Environmental Standards

Emission

CERAMIC INDUSTRY : EMISSION STANDARDS

Sections		Pollutants	Concentration in mg/Nm^3
A.	**Kilns**		
	(a) Tunnel, Top Hat, Chamber	Particulate Matter	150
		Fluoride	10
		Chloride	100
		Sulphur dioxide	**
	(b) Down-draft	Particulate Matter	1200
		Fluoride	10
		Chloride	1000
		Sulphur dioxide	**
	(c) Shuttle	Particulate Matter	150
		Fluoride	10
		Chloride	100
		Sulphur dioxide	**
	(d) Vertical Shaft Kiln	Particulate Matter	250
		Fluoride	10
		Sulphur dioxide	**
	(e) Tank Furnace	Particulate Matter	150
		Fluoride	10
		Sulphur dioxide	**
B.	**Raw Material handling, Processing and operations**		
	(a) Dry raw materials handling and processing operations	Particulate Matter	150
	(b) Basic raw material and processing operations	Particulate Matter	*
	(c) Other sources of air pollution generation	Particulate Matter	*
C.	**Automatic Spray Unit**		
	(a)Dryers		
	(i) Fuel fired dryers	Particulate.Matter	150
	(ii) For heat recovery dryers	Particulate Matter	*
	(b) Mechanical finishing operation	Particulate Matter	*
	(c) Lime/Plaster of Paris manufacture		
	Capacity:	**Stack Height**	
	Upto 5 tpd	-do-	Hood should be provided with a stack of 30 metre height from ground level (including Kiln height) $H=14(Q)^{0.3}$ Where Q is

			emission rate of SO_2 in kg/hr and H = Stack Height in metres
	more than 5 tpd and up to 40 tpd	Particulate Matter	500 mg/Nm^3
	More than 40 tpd	-do-	150 mg/Nm^3

Note : Oxygen reference level for particulate matter concentration calculations for Kilns mentioned at A(c) is 18% and for those at A(b), A(d), and A(e) is 8%.

* All possible preventive measures should be taken to control pollution as far as racticable.

** The standard for sulphur dioxide in terms of stack height limits for kilns with arious capacities of coal consumption shall be as indicated below.

Coal Consumption per day	Stack Height (metre)
Less than 8.5 MT	9
More than 8.5 to 21 MT	12
More than 21 to 42 MT	15
More than 42 to 64 MT	18
More than 64 to 104 MT	21
More than 104 to 105 MT	24
More than 105 to 126 MT	27
More than 126 MT	30 or using formula.
	$H - 14(Q)^{0.3}$ which ever is more

Note :
H = Physical stack height
Q = Sulphurdioxide emission, kg/hr

Source : EPA Notification [GER 475 (E), dt. 5.5.1992