



- (i) For Cement Plants, including Grinding Units, located in critically polluted\* or urban areas with a population of one lakh and above (including 5 Km distance outside urban boundary):

**HIGHLIGHTED SECTION IS OMITTED**

Particulate matter 100mg/Nm<sup>3</sup>

- (ii) New Cement Kilns, including Grinding Units to be installed after the date of notification:

Particulate Matter 50 mg/Nm<sup>3</sup>

\* As per the guidelines of the Central Pollution Control Board.” ;

- (II) the serial number 18, relating to 'Aluminum; and entries relating thereto shall be omitted;
- (III) in serial number 27, relating to 'Asbestos manufacturing units (including all processes involving the use of Asbestos), in column 4, for the existing entries, the following entries shall be substituted, namely:-

| 1 | 2 | 3 | 4 |
|---|---|---|---|
|---|---|---|---|

|   |                        |  |
|---|------------------------|--|
| - | Pure Asbestos material | “ 0.5 fibre */cc for one year from the date of notification    |
|   |                        | 0.2 fibre */cc after one year from the date of notification” ; |

- (IV) in serial number 36, relating to 'Aluminum Plants ,-

(a) in item (b), for the sub-item (ii) and (iii) and entries relating thereto, the following entries shall respectively be substituted namely:-

| 1 | 2 | 3 | 4 |
|---|---|---|---|
|---|---|---|---|

“ (ii) Anode Bake Oven -do- 50 mg/Nm<sup>3</sup>

(iii) Pot room Total fluoride 2.8 Kg/ton by 31<sup>st</sup>

For Soderberg\*  
Technology

December 2006

For Pre-baked  
Technology

0.8 kg/t by 31<sup>st</sup> December  
2006.

\* Separate standards for VSS, HSS, PBSW & PBCW as given in column 4 stands abolished.”;

(b) for the item (c) and entries relating thereto, the following entries shall be substituted, namely:-

|   |   |   |   |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

“(c) Standards for forage fluoride-

- Twelve consecutive months average - 40 ppm
- Two consecutive months average - 60 ppm
- One month average - 80 ppm” ;

(V) in serial number 40, relating to '**Pesticides Manufacturing and Formulation Industry**', the following entries shall be inserted at the end, namely:-

|   |   |   |   |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

**EMISSIONS**

not to exceed  
mg/Nm<sup>3</sup>

**HIGHLIGHTED  
SECTION IS OMITTED**

|  |      |
|--|------|
|  | 20   |
|  | 5    |
|  | 5    |
| P <sub>2</sub> O <sub>5</sub> (as H <sub>3</sub> PO <sub>4</sub> ) | 10   |
| NH <sub>3</sub>  | 30   |
| Particulate matter with pesticides compounds                       | 20   |
| CH <sub>3</sub> Cl   | 20   |
| HBr  | 5” ; |

(VI) in serial number 79, relating to '**Coke oven plants** (by product recovery type)', for the existing entries, the following entries shall be substituted, namely:-

|   |   |   |   |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

|                                    |   |  |                                     |  |                    |  |
|------------------------------------|---|--|-------------------------------------|--|--------------------|--|
| "79                                | <b>Coke Oven Plants</b><br>(by product recovery type) |  | New Batteries (at Green Field Site) | Rebuild Batteries                              | Existing Batteries |  |
|                                    |   | <b>Fugitive Visible Emissions</b>  |                                     |  |                    |  |
|                                    |   | (a) Leakage from door  | 5 (PLD)*                            | 10 (PLD)*                                      | 10 (PLD)*          |  |
|                                    |   | (b) Leakage from charging lids   | 1 (PLL)*                            | 1 (PLL)*                                       | 1 (PLL)*           |  |
|                                    |   | (c) Leakage from AP Covers   | 4 (PLO)*                            | 4 (PLO)*                                       | 4 (PLO)*           |  |
|                                    |   | (d) Charging emission (second/charge)  | 16 (with HPLA)*                     | 50 (with HPLA)*                                | 75                 |  |
|                                    |   | <b>Stack Emission of Coke Oven</b>   |                                     |  |                    |  |
|                                    |   |  | 800                                 | 800  | 800                |  |
|                                    |   |  | 500                                 | 500  | 500                |  |
|                                    |   |  | 50                                  | 50   | 50                 |  |
|                                    |   | (d) SPM emission during charging - for stamp charging batteries (stack emission mg/Nm <sup>3</sup> ) | 25                                  | 25   | 25                 |  |
|                                    |   | (e) SPM emission during coke pushing (stack emission) gm/ton of coke                                 | 5                                   | 5 (applicable to stationary land based system) | -                  |  |
|                                    |   | (f) Sulphur in Coke Oven gas used for heating (mg/Nm <sup>3</sup> )                                  | 800                                 | -  | -                  |  |
|                                    |   | <b>Emission for quenching operation</b>  |                                     |  |                    |  |
|                                    |   | (a) Particulate matter gm/tonne of coke produced   | 50                                  | 50   | -                  |  |
|                                    |   | <b>Benzo-Pyrene (BaP) concentration in work zone air (ug/m<sup>3</sup>)</b>                          |                                     |  |                    |  |
|                                    |   | (a) Battery area (top of the battery)  | 5                                   | 5  | 5                  |  |
| (b) Other units in coke oven plant | 2   | 2  | 2                                   |  |                    |  |

**HIGHLIGHTED SECTION IS OMITTED**

|  |  |   |    |    |    |
|--|--|---|----|----|----|
|  |  | (c) Ambient air standards (mg/Nm <sup>3</sup> ) | 10 | 10 | 10 |
|--|--|---|----|----|----|

For control of emissions and to maintain environmental quality in work zone area, the following guidelines shall be followed, namely:

(i) New coke oven units shall follow any of the low-emission procedures, such as, coke dry cooling, non-recovery coke-ovens. Indirect Quenching Process, Jumbo coke oven reactor, Modified Wet Quenching System with appropriate environmental controls (e.g. baffles, filtering media, collection and treatment of residual water from quench tower and recycling; Treated effluent conforming to the effluent discharge standards can be used for quenching. Use of untreated process water as quenching water shall not be permissible).

(ii) Effective pollution control measures e.g. Extensive maintenance and cleaning of oven doors and frame seals, ascension pipes, charging holes and lids and other equipment; On-main charging system (HPLA);

Luting charging holes with clay-suspension; Modified guide/transfer car with emission control system etc. shall be used to reduce coal charging and coke pushing emissions.

**HIGHLIGHTED SECTION IS OMITTED**

(iii) For new coke oven batteries, the following measures be adopted:

(b) the hydro-jet cleaning system shall be provided for the door and door frame cleaning with a facility of hydro jet pressure of 600 kg/cm<sup>2</sup>;

(c) the charging should be accomplished with hermetically sealed charging sleeves and screw feeder in charging car. The charging car should also be equipped with magnetic lid lifter and lid and frame cleaning mechanism (applicable to top charging batteries);

(d) to provide aspiration through high-pressure ammonia liquor (HPLA) injection in goose neck and emission should be transferred directly to gas collecting mains;

(e) water sealed AP covers should be provided;

(f) computerized combustion control and moisture control systems.

(iv) In addition to the above the new coke oven batteries, which will be installed after the date of publication of this notification at green field

site and rebuild batteries wherever technically feasible should also be equipped to treat their pushing emissions with stationary land-based system with collection hood and wet scrubbing units for gas cleaning.

- (v) In the case of existing coke ovens with wet quenching, the new procedures as in (i) and (ii) shall be adopted.

## HIGHLIGHTED SECTION IS OMITTED

standards i.e. PLD\*, PLL\* and PLO\*,  
(i).

Note: Units set up after the publication of this notification shall be treated as new units.

- \*HPLA - Aspiration through high pressure liquor injection in gooseneck;
- \*PLD - Percent leaking doors;
- \* PLL - Percent leaking lids; and
- \* PLO - Percent leaking off takes.

[F. No. Q-15017/95/2000-CPW]

**R. K. VAISH**  
**JOINT SECRETARY TO THE GOVT. OF INDIA**

**Note:** The principal rules were published in the Gazette of India vide number S.O. 844 (E) dated 19<sup>th</sup> November, 1986 and subsequently amended vide S.O. 433(E) dated 18<sup>th</sup> April, 1987, S.O. 64(E) dated 18<sup>th</sup> January, 1988, S.O. 3(E) dated 3<sup>rd</sup> January, 1989, S.O. 190(E) dated 15<sup>th</sup> March, 1989, G.S.R. 913(E) dated 24<sup>th</sup> October, 1989, S.O. 12(E) dated the 8<sup>th</sup> January, 1990, G.S.R. 742(E) dated the 30<sup>th</sup> August, 1990, S.O. 23(E) dated the 16<sup>th</sup> January, 1991, G.S.R. 93(E) dated the 21<sup>st</sup> February, 1991, G.S.R. 95(E) dated the 12<sup>th</sup> February, 1992, G.S.R. 329(E) dated the 13<sup>th</sup> March, 1992, G.S.R. 475(E) dated the 5<sup>th</sup> May, 1992, G.S.R. 797(E) dated the 1<sup>st</sup> October, 1992, G.S.R. 386(E) dated the 28<sup>th</sup> April, 1993, G.S.R. 422(E) dated the 19<sup>th</sup> May, 1993, G.S.R. 801(E) dated the 31<sup>st</sup> December, 1993, G.S.R. 176(E) dated the 3<sup>rd</sup> April, 1996, G.S.R. 631(E) dated the 31<sup>st</sup> October, 1997, G.S.R. 504(E) dated the 20<sup>th</sup> August, 1998, G.S.R. 7(E) dated the 2<sup>nd</sup> January, 1999, G.S.R. 682(E) dated the 6<sup>th</sup> October, 1999, G.S.R. 742(E) dated the 25<sup>th</sup> September, 2000, G.S.R. 72(E) dated the 6<sup>th</sup> February, 2001, G.S.R. 54(E) dated the 22<sup>nd</sup> January, 2002, G.S.R. 371(E) dated the 17<sup>th</sup> May, 2002, G.S.R. 489(E) dated the 9<sup>th</sup> July, 2002, S.O. 1088(E) dated the 11<sup>th</sup> October, 2002, G.S.R. 849(E) dated the 30<sup>th</sup> December, 2002, G.S.R. 520(E) dated the 1<sup>st</sup> July, 2003 and G.S.R. 92(E) dated the 29<sup>th</sup> January, 2004, G.S.R. 448 (E) dated the 12<sup>th</sup> July, 2004 and Corrigenda G.S.R.

520(E) dated 12<sup>th</sup> August, 2004, G.S.R 272 (E) dated 5<sup>th</sup> May 2005, G.S.R. 315 (E) dated 16<sup>th</sup> May 2005 and G.S.R.546 (E) dated 30<sup>th</sup> August, 2005.