Reliable and Effective Acid Gas Control

From expert evaluation and advice to best-in-class coal pile-to-stack solutions, ADA provides products and services designed to achieve worry-free compliance and advance cleaner energy. It’s at the heart of everything we do.
RELIABLE, COST EFFECTIVE, COMPLIANCE

THE CHALLENGE. Meeting state and federal compliance levels for acid gases is challenging and requires an approach that is highly reliable and cost effective.

PERFORMANCE. The ADA DSI system design incorporates ADA’s best-in-class air pollution control process expertise to ensure compliance with state and federal regulations. ADA DSI systems are specifically designed around the existing plant equipment, fuel, and process conditions to ensure low capital and operating costs.

RELIABILITY. DSI system reliability is critical to ensuring compliance and managing operating costs. The ADA DSI system design addresses factors such as humidity and temperature which can lead to system failures. DSI system failures require increased maintenance and increased sorbent consumption to maintain compliance.

EXPERIENCE. ADA is an industry leader in DSI. Our systems are designed by engineers who have real field experience operating and installing DSI systems. Our propriety manifold design is a result of years of field experience and has proven to reduce sorbent consumption costs and reduce plugging.

WHAT IS DRY SORBENT INJECTION?

- Reliable and cost effective solution to control acid gases such as HCl, SO₂, and SO₃ in flue gas streams
- The Dry Sorbent Injection System (DSI) systems stores, feeds, conveys, and distributes trona, lime, or sodium bicarbonate (SBC) sorbent into the flue gas stream
- Effective across a wide range of coals and plant configurations
- Easily integrated into existing air pollution control equipment with minimal space requirements
- Enhances the performance of activated carbon for mercury control

The ADA DSI system is based on a 12ft to 14ft diameter silo with the feeding and conveying equipment installed inside the silo skirt. Modular blower and conveying air pre-treatment design enables fast installation and delivery while maintaining design flexibility.
ADVANCING CLEANER ENERGY THROUGH STATE-OF-THE-ART SOLUTIONS

ADA-ES, Inc., an Advanced Emissions Solutions, Inc. company, was founded in 1996 to provide emissions control solutions for the coal-fired plants. Since then, ADA has established one of the most highly recognized teams of industry experts, and is the most recommended and trusted name in the emissions control industry.

For nearly two decades, ADA has conducted more than 130 full-scale sorbent injection demonstrations at coal-fired plants, and sold 180 sorbent injection systems to control mercury and acid gases. Our portfolio of products has grown to address limitations in coal composition, balance-of-plant impacts from alternate approaches, and operational challenges introduced by other technologies. We were the first to understand these environmental issues, provide a range of commercial solutions to the industry, and today have the most sorbent injection systems in operation in the US.

ADA delivers an important combination of hands-on experience, industry expertise, demonstrated commercial products, and commitment to collaborating with customers. Our track record includes securing more than 30 US patents with additional US and International patents pending and receiving numerous prestigious industry awards for emissions control technology and systems. So no matter the challenges our customers face, ADA will continue to focus its significant expertise and resources to innovating for a cleaner energy future.

Learn more about ADA, our products and services at www.adaes.com. Make us your partner in advancing cleaner energy.

SYSTEM HEALTH CHECK AND UPGRADES

ADA’s team of experts use an interactive engineering process to review your equipment performance and uncover opportunities to reduce costs, improve reliability, and improve performance.

The ADA's Approach is a Low Cost Option to:

- Ensure compliance with a thorough system assessment followed by targeted upgrades
- Reduce operating costs by reducing sorbent usage and maintenance requirements
- Establish a predictive maintenance program to mitigate the impacts of unexpected system failures

ADA’s Health Check Includes an Assessment of:

- Current system operating conditions, performance, and maintenance requirements
- System operations and reliability: diagnose issues and provide options for improvement
- Conveying air supply and impact on plugging or erosion
- Distribution manifold design and potential for reduced feed rates from improved distribution
- Risks of non-compliance related to system design or existing plant operating conditions
ADA — YOUR TRUSTED PARTNER

ADA understands the many factors that affect acid gas removal and DSI system reliability. We can help you determine the optimal control strategy and system design for your plant. Some of the key factors considered include:

- Properties of the fuel including sulfur and chlorine content
- Boiler operation, load profile, flue gas properties
- Performance of emission control equipment and operating practices
- Ambient temperatures and humidity to determine conveying air treatment equipment required to eliminate plugging
- Relative costs and potential performance limitation of various control strategies

Our team has supported plants in evaluating acid gas control options for more than 10 years, including providing over 40 full-scale DSI systems, and conducting full-scale DSI demonstrations at more than 30 plants. With our expertise on your side, it’s simple to save money and achieve your compliance goals.

Contact us today at 720.598.3515 to learn more about ADA’s Dry Sorbent Injection System and our other products and services.

WHY ADA?

No one has a better understanding of coal pile-to-stack plant operations than ADA. As the recognized thought leaders in the industry with significant process experience, ADA is the expert in providing unit-specific recommendations that support environmental compliance and reduce costs. ADA offers forward-thinking solutions driven by the needs of the coal-fired utility industry.

Our products and services include:

- M-Prove™ Coal Additives
- RESPond® Flue Gas Conditioning
- ADAir-Mixer™
- ACI
- DSI