A. Integrated Iron and Steel Plants

A.1. Emission[1]

S.no	Process stack of following units	Relevant parameter
1.	Coke oven (by-product type)	SO_2, NO_x, PM
2.	Sintering Plant	PM
3.	Blast Furnace	SO_2, NO_x, PM
4.	Steel Making Shop-Basic Oxygen Furnace	PM
5.	Rolling Mills	PM
6.	Arc Furnaces	PM
7.	Induction Furnaces	PM
8.	Refractory Unit	PM

A.2. Effluent

1. The online effluent system to be installed at final discharge points and/or Effluent Treatment plant (ETP) outlets in case the treated effluent is being reused, for following relevant parameters.

S.no	ETP outlets for following process units	Relevant parameter
1.	Coke oven (by-product type)	pH, TSS, BOD, COD, Cyanide, Phenol
2.	Sintering Plant	pH, TSS
3.	Blast Furnace	pH, TSS, Cyanide
4.	Steel Making Shop-Basic Oxygen Furnace	pH, TSS
5.	Rolling Mills	pH, TSS

2. In case of zero liquid discharge premises, the online effluent monitoring system should be installed in any channel/drain/outlet having potential to carry effluent or storm water, at the premises outlet.

B. Sponge Iron Plants

B.1. Emission[1]

S.no	Process stack	Relevant parameter
1.	Rotary Kiln	PM

B.2. Effluent

1.	Effluent treatment plant	COD, TSS, pH

The sponge iron units in which cooling water is recycled in the process and no effluent is discharged are not required to install CEMS for effluent.

[1]Location for installation of emission analyser

1. Analyser sampling point at any cross section of the stack or duct should be at least eight stack or duct diameters downstream and two diameters upstream from any flow disturbance such as bend, expansion, contraction, visible frame, or stack exit. For rectangular cross-sections the larger dimension shall be used to represent the stack diameter.
2. Analyser sampling point should be preferably provided on the delivery side of duct or chimney and not on the suction side.