



Johnson Matthey Catalysts

APPLICATION FACT SHEET

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Case No. 701: Turnkey SCRT System Installed on Three 2220 HP Cummins KTTA50-G2 Diesel Engines Used for Emergency Backup Power in Puerto Rico

Janssen Ortho, a subsidiary of Johnson & Johnson had a need to control NOx and PM emissions from their Cummins diesel engines. The engines were installed to provide emergency backup power for their pharmaceutical R&D and manufacturing facility in Puerto Rico.

Pollutant	Targeted Emission Limits		Achieved (engine range)	
	g/bhp-hr	%	50% Load	100% Load
NOx	1.28	90	93.4 - 99.3%	91 - 92.4%
CO	0.33	85	94.6 - 99.2%	97.8 - 99%
HC	0.03	80	NA	NA
PM	0.017	85	>90%	>90%

Background

When Janssen Ortho LLC installed three Cummins KTTA 50-G2 diesel engines at its Gurabo, Puerto Rico research and manufacturing site to provide emergency backup power, they needed to control NOx and PM emissions from these engines. However, they had a very limited amount of space around the engines. To solve the problem, Johnson Matthey and Janssen Ortho worked together to arrive at a compact and efficient solution - a platform design that allowed all of the emissions control equipment to be installed above the engines.

Johnson Matthey provided project engineering, project management and complete installation of the platform and all of the emissions control equipment. Johnson Matthey also integrated the engine signals into the urea injection system and provided load mapping with load banks.

Summary

- **Product:** Urea SCR and CRT diesel particulate filter system
- **Application:** 2220 Hp Cummins KTTA 50-G2 diesel engines
- **Customer:** Janssen Ortho LLC
- **Location:** Gurabo, Puerto Rico
- **Installed By:** Johnson Matthey SSEC
- **Date Installed:** July 2007
- **Operation:** Emergency backup power
- **Pollutants:** NOx, CO, HC and PM
- **Comments:** Johnson Matthey was chosen to supply this turnkey urea SCR and CRT diesel particulate filter system because of their excellent technology, reputation for quality, engineering and installation capability.

Janssen Ortho LLC



Platform constructed above the Cummins engines

