

Workgroup Recommendations and Other Potential Control Measures
Diesel Initiatives Workgroup

DI005 – Leveraging Public Contracts to Achieve Diesel Reductions

DESCRIPTION

Every state agency utilizes public contracts to acquire a wide variety of goods and services, ranging from paper supplies to road paving jobs. Diesel vehicles and equipment are used on many, if not all, of these contracts for delivery of supplies or construction of public works. Therefore, opportunities exist to leverage these contracts to achieve reductions in diesel emissions through tailpipe retrofits and cleaner fuels. This concept could be implemented as a contract requirement, or as a contract preference, whereby additional points would be awarded during the contract review process to companies that use retrofitted equipment. The latter approach would protect smaller contractors who may be unable to overcome the initial investment hurdle and thus be excluded from bidding on contracts where retrofits were required. Alternately, if the contract requirement approach was chosen, we could exclude smaller contractors or smaller fleets from the retrofit requirements, thus ensuring that no undue hardship was placed upon them. Through this environmentally responsible allocation of public dollars, we can achieve reductions not just when diesel equipment is used on a particular state contract, but also for every single mile that the vehicle travels and every single hour that the equipment operates.

IMPLEMENTATION

This program could be implemented on a small scale, whereby individual agencies could decide to include retrofit requirements or retrofit preferences when they issue Requests for Proposals for jobs that involve diesel vehicles or equipment. Alternately, it could be implemented statewide, via an Executive Order that mandates that all state contracts include a “diesel reduction” component. Also, phase in by vehicle types (i.e., delivery or construction) is another option. The diesel reduction provisions should apply to both the contractors and the subcontractors. There could potentially be consideration given to smaller contractors as indicated above.

The public contracting process has been successfully used by several states to achieve diesel reductions as follows.

New Haven, Connecticut - I 95 Harbor Crossing Improvement Program

This project began in 2002, and is estimated to span 12 years. To date, 105 pieces of construction equipment have been retrofitted with PM benefits of 26 tons per year. CT DOT requires all contractors or subcontractors working on this project to take part in the CT Clean Air Construction Initiative which requires the following:

- All diesel powered construction equipment with engine horsepower ratings of 60 hp and above that are on the project or are assigned to the contract for a period in excess of 30 days shall be retrofitted with emission control devices and/or use clean fuels in order to reduce diesel emissions.
- Truck staging zones are established for diesel-powered delivery vehicles waiting to load or unload materials. The zones will be located where diesel emissions will have the least impact on abutters and the general public.

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- Idling is limited to three minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions).
- All work will be conducted to ensure that no harmful effects are caused to adjacent sensitive receptors, such as schools, hospitals, and elderly housing.
- Diesel-powered engines will be located away from fresh air intakes, air conditioners, and windows

New York City

New York City recently passed a law to address the severe ozone problem in the city. The law requires that ultra low sulfur diesel (ULSD) and “best available technology” be used in city owned diesel non-road equipment greater than 50 horsepower. In addition, public construction contracts must have an ULSD & “best available technology” component. The city is currently working on regulations to implement the law and define “best available technology.”

Boston, Massachusetts - Central Artery/Tunnel Project (also called the Big Dig).

The Massachusetts Turnpike Authority began this project in 1992 and it is estimated to cover 161 lane miles of highway in a 7.5-mile corridor. In the first two phases of this project, retrofitting was voluntary and was financed by the Turnpike Authority. Seventy retrofits were installed. For the third phase of this project, retrofits were mandatory and approximately 130 more pieces of equipment have been controlled so far. Because the project was in close proximity to pedestrians, residential communities, and office buildings, the Turnpike Authority also included an Odor Control Specification in its Request for Proposals which required the following:

- Contractors’ equipment must be properly maintained;
- Diesel equipment must be turned off when not actively being used and dump trucks must be turned off if waiting to load or unload for more than 5 minutes;
- A staging zone must be established for trucks that are waiting to load or unload so that diesel emissions from the trucks will not be noticeable to the public;
- Construction equipment must be located away from sensitive receptors such as fresh air intakes to buildings, air conditioners and operable windows.

COST & EFFECTIVENESS

Based on a cursory review of contracts executed by NJ Department of Treasury and NJ Department of Transportation, it is estimated that if this program were implemented statewide by all state agencies, 5600 pieces of large, non-road diesel construction equipment might be affected, with a corresponding PM reduction of approximately 379 tons per year. The estimated cost to control emissions from that universe of equipment is a one-time cost of \$34 million. In addition, approximately 4353 on-road diesel delivery vehicles might be affected with a resulting PM reduction of about 38 tons per year and a cost of \$20 million. It is possible that the costs to retrofit would be spread out over

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numerous contracts (both public and private), so the financial impact to the contracting agency would be less.