

Diesel Vehicle Compliance and Enforcement



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ACE academy

New Jersey Department of Environmental Protection

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Why am I here today?

Just like facilities...



...trucks have smokestacks, and create emissions...



...so do buses!



...and idling vehicles!



REGULATIONS

N.J.A.C. 7:27-14

**CONTROL AND PROHIBITION OF AIR POLLUTION
FROM DIESEL-POWERED MOTOR VEHICLES**

Revision Operative: July 21, 1998

Last Amendment Operative: December 18, 2009
(new cutpoints adopted)

N.J.A.C. 7:27-32

DIESEL RETROFIT PROGRAM

Operative: September 8, 2007

Who is affected?

All owners and operators of diesel powered vehicles.

- private and public entities
- commercial and private registrations

Other responsible parties:

- fleet operators and managers
- facility managers
- transportation coordinators
- health, safety and environmental ...

Diesel Programs



Roadside Inspection



Periodic Inspection



Mandatory Retrofits

Periodic Inspection



Subject: diesel-powered NJ registered vehicles

Exempt: publicly owned emergency vehicles
(fire, police, first aid, etc.)

Weight Class (GVWR)	Period	Where inspected
≥ 18,000 (all)	Annual (w/in 90 days of registration)	DEICs (now PIFs)
10,000 - 17,999 (all)	Quarterly	Self-inspecting*
≤ 9,999 (Commercial)	Annual	State inspection facility
≤ 8,500 (Passenger, 1997 and newer)	Biennial	State or private inspection facility
*Self-inspecting vehicles do not receive a sticker, must keep and maintain records for two years		

Periodic Inspection

Smoke Opacity Standards				
Vehicle Type	GVWR	Model Year	Type	Standard
Trucks	≥ 8501	1990 and older	opacity	40%
	“	1991 – 1996	opacity	30%
	“	1997 and newer	opacity	20%
Buses	“	1987 and older	opacity	40%
	“	1988 – 1993	opacity	30%
	“	1994 and newer	opacity	20%
Retrofitted Buses	“	1993 and older	opacity	30%
	“	1994 and newer	opacity	20%
All	≤ 8500	1996 and older	Smoke	>3 sec.**
	“	1997 and newer	OBD Smoke	No MIL
** No visible smoke of <u>any</u> color for more than 3 seconds. <i>Applies to <u>ALL</u> subject vehicles.</i>				

Note to DEICs / PIFs

Latest word from the I/M program:

- NO new opacimeter packages
- Your current unit will be used
- New and replacement units must be selected from the certified opacimeter list.



Tampering



DO NOT disconnect, disable, or modify emission controls (including software!) or retrofit devices; utilize exhaust cutouts; or use of improper fuels such as substituting kerosene for diesel, or add crankcase oil to diesel fuel.

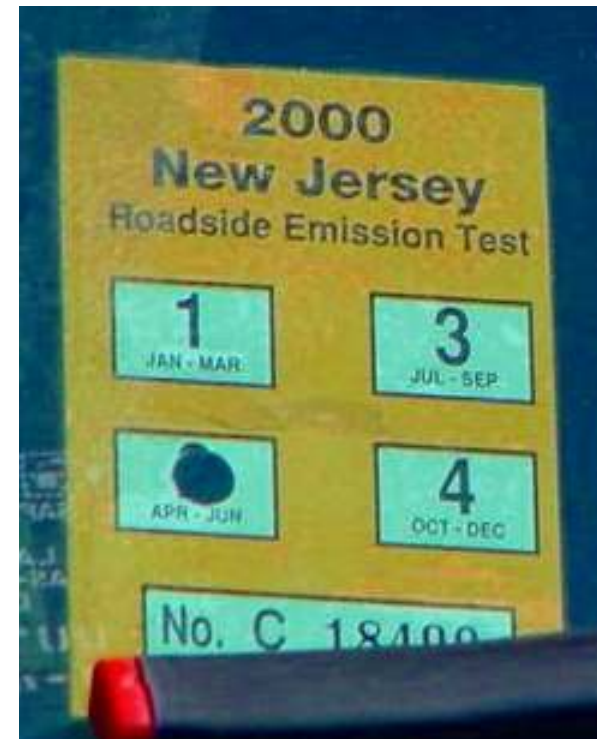
DO: maintain the OEM configuration.

Roadside Inspection



- All diesel-powered NJ and OOS registered vehicles $\geq 18,000$ GVWR
 - OOSVs, either transient or home domiciled in NJ
- Opacity test administered by MVC, with State Police support
- Penalty for failing the test \$700, reduced to \$150 with proof of repair.
- 45 days to perform repairs.
- Passing vehicles may be re-inspected at ANY time.

Exhaust smoke is measured by an opacimeter. Standards are the same as in the Periodic program. Passing OOSVs receive a sticker valid for 90 days.

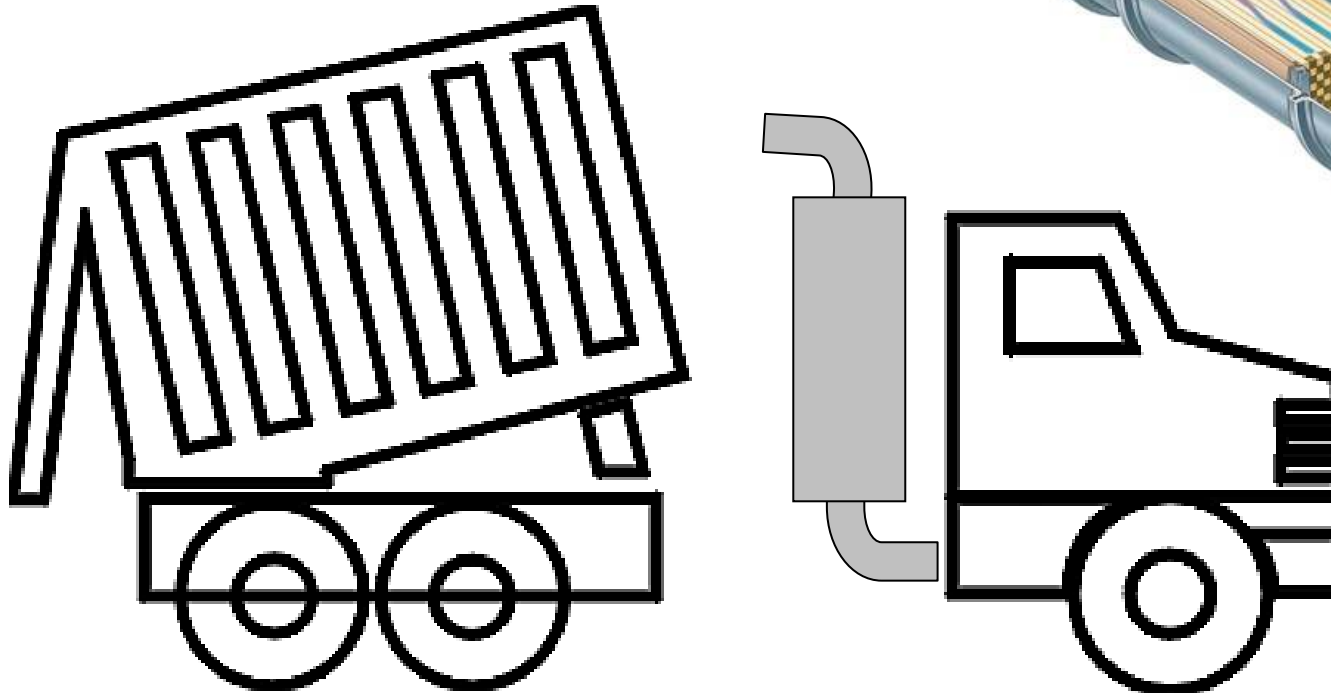
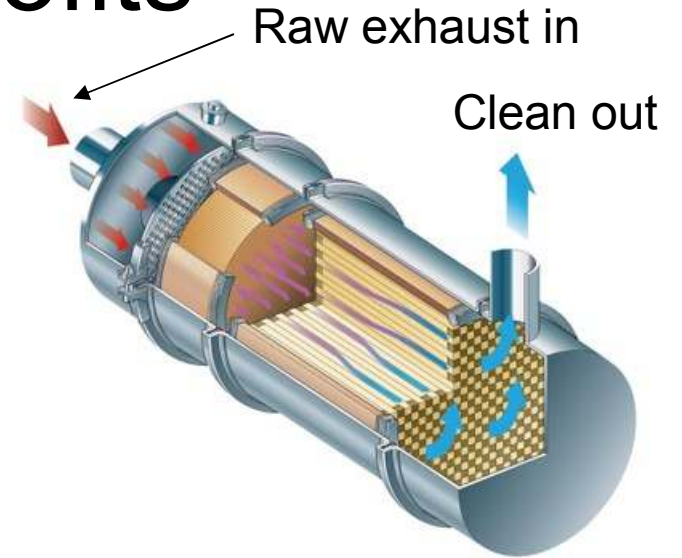




Mandatory Retrofits

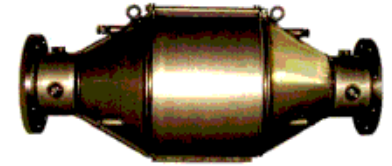
What *IS* a “retrofit” ?

An exhaust gas “scrubber” added to an existing, non-equipped system that removes PM and NOx.



In the mandatory program, the state reimburses the owner for the cost of the equipment.

Mandatory Retrofits

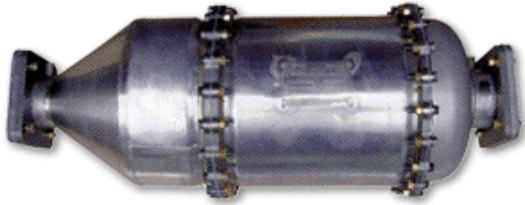


All publically owned diesel-powered vehicles, or, vehicles owned by an entity under contract to a public agency.

N.J.A.C. 7:27-32 Applies to: any person who owns one or more regulated school buses, regulated vehicles or pieces of regulated equipment.

Does not apply to:

- any vehicle or equipment used in farming or agricultural purpose
- any regulated on-road diesel vehicle or regulated school bus certified by the USEPA or CARB to 0.01 g/bhp-hr PM (2007 On-road stds.)
- any off-road diesel equipment 175 to 750 HP certified by the USEPA or CARB to 0.015 g/bhp-hr PM (Tier 4)
- any off-road diesel equipment rated >750 HP and certified to 0.03 g/bhp-hr PM phased in from 2011 to 2015 (Tier 4)



Mandatory Retrofits

Fleet plans must be approved by NJDEP.

Annual updates required for additions, deletions, retirements, sales, etc.

Fleet plans are due for:	
regulated solid waste vehicles	March 6, 2008;
public regulated commercial buses	September 8, 2008;
private regulated commercial buses	March 7, 2009*
Other regulated on-road diesel vehicles and regulated equipment	September 8, 2011.
*submittal not required until public regulated commercial buses submittals are completed.	

Fleet deadlines for installing retrofits	
< 75 vehicles or pieces of equipment	w/in 120 days of plan approval;
75 - 150 vehicles or pieces of equipment	w/in 180 days of plan approval;
> 150 vehicles or pieces of equipment	w/in 270 days of plan approval.

Mandatory Retrofits



TABLE 1 BART Level by Vehicle and Equipment Type		
Equipment Type	Engine MY	Minimum BART Level
Commercial buses	1994-2006	BART 3
	1988-1993	BART 2
	1987 and older	BART 1
Solid waste vehicle	1988-2006	BART 2
	1987 and older	BART 1
commercial bus or S/W vehicle	2006 and older	BART 2
Off-road equipment >175 HP	1996 - 2014 *	BART 3
<p>* BART installation requirements do not apply to: engines 175-750 HP certified to 0.015 g/bhp-hr PM engines > 750 HP certified to 0.03 g/bhp-hr PM, phased in from 2011 to 2015.</p>		
<p>A <u>one-time compliance inspection</u> is required for reimbursement, which must be performed at a licensed DEIC/PIF.</p>		

BART Efficiency Rates

TABLE 2 Best Available Retrofit Technology		
Minimum Control BART Level	Minimum Control Efficiency (<u>particulate emission reduction by weight</u>)	Typical Device Type
3	85 %	Hi Efficiency DPF
2	50 %	DPF
1	25 %	DOC



The Bad News (penalties, of course)

Failing the opacity test	\$700 / \$1,300
Failure to inspect	\$500
Tampering	^\$10,000/day
Failure to file a fleet plan	\$200



Acronyms

BART	–	Best Available Retrofit Technology
DEIC	–	Diesel Emissions Inspection Center
DOC	–	Diesel Oxidation Catalyst
DPF	–	Diesel Particulate Filter
GVWR	–	Gross Vehicle Weight Rating
I/M	–	Inspection and Maintenance Program
MIL	-	Malfunction Indicator Light
MVC	–	NJ Motor Vehicle Commission
NOx	–	Oxides of Nitrogen
OBD	-	On-Board Diagnostic system
OOSV	–	Out of State Vehicles
PIF	–	Private Inspection Facility
PM	–	Particulate Matter

Links / Contacts



NJDEP Diesel Inspection and Maintenance Program

http://www.nj.gov/dep/bmvim/bmvim_hddvip.htm

609-292-1637

Idling and Retrofits

Diesel Risk Reduction Program

<http://www.stopthesoot.org>

609-292-7953



NJMVC Diesel Inspections

<http://www.state.nj.us/mvc/Inspections/UnderstandingDiesel.htm>

To find a Diesel Emissions Inspection Center:

http://njgin.nj.gov/OIT_MVCF/facilities.jsp?fac=deic

For more information:

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