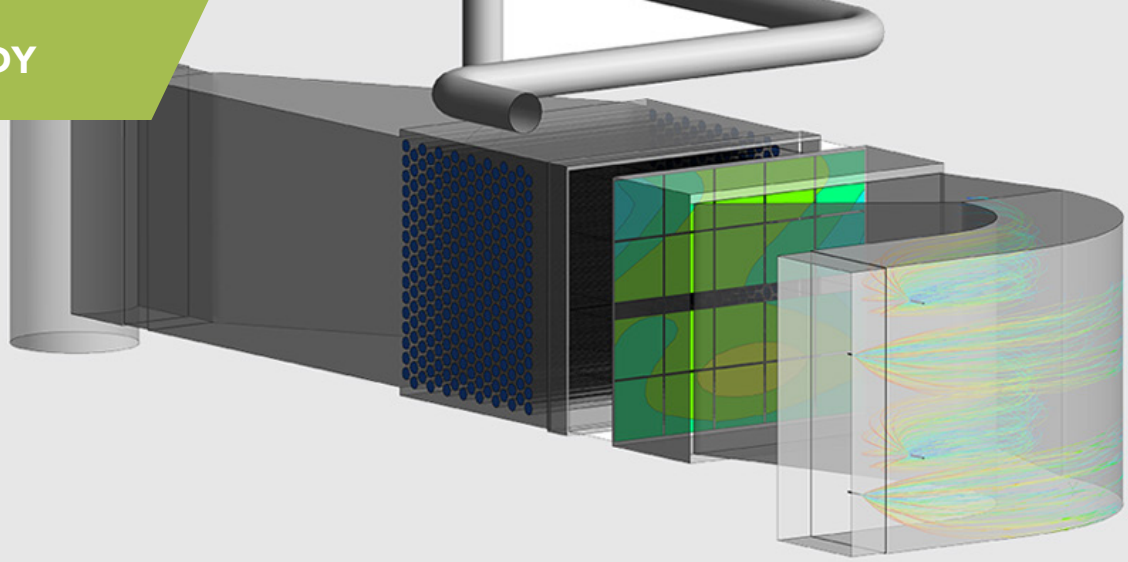
CASE STUDY



Protecting the Environment at Carbon Black Production Facilities

CECO ENVIRONMENTAL

The patented **CECO Direct Injection SCR System** allows the end user to meet their emissions compliance in the most efficient manner possible.

INDUSTRY: Carbon Black Manufacturing

CUSTOMER/LOCATION: Multiple Sites, North America

THE CHALLENGE: A consent decree forced the customer to reduce air pollution emissions at two of their carbon black manufacturing facilities. An SCR system designed to be retrofit into the existing facilities footprint was needed to meet the emissions requirements set forth by the consent decree.

THE SOLUTION: The CECO Peerless solution includes a Direct Injection Metering System as part of the Selective Catalytic Reduction (SCR) System, with an Ammonia Storage and Handling system. The system uses the heat energy of the exhaust gas flow to vaporize the liquid ammonia into ammonia vapor to feed the SCR system.

THE CECO ADVANTAGE: This SCR solution allows the customer to stay within compliance to operate their manufacturing facility while minimizing the operations and maintenance costs associated with traditional vaporizer style SCR systems. The ease of operation and fewer "moving parts" of the Direct Injection SCR system allows operators peace of mind that their emissions reduction system will perform as designed to allow them to focus on their manufacturing objectives.

THE RESULTS: The three systems will remove over 2,500 tons of Nitric Oxide air pollutants per year. The associated benefits of CECO system design are as follows:

- Reduces Operating Expenses: Eliminated need for a total of 800 KW of electric heat and 60 HP in blowers combined for the 3 units.
- Ease of Operation: Less equipment means less maintenance and reduced operator training requirements.
- Operational Flexibility: System can be easily expanded to achieve higher reductions in the future if needed.

CCA

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