The main removed method of NOx gas, that is created by Fuel burning processes, is using a reducing agent. This process converts NOx into harmless gases, N2 and H2O. The reducing agents usually are Anhydrous Ammonia, Aqueous Ammonia, Urea Solution. The injection amount and position are decided based on the De-NOx method and removal efficiency.

Advantages
- High NOx removal efficiency (over 90%)
- Minimal NH3 slip due to use of optimal amount of reducing agent
- Operation at high SO2 concentration
- Low conversion rate of SO2 to SO3
- Equipped with device for even flue gas distribution into the reactor
- Regular catalyst activation test and reporting
- Savings in catalyst replacement cost due to catalyst regeneration and reuse
- Optimal reactor design using CFD
- High quality technical service
- Ease in injecting and decomposing catalyst

Reducing agents & Types of Catalyst
- Reducing agents: Anhydrous ammonia, Aqueous ammonia, Urea solution

Projects
- Dangjin Thermal Power Plant Units 1~4 500MW X 4, Korea (2006)
- Taishan Thermal Power Plant Unit 5 600MW, China (2006)
- Gwangyang Ferronickel Plant (POSCO), Korea (2007)
- Gwangyang Sintering Plants 1~4 (POSCO), Korea (2008)

SNCR technology is used to remove nitrogen oxide in a high temperature range (850°C ~ 1050°C) by directly injecting a reducing agent into the sidewall or duct of a furnace. The required NOx removal efficiency can be obtained through precise injection within an appropriate temperature range. A key design factor for performance is the location of the injection nozzle for the reducing agent.

Advantages
- Low investment
- Can be used during low load operation of the boiler
- NOx removal efficiency
- Stable NOx removal efficiency
- Minimal NH3 slip due to use of optimal amount of reducing agent
- Optimal nozzle location through CFD
- High quality technical service

Reducing agent
- Anhydrous ammonia
- Aqueous ammonia
- Urea solution

Projects
- Sunglim Oil & Chemical company, Korea (2003)
- Taiwan Taoyua International Airport (Chiang Kai-shek International Airport), Taiwan (2000)
- CFBC Boiler, LG Chem company, Korea (2008)

Hybrid System (SCR + SNCR)
A hybrid process combining the merits of SCR and SNCR can be arranged depending on a plant’s features and economic analysis.