

Case story

Background:

Canal Company in Amsterdam is providing a wide range of entertainment based canal cruises in the city of Amsterdam.

The trade is strongly monitored and pushed to minimize their environmental impact due to the operation in inner city areas.

Canal Company have under several years performed trials with their fleet of sightseeing vessels using different types of solutions for the reduction of particulates (PM) and Nitrogen oxides (NOx) emissions from their propulsion engines.

The low speed and low load profile that characterize this type of cruising is a huge challenge for any type of catalyst based exhaust after treatment system and this is the reason why Canal company turned to STT Emtec for a special solution.

The solution:

STT Emtecs DNOx system is a patented method for exhaust gas recirculation (EGR). EGR is a mechanical and exhaust temperature independent technology to reduce the emissions of NOx. In this case the DNOx technology was combined with our CCT® *active* for simultaneously reduction of all regulated emissions. The trade name for the combined system is DNOx®*marine*

The CCT® *active* is an active particulate filter system based on catalytic combustion and secondary diesel injection that can be robustly operated at very low exhaust temperature profiles. The catalyst together with the wall flow particulate filter collects up to 99% of the harmful particulates (PM) and more than 90 % of the carbon monoxide (CO) and hydrocarbon (HC) emissions. The system is periodically regenerated* automatically by the control system.

The first installation was completed in July 2012 and Canal Company has up to September 2014 the DNOx®*marine* installed on 15 vessels totally

*Regeneration is the process where the collected particulates in the filter are oxidized by heat.

