



T-SCR

Reducing emissions in open
cycle gas turbine plants

nem

An Essential Technology for the Future of Energy

The global power market is experiencing fundamental changes driven by the variability due to external conditions of renewable energy sources such as wind and solar. These shifts require the modern power grid to adapt, becoming more flexible and responsive to meet evolving market demands. Open cycle gas turbines (OCGT) are essential in providing the flexibility and expediency required, but their NO_x emissions pose significant challenges.

The NEM Selective Catalyst Reduction system using tempered air (T-SCR) offers a robust solution, allowing gas turbines to provide reliable and flexible power to the grid while complying with strict environmental emission regulations. By effectively reducing OCGT emissions to the most stringent NO_x requirements achieving NO_x levels as low as 2.0 ppm, our T-SCR system ensures clean, dependable energy, seamlessly stepping in when renewable sources fall short, and ultimately creating a healthier, more resilient power grid.

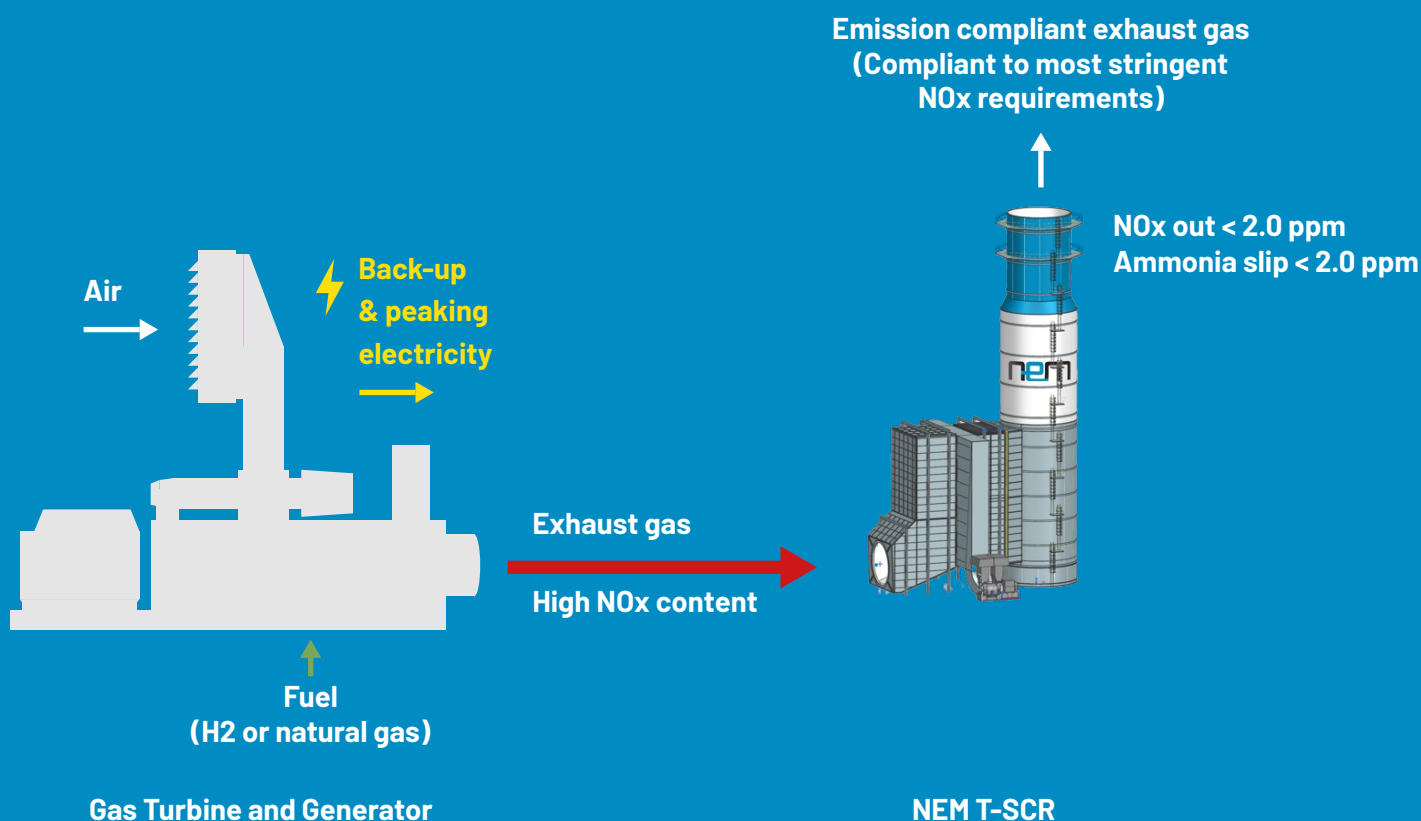
The NEM T-SCR uses Yara catalyst technology. NEM and Yara exclusively work together to offer T-SCR for any gas turbine type. Leveraging Yara's advanced catalyst technology and NEM's extensive expertise in heat recovery, this collaboration aims to deliver cutting-edge solution that increase grid reliability and ensures adherence to strict emission standards.



Open Cycle Gas Turbine NO_x Emission Reduction

Open Cycle Gas Turbine Power Plant

Emission Reduction System



Hydrogen ready - Equipped to meet the challenges of tomorrow, today

- As the shift from natural gas to renewable fuel sources accelerates, controlling NOx emissions becomes more critical.
- The NEM T-SCR system is fully hydrogen ready, reducing air pollution and helping meet stringent emission standards, ensuring the advantages of hydrogen as a fuel source are not compromised.

Leading Solution - To efficiently and reliably control emissions

- The NEM T-SCR system contains a self-adjusting air injection unit ensuring the right mix of ammonia and air at every load. This also ensures maximizing NOx reduction and still achieve very low ammonia slip (< 2.0 ppm). This reduces catalyst aging by 15% and minimizes ammonia consumption, guaranteeing consistent emission control, enhanced performance, and lower operational expenses.



Flexible operations



Reduces the risk of catalyst degradation



Lowers operational expenses



Lowest total cost of ownership

We have supplied more than 140 SCR systems worldwide gaining market leading expertise and technical know-how.

SCR system with ammonia tanks in an HRSG →



Key Features

- **NEM horizontal and vertical design possible**
- **Flexible operations**
 - self-adjusting air injection units
 - Enabled for the complete load range
- **Low catalyst degradation**



- **High NOx reduction, helping meet new regulatory standards**
- **Low ammonia slip**
NH3 slip: 2.0 ppm
- **Modularized and optimized for quick installation**
- **YARA catalyst technology inside**

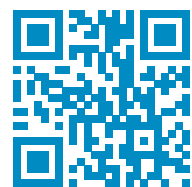


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