuel gas making
14.	Common Treatment and disposal facilities (CETP, TSDF, E-Waste recycling, CBMWTF, Effluent conveyance project, incinerators, Solvent/Acid recovery plant, MSW sanitary landfill sites, STP)
15. ✓	Distillery including Fermentation industry
16.	Dyes and Dye-Intermediates
17.	Dry coal processing/ mineral processing, industries involving ore sintering, palletisation, grinding ,pulvarization
18.	Emulsion of oil & water
19.	Fermentation industry including manufacture of yeast, beer, distillation of alcohol (ENA)
20.	Fertilizer (basic) (excluding formulation)
21.	Ferrous and Non ferrous metal extraction involving different furnaces through melting ,refining, reprocessing,casting and alloy making
22.	Fibre glass production and processing (Excluding moulding)
23.	Fire crackers manufacturing and bulk storage facilities
24.	Flakes from rejected PET bottle
25.	Fly ash export , transport and disposal facilities

26.	Health care establishment (As defined in BMW Rules)
27.	Heavy engineering including Ship Building (With investment on Plant & Machineries more than ₹ 10 Crores)
28.	Hot mix plants
29.	Hotels (3 Star & above) and Hotels having 100 rooms and above
30.	Hydrocyanic acid and its derivatives
31.	Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black
32.	Industrial estates/ parks/ complexes/ areas/ export processing zones/ SEZs/ Biotech parks/ leather complex
33.	Industrial inorganic gases namely:- a) Chemical gases: Acetylene, hydrogen, chlorine, fluorine, ammonia, sulphur dioxide, ethylene, hydrogen sulphide, phosphine b) Hydrocarbon gases: Methane, ethane, propane
34.	Industries engaged in recycling /reprocessing/recovery /reuse of Hazardous Waste under schedule IV of Hazardous Waste (M, H&TBM) Rules, 2008 and its amendments
35.	Industry or process involving foundry operations
36.	Industry or process involving metal surface treatment or process such as pickling/ plating/electroplating/ paint stripping/ heat treatment/ phosphating or finishing and anodising/ enamelling/ galvanising
37.	Iron and Steel (involving processing from ore/ integrated steel plants and or Sponge Iron Units)
38.	Isolated storage of hazardous chemicals (as per schedule of Manufacture, Storage & Import of Hazardous Chemicals Rules, 1989 as amended)
39.	Lead acid battery manufacturing(excluding assembling & charging of acid lead battery in micro scale[< ₹ 25 lakhs])
40.	Lime manufacturing (Using Lime Kiln)
41.	Manufacturing of Explosives, detonators, fuses including management and handling activities,
42.	Manufacturing of Glass
43.	Manufacturing of Glue and gelatin
44.	Manufacturing of Lubricating oils, greases or petroleum based products
45.	Manufacturing of Paints, Varnishes, pigments and intermediate (excluding blending/ mixing)
46.	Manufacturing of Starch/Saggo
47.	Milk processing and dairy products (integrated project)
48.	Mineral stack yards/ Railway sidings
49.	Mining and ore beneficiation
50.	New Highway construction projects
51.	Non alcoholic beverage (soft drink) & bottling of alcoholic/non-alcoholic products (capital investment on plant & machinery > ₹ 1 crore)
52.	Nuclear Power Plants

53.	Oil & Gas extraction including CBM (offshore & onshore extraction through drilling wells)
54.	Oil and gas transportation pipeline
55.	Oil Refinery (Mineral Oil or Petro Refineries)
56.	Organic chemicals manufacturing
57.	Parboiled rice mills (more than 10 TPD)
58.	Pesticides (Technical) (excluding formulation)
59.	Petrochemicals (Manufacture of and not merely use of as raw material)
60.	Pharmaceuticals (excluding formulation).
61.	Pulp and Paper (paper manufacturing with or without pulping)
62.	Phosphate rock processing plant
63.	Phosphorous and its compounds
64.	Photographic films and its chemicals
65.	Ports & Harbours, Jetties and Dredging Operations
66.	Power Generation Plants [Except Wind, Solar and Mini Hydel Power plants of capacity <25 MW) and DG set of capacity > 5 MVA]
67.	Processes involving chlorinated hydrocarbons
68.	Railway Locomotive workshops / Integrated Road transport workshop/ Authorised service centres
69.	Reprocessing of used oils and waste oils
70.	Ship breaking activities
71.	Slaughter houses (As per the notification S.O.270(E) dated 26.03.2001) and meat processing industries, bone mill, processing of animal horns,hoofs and other body parts
72.	Steel and steel products using various furnaces like blast furnaces/ open hearth furnace/ induction furnace/ arc furnace/ submerged arc furnace /basic oxygen furnace /hot rolling using reheating furnace
73.	Stone crushers
74.	Sugar (excluding Khandsari)
75.	Surgical and medical products involving prophylactics and latex
76.	Synthetic detergents and soaps (excluding formulation)
77.	Synthetic fibres including rayon, tyre cord, polyester filament yarn
78.	Synthetic resins
79.	Synthetic rubber excluding molding
80.	Tanneries
81.	Thermal Power Plants
82.	Tobacco products including cigarettes and tobacco/ opium processing
83.	Vegetable oils including solvent extraction and refinery/ hydrogenated oils
84.	Wool/ textile processing involving any effluent/ emission- generating process bleaching, dyeing, printing and scouring

85. Zinc Smelter

Note: 1. Any industry/industrial activity which is not covered in above list having coal fired boiler with steam generation capacity more than 5 T/hr will be covered under Red Category.

Table 7.4: List of Green category units

Sl No.	List of Green Category Industry
1	Assembling of Acid lead battery (up to 10 batteries per day excluding lead plate casting)
2	Aluminium utensils from aluminium circles
3	Assembly of air coolers/conditioners, repairing and servicing
4	Assembly of bicycles, baby carriage and other small non-motorised vehicles
5	Automobile fuel outlet (only dispensing)
6	Ayurvedic and Homeopathic medicine (without boiler)
7	Bailing (hydraulic press) of waste papers
8	Bakery/Confectionery/Sweets production (with production capacity < 1tpd with oil, gas or electrical oven)
9	Bio fertilizer & bio-pesticide without using inorganic chemicals
10	Biomass Briquettes (sun drying) without using toxic or hazardous wastes
11	Biscuit trays etc. from rolled PVC sheet (using automatic vacuum forming machine)
12	Blending and packaging of Tea
13	Blending of melamine resins & different powder, additives by physical mixing
14	Block making for printing without foundry (excluding wooden block making)
15	Brass & Bell metal utensils manufacturing from circle (without re-Rolling facility)
16	Candy
17	Cardboard or corrugated box and paper products (excluding paper or pulp manufacturing and without using boiler)
18	Carpentry and wooden furniture manufacturing (excluding saw mill) with the help of electrical (motorized) machines such as electric wood planner, steel saw cutting circular blade etc.
19	Cement products (without using Asbestos) like pipe, pillar, jafri, well ring, blocks/tiles etc. (should be done under closed covered shed to control fugitive emissions)
20	Ceramic colour manufacturing (not using boiler and wastewater recycling process)
21	Chalk making from plaster of paris.
22	Chilling plant and ice making without use of ammonia
23	Coated electrode manufacturing
24	Compact disc, computer floppy & cassette manufacturing
25	Compressed oxygen gas from crude liquid oxygen
26	CO <sub>2</sub> recovery



27	Cotton and woolen hosiery making (SSI & Cottage industries)
28	Cotton spinning & weaving (small scale)
29	Decoration of ceramic cups & plates by electric furnace
30	Diesel Generator sets (15 KVA to 1 MVA)
31	Diesel pump repairing & servicing
32	Distilled water
33	Electric lamp (bulb) manufacturing (small scale)
34	Electrical & electronic items assembling
35	Flavoured bettle nut production/grinding.
36	Flour mills (dry process)
37	Fly ash bricks/blocks manufacturing
38	Fountain pen manufacturing
39	Glass ampules & vials making from glass tubes.
40	Glass putty and sealant
41	Glass, ceramic, earthen potteries and tile manufacturing using electrical kiln or not involving fossil fuel kilns
42	Gold and Silver smithy (purification with acid, smelting operation and sulfuric acid polishing operation) (using less than or equal to 1 litre of Sulphuric Acid / Nitric Acid per month)
43	Groundnut decorticating (dry)
44	Handloom/ Carpet weaving (without dyeing and bleaching operation)
45	Hotels (up to 20 rooms)
46	Insulation and other coated papers (excluding paper or pulp manufacturing) manufacturing
47	Jobbing and machining
48	Leather cutting and stitching (more than 10 machines and using motor)
49	Leather footwear and leather products (excluding tanning and hide processing) (except cottage scale)
50	Lubricating oils, greases or petroleum based products (only blending at normal temperature)
51	Manufacturing of coir items from coconut husk
52	Manufacturing of metal caps, containers etc.
53	Manufacturing of optical lenses (using electrical furnace)
54	Manufacturing of pasted veneers without using boiler or Thermic Fluid Heater or by sundrying
55	Manufacturing of shoe brush & wire brush
56	Manufacturing of silica gel (without furnace)
57	Medical oxygen
58	Mineralized water
59	Oil mill ghani & extraction (no hydrogenation/refining)
60	Organic and inorganic nutrients (by physical mixing)
61	Organic manure ( manual mixing).
62	Paints and varnishes (mixing and blending) (without ball mill)
63	Packing of powdered milk

64	<u>Paper pins and U-clips</u>
65	<u>Phenyl/ Toilet cleaner formulation &amp; Bottling</u>
66	<u>Reel manufacturing</u>
67	<u>Polythene &amp; plastic processed products manufacturing (virgin plastics)</u>
68	<u>Poultry, hatchery, Piggery</u>
69	<u>Power looms (without dyeing and bleaching)</u>
70	<u>Printing press</u>
71	<u>Puffed rice (muri) (using oil, gas or electrical heating system)</u>
72	<u>Ready mix cement concrete</u>
73	<u>Reprocessing of waste cotton</u>
74	<u>Rope (Cotton &amp; Plastic)</u>
75	<u>Rubber goods industry (with baby boiler only)</u>
76	<u>Scientific and mathematical instruments manufacturing</u>
77	<u>Soap manufacturing (Handmade without steam boiling)</u>
78	<u>Solar module (Non conventional energy apparatus) manufacturing unit</u>
79	<u>Solar power generation through solar photovoltaic cell, wind power &amp; mini hydel power (&lt; 25 MW)</u>
80	<u>Spice grinding (&lt; 20 HP motor)</u>
81	<u>Steel furniture without spray painting</u>
82	<u>Steeping and processing of grains</u>
83	<u>Surgical and medical products not involving effluent/emission generating processes</u>
84	<u>Synthetic detergent formulation</u>
85	<u>Teflon based products</u>
86	<u>Tyres and tubes retreading (without boiler)</u>

Note: Items shown in colored underline is new inclusion/modification.

- Adipogenic differentiation of preadipocytes is regulated by a complex network of transcription factors, including PPARγ, C/EBPα, and KLF1. The expression of these factors is controlled by a variety of signaling pathways, including the insulin/Igf1R axis and the JAK/STAT pathway.
- The differentiation of preadipocytes into mature adipocytes is a process that involves the accumulation of lipid droplets and the expression of adipogenic markers, such as adiponectin and leptin. This process is regulated by a complex network of transcription factors, including PPARγ, C/EBPα, and KLF1.
- The differentiation of preadipocytes into mature adipocytes is a process that involves the accumulation of lipid droplets and the expression of adipogenic markers, such as adiponectin and leptin. This process is regulated by a complex network of transcription factors, including PPARγ, C/EBPα, and KLF1.
- The differentiation of preadipocytes into mature adipocytes is a process that involves the accumulation of lipid droplets and the expression of adipogenic markers, such as adiponectin and leptin. This process is regulated by a complex network of transcription factors, including PPARγ, C/EBPα, and KLF1.
- The differentiation of preadipocytes into mature adipocytes is a process that involves the accumulation of lipid droplets and the expression of adipogenic markers, such as adiponectin and leptin. This process is regulated by a complex network of transcription factors, including PPARγ, C/EBPα, and KLF1.

TABLE - 75

TABLE 75

List of Orange category units

Sl No.	List of Industries
1	Almirah , Grill Manufacturing
2	Aluminium and copper extraction from scrap using oil fired furnace
3	Automobile servicing, repairing and painting (excluding only fuel dispensing)
4	Ayurvedic and Homeopathic medicine
5	Bakery & confectionery units with production capacity > 1 tpd]
6	Biaxially oriented PP film alongwith metalising operation
7	Brickfields (excluding fly ash brick manufacturing using lime process)
8	Building & construction projects more than 20,000 Sq mtr built up area
9	Cashew nut processing
10	Chanachur and laddoo from puffed and beaten rice(muri and chira)using husk fired oven
11	Chilling plant, cold storage and Ice making
12	Coffee seed processing
13	Coke briquetting (sun drying)
14	Cotton spinning and weaving (medium and large scale)
15	Cutting, sizing and polishing of marble stones
16	Dairy and dairy products (small scale) (capital investment on plant & machinery < ₹ 1 crore).
17	Dal Mills
18	DG Set of capacity >1 MVA but < 5 MVA)
19	Digital printing on PVC cloth
20	Dismantling of rolling stocks(wagons/coaches )
21	Dry cell battery (excluding manufacturing of electrodes) & assembling & charging of acid lead battery in micro scale[< ₹ 25 lakhs]
22	Emery powder(fine dust of sand) manufacturing
23	Engineering and fabrication units (With investment on Plant & Machineries < ₹ 10 Crores)
24	Excavation of sand from the river bed(excluding manual excavation)
25	Facility of handling ,storage and transportation of food grains in bulk.
26	Fertiliser (granulation and formulation only)
27	Fish feed, poultry feed and cattle feed
28	Fish processing and packaging (excluding chilling of fish)
29	Foam manufacturing
30	Food & food processing including fruits & vegetable processing
31	Forging of ferrous & non-ferrous metal (using oil or gas fired boilers)
32	Formulation/palletisation of camphor tablets, naphthalene balls from camphor/naphthalene powders
33	Glass, ceramic, earthen potteries and tile manufacturing using oil or gas fired kiln.Coating on glasses using cerium fluoride,magnesium fluoride etc.
34	Glue from starch (physical mixing)

Sl No.	List of Industries
35	Gravure printing, digital printing on flex, vinyl
36	Heat treatment using oil fired furnace (excluding cyaniding)
37	Hotels (Less than 3 star) or hotels having > 20 rooms and less than 100 rooms.
38	Ice cream
39	Infrastructure development project
40	Jute processing without dyeing
41	Liquid floor cleaner , black phenyl , liquid soap , glyserol monostearate manufacturing.
42	Manufacture of mirror from sheet glass
43	Manufacturing of iodized salt from crude/raw salt
44	Manufacturing of mosquito repellent coil
45	Manufacturing of tooth powder, toothpaste, talcum powder and other cosmetic items
46	Mechanized laundry using oil fired boiler
47	Modular wooden furniture from particle board , MDF, swan timber etc. Ceiling tiles/partition board from saw dust, wood chips etc. & other agricultural waste using synthetic adhesive resin, wooden box making
48	Packing materials manufacturing from non asbestos fibre, vegetable fibre yarn
49	Paint blending & mixing (Ball mill)
50	Pharmaceutical formulation and for R&D purpose (for sustained release/extended release of drugs only and not for commercial purpose)
51	Plyboard manufacturing (including veneer & laminate) with oil fired boiler/ thermic fluid heater (without resin plant)
52	Potable alcohol (IMFL) by blending , bottling of alcoholic products (capital investment on plant & machinery < ₹ 1 crore
53	Power press
54	Printing ink manufacturing
55	Printing or etching of glass sheet using hydrofluoric acid
56	Producer gas plant using conventional up-drift coal gasification (linked to rolling mills , glass and ceramic industry, refractories for dedicated fuel supply)
57	Pulverisation of bamboo and scrap wood
58	Repairing of electric motor & generator
59	Reprocessing of waste plastic (excluding PVC)
60	Rice mill less than 10 TPD & rice hullers
61	Rolling Mill (oil or gas fired) and cold Rolling mill
62	Saw mill
63	Seasoning of wood in steam heated chamber.
64	Silk screen printing, Saree printing by wooden blocks
65	Spice grinding (> 20 HP motor)
66	Spray painting, paint baking, paint stripping
67	Tanning powder manufacturing

Sl No.	List of Industries
68	Tea processing
69	Thermocol manufacturing
70	Thermometer making
71	Transformer repairing/manufacturing
72	Tyres and tubes vulcanization/hot retreading
73	Wire drawing & Wire netting

Team of the Working Group

Shri S. Mukherjee, IFS  
Member Secretary, West Bengal Pollution Control Board

Dr. T.K Gupta  
Chief Engineer, West Bengal Pollution Control Board

Shri R.S Kori  
Additional Director, Central Pollution Control Board

Dr. A.K Swar  
Senior Environmental Engineer, Orissa State Pollution Control Board

Shri V.B Waghjale  
Assistant Secretary(Technical), Maharashtra Pollution Control Board

Shri R.K Shrivastava  
Senior Engineer, Madhya Pradesh Pollution Control Board

Shri B.K Barua  
Senior Environmental Engineer, Assam Pollution Control Board

Shri D.Sarkar  
Senior Environmental Engineer, West Bengal Pollution Control Board

> Special Invitee:

Dr. K. Karthikeyan  
Joint Chief Environmental Engineer, Tamilnadu Pollution Control Board

Shri L.A Tai  
Environmental Engineer, Gujrat Pollution Control Board

Proceedings of the 1<sup>st</sup> Meeting of the Working Groups constituted by CPCB for "Inventorization of 17 Categories/Grossly Polluting Industries and Red Category of Industries" held on 12<sup>th</sup> April at 'Paribesh Bhawan ,Bidhannagar Kolkata -700098, West Bengal.

During the 56th Conference of Chairmen & Member Secretaries of SPCBs/PCCs held on 31<sup>st</sup> August,2010 at New Delhi, it was decided to constitute the Working Groups on 'Inventorization of 17 Category/ GPI Industries & RED Category Industries' for uniform categorization of industries and to harmonize the categorization criteria of industries adopted by different SPCBs/PCCs. Accordingly CPCB has constituted the Working Group.

The composition of the said group is as follows:

West Bengal Pollution Control Board -	Convenor
Maharashtra SPCB-	Member
Orissa SPCB-	Member
Madya Pradesh SPCB-	Member
Assam SPCB-	Member
CPCB-	Member.

The 1st Meeting of Working Group on " Inventorization of 17 Category/ GPI Industries & RED Category Industries " was held on April 12,2011 at Paribesh Bhawan, Bidhanagar, West Bengal.

Sri S.Mukherjee, Member Secretary, WBPCB chaired the meeting and welcome all the participants. He mentioned that a uniform list of categorization of industries is required to be prepared to remove any ambiguity in categorization of industries. He also welcomes the initiatives taken by CPCB on the issue.

Dr. T.K Gupta, Chief Engineer (Planning), WBPCB gave a brief presentation on existing categorization of industries followed by the WBPCB. In his presentation he touched upon the industrial siting policy for setting up of industries in the State of West Bengal.

During the meeting, the present list of 17 categories of industries identified by MOEF and 34 RED categories of industries identified by CPCB has been discussed at length.



Item wise industrial activities mentioned in the above list have been reviewed and all the participants present in the meeting deliberated on the issue and gave their valuable opinion/suggestion and inputs. Few activities of other type which have not been covered under 54 RED category list also discussed.

After thread bare discussion, a draft list of RED category industries has been prepared which is enclosed in TABLE 3.1. It was decided that some of the industrial activities in the draft list needs further discussion particularly regarding the criteria /threshold quantity/capacity to be considered as RED category.

As regards, 17 category of industries it is suggested that sponge iron units may be add with 'Integrated Iron & Steel Plants' i.e "Integrated Iron & Steel Plants and/or sponge iron units"(Table 3.2)

Sri R.S Kori, Additional Director, CPCB suggested that industrial activities under ORANGE category should also be reviewed during preparation of draft RED category list.

Dr. T.K Gupta, Chief Engineer, Planning, WBPCB informed that proceedings of the meeting along with draft RED category list will be sent to all the SPCBs/PCCs including CPCB by 20 th April ,2011 for their opinion/suggestion , if any which will be discussed in the second meeting of the working group. Sri R.S Kori, Addl. Director, CPCB was requested to pursue all the SPCBs/PCCs for sending comments on the draft RED category list.

It was decided that the second meeting of the working group will be held on 5th May,2011 at Bhubaneswar, Orissa. Dr. A.K Swar, Sr. Environmental Engineer, OSPCB was requested to organize the same. Accordingly a formal request will be made to the Member Secretary, Orissa State Pollution Control Board.

The meeting was concluded with vote of thanks to and from the chair.

sd/-

(S.Mukherjee)

Member Secretary

West Bengal Pollution Control Board

&

Convener, Working Group

**Proceedings of the 2<sup>nd</sup> Meeting of the Working Groups constituted by CPCB for "Inventorization of 17 Categories / Grossly Polluting Industries and Red Category of Industries" held on 14<sup>th</sup> - 15<sup>th</sup> June, 2011 at 'Central Pollution Control Board', New Delhi.**

CPCB has constituted the Working Group on "Inventorization of 17 Category / Grossly Polluting Industries and Red Category Industries." The Composition of the group are as follows:

West Bengal Pollution Control Board -	Convenor
Maharashtra SPCB -	Member
Orissâ SPCB -	Member
Madya Pradesh SPCB -	Member
Assam SPCB -	Member
CPCB -	Member

The 1<sup>st</sup> Meeting of the Working Group was held on 12<sup>th</sup> April, 2011 at Paribesh Bhawan, West Bengal Pollution Control Board, and Kolkata. In the said meeting members of the Working Group discussed 54 Red Category list identified by CPCB and a revised draft list of Red Category Industries had been prepared. Also a revised draft list of 17 Category Industries had been prepared. The draft revised lists were forwarded to SPCBs / PCCs for necessary comments. Accordingly, few SPCBs including TNPCB and GPCB have sent their feedbacks.

As a large no. of 17 Categories, GPIs and Red Category Industries are being operated in the State of Gujarat and Tamilnadu, Member Secretary, CPCB has requested the Member Secretaries of TNPCB and GPCB for attending the 2<sup>nd</sup> meeting of the Working Group held on 14<sup>th</sup> - 15<sup>th</sup> June, 2011 at CPCB, New Delhi to share their valuable suggestions /inputs during the meeting.

Apart from the Convenor and Members of the Working Group, Senior Officials from GPCB, TNPCB, WBPCB and CPCB were participated in the 2<sup>nd</sup> meeting of the Working Group. List of participants is enclosed in Annexure-V.

Member Secretary, West Bengal Pollution Control Board and Convenor of the Working Group initiated the meeting.

Member Secretary, CPCB welcomed all the participants. He requested all the participants to share their valuable suggestions to prepare the list of 17 Categories of Industries and Red Category of Industries. The CPCB informed that meeting of the Chairman and Member

Secretaries of SPCBs / PCCs is scheduled to be held in August 2011. Therefore, he requested the Working Group to finalise their report and to submit the same within first week of July, 2011. He also requested the Working Group to prepare the list of Green Category of industries during the meeting. During the introductory speech the Member Secretary, CPCB touch upon the issues on reviewing the criteria for selection of Grossly Polluting Industries and issues related to the need for enhancement of rate for water cess.

During the meeting draft revised list of 17 Categories and Red Categories of industries as prepared in the 1<sup>st</sup> meeting of the Working Group were discussed at length. All the participants present in the meeting unanimously approved the draft revised list of 17 Categories of industries (Table A.1). Draft list of Red Category industries has been reviewed item-wise and on the basis of the valuable opinion / suggestions of the participants, a revised list of Red Category Industries has been prepared (Table A.2).

As advised by the Member Secretary, CPCB a draft list of Green Category industries has also been prepared (Table A.4).

As suggested by Member Secretary, CPCB regarding the review of the criteria for selection of Grossly Polluting Industries, all the participants discussed the matter at length. It was decided that criteria for selection of Grossly Polluting Industries identified under NRCD should be more stringent and "100Kg/Day BOD load before treatment" should be reduced suitably considering the changed scenario of water availability in rivers and lakes. MoEF may be requested to consider the issue.

As regards, revision for rate of water cess all the participants unanimously agreed that rate of water cess need to be enhanced. WBPCB has submitted a proposal in this regard. Detailed report on this issue will be prepared by the CPCB.

It was decided that CPCB will provide the list of 17 Category, Red Category and Green Category of industries as prepared during the 2<sup>nd</sup> meeting of the Working Group to SPCBs / PCCs for their opinion / suggestions if any, by 30<sup>th</sup> June, 2011. The 3<sup>rd</sup> and Final Meeting of the Working Group for preparation of the final report will be held tentatively on 8<sup>th</sup> July, 2011 at CPCB, New Delhi.

The meeting was concluded with a vote of thanks to and from the chair.

sd/-

(S.Mukherjee)

Member Secretary,

West Bengal Pollution Control Board

&

Convener, Working Group

**Table A.1 : Proposed list of 17 Red category of industries**

1. Aluminium smelter
2. Cement
3. Chlor Alkali
4. Copper smelter
5. Distillery including Fermentation industry
6. Dyes and Dye-Intermediates
7. Fertilizer (basic) (excluding formulation)
8. Iron and Steel (involving processing from ore/ integrated steel plants and or Sponge Iron Units)
9. Oil Refinery (Mineral Oil or Petro Refineries)
10. Pesticides (Technical) (excluding formulation)
11. Petrochemicals (Manufacture of and not merely use of as raw material)
12. Pharmaceuticals (excluding formulation).
13. Pulp and Paper (paper manufacturing with or without pulping)
14. Sugar (excluding Khandsari)
15. Thermal Power Plants
16. Zinc Smelter
17. Tanneries

Table: A.2:

Sl No.	Proposed list of Other Red Category Industry
1	<u>Airports, and Commercial Air Strips</u>
2	Asbestos and asbestos based Industries
3	Automobiles Manufacturing (Integrated facilities)
4	Basic Chemicals and electro chemicals and its derivatives including manufacture of acids
5	Ceramic , Refractories
6	Chlorates, perchlorates and peroxides
7	Chlorine, fluorine, bromine, iodine, and their compounds
8	Coal Washeries
9	Coke making , liquefaction, coal tar distillation or fuel gas making
10	Common Treatment and disposal facilities (CETP, TSDF, E-Waste recycling, CBMWTF, Effluent conveyance project, incinerators, Solvent/Acid recovery plant, MSW sanitary landfill sites, STP)
11	Dry coal processing/ mineral processing, industries involving ore sintering, palletisation, grinding ,pulvarization
12	<u>Emulsion of oil &amp; water</u>
13	Fermentation industry including manufacture of yeast, beer, distillation of alcohol (ENA)
14	<u>Ferrous and Non ferrous metal extraction involving different furnaces through melting ,refining, reprocessing,casting and alloy making</u>
15	Fibre glass production and processing (Excluding moulding)
16	Fire crackers manufacturing and bulk storage facilities
17	Flakes from rejected PET bottle
18	<u>Fly ash export , transport and disposal facilities</u>
19	<u>Health care establishment (As defined in BMW Rules)</u>
20	Heavy engineering including Ship Building (With investment on Plant & Machinery: more than ₹ 10 Crores)

21	Hot mix plants
22	Hotels (3 Star & above)
23	Hydrocyanic acid and its derivatives
24	Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black
25	Industrial estates/parks/complexes/areas/export processing zones/SEZs/ Biotech parks/ leather complex
26	Industrial inorganic gases namely:- a) Chemical gases: Acetylene, hydrogen, chlorine, fluorine, ammonia, sulphur dioxide, ethylene, hydrogen sulphide, phosphine b) Hydrocarbon gases: Methane, ethane, propane
27	Industries engaged in recycling /reprocessing/recovery /reuse of Hazardous Waste under schedule IV of Hazardous Waste (M, H&TBM) Rules, 2008 and its amendments
28	Industry or process involving foundry operations
29	Industry or process involving metal surface treatment or process such as pickling/ plating/electroplating/ paint stripping/ heat treatment/ phosphating or finishing and anodising/ enamelling/ galvanising
30	Isolated storage of hazardous chemicals (as per schedule of Manufacture, Storage & Import of Hazardous Chemicals Rules, 1989 as amended)
31	Lead acid battery manufacturing(excluding assembling & charging of acid lead battery in micro scale(< ₹ 25 lakhs)
32	Lime manufacturing (Using Lime Kiln)
33	Manufacturing of Explosives, detonators, fuses including management and handling activities,
34	Manufacturing of Glass
35	Manufacturing of Glue and gelatin
36	Manufacturing of Lubricating oils, greases or petroleum based products
37	Manufacturing of Paints, Varnishes, pigments and intermediate (excluding blending/ mixing)
38	Manufacturing of Starch/Saggu
39	Milk processing and dairy products (integrated project)
40	Mineral stack yards/ Railway sidings
41	Mining and ore beneficiation
42	New Highway construction projects
43	Non alcoholic beverage (soft drink) & bottling of alcoholic/non-alcoholic products (capital investment on plant & machinery > ₹ 1 crore)
44	Nuclear Power Plants
45	Oil & Gas extraction including CBM (offshore & onshore extraction through drilling wells)
46	Oil and gas transportation pipeline
47	Organic chemicals manufacturing
48	Parboiled rice mills (more than 10 TPD)
49	Phosphate rock processing plant
50	Thioferous and its compounds

51	Photographic films and its chemicals
52	Ports & Harbours, Jetties and Dredging Operations
53	Power Generation Plants [Except Wind, Solar and Mini Hydel Power plants of capacity <25 MW) and DG set of capacity > 5 MVA]
54	Processes involving chlorinated hydrocarbons
55	Railway Locomotive workshops / Integrated Road transport workshop/ Authorised service centres
56	Reprocessing of used oils and waste oils
57	Ship breaking activities
58	Slaughter houses (As per the notification S.O.270(E) dated 26.03.2001) and meat processing industries, bone mill, processing of animal horns,hoofs and other body parts
59	Steel and steel products using various furnaces like blast furnaces/ open hearth furnace/ Induction furnace/ arc furnace/ submerged arc furnace /basic oxygen furnace /hot rolling using reheating furnace
60	Stone crushers
61	Surgical and medical products involving prophylactics and latex
62	Synthetic detergents and soaps (excluding formulation)
63	Synthetic fibres including rayon, tyre cord, polyester filament yarn
64	Synthetic resins
65	Synthetic rubber excluding molding
66	Tobacco products including cigarettes and tobacco/ opium processing
67	Vegetable oils including solvent extraction and refinery/ hydrogenated oils
68	<u>Yarn/ textile processing involving any effluent/ emission- generating process bleaching, dyeing, printing and scouring</u>

Note: 1. Any industry/Industrial activity which is not covered in above list having coal fired boiler with steam generation capacity more than 5 T/hr will be covered under Red Category.

Table A.3

Sl No.	Proposed list of Orange Category Industries
1	Almirah , Grill Manufacturing
2	Aluminium and copper extraction from scrap using oil fired furnace
3	Automobile servicing, repairing and painting (excluding only fuel dispensing)
4	Ayurvedic and Homeopathic medicine
5	Bakery & confectionery units with production capacity > 1 tpd]
6	Biaxially oriented PP film alongwith metalising operation
7	Brickfields (excluding fly ash brick manufacturing using lime process)
8	Building & construction projects more than 20,000 Sq mtr built up area
9	Cashew nut processing
10	Chanachur and Isdoo from puffed and beaten rice/mud and chirausing fuel, fired oven

11	Chilling plant, cold storage and ice making
12	Coffee seed processing
13	Coke briquetting (sun drying)
14	Cotton spinning and weaving (medium and large scale)
15	Cutting, sizing and polishing of marble stones
16	Dairy and dairy products (small scale) (capital investment on plant & machinery < ₹ 1 crore)
17	Dal Mills
18	DG Set of capacity >1 MVA but < 5 MVA)
19	Digital printing on PVC cloth
20	Dismantling of rolling stocks(wagons/coaches )
21	Dry cell battery (excluding manufacturing of electrodes) & assembling & charging of acid lead battery in micro scale[ < ₹ 25 lakhs]
22	Emery powder(fine dust of sand) manufacturing
23	Engineering and fabrication units (With investment on Plant & Machineries < ₹ 10 Crores)
24	Excavation of sand from the river bed(excluding manual excavation)
25	Facility of handling ,storage and transportation of food grains in bulk.
26	Fertiliser (granulation and formulation only)
27	Fish feed, poultry feed and cattle feed
28	Fish processing and packaging (excluding chilling of fish)
29	Foam manufacturing
30	Food & food processing including fruits & vegetable processing
31	Forging of ferrous & non-ferrous metal (using oil or gas fired boilers)
32	Formulation/paletization of camphor tablets, naphthalene balls from camphor/naphthalene powders
33	Glass, ceramic, earthen potteries and tile manufacturing using oil or gas fired kiln,Coating on glasses using cerium fluoride,magnesium fluoride etc.
34	Glue from starch (physical mixing)
35	Gravure printing, digital printing on flex,vinyl
36	Heat treatment using oil fired furnace (excluding cyaniding)
37	Hotels (Less than 3 star)
38	Ice cream
39	Infrastructure development project
40	Jute processing without dyeing
41	Liquid floor cleaner , black phenyl , liquid soap , glycerol monocarbonate manufacturing.

42	Manufacture of mirror from sheet glass
43	Manufacturing of iodized salt from crude/raw salt
44	Manufacturing of mosquito repellent coil
45	Manufacturing of toothpowder, toothpaste, talcum powder and other cosmetic items
46	Mechanized laundry using oil fired boiler
47	Modular wooden furniture from particle board , MDF, swan timber etc,Ceiling tiles/partition board from saw dust,wood chips etc. & other agricultural waste using synthetic adhesive resin,wooden box making
48	Packing materials manufacturing from non asbestos fibre, vegetable fibre yarn
49	Paint blending & mixing (Ball mill)
50	Pharmaceutical formulation and for R&D purpose(for sustained release/extended release of drugs only and not for commercial purpose)
51	Plyboard manufacturing (including veneer & laminate) with oil fired boiler/ thermic fluid heater (without resin plant)
52	Potable alcohol (IMFL) by blending , bottling of alcoholic products (capital investment on plant & machinery < ₹ 1 crore
53	Power press
54	Printing ink manufacturing
55	Printing or etching of glass sheet using hydrofluoric acid
56	Producer gas plant using conventional up-drift coal gasification(linked to rolling mills , glass and ceramic industry, refractories for dedicated fuel supply)
57	Pulverisation of bamboo and scrapwood
58	Repairing of electric motor & generator
59	Reprocessing of waste plastic (excluding PVC)
60	Rice mill less than 10 TPD & rice hullers
61	Rolling Mill (oil or gas fired) and cold Rolling mill
62	Saw mill
63	Seasoning of wood in steam heated chamber.
64	Silk screen printing,Saree printing by wooden blocks
65	Spice grinding (> 20 HP motor)
66	Spray painting, paint baking, paint stripping
67	Tamarind powder manufacturing
68	Tea processing
69	Thermocol manufacturing
70	Thermometer making
71	Transformer repairing/manufacturing



72	Tyres and tubes vulcanization/hot retreading
73	Wire drawing & Wire netting

Table: A.4

Sl. No.	Proposed List of Green Category Industry
1	Assembling of Acid lead battery (up to 10 batteries per day excluding lead plate casting)
2	Aluminium utensils from aluminium circles
3	Assembly of air coolers/conditioners, repairing and servicing
4	Assembly of bicycles, baby carriage and other small non-motorised vehicles
5	Automobile fuel outlet (only dispensing)
6	Ayurvedic and Homeopathic medicine (without boiler)
7	Bailing (hydraulic press) of waste papers
8	Bakery/Confectionery/Sweets production (with production capacity < 1tpd with oil, gas or electrical oven)
9	Bio fertilizer & bio-pesticide without using inorganic chemicals
10	Biomass Briquettes (sun drying) without using toxic or hazardous wastes
11	Biscuit trays etc. from rolled PVC sheet (using automatic vacuum forming machine)
12	Blending and packaging of Tea
13	Blending of melamine resins & different powder, additives by physical mixing
14	Block making for printing without foundry (excluding wooden block making)
15	Brass & Bell metal utensils manufacturing from circle (without re-Rolling facility)
16	Candy
17	Cardboard or corrugated box and paper products (excluding paper or pulp manufacturing and without using boiler)
18	Carpentry and wooden furniture manufacturing (excluding saw mill) with the help of electrical (motorized) machines such as electric wood planner, steel saw cutting circular blade etc.
19	Cement products (without using Asbestos) like pipe, pillar, jafri, well ring, blocks/tiles etc. (should be done under closed covered shed to control fugitive emissions)
20	Ceramic colour manufacturing (not using boiler and wastewater recycling process)
21	Chalk making from plaster of paris.
22	Chilling plant and Ice making without use of ammonia
23	Coated electrode manufacturing
24	Compact disc, computer floppy & cassette manufacturing
25	Compressed oxygen gas from crude liquid oxygen

26	CO2 recovery
27	Cotton and woolen hosiery making (SSI & Cottage industries)
28	Cotton spinning & weaving (small scale)
29	Decoration of ceramic cups & plates by electric furnace
30	Diesel Generator sets (15 KVA to 1 MVA)
31	Diesel pump repairing & servicing
32	Distilled water
33	Electric lamp (bulb) manufacturing (small scale)
34	Electrical & electronic items assembling
35	Flavoured bettle nut production/grinding.
36	Flour mills (dry process)
37	Fly ash bricks/blocks manufacturing
38	Fountain pen manufacturing
39	Glass ampules & vials making from glass tubes.
40	Glass putty and sealant
41	Glass, ceramic, earthen potteries and tile manufacturing using electrical kiln or not involving fossil fuel kilns
42	Gold and Silver smithy (purification with acid, smelting operation and sulfuric acid polishing operation) (using less than or equal to 1 litre of Sulphuric Acid / Nitric Acid per month)
43	Groundnut decorticating (dry)
44	Handloom/ Carpet weaving (without dyeing and bleaching operation)
45	Hotels(upto 20 rooms)
46	Insulation and other coated papers (excluding paper or pulp manufacturing) manufacturing
47	Jobbing and machining
48	Leather cutting and stitching (more than 10 machines and using motor)
49	Leather footwear and leather products (excluding tanning and hide processing) (except cottage scale)
50	Lubricating oils, greases or petroleum based products (only blending at normal temperature)
51	Manufacturing of coir items from coconut husk
52	Manufacturing of metal caps,containers etc.
53	Manufacturing of optical lenses (using electrical furnace)
54	Manufacturing of pasted veneers without using boiler or Thermic Fluid Heater or by sundrying
55	Manufacturing of shoe brush (wire brush)
56	Manufacturing of silica gel (without furnace)

57	Medical oxygen
58	Mineralized water
59	Oil mill ghani & extraction (no hydrogenation/refining)
60	Organic and inorganic nutrients (by physical mixing)
61	Organic manure ( manual mixing).
62	Paints and varnishes (mixing and blending) (without ball mill)
63	Packing of powdered milk
64	Paper pins and U-clips
65	Phenyl/ Toilet cleaner fomulation & Bottling
66	Reel manufacturing
67	Polythene & plastic processed products manufacturing (virgin plastics)
68	<i>Poultry, hatchery, Piggery *</i>
69	Power looms (without dyeing and bleaching)
70	Printing press
71	Puffed rice (muri) (using oil, gas or electrical heating system)
72	Ready mix cement concrete
73	Reprocessing of waste cotton
74	Rope (Cotton & Plastic)
75	Rubber goods industry (with baby boiler only)
76	Scientific and mathematical instruments manufacturing
77	Soap manufacturing (Handmade without steam boiling)
78	Solar module (Non conventional energy apparatus) manufacturing unit
79	Solar power generation through solar photovoltaic cell, wind power & mini hydel power (< 25 MW)
80	Spice grinding (< 20 HP motor)
81	Steel furniture without spray painting
82	Steeping and processing of grains
83	Surgical and medical products not involving effluent/emission generating processes
84	Synthetic detergent formulation
85	Teflon based products
86	Tyres and tubes retreading (without boiler)

The industry which do not fall any of the above mentioned three categories (i.e RED/ORANGE/GREEN), decision with regard to their categorization will be taken by a committee constituted by respective SPCBs/PCCs.

2<sup>nd</sup> Meeting of the Working Groups constituted by CPCB for "Inventorization of 17 Categories / Grossly Polluting Industries and Red Category of Industries" held on 14<sup>th</sup> - 15<sup>th</sup> June, 2011 at 'Central Pollution Control Board', New Delhi.

## List of participants

Sl. No.	Name	Designation	Organisation
1.	Shri J. S. Kamyotra	Member Secretary	CPCB
2.	Shri S. Mukherjee	Member Secretary	WBPCB
3.	Dr. T. K. Gupta	Chief Engineer	WBPCB
4.	Dr. A. K. Swar	SEE	Orissa SPCB
5.	Shri B. K. Baruah	SEE	Assam SPCB
6.	Shri D. Sarkar	SEE	WBPCB
7.	Shri Y. A. Tai	EE	Gujarat SPCB
8.	Dr. K. Karthikeyan	Joint Chief Env. Engineer	Tamil Nadu SPCB
9.	Shri R. S. Kori	Addl. Director	CPCB
10.	Shri R. K. Shrivastava	SE	MPPCB
11.	Shri V. B. Waghjale	AST	MPCB
12.	Shri N. K. Gupta	SEE	CPCB
13.	Ms. Reena	AEE	CPCB

Photographs of 2<sup>nd</sup> meeting of the Working Group held at CPCE, New Delhi





Photographs of 2<sup>nd</sup> meeting of Working Group held at CPGB, New Delhi

**KERALA STATE POLLUTION CONTROL BOARD****CATEGORISATION OF INDUSTRIES FOR CONSENT MANAGEMENT****I. List of industries under RED category**

I.A Industries identified by Ministry of Environment & Forests, Government of India as heavily polluting and covered under Central Action Plan, viz.;

1. Aluminium smelter
2. Cement
3. Chlor alkali
4. Copper smelter
5. Distillery Including Fermentation Industry
6. Dyes and Dye-Intermediates
7. Fertiliser
8. Iron and Steel (Involving processing from ore/scrap/Integrated steel plants)
9. Oil refinery (Mineral oil or Petro refineries)
10. Pesticides (Technical) (excluding formulation)
11. Petrochemicals (Manufacture of and not merely use of as raw material)
12. Pharmaceuticals (Basic) (excluding formulation)
13. Pulp & Paper (Paper manufacturing with or without pulping)
14. Sugar (excluding Khandasari)
15. Tanneries
16. Thermal power plants
17. Zinc smelter

**I.B Industries manufacturing following products or carrying out following activities:**

18. Anodizing
19. Asbestos and asbestos-based industries
20. Automobile manufacturing/assembly
21. Ceramic/refractory
22. Chemical, petrochemical and electrochemical including manufacture of acids such as sulphuric Acid, Nitric Acid, Phosphoric Acid etc.
23. Chlorates, perchlorates and peroxides
24. Chlorine, fluorine, bromine, iodine and their compounds
25. Coke making, coal liquefaction, coaltar distillation or fuel gas making
26. Common Effluent Treatment Plant
27. Dry coal processing/Mineral processing industries like ore sintering, pelletization etc.
28. Explosives including detonators, fuses etc.
29. Fermentation including manufacture of yeast, beer etc.
30. Fire crackers
31. Foundries
32. Glass and fibre glass production and processing (excluding moulding)
33. Glue and gelatine
34. Heavy Engineering
35. Hospitals
36. Hot Mix plants
37. Hydro cyanic acid and its derivatives
38. Incineration plants
39. Industrial carbon electrodes, graphite blocks, activated carbon, carbon black etc.
40. Industrial or inorganic gases namely
  - (a) Chemical Gases: Acetylene, Hydrogen, Chlorine, fluorine, Ammonia, Sulphur Dioxide, Ethylene, Hydrogen Sulphide, Phosphine,
  - (b) Hydrocarbon Gases: Methane, Butane, Ethane, Propane
41. Industry or process involving electroplating operations
42. Industry or process involving foundry operations
43. Industry or process involving metal treatment or process such as pickling, paint stripping,

heat treatment, phosphating or finishing etc.

44. Lead re-processing & manufacturing including lead smelting
45. Lime manufacturing
46. Lubricating oils, greases or petroleum –based products
47. Milk processing and dairy products (Integrated Project)
48. Mining and ore-beneficiation
49. Organic Chemical manufacturing
50. Parboiled rice mills
51. Paints and varnishes (including blending/mixing)
52. Petroleum products manufacturing and oil/crude oil/ residues reprocessing
53. Phosphate rock processing plants
54. Phosphorous and its compounds
55. Photographic films and chemicals
56. Pigments and intermediates
57. Potable alcohol (IMFL) by blending or distillation of alcohol
58. Power generating plants (including D.G. Sets).
59. Processes involving chlorinated hydrocarbons
60. Ship-breaking
61. Slaughter houses and meat processing units
62. Steel and steel products including coke plants involving use of any of the equipment's such as blast furnaces, open hearth furnace, induction furnace or arc furnace etc. or any of the operations or processes such as heat treatment, acid pickling, rolling or galvanising etc.
63. Stone crushers
64. Surgical and medical products involving prophylactics and latex
65. Synthetic detergent and soap (not covered under orange & green list).
66. Synthetic fibre including rayon, tyre cord, polyester filament yarn
67. Synthetic resins
68. Synthetic rubber excluding moulding
69. Tobacco products including cigarettes and tobacco processing
70. Vegetable oils including solvent extracted oils, hydro-generated oils.
71. Yarn & textile processing involving scouring, bleaching, dyeing, printing or any effluent /emission generating process.

II. List of industries under 'ORANGE' Category .

72. Automobile servicing and repairs stations
73. Brick manufacturing
74. Cashew nut processing plants (dry process)
75. Cement clinker grinding units
76. Cotton ginning, spinning and weaving
77. Fishing processing
78. Flour mills (excluding Domestic Aatta Chakki)
79. Food additives, nutrients and flavours
80. Food including fruits and vegetable processing
81. Fragrances and industrial perfumes
82. Hotels and restaurants
83. Instant tea/coffee, coffee processing
84. Khandsari sugar
85. Laboratory chemicals involving distillation, purification process
86. Laboratory-ware
87. Lead-acid batter reconditioning/assembly
88. Malted food
89. Manufacture of mirror from sheet glass and photo framing
90. Manufacture of synthetic detergent intermediates (other than formulated synthetic detergent products)
91. Manufacture of soaps (process generating trade effluent)
92. Metal treatment or process involving surface coating and paint backing
93. Non-alcoholic beverages (soft drinks)
94. NPK Fertilisers/Granulation
95. Organic nutrients
96. Pesticides/ Insecticides/ Fungicides/ Herbicides/ Agrochemical formulation
97. Petroleum products/ crude oil storage and transfer excluding cross-country pipeline



98. Pharmaceuticals formulation
99. Plywood and Board manufacturing
100. Pre-boiled rice mills
101. Pulping and fermenting of coffee beans
102. Pulverizing units
103. Surgical and medical products involving effluent/emission generating processes
104. Tyres and tubes vulcanisation, vulcanisation, re-treading moulding
105. Wire drawing (cold process) and baling straps.

**III. List of Industries under "GREEN" category.**

1. Apparel making
2. Assembly of air coolers, conditioners
3. Assembly of bicycles, baby carriage and other small non-motorised vehicles
4. Atta-chakkles
5. Bakery products, biscuits confectionery
6. Bamboo and cane products (only dry operations)
7. Block making for printing
8. Bulk Cement terminal
9. Cardboard or corrugated box and paper products (Paper or pulp manufacturing excluded).
10. Carpet weaving
11. Chilling plants and cold storage
12. Cotton and woollen hosiery
13. Dal mills
14. Electronic and electrical goods
15. Electronics equipment (Assembly)
16. Footwear (rubber and PVC).
17. Fountain pens.
18. Garments stitching, tailoring
19. Gold and silver smithy
20. Gold and silver thread sari work
21. Groundnut decorticating (dry)
22. Ice-cream or ice-making
23. Industrial Gases, namely; Air, Oxygen, Nitrogen, Argon, Helium, Carbon dioxide, Nitrous Oxide
24. Insulation and other coated papers (Paper or pulp manufacturing excluded).
25. Jobbing and machining
26. Leather footwear and leather products excluding tanning and hide processing
27. Light engineering
28. Manufacture of formulated synthetic detergent products
29. Manufacture of soaps involving process without generation of trade effluent (saponification of fats and fatty acids only)
30. Medical and surgical instruments
31. Mineralised water
32. Musical instruments manufacturing
33. Oil ginning/expelling (no hydrogenation/refining)
34. Optical frames
35. Paint (by mixing process only)
36. Paper pins and U-clips
37. Plastic & PVC processed goods
38. Polythene, plastic and P.V.C. goods through injection/ extrusion moulding
39. Power looms/handlooms (without dyeing & bleaching)
40. Printing press
41. Radio assembling
42. Rice millers
43. Rope (cotton and plastic)
44. Rubber goods industry
45. Scientific and mathematical instruments
46. Shoelace manufacturing
47. Sports goods
48. Stamping and processing of grains
49. Sugar (cold hot) and masala grinding

50. Thermometer making
51. Toys
52. Wasting of used sand by hydraulic discharge
53. Water softening and demineralised plants.

**Note:** The industry which do not fall under any of the above mentioned categories (i.e. Red/Orange/Green), decision with regard to their categorisation will be taken by a Committee constituted by the Board including the Member Secretary and two senior officers of the Board.

By order of the Governor,  
K.RAMAMOORTHY  
SECRETARY TO GOVERNMENT

### MADHYA PRADESH POLLUTION CONTROL BOARD

#### Classification of Industries For Consent Management

[Categories: Red, Orange & Green ]

##### I. List of Industries under 'RED' Category:-

**A. Industries identified by Ministry of Environment & Forests, Govt. of India as heavily polluting and covered under Central Action Plan, viz.**

- 1) Aluminum smelter
- 2) Cement
- 3) Chlor alkali
- 4) Copper smelter
- 5) Distillery including Fermentation industry.
- 6) Dyes and Dye-intermediates.
- 7) Fertiliser.
- 8) Iron and Steel (Involving processing from ore/ scrap/Integrated steel plants)
- 9) Oil refinery (Mineral oil or Petro refineries).
- 10) Pesticides (Technical) (excluding formulation).
- 11) Petrochemicals (Manufacture of and not merely use of as raw material).
- 12) Pharmaceuticals (Basic) (excluding formulation).
- 13) Pulp & Paper (Paper manufacturing with or without pulping).
- 14) Sugar (excluding Khandsari)
- 15) Tanneries
- 16) Thermal power plants
- 17) Zinc smelter

**B. Industries manufacturing following products or carrying out following activities**

- 18) Anodizing.
- 19) Asbestos and asbestos-based industries.
- 20) Ceramic/ refractories.
- 21) Chemical, petrochemical and electrochemical including manufacture of acids such as Sulphuric Acid, Nitric Acid, Phosphoric Acid etc.
- 22) Chlorates, per chlorates and peroxides.
- 23) Chlorine, fluorine, bromine, iodine and their compounds.
- 24) Coke making, coal liquefaction, coal tar distillation or fuel gas making.
- 25) Dry coat processing/ Mineral processing industries like ore sintering, palletization, etc.
- 26) Explosives including detonators, fuses etc.

- 27) Fermentation industry including manufacture of yeast, beer etc.
- 28) Fire crackers.
- 29) Glass and fiber glass production and processing.
- 30) Glue and gelatine.
- 31) Hospitals
- 32) Hot Mix plants
- 33) Hydrocyanic acid and its derivatives.
- 34) Incineration plants
- 35) Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black etc.
- 36) Industrial or inorganic gases.
- 37) Industry or process involving electroplating operations.
- 38) Industry or process involving foundry operations.
- 39) Industry or process involving metal treatment or process such as pickling, surface coating, paint baking, paint stripping, heat treatment, phosphating or finishing etc.
- 40) Lead processing and battery reconditioning & manufacturing including lead smelting.
- 41) Lime manufacturing
- 42) Lubricating oils, greases or petroleum - based products.
- 43) Milk processing and dairy products (Integrated Project).
- 44) Mining and ore-beneficiation
- 45) Paints and varnishes (excluding blending/mixing).
- 46) Petroleum products involving storage, transfer or processing.
- 47) Phosphate rock processing plants.
- 48) Phosphorous and its compounds.
- 49) Photographic films and chemicals.
- 50) Pigments and intermediates.
- 51) Potable alcohol (IMFL) by blending or distillation of alcohol.
- 52) Power generating plants (excluding D.G. Sets).
- 53) Processes involving chlorinated hydrocarbons.
- 54) Slaughter houses and meat processing units.
- 55) Steel and steel products including coke plants involving use of any of the equipment's such as blast furnaces, open hearth furnace, induction furnace
- 56) Surgical and medical products involving prophylactics and latex.
- 57) Synthetic detergent and soap.
- 58) Synthetic fiber including rayon, tyre cord, polyester filament yarn.
- 59) Synthetic resins.
- 60) Synthetic rubber.
- 61) Tobacco products including cigarettes and tobacco processing.
- 62) Tyres and tubes Vulcanisation/Retreading/ moulding).
- 63) Vegetable oils including solvent extracted oils, hydro-generated oils.
- 64) Yarn and textile processing involving scouring, bleaching, dyeing, printing or any effluent/emission generating process.
24. Tyres and tubes vulcanisation, vulcanisation, retreading, moulding.
25. Wire drawing (cold process) and bailing straps.

**III. List of Industries under "GREEN" category'**

A. Industries in Small Scale, Cottage/Village category suggested under notification of the State Government for issuance of simplified NOC/ Consent from State Pollution Control

Board, as the case may be.

B. All those industries or processes which are not covered under the "Red" and/or "Orange" category; an illustrative list is provided below.

1. Apparel making
2. Assembly of air coolers, conditioners.
3. Assembly of bicycles, baby carriage and other small non-motorised vehicles.
4. Assembly of domestic electrical appliances.
5. Atta-chakkies.
6. Bakery products, biscuits confectionery.
7. Bamboo and cane products (only dry operations)
8. Block making for printing.
9. Candles.
10. Cardboard or corrugated box and paper products (Paper or pulp manufacturing excluded).
11. Carpentry (excluding saw mill).
12. Carpet weaving.
13. Chilling plants and cold storages.
14. Cotton and woolen hosiery.
15. Dal mills.
16. Electronic and electrical goods.
17. Electronics equipment (Assembly).
18. Footwear (rubber).
19. Fountain pens.
20. Furniture (wooden and steel).
21. Garments stitching, tailoring.
22. Gold and silver smithy.
23. Gold and silver thread zari work.
24. Groundnut decorticating (dry).
25. Handloom weaving
26. Ice-cream or Ice-making.
27. Insulation and other coated papers (Paper or pulp manufacturing excluded).
28. Jobbing and machining.
29. Leather footwear and leather products excluding tanning and hide processing.
30. Manufacture of steel trunks and suitcases.
31. Medical and surgical instruments
32. Mineralised water.
33. Musical instruments manufacturing.
34. Oil ginning/expelling (no hydrogenation/refining).
35. Optical frames.
36. Paint (by mixing process only).
37. Paper pins and U-clips.
38. Plastic processed goods.
39. Polythene, plastic and P.V.C. goods through extrusion moulding.
40. Powerlooms//handlooms (without dyeing & bleaching).
41. Printing press.
42. Radio assembling.
43. Rice millers.

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44. Rope (cotton and plastic).
45. Rubber goods industry.
46. Scientific and mathematical instruments.
47. Shoelace manufacturing
48. Sports goods.
49. Steeping and processing of grains.
50. Supari (Betelnut) and masala grinding.
51. Tailoring and garment making.
52. Thermometer making.
53. Toys.
54. Wasting of used sand by hydraulic discharge.
55. Water softening and demineralised plants.

Note: The industry which do not fall any of the above mentioned three categories (i.e.Red/Orange/Green), decision with regard to their categorisation will be taken by acommittee at Head. Office level comprising of the Member Secretary and two senior officers of the Board.

### Andhra Pradesh Pollution Control Board

#### List of Industries under RED category

1	Distillery including Fermentation industry
2	Sugar (excluding Khandsari)
3	Fertiliser.
4	Pulp & Paper (Paper manufacturing with or without pulping)
5	Chlor alkali
6	Pharmaceuticals (Basic) (excluding formulation)
7	Dyes and Dye-intermediates
8	Pesticides (Technical) (excluding formulation)
9	Oil refinery (Mineral oil or Petro refineries)
10	Tanneries
11	Petrochemicals (Manufacture of and not merely use of as raw material)
12	Cement and large size Clinker grinding units (above 50 T/day)
13	Thermal Power Plants
14	Iron and Steel (Involving processing from ore/scrap/Integrated steel plants)

15	Zinc smelter
16	Copper smelter
17	Aluminium smelter
18	Tyres and tubes Vulcanisation/Retreading/moulding
19	Synthetic rubber
20	Glass and fiber glass production and processing
21	Industrial carbon including electrodes and graphita blocks, activated carbon, carbon black etc.
22	Paints and varnishes (excluding blending/ mixing)
23	Pigments and intermediates.
24	Synthetic resins.
25	Petroleum products involving storage, transfer or processing.
26	Lubricating oils, greases or petroleum- based products
27	Synthetic fiber including rayon, tyre cord, Polyester filament yarn.
28	Surgical and medical products involving prophylactics and latex.
29	Synthetic detergent and soap.
30	Photographic films and chemicals.
31	Chemical, petrochemical and Electrochemicals including manufacture of acids such as Sulphuric Acid, Nitric Acid, Phosphoric Acid etc
32	Chlorates, perchlorates and peroxides.
33	Glue and gelatin
34	Yarn and textile processing involving scouring, bleaching, dyeing, printing or any effluent/emission generating process.
35	Vegetable oils including solvent extracted oils, hydro-generated oils.
36	Industry or process involving metal treatment or process such as pickling, surface coating, paint baking, paint stripping, heat treatment, phosphating or finishing etc.
37	Industry or process involving electroplating operations.
38	Asbestos and asbestos-based industries.
39	Slaughter houses and meat processing units.

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40	Fermentation industry including manufacture of yeast, beer etc.
41	Steel and steel products including coke, plants involving use of any of the equipments such as blast furnace, open hearth furnace, induction furnace or arc furnace etc or any of the operations or processes such as heat treatment, acid pickling, rolling or galvanising etc.
42	Incineration plants.
43	Power generating plants (excluding D.G. Sets)
44	Lime manufacturing
45	Tobacco products including cigarettes and tobacco processing
46	Dry coal processing/ Mineral processing industries like ore sintering, palletization etc.
47	Phosphate rock processing plants.
48	Coke making, coal liquefaction, coal tar distillation or fuel gas making.
49	Phosphorous and its compounds.
50	Explosives including detonators, fuses etc.
51	Fire crackers
52	Processes involving chlorinated hydrocarbons.
53	Chlorine, fluorine, bromine, iodine and their compounds.
54	Hydrocyanic acid and its derivatives.
55	Milk processing and dairy products (Integrated Project)
56	Industry or process involving foundry operations.
57	Potable alcohol (IMFL) by blending or distillation of alcohol
58	Anodizing
59	Ceramic/ refractories
60	Lead processing and battery reconditions & manufacturing including lead smelting.
61	Hot Mix Plants
62	Hospitals
63	Mining and ore-benefaction.
64	Nickel and cadmium batteries

65	Nuclear power and related projects such as heavy water plants, nuclear fuel complex, rare earths, Nuclear fuel
66	Bio-Technology Unit
67	Asphaltic roofing sheets and allied products
68	Cement bonded particle boards
69	Common Effluent treatment plant (CEPT)
70	Silicon Carbide Manufacturing (mineral Processing)
71	Automobiles manufacturing / assembling
72	Heavy engineering
73	Electro-thermal products (artificial abrasives, calcium carbide etc. )
74	Straw board
75	Industrial gases namely (a) chemical gases: Acetylene, Hydrogen, Phosphine, (b) Hydrocarbon Gases: Methane, Butane, Ethane, Propane.
76	Cooking of fillers, digesting
77	Alumina storage, handling and transportation
78	Production of Arsenic
79	Production of non-ferrous metals
80	Ship breaking units
81	Paint removers
82	Printing and copying with liquid toner
83	Production or use of materials made with silicones (excluding cements)
84	Production or use of plastics or raw materials for them
85	Production of cosmetics. (involving usage of flammable gases or solvents)
86	Production, formulation or use of wood preservatives.
87	LPG Storage and Bottling facilities
88	Production of alloys
89	Production/ use of cadmium
90	Production or use of latex

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91	Extraction of Amino acids from hair
92	Petro- chemical Intermediates
93	Manufacture of Furfural.
94	Petroleum products manufacturing and oil / crude oil / residues re-processing.
95	Acid / Alkali storage , handling and transportation.
96	Highway projects
97	Port, Harbours, Air ports (except minor ports and harbour)
98	River valley projects including hydel power, major irrigation and their combination including flood control.
99	Tar Roads in Forest areas.
100	Dredging Operation
101	All Tourism Projects between 200 M $\diamond$ 500 Meters of High Tide Line or at locations with an elevation of more than 1000 meters

### Gujarat pollution Control Board

#### LIST OF INDUSTRIES UNDER 'RED' CATEGORY

##### **A. Industries identified by Ministry of Environment & Forests, Government of India as heavily polluting and covered under Central Action Plan. Viz;**

1. Distillery including Fermentation industry
2. Sugar (excluding Khandasari)
3. Fertilizer
4. Pulp and Paper (Paper manufacturing with or without pulping)
5. Chlor alkali
6. Pharmaceuticals(Basic) (excluding formulation)
7. Dyes and Dye-intermediates
8. Pesticides (Technical) (excluding formulation)
9. Oil refinery (Mineral oil or Petro refineries)
10. Tanneries
11. Petrochemicals (Manufacture of and not merely use of as raw material)
12. Cement
13. Thermal power plants
14. Iron and Steel (Involving processing from ore/scrap/Integrated steel plants)
15. Zinc smelter
16. Copper smelter
17. Aluminium smelter
18. Tyres and tubes (excluding Vulcanisation /Retreating/moulding)
19. Synthetic rubber
20. Glass and fiberglass production and processing

21. Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black etc
22. Paints and varnishes (excluding blending/mixing)
23. Pigments and intermediates
24. Synthetic resins
25. Petroleum products involving storage, transfer or processing
26. Lubricating oils, greases or petroleum-based products
27. Synthetic fibers including rayon, tyre cord, polyester filament yarn
28. Surgical and medical products involving prophylactics and latex
29. Synthetic detergent and soap
30. Photographic films and chemicals
31. Chemical, petrochemical and electrochemical including manufacture of acids such as Sulphuric Acid, Nitric Acid, Phosphoric Acid etc
32. Industrial or inorganic gases
33. Chlorates, per chlorates and peroxides
34. Glue and gelatin
35. Yarn and textile processing involving scouring, bleaching, dyeing, printing or any effluent/ emission generating process
36. Vegetable oils including solvent extracted oils, hydrogenated oils
37. Industry or process involving metal treatment or processes such as pickling, surface coating, paint baking, paint stripping, heat treatment, phosphating or finishing etc
38. Industry or process involving electroplating operations
39. Asbestos and asbestos-based industries
40. Slaughter houses and meat processing units
41. Fermentation industry including manufacture of yeast, beer etc
42. Steel and steel products including coke plants involving use of any of the equipments such as blast furnaces, open hearth Furnace, induction furnace or arc furnace etc or any of the operations or processes such as heat treatment, acid pickling, rolling or galvanizing etc
43. Incineration plant
44. Power generating plants (excluding DG Sets)
45. Lime manufacturing
46. Tobacco products including cigarettes and tobacco processing
47. Dry coal processing/Mineral processing industries like ore sintering, palletization etc
48. Phosphate rock processing plants
49. Coke making, coal liquefaction, coal tar distillation or fuel gas making
50. Phosphate and detonators, fuses etc.
51. Explosive including detonators, etc
52. Fire crackers
53. Processes involving chlorinated hydrocarbon
54. Chlorine, fluorine, bromine, iodine and their compounds
55. Hydrocyanic acid and its derivatives
56. Milk processing and dairy products (Integrated project)
57. Industry or process involving foundry operations
58. Potable alcohol (IMFL) by blending or distillation of alcohol

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59. Anodizing
60. Ceramic/refractoriness
61. Lead processing and battery reconditioning & manufacturing including lead smelting
62. Hot mix plants
63. Hospitals
64. Mining and ore-beneficiation
65. Miscellaneous

### **JHARKHAND STATE POLLUTION CONTROL BOARD**

#### **Industries under RED HAZARDOUS category**

1. Aluminium smelter.
2. Cement large including clinker making.
3. Chlor alkali.
4. Copper smelte.
5. Distillery including Fermentation Industry.
6. Dyes and dye -intermediatas.
7. Fertiliser .
8. Iron and Steel (Involving processing from ore/scrap/ integrated steel plants) .
9. Oil refinery (Mineral oil or petro refineries0).
10. Pesticides (Technical ) (excluding formulation).
11. Petrochemicals (Manufacture of and not merely use of raw materials).
12. Pharmaceuticals (Basic).
13. Pulp & paper (paper manufacturing with or without pulping).
14. Tanneries.
15. Thermal power plants.
16. Zinc smelter.
17. Asbestos and asbestos -based industries.
18. Ceramic / refractory.
19. Chemical petrochemical and electrochemical including manufacture of acids  
Such as Sulphuric Acid, Nitric Acid phosphoric Acid etc.
20. Chlorates ,perchlorates and peroxides.
21. Chlorine, fluorine ,bromine ,iodine and their compounds.
22. Coke making, coal liquefaction ,coaltar distillation or fuel gas making
23. Explosives including detonators ,fuses etc.
24. Fire Crackers.
25. Foundries excluding induction furnace.
26. Glass and Fiber Glass Production and processing (excluding moulding).
27. Hydrocyanic acid and its d28. Industrial carbon including electrodes and graphite blocks ,  
activated carbon  
.carbon black etc.
29. Industrial or inorganic gases namely (a)Chemical Gases; Acetylene  
Hydrogen,Chlorine,Fluorine ,Ammonia ,Sulphur Dioxide ,Ethylene , Hydrogen  
sulphide,phosphine , (b)Hydrocarbon Gases ; Methane, Butane Ethane ,propane  
Oxygen gas,
30. Industry or process involving electroplating operations.
31. Lead re-processing & manufacturing including lead smelting.
32. Organic Chemical manufacturing.
33. Paints and varnishes (excluding blending/ Mixing).

34. Phosphorous and its compounds.
35. Pigments and intermediates.
36. Power generating plants (excluding DG Sets).
37. Processes involving chlorinated hydrocarbons.
38. Steel and Steel products including Coke Plants involving use of any of the equipment's such as blast furnaces .open hearth furnace . Induction furnace or Arc furnace etc, or any of the operations or processes such as heat treatment . Acid pickling, rolling or galvanizing etc.
39. Synthetic resins.
40. Vegetable oils including solvent Extracted Oils ,Hydro-generated Oils
41. Pesticides/ Insecticides/ Fungicides /Herbicides / Agrochemical manufacturing.
42. Petroleum products /Crude Oil Storage and Transfer excluding Cross -country pipeline. derivatives.

**Industries under RED MAJOR POLLUTING category (Group-A)**

1. Sugar (excluding Khandasari).
2. Automobile manufacturing.
3. Dry coal processing/ mineral processing industries like ore sintering palletization etc.
4. Fermentation industry including manufacture of yeast, beer etc,
5. Heavy Engineering.
6. Induction furnace.
7. Industry or process involving metal treatment or process such as pickling, paint stripping heat treatment ,phosphating or finishing etc.
8. Lubricating oils ,greases or petroleum -based products.
9. Milk processing & dairy products (Integrated project).
10. Petroleum products manufacturing & Oil /Crude oil/reprocessing.
11. Phosphate rock processing plants.
12. Slaughter houses and meat processing units.
13. Anodising units.
14. Synthetic Detergent and soap (Excluding manual mixing).
15. Synthetic fibre including rayon, tyre cord, polyester filament yarn.
16. Synthetic rubber excluding moulding.
17. Tobacco products including Digarettes and Tobacco processing.
18. Yarn and textile processing involving scouring ,bleaching ,dyeing printing or any effluent/ emission generating process.
19. Shellac processing units .
20. Utensils manufacturing units having melting and pickling arrangements.
21. Breweries /Alchoal botling plantas -having secondary distillation facilities /Non - alcoholic beverage plants.
22. Reclamation of rubber , manufacture of rubber solution containing mineral naphtha & rubber waste.
23. Plyboard manufacturing (with captive manufacturing plant).
24. Rolling Mills.
25. Preservation/Digestion of Hides.
26. Pesticides /Insecticides / Fungicides /Herbicides/ Agrochemical formulation.

**PART-C: Industries under RED MAJOR POLLUTING category (Group-E)**

1. Lime manufacturing.
2. Photographic Films and Chemicals.

3. Potable alcohol (IMFL) by Blending and Distillation of Alcohol
4. Ship Breaking.
5. Surgical and medical products.
6. Tyres and tubes vulcanization/hot retreading (Using boiler) moulding.
7. Rubber goods industry (with boiler ).
8. Food and food processing (with more than 10lakhs investment on plant &machinery).
9. Confectionery (with production capacity less than 4T/d).
10. Manufacture o soaps (process generating trade effluent).
11. Solvent extraction
12. Glass molding units.
13. Tobacco Gutka manufacturing units.
14. Ceramic cup saucers making units.
15. Unit manufacturing ceramic sanitary ware.
16. Glue and gelatin.
17. Parboiled Rice Mills.
18. Large size Clinker /Mineral grinding units (above 50T/d).
19. Pulverizing units.
20. Casting units using pit Furnace.

## **WEST BENGAL POLLUTION CONTROL BOARD**

### **List of Industries under "SPECIAL RED" Category**

1. Acid lead batteries including lead plate casting (more than 10 batteries per day)
2. All mining activities including queries
3. Aluminium smelter
4. Asbestos and asbestos-based industries
5. Basic drug & pharmaceutical (excluding formulation)
6. Calcium carbide manufacturing
7. Cast iron foundry
8. Cement (excluding simple grinding)
9. Chemical, petrochemical and electrochemical, manufacture (including distillation) of mineral acids such as Sulphuric acid, Nitric acid, Hydrochloric acid, Phosphoric acid etc. and their salts, manufacture of alum
10. Chlorates, perchlorates and peroxides
11. Chlorine, fluorine, bromine, iodine and their compounds
12. Chloro alkali
13. Coke making, coal liquefaction, coal tar distillation, processing of coal tar distillate or fuel gas making, coke briquetting (excluding sundrying)

14. Copper smelter
15. Dichromate and chromates & basic chrome sulfate
16. Distillery including fermentation industry (including manufacture of yeast & beer)
17. Dyes and dye-intermediates
18. Electroplating operations
19. Explosives including detonators, fuses etc. & their storage
20. Ferrous & Non-ferrous metal extraction (different furnaces & smelting), refining, casting, forging (with coal fired boilers), alloy making etc.
21. Fertiliser (Basic) (excluding granulation & formulation only)
22. Glass and ceramics (excluding tile manufacturing)
23. Hazardous waste/Bio-medical waste disposal facilities
24. Hydrocyanic acid and its derivatives
25. Incineration plants
26. Industry or process involving metal treatment or process such as pickling, surface coating (excluding spray, manual brush, paint baking, paint stripping), heat treatment (only cyaniding), phosphating, galvanising, anodising etc.
27. Integrated textile mills (processing involving scouring, bleaching, dyeing, printing or any effluent/emission generating process) and dyeing of other fabrics
28. Iron and Steel (involving processing from ore / scrap / integrated steel plants) including coke plants and steel products involving use of any of the equipment such as blast furnaces, open hearth furnace, induction furnace or arc furnace etc.
29. Isolated storage of hazardous chemicals (as per schedule of Manufacture, Storage & Import of Hazardous Chemicals Rules, 1989), etc.
30. Lead smelting, refining and manufacture of its oxides
31. Non-alcoholic beverages (soft drinks) and only bottling of alcoholic products (capital investment on plant & machinery > 1 crore)
32. Oil refinery (Mineral oil or Petro refineries)
33. Paints and varnishes (excluding units with only blending & mixing)
34. Pesticides (including formulation)
35. Petrochemicals (manufacture of and not merely use of as raw material)
36. Phenolic products
37. Phosphorous and its compounds

38. Pigments and intermediates
39. Power plants (including hydel power, thermal power, nuclear power etc.) (excluding Diesel Generator sets and captive power plant)
40. Power plant (captive)
41. Processes involving chlorinated hydrocarbons
42. Pulp & Paper (excluding paper manufacturing by hydropulping and excluding manufacture of Straw board, Gray board & Duplex board)
43. Radioactive elements
44. Rolling mill (hot) (coal fired)
45. Rubber chemicals
46. Ship breaking activity
47. Slaughter houses and meat processing units
48. Sugar
49. Synthetic & natural fibre including rayon, tyre cord, polyester filament yarn & raw woolen, raw silk, cellophane paper, cellulose nitrate
50. Synthetic resins
51. Synthetic rubber
52. Tanneries
53. Vegetable oils & edible oils including solvent extracted oils, hydrogenated oils
54. Waste Oil Processing (any method)
55. Zinc smelter

**# Siting policy for Special Red category industries:** Industries mentioned in the list of Special Red category cannot be permitted in Municipal areas falling under Kolkata Metropolitan Area (KMA). These can however be set up beyond the Municipal areas of KMA with adequate pollution abatement system subject to site clearance by local bodies. However, for the categories of industries in serial number 23, 25, 29, 40 & 46 of the above list, the consideration for siting in KMA will be location specific and will be decided by the Board.

**List of Industries under "ORDINARY RED" Category**

1. Acid slurry (sulphonation)
2. Bitumen processing and products
3. Bone Mill
4. Composite woollen mill including dewaxing of raw wool and raw silk

66. Supari (Betelnut) grinding
67. Surgical and medical products not involving effluent/emission generating processes
68. Sweet shop
69. Synthetic detergent formulation (capital investment on plant & machinery < Rs. 5 lakhs)
70. Tea garden only
71. Thermocol manufacturing
72. Thermometer making
73. Toys (only electronic & mechanical) manufacturing
74. Transformer repairing/manufacturing (should not be allowed in congested areas)
75. Tyres and tubes retreading (without boiler)
76. Vineer, laminate (without boiler and thermic fluid heater)
77. Washing of used sand by hydraulic discharge
78. Washing, chilling of fish and packaging only
79. Water softening and demineralised plants

#### **Siting policy for Green category industries**

List of industries under Green category can be permitted in any area in the state with adequate pollution control measures subject to the site clearance by local body.

#### **List of Industries under "EXEMPTED" Category.**

1. Agarbati
2. Assembly of domestic electrical appliances, servicing & repairing
3. Atta Chakkis (wheat grinding)
4. Ball Pen Refill
5. Bamboo and Cane products (only dry operation)
6. Biogas Plant
7. Black smithy (should not be allowed in congested areas)
8. Book Binding
9. Candles manufacturing
10. Carpentry and wooden furniture making (excluding saw mill)
11. Coir manufacturing



12. Cyber cafe
13. Diesel Generator sets (< 15 KVA) sets for residential buildings, commercial buildings and health care organisation
14. Earthen potteries & tile manufacturing (not involving kiln)
15. Gold and silver smithy (excluding purification/ polishing with any acid and smelting operation)
16. Handicraft products like terracotta, conchshell, coconutshell, dokra, cane and bamboo products, baluchari saree, stone carving, wood carving, batik, sola work etc.
17. Handloom weaving (without dyeing & bleaching)
18. Handmade paper
19. Hardware assembling for IT industries
20. Leather cutting and stitching (not more than or equal to 10 machines and without using motor)
21. Leather footwear & leather products (excluding tanning & hide processing) (cottage scale only)
22. Manual brass painting
23. Manufacture of steel trunks & suitcases
24. Mushroom Plantation and spawn
25. Manufacturing of umbrella (only assembling)
26. Musical instrument manufacturing
27. Optical frames
28. Optical lens manufacturing (without furnace)
29. Photo framing
30. Radio assembling servicing & repairing work
31. Repairing & servicing of bicycles, baby carriage and other non-motorised vehicles
32. Repairing & servicing of electronic equipment
33. Shoelace manufacturing
34. Soap (handmade)
35. Soft toys, wooden toys manufacturing
36. Software development for information & technology industry
37. Sports goods manufacturing

**38. Tailoring & garment stitching/garment & Apparel manufacturing**

**39. Tea packaging**

**40. Wooden block making for printing**

**41. Xerox & Photocopying**

**42. Zari embroidery work**