82. ENVIRONMENTAL STANDARDS FOR GAS/NAPTHA-BASED THERMAL POWER PLANTS

(i) Limit for emissions of NOx

(a) For existing units---150ppm (v/v) at 15% excess oxygen.

(b) For new units with effect from 1.6.1999.

Total generation of gas turbine		Limit for Stack NOx emission [v/v),at 15% excess oxygen]	
(a)	400 MW and above	(i) (ii)	50 ppm for the units burning natural gas. 100 ppm for the units burning naphtha.
(b)	Less than 400 MW but Upto 100 MW	(i) (ii)	75 ppm for the units burning natural gas. 100 ppm for the units burning naphtha
(c)	Less than 100 MW		100 ppm for units burning natural gas or naphtha as fuel
(d)	For the plants burning gas in a conventional boiler.		100 ppm

(ii) Stack height H in m should be calculated using the formula $H=14\ Q^{0.3}$, where Q is the emission rate of SO_2 in kg/hr, subject to a minimum of 30 mts.

(iii) Liquid waste discharge limit.

Parameter	Maximum limit of concentration (mg/l except for pH and temperature)
pH	6.5-8.5
Temperature	As applicable for other thermal power Plants
Free available chlorine	0.5
Suspended solids	100.0
Oil and grease	20.0
Copper (total)	1.0
Iron (total)	1.0
Zinc	1.0
Chromium (total)	0.2
Phosphate	5.0