

APPENDICES

APPENDIX - I

LIST OF SMALL SCALE INDUSTRIES KEPT OUTSIDE THE PURVIEW OF POLLUTION CONTROL LEGISLATION

1. Motor Rewinding
2. Automobile repair shops, body building units, subject to noise pollution.
3. Engineering workshop, Machine Shop, Press Shop, Sheet Metal fabrication, Grinding, General fabrication, subject to noise pollution.
4. Motor and pump making (without foundry), transformers (without oil).
5. Bi-Cycle and Tri-Cycle parts making unit (without electroplating).
6. Bi-Cycle assembling unit.
7. Belt fasteners unit (Steel).
8. Fabrication units connected with Animal drawn vehicles, agricultural implements, trailers.
9. General wire industries like wire drawing, barbed wire, chain links making units.
10. Block making, Printing, Offset Printing.
11. Bottle Washers, Bottle Coolers.
12. Black Smithy Shop.
13. Drawing, surveying and other instruments making units.
14. Weighing machines making unit.
15. Automobile, Car, Truck, Tractor, Two wheeler parts and accessories making unit (without electroplating and heat treatment).
16. Carpentry units-making items for housing and construction and industrial.
17. Brush making units with fibres/plastic.
18. Furniture making units - Steel and Wood.
19. Musical Instruments.

20. Blue Metal crushing units (1 Km.away from habitation NH/SH and sensitive areas).
21. Building materials like padlocks, towerbolts, reinforcement, scaffolding.
22. Aluminium, Stainless Steel, Brass Vessel making unit.
23. Crown crok making units.
24. Paper Pins, U Clips, Pen holders (without electroplating), Pencils, Pen and Paper Products.
25. Radio, VCR, T.V. Audio Video Equipments Assembly and servicing.
26. PCB Assembly with Electronic Components like capacitors, resistors, Diodes.
27. Rolling shutters.
28. Hand tools (without involving forging, heat treatment, plating).
29. AC, Room Coolers, Water Cooler/heaters.
30. House hold appliances - Stoves, Cookers, Toaster, Kitchen equipments (without plating).
31. Nails, Screws.
32. Sports Goods.
33. Toys
34. Umbrella, Raincoats, Tarpaulins.
35. Mosaic Tiles, Cement Pipes, Spun Pipes.
36. Brick making - manual and wire cut-unit.
37. Electrical Switches, Panel board.
38. Plastic Cable manufacturing.
39. Finished leather goods - conversion of finished leathers.
40. Agarbathi (Dry Process), other Cosmetic products manufactured by blending.
41. Soaps, Detergents, Phynyl (Excluding manufacture of acid slurry)
42. Dry distempers (without kiln/furnace)
43. Floor Polish, Nail Polish, Tooth Powder.
44. Hair Oil, Shampoo, Tooth Paste,

45. Mineralised Water and Aerated Water (not exceeding 500 bottles/day)
46. Insulation and other coated papers - papers and pulp excluded - paper conversions like cone, tubes, bags, boards and cartons, envelopes, saucers, cardboard and paper products, napkins, dishes, stencil, labels and transfer labels, teleprinter rools, tape, toilet paper and wax coated.
47. Wax Candles (Excluding manufacture of wax).
48. Tablets, Capsules and dry formulation units of pharmaceutical industry.
49. Essential Oil and olecoresins.
50. Fruit pulping, concentrates, pickles, pappads.
52. Biscuits, paste, Confectionery, Bread, Bakery 100 Kg/day.
53. Cooly flour and Hulling Mills and domestic wet grinding unit.
54. Rice hulling, milling, atta, groundnut, decorticating drying, gaurgum gillet grinding.
55. Mirror making.
56. Railway Sleepers (Concrete)
57. Bamboo and cane products.
58. Wooden boats and trawlers.
59. Wood Crates and packing.
60. Cotton and Woolen hosiery apparel.
61. Cotton Knitwear, tape, socks.
62. Cotton Spinning and Yarn doubling and weaving 25 HP.
63. All garments.
64. Surgical gauzes, bandages, stove vick, shoe lace, filling tags.
65. Handloom weaving.
66. Fiberglass mouldings, plastic fabrications, extrusions, injection mouldings.
67. PVC Components, coated products.
68. Lab & Scientific equipments without plating.
69. Plastic sack bags, woven sack, PA, Polynit, HDPE, CDPE, PVC tubes.
70. Generator not more than 135 HP.

71. Units making aluminium Vessels/Brass Vessels (without wet operations).
72. Saw Mills (not in residential Area).
73. Gold Smithy Shops (House Hold)
74. Small dyeing units (Quantity of Effluent 50 lit/day)
75. Small Hotels, Coffee/Tea Shop, Snack bars & Hotels.
76. Oil Expeller.
77. Goods Transport Units.
78. Ice Factories.
79. Poultry Farms.
80. Match Units.
81. Sericulture Units.
82. Wet grinder Assembly Units.
83. Packing units.
84. Colour/Soda factories (Soft drink not exceeding 500 bottles/day).
85. Scented edible Hydrated Lime Units.
86. Betal nuts cracking.
87. Chewing tobacco.
88. Biogas.
89. Coir units (without soaking)
90. Polythene bags.
91. Plastic Articles.
92. Bumber Wood.
93. Small Ceramics.
94. Cashew Roasting.
95. Snuff.
96. Book binding.
97. Fire Works.
98. Beedi units.
99. Ice Boxes.
100. Shoe lacing.

101. Silver smithy (House Hold units)
102. Fountain pens.
103. P.V.C. Goods.
104. Optical Frames.
105. Coir Furnishing units.
106. Eucalyptus Oil Extraction.
107. Coffee grinding
108. Needle packing
109. Vermicelli.
110. Cabinets.
111. Clinics.
112. Optical Glass.
113. Mat Weaving.
114. Chilling.
115. Dal Mills.
116. Rope (Cotton and Plastic).
117. Cold Storage (Small Scale).
118. Raw Garnet sand industries.
119. Fragrance Manufacturing units.
120. Pharmaceutical like liquid orals, injectables, creams, drugs etc., which generates effluent not exceeding 1000 litres per day and having sufficient land for evaporating such effluent or provide proper disposal arrangement.
121. Briquetted fuel.
122. Rubber moulded goods.
123. Tyre retreading - subject to availability of adequate land to let out the treated effluent or arrangements to dispose the treated effluent through proper drains.
124. Rubber oil seals.
125. Nylon zips manufacturing unit (without electroplating)

126. Paints and varnishes - only blending units.
127. Extraction and bottling of sugarcane juice.
128. Fruit pulps, jams, juices bottling units which generate effluent not exceeding 1000 litres per day and having sufficient land for evaporating such effluent or provide proper disposal arrangements.
129. Plaster of paris, chalk crayons.
130. Mosaic tiles.
131. Energy metres - Assembly units where no electroplating is involved and no effluent is generated.
132. G.I.Buckets - Fabrication From G.I. Sheet alone, provided the units are not in residential areas.
133. Battery chargers, Eliminators - Electronic units.
134. Water meters assembling units without electroplating and trade effluent.
135. Pressure guages assembling units without electroplating and trad effluent.
136. Electrical and Electronic instruments assembling units., provided there is no electroplating involved.
137. Diamond cutting, polishing - mechanished industry.
138. Tableting and packing of camphor.
139. Cement hollow and solid blocks, Cement pipes.
140. Screen printing, Anodising of labels - Hand operated units alone.
141. Printing presses - Except Litho printing press.
142. Leather goods manufacturing from cured leather (Excluding leather Board).

APPENDIX - II
RED CATEGORY INDUSTRIES

1. Lime manufacture pending decision on proven pollution control device and Supreme Court's Section on quarrying.
2. Ceramics.
3. Sanitary - ware.
4. Tyres and tubes.
5. Refuse incineration.
6. Large flour mills.
7. Vegetable oils including solvent extracted oils.
8. Soap without steam boiling process and synthetic detergent formulations.
9. Steam generating plants.
10. Manufacture of machineries and machine tools and equipments.
11. Manufacture of office and house-hold equipment and appliances involving use of fossil fuel combustion.
12. Industrial gases (only nitrogen, oxygen and O₂)
13. Miscellaneous glassware without involving use of fossil-fuel combustion.
14. Optical glass.
15. Petroleum storage and transfer facilities.
16. Surgical and medical products including prophylotics and latex products.
17. Bakery products, biscuits and confectioneries.
18. Instant tea/coffee; coffee processing.
19. Malted food.
20. Manufacture of power driven pumps, compressors, refrigeration units, fire fighting equipment etc.
21. Acetylene (synthetic).
22. Glue and gelatine
23. Metallic sodium.
24. Photographic films, papers and photographic chemicals.

25. Plant nutrients (Manure).
26. Ferrous and non-ferrous metal extraction, refining, casting, forging, alloy making processing etc.
27. Dry coal processing/mineral processing industries like oresintering, beneficiation, pelletization etc.
28. Phosphate rock processing plants.
29. Cement plants with horizontal rotary kilns.
30. Cement plant with vertical shaft kiln technology-pending certification of proven technology on pollution control.
31. Glass and glass products involving use of coal.
32. Petroleum refinery.
33. Petrochemical industries.
34. Manufacture of lubricating oils and greases.
35. Synthetic rubber manufacture.
36. Coal, oil, nuclear and wood based thermal power plants.
37. Vanaspati, hydrogenated vegetable oils for industrial purposes.
38. Sugar mills (white and khandasari).
39. Craft paper mills.
40. Coke oven by-products and coal-tar-distillation products.
41. Alkalies.
42. Caustic soda.
43. Potash.
44. Electro-thermal products (artificial abrasives, calcium carbide etc).
45. Phosphorous and its compounds.
46. Acids and their salts (organic and inorganic).
47. Nitrogen compounds 9 Cyanides, cyanamides and other nitrogen compounds).
48. Explosives (including industrial explosive, detonators and fuses).
49. Phthalic anhydride.
50. Processes involving chlorinated hydrocarbon.

51. Chlorine, fluorine, bromine, iodine and their compounds.
52. Fertilizer industry.
53. Paper board and straw boards.
54. Synthetic fibres.
55. Insecticides, fungicides, herbicides and pesticides (basic manufacture and formulation).
56. Basic drugs.
57. Alcohol (industrial or potable).
58. Leather industry including tanning and processing.
59. Coke making, coal liquification and fuel gas making, industries.
60. Fibre glass production and processing.
61. Refractories
62. Manufacture of pulp-wood pulp, mechanical or chemical (including dissolving pulp).
63. Pigment dyes and their intermediates.
64. Industrial carbons (including graphite electrodes, anodes, midget electrodes, graphite, blocks, crucibles, gas carbons, activated, carbon synthetic, diamonds, carbon black, lamp etc.).
65. Electrochemicals (other than those covered under alkali group).
66. Paints, enamels and varnishes.
67. Poly propylene.
68. Poly vinyl chloride.
69. Chlorates, perchlorates and peroxides.
70. Polishes.
71. Synthetic resin and plastic products.

APPENDIX - III
'ORANGE' CATEGORY INDUSTRY

1. Electroplating.
2. Galvanizing.
3. Manufacture of mirror from sheet glass and photoframing.
4. Surgical gauges and bandages.
5. Cotton spinning and weaving.
6. Wires, pipes-extruded shapes from metals.
7. Automobile servicing and repair stations.
8. Restaurants.
9. Ice cream.
10. Mineralised water and soft drinks bottling plants.
11. Formulations of pharmaceutical.
12. Dyeing and printing (small units).
13. Laboratory ware.
14. Wire drawing (cold process) and bailing straps.
15. Steel furniture, fasteners etc.
16. Potassium permanganate.
17. Surface coating industries.
18. Fragrance, flavours and food additives.
19. Aerated water/soft drink.
20. Light engineering industry excluding fabrication.
21. Electroplating.
22. Small textile industry.
23. Dye industry.
24. Pharmaceutical industry formulation.
25. Plastic Industry.
26. Chemical industry.
27. Readymade garment industry.

28. Flour Mills.
29. Bleaching.
30. Decreasing.
31. Phosphating.
32. Dyeing.
33. Pickling, tanning.
34. Polishing.
35. Cooking of fibres, digesting.
36. Desizing of fabric.
37. Unhairing, soaking, delimiting and bating of hide.
38. Washing of fabric.
39. Trimming, cutting, juicing and blanching of fruits and vegetables.
40. Washing of equipment and regular food washing using considerable cooling water.
41. Separated milk and whey.
42. Steeping and processing of grain.
43. Distillation of alcohol, stillage evaporation.
44. Slaughtering of animals, rendering of bones, washing of meat.
45. Juicing of sugar cane, extraction of sugar.
46. Filtration, centrifugation, distillation.
47. Pulping and fermenting of coffee beans.
48. Processing of fish.
49. DM Plant exceeding 20 Kilo litres per day capacity.
50. Pulp making, pulp processing and paper making.
51. Coking of coal, washing coal, furnace flue gases.

APPENDIX - IV

GREEN CATEGORY INDUSTRIES

1. Wasting of used sand by hydraulic discharge.
2. Atta - chakkies.
3. Rice millers.
4. Ice boxes.
5. Dal mills.
6. Ground nut decorticating (dry).
7. Chilling.
8. Tailoring and garment making.
9. Cotton and woollen hosiery.
10. Apparel making.
11. Handloom weaving.
12. Shoe lace manufacturing.
13. Gold and silver thread and zari work.
14. Gold and silver smithy.
15. Leather foot wear and leather products excluding tanning and hide processing.
16. Musical instruments manufacturing.
17. Sports goods.
18. Bamboo and cane products (only dry operations).
19. Card board box and paper products (paper and pulp manufacture excluded).
20. Insulation and other coated papers (paper and pulp manufacture excluded).
21. Scientific and mathematical instruments.
22. Furniture (wooden and steel).
23. Assembly of domestic electrical appliances.
24. Radio assembling.

25. Fountain pens.
26. Polythene, plastic and P.V.C. goods through extrusion/moulding.
27. Rope (cotton and plastic).
28. Carpet weaving.
29. Assembly of air coolers, conditioners.
30. Assembly of bicycles, baby carriages and other small non-motorized vehicles.
31. Electronics equipment (assembly).
32. Toys.
33. Candles
34. Carpentry-excluding saw mill.
35. Cold storages (small scale).
36. Oil ginning/expelling (no hydrogenation and no refining).
37. Jobbing and machining.
38. Manufacture of steel trunks and suitcases.
39. Paper pins and U-clips.
40. Block making for printing.
41. Optical frames.
42. Tyre retreading.
43. Power Looms and handlooms (without dyeing and bleaching).
44. Printing press.
45. Garments stitching, tailoring.
46. Thermometer making
47. Foot-wear (rubber).
48. Plastic processed goods.
49. Medical and surgical instruments.
50. Electronic and electrical goods.
51. Rubber goods industry.

APPENDIX - V

INTERVIEW SCHEDULE TO INDUSTRIES

1. Name of the Unit :
2. Location of the unit :
3. Name of the local body : 1. Panchayat
 (Please tick) 2. Town Panchayat
 3. Municipality
 4. Corporation
4. Category of the unit : 1. Red 2. Orange
 3. Green
5. Classification of the Units : 1. Sugar 6. Refineries
 2. Cement 7. Petro Chemical
 3. Thermal 8. Pesticide
 4. Distillery 9. Pharmaceutical
 5. Fertilizer 10. Dye
6. State whether the land is owned or leasehold : 1. Owned 2. Leasehold
 (please tick)
7. Products Manufactured
- a. _____ TM
 b. _____ TM
 c. _____ TM
 d. _____ TM

8. Raw-materials used

- a. _____ TM
- b. _____ TM
- c. _____ TM
- d. _____ TM

9. Whether Air Pollution Control operation and maintenance staff employed in the unit? : Yes/No

If Yes state

- a. Number of Technical Staff :
- b. Number of Non-technical Staff :

10. Whether APC consultant employed in the unit? : Yes/No

11. Sources of Emission

- a. Process : Yes/No
- b. Boilers : Yes/No
- c. Generators : Yes/No

12. Air Pollution control measures provided in the unit (please tick) :

- | | | | |
|----------------------|--------------------------|---------------------------|--------------------------|
| a. Cyclone separator | <input type="checkbox"/> | d. Dust Extraction system | <input type="checkbox"/> |
| b. Scrubbers | <input type="checkbox"/> | e. Fly ash arrestors | <input type="checkbox"/> |
| c. Bag filters | <input type="checkbox"/> | f. Stacks | <input type="checkbox"/> |

13.a. Number of Air Pollution Control measures under operation :

b. Number of Air Pollution Control measures not under operation :

14. Details of solid waste :

- a. Quantity _____ Tons/day
- b. Whether Treated
- Not-treated

15. Air (Prevention and Control of Pollution) Act 1981 :
- a. Whether applied : Yes/No
- b. Whether consent obtained from Pollution Control Board : Yes/No
16. Details of compliance of conditions of the Air Act : Complied Yet to comply
17. Whether Ambient Air survey has been conducted : Yes/No
18. State whether periodic inspection has been carried out by the Pollution Control Board : Yes/No
19. State whether any complaint regarding pollution : Yes/No
- If yes state who lodged the complaint :
- a. Public c. Both
- b. Workers
20. Details of Action taken by Pollution Control Board over the complaints :
- a. Show cause notice given
- b. Referred in the court
- c. Unit asked to close
- d. Unit asked to provide Air Pollution Control measure immediately
- e. No action
21. Habitation details
- a. Distance from the unit _____ KM
- b. Population _____ (in thousand)
22. Whether green belt is developed within the factory : Yes/No

APPENDIX - VI

INTERVIEW SCHEDULE TO EMPLOYEES

1. Name of the Employee :

2. Age (in years) :

Below 30	<input type="checkbox"/>	40 - 50	<input type="checkbox"/>
30 - 40	<input type="checkbox"/>	Above 50	<input type="checkbox"/>

3. Educational Qualification :

Below S.S.L.C	<input type="checkbox"/>	S.S.L.C.	<input type="checkbox"/>
H.S.C.	<input type="checkbox"/>	Diploma	<input type="checkbox"/>
Graduate	<input type="checkbox"/>		

4. Name of the Industry where the respondent is employed :

5. Designation :

Contract Labour	<input type="checkbox"/>	Worker	<input type="checkbox"/>
Supervisor	<input type="checkbox"/>	Executive	<input type="checkbox"/>

6. Monthly Income :

Below 3000	<input type="checkbox"/>	3000 - 4500	<input type="checkbox"/>
(in Rupees) 4500 - 6000	<input type="checkbox"/>	6000 - 7500	<input type="checkbox"/>
Above 7500	<input type="checkbox"/>		

7. Duration of service in :

Below 5	<input type="checkbox"/>	5 - 10	<input type="checkbox"/>
10 - 15	<input type="checkbox"/>	15 - 20	<input type="checkbox"/>
Above 20	<input type="checkbox"/>		

8. Are you provided with personal protective equipment for your safety? : Yes/No

9. If yes, please list them out :
 - 1.
 - 2.
 - 3.
 - 4.

10. Do you use the protective equipment always? : Yes/No

11. If not, Why? :

12. Are the given protective equipments sufficient for your safety? : Yes/No

13. If not, what should be given for your full protection (please specify) : 1.
2.
3.

14. Have you ever suffered from any disease? : Yes/No

15. If yes, please tick them :

- | | | | |
|----------------------------|-------------------------------------|---------------|--------------------------|
| 1. Irritation of eyes | <input type="checkbox"/> | 8. Asthma | <input type="checkbox"/> |
| 2. Tiredness | <input type="checkbox"/> | 9. Headache | <input type="checkbox"/> |
| 3. Inflammation | <input type="checkbox"/> | 10. Cough | <input type="checkbox"/> |
| 4. Impaired vision | <input type="checkbox"/> | 11. Vertigo | <input type="checkbox"/> |
| 5. Sore throat/stuffy nose | <input checked="" type="checkbox"/> | 12. Nausea | <input type="checkbox"/> |
| 6. Respiratory diseases | <input type="checkbox"/> | 13. Any other | <input type="checkbox"/> |
| 7. Heart Diseases | <input checked="" type="checkbox"/> | | |

16. Have you faced these problems before you joined this industry? : Yes/No

17. Did you inform your employer about the diseases that affected you? : Yes/No

18. If yes, did he help to cure your problems? : Yes/No

19. If yes, what kind of help did he render? : 1. Monetary help
2. Medical help
3. Any other help

20. Besides the medical facility given by your employer did you undertake medical treatment elsewhere? : Yes/No
21. If yes, please state the reasons for that : 1.
2.
22. State whether periodical Medical check up is carried out or not : Yes/No
23. Whether the industry is operating the Air pollution control measures sincerely and continuously? : Yes/No
24. State whether an unpleasant specific odour is perceived : 1. Strong
(please tick) 2. Weak
3. Constantly
4. From time to time
5. Never
25. Do industrial gases and dust interfere with ventilation of the industry? : Yes/No
26. Is there smoky atmosphere in and around the factory? : Yes/No
27. Has your company conducted any training programme in relation to pollution control? If so for how many days? : Yes/No _____ days

SIGNATURE

APPENDIX - VII
INTERVIEW SCHEDULE TO PUBLIC

1. Name _____
2. Address _____
3. Age (in years) : Below 30 40 - 50
30 - 40 Above 50
4. Occupation : Agriculture Govt. Service
(please tick) Business Others
5. Do gases, dust, and soot reach the house? : Yes/No
6. If so, from which factory? :
7. Distance from the factory or factories concerned : _____ KM
8. State whether an unpleasant, specific odour is perceived Strong From time to time
(please tick) Weak Never
Constantly
9. Manifestation of illness : Cough Nausea
(please tick) Headache Grit in the eyes
Vertigo None
10. Do industrial gases and dust affect animals, vegetation and domestic utensils?
(please specify) :

11. Do the dust and gases interfere with ventilation of the flats? : Yes/No
12. Does dust or soot rest over the washed cloths in the yard? : Yes/No
13. Is there smoky atmosphere in your residential area? : Yes/No

Signature of the respondent

APPENDIX - VIII

INTERVIEW SCHEDULE TO PHYSICIANS

1. Name :
2. Qualification :
3. Employment : Full time/Part time
4. Years of experience in this unit :
5. What type of cases you normally come across among the employees working in this unit? (please tick)

- | | | | |
|------------------------|--------------------------|------------------------------|--------------------------|
| 1. Respiratory disease | <input type="checkbox"/> | 7. Headache | <input type="checkbox"/> |
| 2. Heart Disease | <input type="checkbox"/> | 8. Irritation of eyes | <input type="checkbox"/> |
| 3. Asthmatics | <input type="checkbox"/> | 9. Attachs nocuous membranes | <input type="checkbox"/> |
| 4. Chronic bronchitis | <input type="checkbox"/> | 10. Pulmonary emphysema | <input type="checkbox"/> |
| 5. Impaired vision | <input type="checkbox"/> | 11. Any other | <input type="checkbox"/> |
| 6. Sore throat | <input type="checkbox"/> | | |

6. How many cases do you normally receive every year? :
7. Is the nature of the case severe or mild? :
8. Do you give treatment to such patients in your hospital itself? :

9. If no, why do you send them to other hospitals? :

1. Lack of sufficient facilities

2. Complicated nature of the disease

3. Any other reason

10. Does the company offer all help to treat the employees affected by pollution? :

Yes/No

SIGNATURE