Dry Sorbent Injection DSI

Design features:

A dry alkaline sorbent is injected into the flue gas stream for acid gas absorption; reaction products, excess sorbent and flyash are collected in a downstream particulate control device; most commonly used for control of SO_2 and SO_3 but may be used for control of other acid gases including HCl and HF.

Applications and removal efficiencies:

DSI is well suited for moderate SO_2 reduction in utility or industrial boilers firing low sulfur fuels; also used for reduction of SO_3 upstream of activated carbon injection systems to minimize activated carbon deactivation and for control of visible emissions; removal of other acid gases can approach 98%.

Reagents:

Hydrated lime is typically used for SO_3 control while trona and sodium bicarbonate may be used for all acid gases.

Fuels:

All solid fuels, including coal, biomass and municipal solid waste.

