

Sl. No.	Industry	Parameter	Standard		
			New Batteries (at Green Field Site)	Rebuild Batteries	Existing Batteries
<b>Fugitive Visible Emissions</b>					
<sup>1</sup> [ <sup>2</sup> 79	<b>COKE OVEN PLANTS</b> (by product recovery type)	(a) Leakage from door (b) Leakage from charging lids (c) Leakage from AP Covers (d) Charging emission (Second/charge)	5(PLD)* 1(PLL)* 4(PLO)* 16(with HPLA)*	10(PLD)* 1(PLL)* 4(PLO)* 50 (with HPLA)*	10(PLD)* 1 (PLL)* 4(PLO)* 75
<b>Stack Emission of Coke Oven</b>					
	(a) SO <sub>2</sub> (mg/Nm <sup>3</sup> )		800	800	800
	(b) NO <sub>x</sub> ,(mg/ Nm <sup>3</sup> )		500	500	500
	(c) SPM,(mg/Nm <sup>3</sup> )		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 (µg/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
	(c) Ambient standards (mg/Nm <sup>3</sup> )		10	10	10

<sup>1</sup> Substituted by Rule 2(vi) by Rule 2(VI) of the Environment (Protection) First Amendment Rules, 2006 notified vide Notification G.S.R.46(E), dated 3.2.2006.

<sup>2</sup> Sl. No. 79 and entries relating thereto inserted by the Environment (Protection) Second Amendment Rules, 1997 vide G.S.R. 631(E), dated 31.10.1997.

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; Use of process water as quenching water shall not be permissible).
- (ii) Effective pollution control measures (for 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/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.
- (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].

**<sup>1</sup>[80. SPECIFICATIONS OF TWO-STROKE ENGINE OIL :**

Specification	Standard	Test Procedure
Two-stroke engine oil grade JASO-FC as per  JASO M-345-93 specification And API TC as per specification No.ASTM D 4859	Minimum smoke Index of 85.	JASO-M342-92 for JASO-FC and ASTM D-4857 for API TC

The above specification shall be effective from the 1<sup>st</sup> day of April,1999.]

**<sup>2</sup>[81. BATTERY MANUFACTURING INDUSTRY**

**(i) Lead Acid Battery Manufacturing Industries. Emission Standards.**

Source	Pollutant	Concentration based Standards (mg/Nm <sup>3</sup> )
Grid casting	Lead	10
	Particulate matter	25
Oxide manufacturing	Lead	10
	Particulate matter	25
Paste mixing	Lead	10
	Particulate matter	25
Assembling	Lead	10
	Particulate matter	25
PVC Section	Particulate matter	150

<sup>1</sup> Sl. No. 80 and entries relating thereto inserted by the Environment (Protection) Amendment Rules, 1998 vide G.S.R. 504 (E), dated 20.8.1998.

<sup>2</sup> Sl. No. 81 to 87 and entries relating thereto inserted by the Environment (Protection) Amendment Rules, 1998 vide G.S.R. 7 (E), dated 22.12.1998.