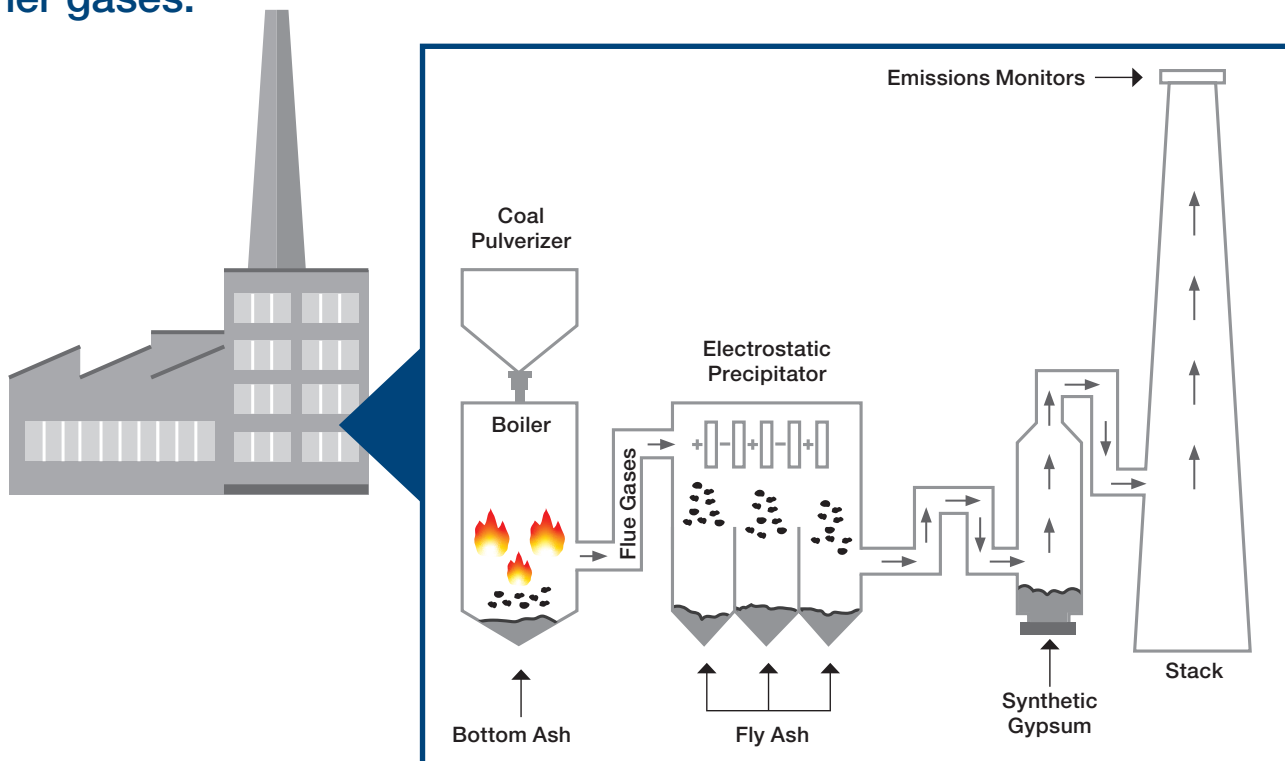


During the burning of coal to generate energy, **ash** is created along with carbon dioxide and other gases.

One of those, **fly** or **flue ash**, is a fine particle ash that rises up with the flue gases.

A heavier **ash, bottom ash**, does not rise and is a residual that remains at the bottom of the furnace.

Synthetic gypsum is also created through a slurry of limestone and calcium carbonate used to remove sulfur from flue gases.



Many of these also have beneficial reuses:

- Synthetic gypsum has value because it can meet technical requirements for use in wallboard, which avoids the processing required of natural gypsum.
- Fly ash in concrete accounts for the largest volume of coal combustion products (CCPs) recycled annually.
- Fly ash and bottom ash can be used to produce road base materials, manufactured aggregates, flowable fills, structural fills, and embankments.
- Coal ash is also used to replace natural materials in the production of portland cement.

Another application for CCPs includes roofing tiles and shingles. CCPs are also used for waste stabilization, snow and ice control, soil modification, as mineral fillers, in agriculture and mining and for very specialized uses. For example some CCPs have properties suitable for metal castings in the aerospace and automotive industries.

(Source: ACAA - American Coal Ash Association)