

NYCT Works to Reduce Emissions

ENVIRONMENTAL PROGRESS REPORT FOR THE PORT OF NY & NJ

New York Container Terminal (NYCT), The Port Authority of New York and New Jersey and the New York Power Authority (NYPA), have collaborated on two projects to reduce emissions at Howland Hook, and plan to do more. The first is a pilot project to equip two yard tractors with "active" diesel particulate filters, the second a locomotive idle reduction project using a Kim Hotstart unit. The Port Authority team helped bring together NYPA and NYCT. The projects are being funded by NYPA, with some funding from NYCT. NYCT is also contributing vehicles, maintenance services and performance data.

"The active diesel particulate filters," explained Joe Monaco, Manager of the Port's Green Practices Task Force, "were installed to replace the muffler pipes and to filter out particulate matter or soot." Diesel particulate filter technology is commonly applied to vehicles that operate under highway conditions, which brings the exhaust temperature up high enough to burn away the trapped particles. Since yard tractors typically operate under stop-and-go conditions, the diesel particulate filters used in this pilot project needed to be equipped with an electrical heating coil that, when plugged in, burns off the particulate matter. The goal was to determine whether retrofitted yard tractors can operate effectively under container terminal conditions.

"The performance of these test tractors over the last several months demonstrates that this type of technology can be successfully applied to off-road applications," notes Kerry-Jane King



Port Commerce Director Rick Larrabee and Mayor Michael R. Bloomberg officially reactivated the SI Railroad on April 17, an eight-mile railway that connects to the national rail freight network.

of NYPA. "The emissions reductions are significant, as yard tractors tend to idle for extended periods." NYCT anticipates operating the test yard tractors to their useful service life, which may extend well into 2010.

In its latest initiative, the operator of this New York-based terminal has purchased, with co-funding from NYPA, a Kim Hotstart System for its on-dock switcher locomotive. Since locomotives do not have antifreeze, they are typically left to idle for long periods of time when not in use. The Kim Hotstart allows the engine to be plugged into the power grid when the engine is not in use without worry of temperature-related engine damage. The result is significant fuel savings, reduced emissions and a quieter operation. A 2004 study conducted by the Environmental Protection Agency reported that locomotive engine idling

was reduced by 80 percent using similar equipment, resulting in annual fuel savings of 12,738 gallons. In addition nitrogen oxide was reduced by 2.1 tons annually.

"New York Container Terminal is an excellent match for these projects because of its history of championing environmental causes and initiatives," said Atef Ahmed, Manager of Port Environmental Programs at the PA. Charles Priscu of NYCT noted: "We are already using clean burning, on-road Tier III engine technology for our new fleet of off-road yard tractors. Also, all terminal equipment is running on ultra low sulfur diesel fuel, even though the government regulations don't go into effect until 2010."



The Kim Hotstart System allows the engine to be plugged into the power grid for easy start-up.



Jessica Jaszy, Power Shop Superintendent for NYCT, boards the switch engine at ExpressRail Staten Island.

NYCT's efforts aren't just limited to its yard tractors though. Just about everywhere you look on the terminal, green initiatives are actively at work. Dockside post-Panamax cranes generate power back into the terminal's grid on the downswing for energy savings, plus these electrical cranes are environmentally friendly as opposed to their diesel counterparts. Emissions at the terminal have been reduced further by minimizing vehicular idling. The Association of Bi-State Motor Carriers has recognized NYCT two years in a row for its efficient gate movements. "We are doing everything we can to save fuel and reduce emissions at the terminal. It is our goal to make our operation as energy-efficient and as clean as possible because it is good for business, good for the environment, and good for our neighboring community," said Charles Priscu. ☺