

Controlling limestone added to ash on conveyor

APPLICATION A151

Type of Company: Public Utility

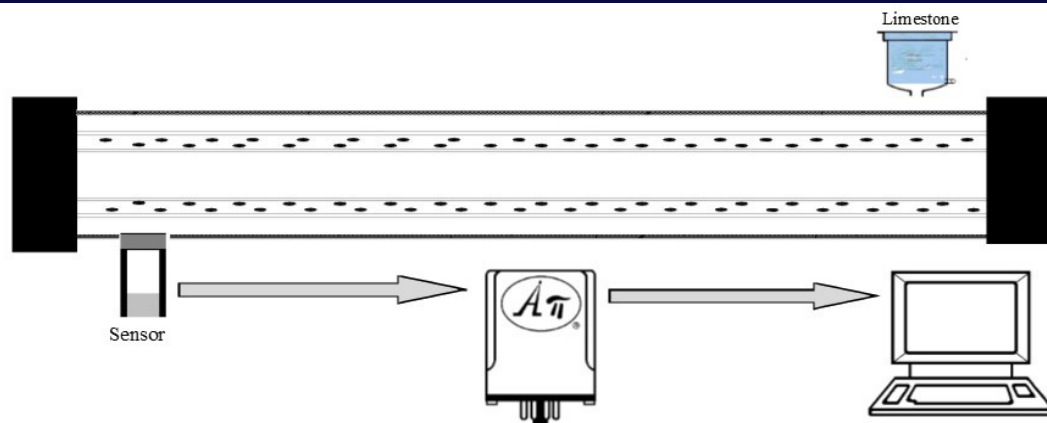
Location: Hawai'i

Waste-to-energy (WtE) is the process of generating energy in the form of electricity from the primary treatment of waste. Incineration, the combustion of organic material such as waste with energy recovery, is the most common WtE implementation. Ash (incombustible residue) can contain high concentrations of various metals and harmful chemicals that were in the original waste. After the ash cools on a conveyor, magnets and other mechanical devices pull metals from the ash for recycling. The ash is treated with limestone before landfill disposal.



The Engineering Issue

- The engineer has a requirement to control the amount of limestone added to the ash.
- They are using a Pepperl+Fuchs DK10 laser print mark contrast sensor to monitor the amount of limestone that must be added to the ash but they need to both scale and isolate the output from the sensor so it is compatible with the plant ABB control system.



The engineer used an API 4300 G. This allows them to use a standard off-the-shelf unit that is factory-ranged for their specific range and, since it is a “plug-in” module, it gives the application “hot swap-ability.”

Problem. Solved.