



**BabcockPower**  
ENVIRONMENTAL  
a Babcock Power Inc. company

## COMPANY OVERVIEW

**Babcock Power Environmental Inc.** and its affiliate Riley Power Inc., Babcock Power Inc.® companies, provide integrated products and services for air pollution control to the power industry. This approach provides clients a single technology system for the removal of SO<sub>2</sub>, NO<sub>x</sub>, HC<sub>1</sub>, SO<sub>3</sub>, Hg and fine particulates.

### LEADING TECHNOLOGY SUPPLIER FOR SCRS\*

Babcock Power, with its licensor companies, are the leading technology suppliers for utility and waste-to-energy Selective Catalytic Reduction (SCR) systems in North America and Europe. These companies have designed and built the largest SCRs operating over a wide range of fossil fuels, including Powder River Basin Coal, refinery bottoms, Pet Coke, and high sulfur coals. Babcock Power also has the technology base to design SCRs for fuels with high levels of catalyst poisons including arsenic. Babcock Power has over 38,000 MWs of SCRs commissioned in design or evaluation, and under construction within the U.S. This base includes experience with aqueous, anhydrous, and urea-based ammonia systems. This broad base of experience coupled with our company's state-of-the-art boiler design capabilities provides us with the expertise to provide SCR systems that are reliable, flexible in operating parameters and suitable to meet current economic and environmental challenges.

\*SCR systems furnished utilize technology under an exclusive license from Balke Dürr GmbH and from other Babcock Power Inc. proprietary sources.



## UNPARALLELED EXPERTISE WITH FGD TECHNOLOGY

Babcock Power Environmental and its affiliates began providing environmental control systems to the power industry in 1972, and has been integrating the United States and German technology for Wet and Dry Flue Gas Desulfurization (FGD) in the United States since 1994. The knowledge of both limestone and lime reagent process systems for a variety of fuels including lignite, low/high sulfur coal and Orimulsion® account for greater than 66,000 MWs of FGDs operating around the world. Babcock Power Environmental's technology and customer base is a successful combination of strong leaders in the worldwide FGD industry, and includes the former companies of Deutsche Babcock Anlagen, Steinmüller, Noell-KRC, and its affiliate Riley Power Inc. (previously DB Riley). The combined application of these technologies is greater than any other WFGD supplier in the world.

Babcock Power Environmental provides both single and dual-loop wet flue gas scrubber designs, as well as dry and semi-dry scrubber technologies. These proven designs operate with a high degree of reliability and availability over a wide range of vessel materials and fossil fuels.

## SO<sub>3</sub> CONTROL

As a direct result of Babcock Power's leadership position in the SCR market, Babcock Power has developed a thorough understanding of SO<sub>3</sub> and its generation and control within a complete air pollution control system.

## MERCURY CONTROL

Babcock Power Environmental has several advanced technologies to control mercury emissions. Due to the variations in mercury emissions, the types of coals burned, plant operating conditions, ash sales, and removal requirements, we believe that no one technology can address mercury control. Babcock Power Environmental has a carbon based mercury control application that has

been operating on coal fired power plants since 1999 and over 400 carbon based applications on waste-to-energy plants. Babcock Power Environmental can provide both the technology and the activated carbon product. Another technology is based on the polysulfide process, a proven product on waste-to-energy plants. This process has the following advantages:

- Captures elemental and ionic mercury
- Non-toxic stable end product
- Commercial liquid reagent
- Low first cost, modular design

## FIELD SERVICES

Babcock Power Environmental provides Integrated Analysis, as well as these Field Services, for all the afore mentioned technologies:

- Upgrade existing SCR/FGD systems and correct operating deficiencies
- Catalyst management
- Performance and emission testing
- Upgrade ammonia/urea systems
  - Direct injection conversions
- SCR poison control
- Fuel switching
- Performance and emission testing
- SO<sub>3</sub>/PM2.5 control and mitigation
- Modeling
  - Economics
  - Flow
  - CFD

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**SAFETY<sup>3</sup> 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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