



Manchester Transit Authority Diesel Oxidation Catalyst Retrofit Project

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History & Motivation

- Had worked with DES to promote idle reduction practices; anti-idling campaign for schools.
- Active in NH School Transportation Assn.
- Retrofit project a natural extension of our partnership with NH DES.
- Demonstrating DOC retrofits in Manchester and Nashua makes sense – largest urban areas and largest concentration of school buses.



Project Description

- NH DES lead agency for DOC retrofit project.
- Manchester MTA represents school district-operated system and Nashua First Student a contractor-operated system.
- Asthma Regional Council a partner – evaluation.
- Original plan: 30 buses Manchester, 15 Nashua
- NH DES grantee and administrator; local share provided through in-kind services for installation.
- NH DES issued Vendor RFP, negotiated procurement, did all grant reporting.



Project Implementation

- Savings permitted additional retrofits – total 55 in Manchester and 25 in Nashua.
- Worked with DES to select buses based on engine year – model years 1991 – 2004.
- Engine Control Systems, Inc. supplied DOC's for each bus configuration, all attachments, training for installation.
- Manchester installation done August 2006 – no problems encountered.



Project Challenges

- **NONE !**
- NH DES, Asthma Regional Council and Engine Control Systems a delight to work with.
- No problems encountered after installation.
- DOCs are maintenance-free.



Project Outcomes

- Manchester school children benefit by reduced exposure to diesel emissions.
- DES and EPA promote benefits locally with school district, local officials and media – high visibility.
- Fuel mileage comparison first six months vs. prior year nearly equivalent – concluded any difference more likely due switch from LSD to ULSD.
- After two years, no mileage impacts, no engine or running problems, no failures or replacements.