

FACT SHEET – In-Line Kiln/Raw Mill

What is the purpose of an in-line kiln/raw mill?

In-line kiln/raw mills vent kiln gases through the raw mill. In these systems the gases discharged from the control device on the raw mill are in fact kiln exhaust gases (and must be controlled for the same pollutants and to the same extent as kiln gases).

The more energy efficient preheater and preheater/ precalciner kilns usually route the exhaust gas from the preheater to a raw mill to dry the material in suspension in the mill. The gas stream exits the raw mill heavily laden with kiln raw material and is exhausted to an APCD to recover the raw material and any material entrained from the kiln preheater system. The raw material is collected and fed to a blending system to provide the kiln with a homogenous raw feed.

What Pollutants are emitted?

HAP metals (arsenic, cadmium, chromium, lead, manganese, mercury, nickel, selenium), dioxins/furans, organic HAPs (acetaldehyde, benzene, chlorobenzene, formaldehyde, hexane, naphthalene, phenol, polycyclic organic matter, styrene, toluene, xylene)

What are the Equipment Control Options?

PM emissions are typically controlled by fabric filters (reverse air, pulsejet, or pulse plenum) and electrostatic precipitators (ESPs).