

**Workgroup Recommendations and Other Potential Control Measures**  
**Diesel Initiatives Workgroup**

**DI013 – Medium Duty Vehicle Inspection**

Overview

Heavy duty diesel vehicles (HDDVs) have been subject to emissions testing in the form of smoke opacity tests in New Jersey since 1998. This testing program defines the maximum permissible smoke opacity level for trucks and buses based on defined engine age ranges, similar to the various emissions limits placed on gasoline vehicles. Currently, only diesel vehicle with a gross vehicle weight registered (GVWR) of 18,000 lbs and over (called HDDVs) are subject to emissions inspection by 300 private Diesel Emissions Inspection Centers (DEICs) licensed by the New Jersey Motor Vehicle Commission. In addition to the annual inspection, roadside inspection teams comprised of the State Police and Motor Vehicle Commission staff randomly audit HDDVs on major highways.

This proposal would add previously unregulated medium duty diesel vehicles (MDDV) between 8,501 and 17,999 lbs GVWR to this inspection program using existing smoke opacity testing procedures (snap, rolling, or stationary load test) as appropriate for the MDDVs governed engine speed. As with any inspection program, the main purpose is to encourage better maintenance on a class of vehicles, since better maintained vehicles pollute less.

Details

Currently the MDDVs are only required to pass an annual self-administered safety inspection. Implementing this proposal would require annual emissions testing in the form of smoke opacity measurement, likely to be performed by the DEIC network that currently inspects the HDDVs. The permissible smoke opacity levels for MDDVs would be set such that a failure rate similar to that currently seen in the HDDV inspection program (roughly 3%) would be expected once the program is fully functional and the MDDV fleet has stabilized. At some point in the future, it is expected that MDDV manufacturers will adopt the same onboard diagnostic system (OBDII) that is currently used on light duty vehicles which would allow a transition to this type of inspection for MDDVs. The OBDII system monitors vehicle engine functions that can impact emissions and provides feedback to the motorist when one of these functions deviates from prescribed norms. In this manner it promotes even better vehicle maintenance, often before any excess emissions.

Stakeholders

- MDDV owners and operators
- DEIC network
- MVC roadside inspection teams

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Contact – Jeff Cantor

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Costs/Benefits

Introducing a MDDV inspection program will require startup costs for the state in the form of regulation and procedure development, training of the DEICs and roadside inspection teams, and an in-depth outreach and education program, since a new group of vehicles whose owners are not used to the emissions inspection process are involved. Enforcement would also require additional expenditure although this would be offset somewhat by the fines collected. In addition to these state expenditures, the DEICs may need to invest in some new equipment or facilities. However, these costs would likely be offset by the increase in inspection and repair revenue. The cost to the state for the actual inspections themselves would be zero just as it is in the existing heavy duty program. Vehicle owners would see an increase in maintenance costs (average \$400 per year) in order to ensure that their vehicles remained in compliance.

The benefit from a MDDV inspection program has been estimated using computer modeling at 1.02 tons/year of VOCs and 42.01 tons/year of NOx given close to 39,000 registered MDDVs in the state. Estimates on particulate matter reductions are not yet available.