

MINISTRY OF ENVIRONMENT AND FORESTS
NOTIFICATION
New Delhi, the 3rd February, 2006

G.S.R. 46 (E). - In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely: -

- (1) These rules may be called the Environment (Protection) First Amendment Rules, 2006.
- (2) They shall come into force on the date of their publication in the Official Gazette or otherwise as mentioned.

2. In the Environment (Protection) Rules, 1986, in Schedule I, -

(I) in serial number 10, relating to '**Cement Plants Total Dust**', for the existing entries, the following entries shall be substituted, namely:-

| S. No. | Industry | Parameter | Standards |
|--------|----------|-----------|-----------|
| 1 | 2 | 3 | 4 |

"10. **Cement Plants** not to exceed mg/Nm³

A. Total Dust

Plant Capacity

(i) 200 tonnes/day (all sections) 400

(ii) Greater than 200 tonnes/day (all sections) 250

B. Emissions

- (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):

Particulate matter 100mg/Nm³

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

Particulate Matter 50 mg/Nm³

* 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 ³ |
|------------------------|------|-----------------------|

| | | |
|----------------|----------------|--------------------------------|
| (iii) Pot room | Total fluoride | 2.8 Kg/ton by 31 st |
|----------------|----------------|--------------------------------|

For Soderberg*
Technology

December 2006

For Pre-baked
Technology

0.8 kg/t by 31st 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 ³ |
|--|-------------------------------------|
| HCl | 20 |
| Cl ₂ | 5 |
| H ₂ S | 5 |
| P ₂ O ₅ (as H ₃ PO ₄) | 10 |
| NH ₃ | 30 |
| Particulate matter with pesticides compounds | 20 |
| CH ₃ 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 | Coke Oven Plants (by product recovery type) | | New Batteries (at Green Field Site) | Rebuild Batteries | Existing Batteries |
| | | Fugitive Visible Emissions | | | |
| | | (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 |
| | | Stack Emission of Coke Oven | | | |
| | | (a) SO ₂ (mg/Nm ³) | 800 | 800 | 800 |
| | | (b) NO _x (mg/Nm ³) | 500 | 500 | 500 |
| | | (c) SPM (mg/Nm ³) | 50 | 50 | 50 |
| | | (d) SPM emission during charging - for stamp charging batteries (stack emission mg/Nm ³) | 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 ³) | 800 | - | - |
| | | Emission for quenching operation | | | |
| | | (a) Particulate matter gm/tonne of coke produced | 50 | 50 | - |
| | | Benzo-Pyrene (BaP) concentration in work zone air (ug/m³) | | | |
| | | (a) Battery area (top of the battery) | 5 | 5 | 5 |
| | | (b) Other units in coke oven plant | 2 | 2 | 2 |

| | | | | |
|--|---|----|----|----|
| | (c) Ambient air standards (mg/Nm ³) | 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.
- (iii) During rebuilding or installing new coke oven batteries, the following clean technology and pollution control measures be adopted:
 - (a) air-cooled self-sealing doors;
 - (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/cm²;
 - (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.
- (vi) The fugitive visible emission standards i.e. PLD*, PLL* and PLO*, charging emission (second/charge).

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

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