

SPRAY DRYER EVAPORATOR (SDE)



Babcock Power
ENVIRONMENTAL

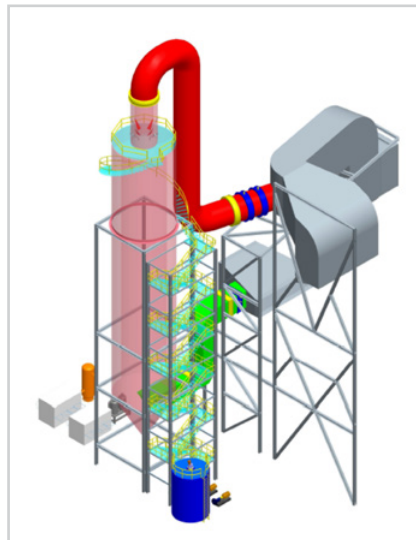
a Babcock Power Inc. company

OVERVIEW

Babcock Power Environmental, a Babcock Power Inc.® company, is the leader in the design and application of static mixing systems to address difficult air quality control issues. Babcock Power Environmental's Spray Dryer Evaporator (SDE) extends this long history to the control of effluent discharge. Babcock Power Environmental's approach is to reduce effluent volume coupled with optimized-distribution and mixing while utilizing easily-maintained, dual-fluid nozzles. Babcock Power Environmental's proven SDE provides operational flexibility, a smaller footprint, and reduced capital and O&M costs over the alternatives of water treatment and/or evaporative technology.

SPRAY DRYER EVAPORATOR

Babcock Power Environmental's Spray Dryer Evaporator is a cost effective alternative to traditional wastewater treatment or complex concentrator technology to treat and eliminate effluent discharge. Utilizing hot flue gas to spray-dry liquid feed solutions is a proven technology in the utility industry. A slip stream of hot flue gas from upstream of the air heater is utilized to evaporate the water prior to returning to the process upstream of an existing ESP or baghouse. Since the flue gas temperature through the SDE is maintained well above the dew point, corrosion concerns are minimized as compared to traditional spray dryers. Solids from the SDE are collected in the plant's existing particulate collection equipment as a dry residue.



Babcock Power Environmental's
Spray Dryer Evaporator

CAPABILITIES / BENEFITS

The recently revised US EPA effluent limitation guideline regulates the emission and concentration of metals in wastewaters from coal-fired electric power plants. Babcock Power Environmental has the experience and technology to help utilities to address these guidelines now and in the future by:

- Reducing the volume of effluent from the WFGD process through optimization of operation and equipment
- Predicting impacts of future fuels and regulations
- Evaporation of effluent for a zero liquid discharge system utilizing a proven slip stream spray dryer

SAFETY³ PEOPLE. POWER. PROJECTS.

We're giving safety the third degree.

Babcock Power Inc. and its subsidiaries place the safety, health and security of our people at the core of our company values. Our team is our most valuable resource, generating solutions everyday to deliver safe, clean, reliable energy globally. With a keen focus on safety, Babcock Power Inc. conducts business in a manner that protects our people, our customers and the environment. From innovation to generation, we are proud of our award-winning safety record and are committed to operating with integrity and excellence.

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