



New Haven, CT School Bus Retrofit Project Fact Sheet

Students Breathing Dirty Air

- 387,000 children ride 6,100 school buses each day in Connecticut. Of the 6,100 school buses, 99% run on diesel fuel.
- The amount of time a child spends on a school bus varies from 20 minutes to several hours each day.
- Children are more sensitive to air pollution due to a higher intake of air per pound of body weight than that of adults.
- Diesel exhaust is a significant contributor to air pollution and has been classified as a probable human carcinogen by the Environmental Protection Agency (EPA).
- Diesel exhaust exacerbates asthma and causes inflammation of the airways.

New Haven School Bus Retrofit Project

- The New Haven School Bus Retrofit Project will reduce the diesel emissions from school buses by introducing cleaner fuels and new emission control technology.
- 182 New Haven school buses will be retrofitted with emission control technology. The retrofits are currently in process and are expected to be completed this spring.
- Currently, all New Haven First Student school buses run on Ultra-Low-Sulfur Diesel (ULSD).
- The emission control technologies include the use of Donaldson Company's diesel oxidation catalyst (DOC) and their Spiracle closed crankcase ventilation system, which virtually eliminates exhaust emissions from the crankcase of the engine and is verified by EPA.
- At a minimum, emissions of fine particulate and carbon monoxide are expected to be reduced by 40 percent, hydrocarbons will be reduced by 45 percent.
- The project is expected to significantly reduce risk exposure to children and improve regional air quality.
- By 2007, all new school buses will be built with emission control technology and will be fueled with ultra-low sulfur diesel.

Clean Bus Program and Anti-Idling

- Reducing idling from school buses will help reduce diesel emissions and reduce the air pollution around the school environment.
- School buses cannot idle for more than three minutes under state law.
- New Haven is one of the first Connecticut cities to receive anti-idling signs to remind drivers that they may not idle for more than three minutes. To remind school bus drivers and the general public about their obligation to not idle their vehicles, DEP is introducing its new anti-idling signage program. Research has shown that constant reminders in the form of signs should significantly improve compliance rates with the idling restriction.

Connecticut Schools Air Quality Curriculum

- The Connecticut Schools Air Quality Curriculum was created to educate young people on the Connecticut Clean Bus Program and the need to promote clean air.
- The Connecticut Schools Air Quality Curriculum teaches children about sources of air pollution, how it affects people and the environment, and what the students can do to be leaders to improve the environment. The Connecticut Schools Air Quality Curriculum will be implemented in several New Haven Middle Schools Grades 6-8.

- Participating schools include: Troup Magnet Academy of Science , Hooker Middle School, Conte/West Hills Magnet and Nathan Hale.

Clean Air Construction Initiative –Q-Bridge

- In 2002, we partnered with other state agencies and the private sector to launch a complementary effort to our Clean School Bus Program designed to reduce diesel emissions from construction equipment.
- Connecticut’s Clean Construction initiative has resulted in over 100 equipment retrofits on the Q-Bridge project and the use of clean fuels implemented through a contract specification.
- For these efforts the State of Connecticut has been recognized as a national leader in addressing diesel risk. Our success has brought this problem to the forefront and enabled leveraging funding opportunities and established collaborative efforts to launch diesel reduction efforts.
- We are looking to expand upon these efforts by pilot testing other technologies such as diesel particulate filters which can reduce particulate matter emissions by more than 90%.
- The results of the pilot project will be utilized in modifying the contract specification to require the use of the most advanced technology feasible for this application.