

Praxair's Oxygen-enhanced Low NO_x Technology



The fast, flexible, affordable way to reduce NO_x.

WHAT IT IS Praxair's oxygen-enhanced system leverages Praxair's 50-year expertise in leading edge combustion applications to give you a proven reduction to your boiler NO_x emissions. Our proprietary technology simply adds a controlled amount of oxygen to the combustion process, leading to a cleaner, more efficient burn, and a substantial reduction in NO_x formation.

FAST

Praxair's oxygen-enhanced system is easily installed in most boilers. Its non-intrusive design allows for quick installation with minimal to no plant downtime. There is no major construction and no significant interruption to your business.

FLEXIBLE

NO_x is not your only concern. Your compliance issues are more complex than that, and are growing every year. Praxair's oxygen-enhanced system can help you get your NO_x remediation in line and leave you the space and budget to address whatever regulations come down the road in the future. Since Praxair's oxygen-enhanced system is a combustion-based technology, it allows for complementary systems to be installed in the future as your needs change.

AFFORDABLE

NO_x credits are trading at approximately \$3,500 – for now – and SCRs can cost you millions of dollars. A Praxair oxygen-enhanced system can save you 30%–45% of what you're spending on credits and a fraction of what an SCR will cost your company. While the system reduces NO_x emissions, it also helps you generate more power at better rates during profitable peak summer periods – which helps the system pay for itself. The comparatively low cost of Praxair's oxygen-enhanced system takes care of your NO_x issues today, and leaves you with the financial resources to address tomorrow's needs.

RESULTS

Praxair's oxygen-enhanced system is an engineered approach to reduce your NO_x emissions. The best way to comply with NO_x limits is to actually reduce the amount of NO_x you produce. The targeted introduction of oxygen into your staged combustion process causes your boiler to not only produce less NO_x but also reduces your dependence on costly NO_x credits. Also, in the future, you may be asked to reduce other airborne pollutants, and you may not be able to use credits to address these emissions. Praxair's oxygen-enhanced system gives you NO_x reductions today, while keeping areas downstream of the boiler free for multi-pollutant solutions in the future.

TECHNICAL SPECIFICATIONS Oxygen-enhanced Low-NO_x Technology

- Applicable to wall-fired boilers with net generating capacity from 15 MW to 500 MW
- Designed for use with existing low-NO_x Burners and OFA (overfire air) Systems
- Demonstrated NO_x emissions of 0.144 lb/MMbtu on a 125 MW commercial, wall fired boiler, firing bituminous coal at 80% nameplate
- Achieved NO_x emissions of 0.180 lb/MMbtu on a 125 MW commercial, wall fired boiler, firing bituminous coal at 100% nameplate

Praxair's patent-pending oxygen-enhanced low-NO_x technology is a cost-effective and reliable means for decreasing NO_x emissions from existing wall-fired boilers utilizing coal as the main fuel. This technology is a combustion-based approach to NO_x emission control that has achieved results below the level currently mandated by the State Implementation (SIP) Call NO_x legislation at pilot and commercial scales with various types of bituminous coals.

FOR MORE INFORMATION

To contact your local Praxair representative call 1-800-PRAXAIR (1-800-772-9247) or log onto www.praxair.com.

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