#### **ENVIRONMENTAL PROTECTION**

#### **OFFICE OF AIR QUALITY MANAGEMENT**

#### MOTOR VEHICLE COMMISSION

#### **DEPARTMENcv T OF THE TREASURY**

#### **Diesel Retrofit Program**

Proposed Amendments:	N.J.A.C. 7:27-14.1, 14.3 through 14.6, 7:27A-3.10, and 7:27B-
	4.1, 4.3, and 4.4
Proposed New Rules:	N.J.A.C. 7:27-14.7, 14.8, 14.9, and 14.10, and 7:27-32
Authorized by:	Lisa P. Jackson, Commissioner, Department of Environmental
	Protection, with respect to N.J.A.C. 7:27-14.1, 14.3 through 14.10
	and 32, 7:27A-3.10, and 7:27B-4.1, 4.3, and 4.4; David A.
	Ridolfino, Deputy Director, Division of Administration,
	Department of the Treasury, with respect to N.J.A.C. 7:27-32.24
	and 32.25; and Sharon Harrington, Chief Administrator, Motor
	Vehicle Commission, with respect to N.J.A.C. 7:27-14.7 through
	14.10 and N.J.A.C. 7:27-32.4 through 32.6, 32.20 and 32.21
Authority:	N.J.S.A. 13:1B-3(e), 13:1D-9, 26:2C-8 et seq., specifically 26:2C-
	8.4, 8.26 through 8.56, and 39:3-70.2
Calendar reference:	See Summary below for explanation of exception to calendar
	requirement.

DEP Docket Number: 22-06-11/559

Proposal Number: PRN 2006-409

A public hearing concerning this proposal will be held at 9:00 a.m. on Tuesday January

30, 2007 at:

First Floor Public Hearing Room

Department of Environmental Protection

401 E. State Street

Trenton, New Jersey

Directions to the hearing room may be found at the Department's website address at

http://www.state.nj.us/dep/where.htm.

Submit written comments by February 16, 2007 to:

Alice A. Previte, Esq.

Attn: DEP Docket No. 22-06-11/559

Office of Legal Affairs

New Jersey Department of Environmental Protection

PO Box 402

Trenton, NJ 08625-0402

Written comments may also be submitted at the public hearing. It is requested (but not required) that anyone submitting oral testimony at the public hearing provide a copy of any prepared text to the stenographer at the hearing.

The Department of Environmental Protection (Department) requests but does not require that commenters submit comments on diskette or CD as well as on paper. The Department prefers Microsoft Word 6.0 or above. Macintosh formats should not be used. Each comment should be identified by the applicable N.J.A.C. citation, with the commenter's name and affiliation following the comment.

This rule proposal can be viewed or downloaded from the Department's web site at <a href="http://www.state.nj.us/dep">http://www.state.nj.us/dep</a>.

The agency proposal follows:

#### **Summary**

Since the Department of Environmental Protection (Department), the Motor Vehicle Commission (MVC) and the Department of the Treasury (Treasury) have provided a 60-day comment period on this proposal, the proposal is excepted from the rulemaking calendar requirement pursuant to N.J.A.C. 1:30-3.3(a)5.

Under the Diesel Retrofit Law (P.L. 2005, c. 219 (N.J.S.A. 26:2C-8.26 et seq., and amended by P.L. 2006, c. 94) the Department must adopt rules jointly with the MVC regarding the installation of closed crankcase ventilation systems, and the training of persons who inspect a

vehicle pursuant to the periodic or roadside inspection program or who repair any vehicle because it failed emissions testing under those inspection programs. (See N.J.S.A. 26:2C-8.33(e) and 8.46.) The State Treasurer must adopt, in consultation with the Department, rules relating to reimbursement of the cost of the purchase and installation of the required retrofit devices and closed crankcase ventilation systems. (See N.J.S.A. 26:2C-8.55.) Therefore, Treasury is herein proposing new N.J.A.C. 7:27-32.24 and 32.25, and the MVC and the Department are herein jointly proposing new rules at N.J.A.C. 7:27-14.7 through 14.10, 32.4 through 32.6, 32.20 and 32.21.

Proposed new rules at N.J.A.C. 7:27-32 and the amendments to N.J.A.C. 7:27-14, 7:27A-3.10, and 7:27B-4 are to establish a program for the retrofitting and modifying of certain heavyduty diesel vehicles and equipment (the Diesel Retrofit Program), as directed by the Diesel Retrofit Law. As part of the State's diesel initiative, directed at reducing diesel emissions and the health impacts associated with diesel exhaust, the proposed rules have two components: one that would provide for the installation of closed crankcase ventilation systems on all school buses that do not meet the standard for fine particulate matter (PM<sub>2.5</sub>) established by the United States Environmental Protection Agency (USEPA) for model year (MY) 2007 and later; and a second component that would provide for the tailpipe retrofitting of certain heavy-duty diesel engine types, including solid waste vehicles, commercial buses, and publicly-owned on-road vehicles and off-road equipment. The proposed rules establish a timetable and procedure for the Department to provide reimbursement for the costs associated with the purchase and installation

of the closed crankcase ventilation system or the retrofit devices. The proposed rules also establish a training and certification program for an individual who performs diesel emission inspections or who repairs diesel vehicles that fail emissions testing under the State's periodic and roadside inspection programs.

The environmental benefits to be achieved through these rules include a 150-tons-peryear reduction in diesel particulates through the installation of tailpipe retrofits. Some retrofit devises or control measures, in order to achieve their verified reductions in particulate emissions, may require the use of specialized fuels. In addition, controls on school bus engine emissions are expected to significantly reduce the high levels of particulates to which children are exposed while riding on school buses each day.

#### Background

Diesel exhaust is a complex mixture of hundreds of constituents in gas and particle form. Exhaust emissions vary in chemical composition among engine types, operating conditions and fuel formulations. The particles in diesel exhaust are composed of a central core of elemental carbon and adsorbed organic compounds, as well as small amounts of sulfate, nitrate, metals and other trace elements. Gases in diesel exhaust include carbon dioxide (CO<sub>2</sub>), oxygen, water vapor, carbon monoxide (CO), oxides of nitrogen, sulfur compounds and low molecular weight hydrocarbons.

Diesel exhaust is classified as a probable human carcinogen by many governmental authorities, including the International Agency for Research on Cancer (an authority under the World Health Organization)<sup>8</sup>, the United States National Toxicology Program<sup>9</sup>, and the USEPA(10). The State of California classifies diesel exhaust as a known carcinogen.<sup>11</sup> The California Air Resources Board (CARB) has identified diesel PM as a toxic air contaminant.<sup>4</sup> The USEPA, CARB, and others have determined that human exposure to diesel exhaust has been linked to premature death from lung cancer, and increased incidents of asthma, allergies, and other various cardiorespiratory disorders. Those most susceptible to diesel emissions include the elderly, the very young and those with pre-existing respiratory problems. Components of diesel exhaust are genotoxic, mutagenic, and can produce allergy symptoms, including inflammation and irritation of airways. There is no known safe level of exposure to diesel exhaust for children.<sup>2</sup>

Of particular concern is the fine particulate matter contained in diesel exhaust referred to as  $PM_{2.5}$ .  $PM_{2.5}$  is composed of particles less than 2.5 microns in diameter, and includes both carbon particles and liquid droplets.  $PM_{2.5}$  is of special concern because these particles can be inhaled deep within the lungs and can enter the blood stream.  $PM_{2.5}$  can aggravate asthma, increase respiratory symptoms such as coughing and difficult or painful breathing, cause chronic bronchitis and decreased lung function, contribute to cardiovascular problems such as heart attacks, and even result in premature death. A recent report by the New Jersey Clean Air Council states that only smoking and obesity outrank particulate matter in the estimated number

of premature deaths caused every year.<sup>2</sup> Asthma and emphysema are exacerbated by particulate matter in the atmosphere. The USEPA has designated 13 New Jersey counties as nonattainment areas for the health-based  $PM_{2.5}$ .<sup>24</sup> The proposed diesel retrofit program rules will reduce  $PM_{2.5}$  emitted from the targeted vehicles.

Asthma, which studies show is aggravated by exposure to particulates from diesel exhaust, is a serious health concern in New Jersey. According to the last Federal estimate (1998)<sup>17</sup> more than 600,000 New Jersey residents, including children and those under five years of age, have asthma. Asthma sufferers in New Jersey accounted for nearly 14,000 hospital admissions in 2001, roughly one of every one hundred hospitalizations.<sup>17</sup> The deaths of 80 New Jersey residents in 1999 can be attributed to asthma.<sup>17</sup> Risk of death from asthma increases considerably with age, with the 65-plus population having the highest rates.

The Center for Disease Control estimates that 4.5 million children in the United States have asthma.<sup>17</sup> Diesel exhaust can adversely affect children with underlying respiratory illnesses such as asthma, bronchitis, and infections, and may enhance the effects of some allergens among sensitive individuals. Children inhale more air than adults, relative to body surface area, breathing frequency, and heart rate, because children have greater metabolic needs, due to growth. The human lung continues to develop through adolescence and exposure to harmful air pollutants during childhood has an important impact on lung development; therefore, children are at greater risk because a greater dose of pollution is delivered to their lungs during this crucial period.

Diesel-powered engines, such as those found in trucks and buses, are responsible for a significant amount of the particulate pollution in New Jersey, which can disproportionately affect people in densely populated high traffic areas, especially in urban centers. The emission of particulate matter and other chemical compounds in the exhaust of diesel engines poses a real health risk to the people of the State. Analysis of data from the Department's air monitoring system shows that diesel emissions contribute up to 12 percent of the PM<sub>2.5</sub> in the State.

The intent of the Diesel Retrofit Law and the proposed rules is to target those vehicles that have a large operational presence within communities, travel more often on neighborhood roads, and have more potential to directly expose the public to diesel exhaust. By focusing on these types of vehicles, the Diesel Retrofit Law prioritizes the reduction of  $PM_{2.5}$  in urban communities, which are often the areas with the highest concentrations of  $PM_{2.5}$  in the State. With this in mind, the proposed rules regulate all school buses used throughout the State, solid waste collection vehicles that are either publicly-owned or privately-owned and used in a public contract, publicly-owned transit buses, privately-owned commercial buses, and publicly-owned on-road vehicles and off-road equipment.

#### Best Available Retrofit Technology (BART)

The Diesel Retrofit Law, at N.J.S.A. 26:2C-8.28, requires the Department to promulgate rules designating required reductions in fine particle emissions and choices of Best Available Retrofit Technology (BART) available to owners of regulated vehicles and regulated equipment

to meet the required reduction at a reasonable cost. The Diesel Retrofit Law defines BART at N.J.S.A. 26:2C-8.27 as equipment, a retrofit device, or fuel, or any combination thereof, designated by the USEPA as a verified technology for diesel retrofit programs, or by the California Air Resources Board (CARB) as a verified technology for diesel emissions control. In establishing these criteria, the Legislature recognized the availability of emission control retrofit technologies that have demonstrated particulate emission reduction capabilities through established standardized processes. The USEPA and the CARB established their verification processes to provide a retrofit user with assurance that the verified emission control retrofit technology would yield the emissions reduction benefits demonstrated during the verification process.

The proposed rules, as the Diesel Retrofit Law requires, establish a program to provide for the tailpipe retrofitting of certain heavy-duty diesel engine types. The diesel vehicle and equipment types to which tailpipe control device installation (retrofit) requirements would apply include publicly-owned solid waste vehicles, privately-owned solid waste vehicles that are used pursuant to a public contract with a public entity, New Jersey Transit commercial buses, privately-owned commercial buses, publicly-owned on-road vehicles and publicly-owned offroad equipment. Consistent with the requirements of the Diesel Retrofit Law, the proposed rules will require retrofitting of these vehicles and equipment with BART, as defined at N.J.S.A. 26:2C-8.27. School buses will not be required to have tailpipe retrofit control devices at this time.

The availability and affordability of retrofit devices can vary greatly. Successful implementation of any retrofit program depends upon the availability of retrofit devices that will provide adequate reductions when applied to the vehicles and equipment in-use within the program. Conversely, ambitious control levels that are not supported by the commercial availability of proven controls may result in a weak retrofit program. In proposing the rules, the Department has balanced these factors against the need to maximize the reductions that this program can obtain through retrofitting. Accordingly, the Department proposes to establish specific emissions reduction levels, referred to as BART levels, for different types and model years of regulated on-road diesel vehicles and off-road diesel equipment. The levels were established to make use of currently available retrofit technologies that could be applied most broadly to the types of vehicles and equipment covered by the statute. The proposed emissions reduction levels in Table 1 at proposed N.J.A.C. 7:27-32.8 take into account the model year and type of engine technology prevalent at the time of original manufacture. The emission control levels correspond to listings of verified diesel retrofit particulate technologies established by CARB and USEPA. By designating the emission control level in lieu of specific control technologies for the various combinations of vehicles and equipment, the Department is effectively establishing a menu-style approach that affords flexibility to the owner of a regulated on-road diesel vehicle or off-road equipment. Using this approach with the proposed emission control levels should provide owners of regulated vehicles and equipment with several choices of retrofits in most cases.

While the menu approach affords the fleet owner the flexibility in choosing the best type of emissions reduction technology for his or her operation, it also places upon the fleet owner the task of determining which emissions control strategy best suits the needs of the fleet. Additionally, there may be some cases where it is not possible to meet the BART level for a specific combination of vehicle or equipment and model year because of a lack of a CARB or USEPA verified retrofit device within the designated BART level that has been verified for the specific application; design constraints specific to the vehicle or engine that preclude retrofitting; or an operational duty cycle that does not provide appropriate exhaust temperatures and, thus, precludes use of available retrofit technologies. Through its careful selection of BART levels, the Department has attempted to minimize the likelihood that a particular BART level will not be achievable. If a required BART level is not, in fact, achievable for a particular vehicle or piece of equipment, the owner can submit for approval a fleet plan that provides for a retrofit device with a less stringent BART level. (This must be the next most stringent BART level that is feasible for the vehicle or piece or equipment.) If it is not possible to use BART at all for the specific vehicle or engine and model year combination, the owner can submit a plan that does not require the use of BART for that vehicle or piece of equipment. Alternative compliance is discussed further below.

#### Selecting BART

To determine the best retrofit technology for a particular vehicle or piece of equipment, the owner must first ascertain certain characteristics of the regulated vehicle or equipment.

Information such as the engine manufacturer, model year, USEPA engine family and some emission control information is necessary. This information can be obtained from the Vehicle Emissions Control Information label, a decal that is placed upon the engine and also in a visible area within the engine compartment. The label is the product of uniform labeling requirements set forth in the engine emissions certification sections of USEPA's regulations for highway and off-road engines at 40 CFR Part 96.

After determining the appropriate BART level, the owner should determine the available emissions control strategy options. The owner may choose to consult with the installer of retrofit devices to determine the appropriate retrofit strategy, or he or she may refer to the equipment verified by CARB and USEPA. The owner can find the list of devices verified by CARB on-line

at

#### http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm

and

http://www.arb.ca.gov/diesel/verdev/verdev.htm for the USEPA-verified emissions control strategies and CARB-verified emissions control strategies, respectively. The owner should pay close attention to the PM reductions (in percent) listed by USEPA or CARB and whether they are adequate to satisfy the minimum required BART level. Next, the owner must determine whether the engine in the subject regulated diesel vehicle or equipment is compatible with the guidelines in the CARB Executive Order and/or USEPA Verification Letter. An Executive Order and/or Verification Letter, issued when a control technology successfully completes the USEPA or CARB verification process, outlines the parameters of the verification. For example, if the emission reductions were demonstrated when the technology was installed on a 1996

model year solid waste vehicle with a Caterpillar engine, then the Executive Order or Verification Letter will stipulate that the reductions can only be assured if the technology is installed on that same type of engine in that same application.

The USEPA and CARB verification processes were designed to ensure compatibility of the retrofit emission controls with specific combinations of diesel engines manufactured during specific model years. In some cases, additional constraints may be established in the Verification Letter and/or Executive Order that would further limit the type of application in which the retrofit may be used. For example, some CARB or USEPA verified devices cannot be used in diesel engines that contain an oxidation catalyst in the exhaust system. These constraints must be evaluated against the individual engine and vehicle. In taking this approach the Department acknowledges that there may be combinations of engines and vehicles or equipment, and model years within those combinations, as well as types of uses that may not be retrofittable within the proposed BART framework. For these situations, the Department has provided alternatives, as discussed below.

Once the owner (alone or in consultation with the installer) has determined the most desirable emissions control strategy for the vehicle or equipment, he or she must then contact the manufacturer or authorized installer regarding the compatibility of a particular strategy with the specific vehicle or equipment application. The compatibility determination may require some additional analysis by the manufacturer and/or installer including, but not limited to, the condition of the engine relative to the manufacturer's in-use operating tolerances, oil

consumption, or exhaust temperature produced during the normal course of operation of the vehicle or equipment. Once the characteristics of the particular vehicle are evaluated, the vehicle owner can determine if the specific emissions control strategy meets the needs of his or her vehicle or equipment.

#### Proposed Particulate Emission Reduction Levels

The Department proposes to require retrofitting emission controls on diesel-powered onroad vehicles and off-road equipment using control levels set forth in the tables at proposed N.J.A.C. 7:27-32.8. The Department is proposing these control levels to maximize the number of control options available, while obtaining reasonable diesel particulate emissions reduction levels. To be acceptable, the emission controls must be among those successfully verified through the USEPA or CARB, and must be of a type that is compatible with the particular vehicles and equipment. Using emission controls that are not effective when a vehicle is in use is not appropriate under the proposed rules. In some cases, the Department has established BART levels that are less stringent than what might be achievable by some types of vehicles to avoid having a large number of vehicles unable to be retrofitted at the higher level.

#### Basis for Control Levels for Vehicle and Equipment Types

The Diesel Retrofit Law requires the Department to determine what emission control technologies and levels of particulate emissions control may be required to be retrofitted upon a

regulated vehicle or regulated equipment to achieve a substantial particulate reduction at a reasonable cost. In developing the proposed emission control levels, the Department consulted with other government agencies that have implemented retrofit programs, retrofit manufacturers, industry experts, and trade associations. The Department was also able to draw upon in-house experience associated with retrofit demonstration projects involving school buses, transit buses and garbage trucks to define levels that are achievable with available technology. Additionally, the Department reviewed application constraints (the feasibility or effectiveness of certain technology on specific engines and uses) developed by the emission control manufacturers, the CARB and USEPA verification processes, and a diesel retrofit program in place in Switzerland. More information about the program in Switzerland may be found at <u>http://www.umwelt-sch/buwal/eng/fachgebiete/fg\_luft/vorschriften/industrie\_gewerbe/filter/index.html.</u>

The Diesel Retrofit Law specifically exempts from retrofitting requirements any regulated on-road diesel vehicle manufactured and certified to meet a Federal standard of 0.01 g/bhp-hr of fine particle emissions, as well as any regulated off-road diesel equipment manufactured and certified to meet a Federal standard of 0.015 grams per brake horsepower-hour (g/bhp-hr) of fine particle emissions. (N.J.S.A. 26:2C-8.37.) The Federal 2007 emissions standards (40 CFR 86.007) were designed to reduce new heavy-duty diesel engine particulate emissions by 90 percent to 0.01 grams per brake horsepower hour (g/bhp-hr) compared to the standards for engine model years 1994 through 2006. Because model year 2007 and newer

commercial buses, on-road vehicles and solid waste vehicles will emit  $PM_{2.5}$  at very low levels, the Department does not propose to require such vehicles to be retrofitted.

Commercial buses have been targeted as exhaust emission control retrofit candidates since the early 1990s. Under the Federal Urban Bus Retrofit Program (40 CFR 85, Subpart O), the USEPA required emission control retrofitting (at the time of engine rebuild) of model year 1993 and older engines in transit buses operating in densely populated areas, to meet the particulate emissions levels of the 1994 model year. Due to the institution of the Federal program, the greatest body of knowledge in the area of retrofit diesel emissions controls is based upon the characteristics of bus operations. The control levels proposed herein for commercial buses are based upon providing the maximum emission control efficiency that can be achieved through application of available verified retrofit emission control systems when used within the constraints of the USEPA-issued verification letter or CARB-issued Executive Order.

On-road diesel vehicles used in government operations conducted by the State, a county or a municipality for short-hauling, light construction work, and other general purposes, require special consideration for their expected typical duty cycles. These types of operations often are such that it is unlikely that the vehicle would reliably generate the amount of exhaust heat required to sustain operation of a passively regenerated particulate filter, which encompass the majority of BART 3 retrofit devices. Passive regeneration utilizes an embedded catalyst to aid recombustion of the exhaust components that are borne within the exhaust or embedded within the filter. There are BART 3 control strategies available that do not rely upon exhaust

temperature for reliable operation strategies (such as actively regenerated particulate filters, which use a heat inducing mechanism such as a burner or electric heater to oxidize the entrapped fine particles); however, only one has been verified for on-road diesel engine applications at the time of this rulemaking. Thus, the Department has significant concern about the available supply of this type of verified retrofit device. Additionally, requiring BART 3 may artificially increase retrofit costs due to the limited availability of verified actively regenerated particulate filters. Accordingly, the Department is not proposing to require retrofitting with BART 3 retrofit devices for this type of vehicle.

Rather, the Department proposes to require installation of BART 2 technology on all regulated publicly-owned on-road diesel vehicles. BART 2 provides a variety of control options across a broad range of model years of on-road diesel vehicles. In contrast to BART 3, many control strategies associated with BART 2 have been developed to be compatible with vehicles and operations that produce primarily lower exhaust temperatures. BART 2 strategies tend to use mechanisms that do not require physical entrapment of exhaust particles and, thus, are designed to allow unoxidized particulate emissions to pass through the control mechanism. Under the proposed rules, an owner may satisfy any BART 2 requirement by using a BART 3 emissions control strategy, if the strategy is appropriate for the particular vehicle and use.

Similar to government-owned on-road diesel vehicles, solid waste collection vehicles have operational characteristics that tend to yield lower exhaust temperatures. Given the limited availability of verified actively regenerated particulate filters meeting BART 3, the Department

believes it would be imprudent to require BART 3 on all solid waste collection vehicles. Rather, the Department proposes to require installation of BART 2 technology for regulated solid waste vehicles with a model year 1988 through 2006 model year diesel engine, and installation of BART 1 technology for all regulated solid waste vehicles with a 1987 or older model year diesel engine. Vehicles certified to 2007 and later Federal standards will already achieve reduced emissions of particulate matter, and do not require BART, as discussed above. Solid waste collection vehicles that are publicly-owned are required to retrofit pursuant to these rules, as are solid waste collection vehicles that are privately-owned and used in a public contract.

The USEPA's particulate standards for new off-road diesel engines with horsepower ratings from 75 to 750 horsepower are 0.015 g/bhp-hr, through a phase-in schedule beginning with model year 2011. By 2014, all such new engines must meet the standard. (40 CFR 69 Subpart B) Similarly, USEPA requires new diesel engines with 750 horsepower or more to meet a 0.03 g/bhp-hr particulate emissions standard by model year 2015. The Department does not propose to require retrofitting of this equipment if it is equipped with an off-road diesel engine certified to meet these standards.

The Department also proposes to exempt from retrofitting requirements other off-road diesel engines. Off-road engines certified by the USEPA to meet new engine particulate emissions standards from 0.01 g/bhp-hr to 0.03 g/bhp-hr will have been designed to meet the same level of regulatory stringency under the USEPA Clean Air Nonroad Diesel Rule. (40 CFR Part 69) At the time of their introduction into the market, such engines will be equipped with the

most stringent commercially available particulate emissions controls. The Department does not anticipate advancements in the retrofit diesel particulate emissions control market that are designed to target further reductions from engines designed to comply with the USEPA Clean Air Nonroad Diesel Rule.

On the other hand, off-road equipment with an off-road engine manufactured prior to the new engine standards of 0.015 g/bhp-hr mentioned above for engines with 175 up to 750 horsepower and new engine standards of 0.03 g/bhp-hr for engines with 750 or more horsepower, will be required to retrofit. These categories of off-road equipment (which include some back hoes, road graders, bulldozers and construction equipment that do not drive on roads) have higher emissions and a longer useful life than a typical on-road vehicle. In addition, this type of vehicle tends to be operated within small geographic areas for extended periods of time due to the nature of the work for which it is used (such as construction); accordingly, it can have a significant impact on the air quality in the area and cause significant public exposure. The Department proposes to require owners to install BART 3 technology upon regulated off-road diesel equipment with a 1996 or newer model year diesel engine that has a brake horsepower rating of 175 or more. There are currently two products verified for this type of application and that meet BART 3. One is an actively regenerated particulate filter, and one uses catalytic reaction. The Department believes that the population of regulated off-road diesel equipment meeting the aforementioned criteria is relatively small, consisting of approximately 450

individual pieces of equipment throughout the State, but is estimated to be responsible for annual particulate emissions of 28 tons per year.

Off-road diesel vehicles and equipment with engine horsepower ratings of 175 horsepower or less encompass a broad range of designs and application, including smaller back hoes, graders, rollers, and other construction equipment. There is also a very limited pool of retrofit technologies meeting CARB or USEPA verification for these smaller off-road diesel engines at this time. These limitations introduce a significant level of uncertainty in the designation and implementation of BART for this segment of off-road diesel vehicles and equipment. Consequently, the proposed rules do not require these engines to implement BART. Similarly, off-road diesel vehicles and equipment manufactured in model years 1995 and earlier are also proposed to be exempt from BART at this time. These engines are, in most cases, incompatible with the types of retrofit technologies verified through the CARB and the USEPA processes. Specifically, the technologies that have been verified to date are typically used with off-road engines that are newer or have high horsepower ratings because those engines tend to produce higher exhaust temperatures which are necessary for the retrofit technologies to function properly. As a result, there are currently few available options for retrofit emission control strategies that have been verified by the CARB and the USEPA that can be used in these applications.

As mentioned above, there may be certain instances where it is not feasible to use a retrofit device at the BART level prescribed by the rules for a specific regulated vehicle or piece

of equipment. Therefore, the rules provide a vehicle owner the opportunity to request an alternate reduction level (a less stringent BART level) if he or she can demonstrate that the control technology available to meet the prescribed particulate reduction level is not compatible with the vehicle or piece of equipment in question. In such a case, the owner must submit a fleet plan to the Department for approval, indicating the control technology that would be used to achieve the reduction levels required by the Department.

#### Installation Requirements for Regulated Vehicles and Equipment

Vehicle and equipment owners will not be required to start installing the retrofit devices until the Department notifies them that there is funding available in a given year for the reimbursement of the purchase and installation costs to be performed in that year. In order to prioritize the retrofitting of different vehicle types based upon their prevalence within and impact upon communities, the Department proposes staggering the timeframes for the submission of documents and information according to vehicle-type. Specifically, owners of solid waste collection vehicles are required to submit their information first, followed by publicly-owned transit buses, then commercially-owned transit buses, and finally publicly-owned on-road vehicles and non-road equipment. Within each category of vehicles, the proposed rules further prioritize the installation based on vehicles that operate in urban areas. Plan submittals for fleets that service or have a base of operation within two miles of an urban center or urban complex, as

identified by the State Planning Commission, will be given priority over submittals from other areas of the State.

#### CARB Program

The California Air Resources Board established a technology verification program for diesel emissions control retrofit systems that provides for three ranges of particulate emissions control level categories. CARB identifies the controls as Level 1 (25 to 49 percent particulate emissions reduction), Level 2 (50 to 84 percent particulate emissions reduction), and Level 3 (85 percent or greater particulate emissions reduction). The Department identifies the corresponding control levels in the proposed rules as BART 1, BART 2, and BART 3. CARB verifies control strategies for specific engine applications and model years. In some instances, verifications are also restricted to types of use. The current listing of CARB verified emissions control strategies may be viewed at http://www.arb.ca.gov/diesel/verdev/verdev.htm.

To date, the CARB has verified 25 emissions control strategies. Twelve, or nearly half of the strategies, are verified as Level 3 control strategies corresponding to a minimum of 85 percent reduction of particulate emissions. All of the currently-verified Level 3 control strategies utilize a diesel particulate filter. Four emission control strategies are verified as Level 2. Two of these strategies employ a flow-through filter, one uses a combination of a modified fuel and an oxidation catalyst, and one strategy utilizes fuel only. Lastly, there are nine emission control strategies that are verified as Level 1. All of the Level 1 strategies utilize a diesel oxidation

catalyst. Some of the Level 1 strategies are verified when used in conjunction with another mechanism, such as a crankcase vent filter or selective catalytic reduction system to control nitric oxide emissions. CARB continues to verify new emission control strategies as they become commercially available. As a result, the Department expects the number of verified strategies to increase significantly in the next year.

#### USEPA Program

The USEPA established a technology verification program in support of the Voluntary Diesel Retrofit Program. Similar to the CARB, USEPA verifies diesel exhaust emission control strategies for retrofit upon diesel vehicles and equipment. The program establishes an emission reduction value that is achievable when the verified emission control strategy is used in conjunction with a particular vehicle application, such as a heavy duty highway engine, with a turbocharger, manufactured between 1991 and 2003.

The USEPA has currently listed 25 verified emission control strategies for various applications of on- and off-road diesel-powered vehicles and equipment. Some of the strategies that the USEPA has verified do not meet the minimum PM reduction level that is required under CARB Level 1, or proposed BART 1. For example, USEPA has verified technology that achieves only 10 or 20 percent reduction in PM. CARB Level 1 and BART 1 require no less than 25 percent PM control. Therefore, not all USEPA-verified emissions control strategies satisfy minimum BART in the proposed rules.

#### **Emissions Control Strategies**

USEPA and CARB have verified several types of diesel exhaust emissions control strategies. The current state of the art of diesel retrofit fine particle (PM) emissions controls allows for more ambitious reductions from newer technology diesel engines. Diesel engines equipped with electronic fuel management systems, or that are otherwise designed to control particulate emissions, tend to produce exhaust contaminant and heat characteristics that are more predictable than older technology engines. These newer engines are more conducive to passively regenerated particulate filters and flow through filters. The premier option, the diesel particulate filter (DPF), offers the highest level of emission control and in most cases has been verified to control PM emissions at BART 3, or 85 percent or more reduction in PM emissions. DPFs are filtration devices designed to physically trap PM produced by diesel engines. To ensure uninterrupted operation, the DPF must "regenerate," or burn off the PM in the filter. Otherwise, the DPF would eventually become clogged with PM and ultimately render the vehicle or equipment unserviceable until the filter clog is remedied. Passively regenerated DPFs use an embedded catalyst to provide an environment favorable to oxidize the trapped PM. Normally, when the exhaust temperature is elevated, filter regeneration will occur and the PM will be oxidized to a gaseous form. Some DPFs offer "active" regeneration, in which an electric heater or small burner is employed to burn the trapped PM.

Newer engine technology and higher exhaust temperatures are particularly well suited to BART 3 technology. BART 2 control options generally satisfy operational characteristics and technological barriers that would otherwise prevent use of BART 3 on older technology diesel engines, or engines that do not yield a hot enough exhaust temperature to regenerate the particulate filter. BART 2 technologies currently include flow-through filters, one DPF, emulsified diesel fuel, and modified fuel used in conjunction with an oxidation catalyst. Flow through filters are not as efficient at collecting and oxidizing diesel exhaust particulate matter as BART 3 particulate filters, but they tend to be compatible with a broader application of engine and model year combinations. Flow-through filters are also more tolerant of lower exhaust temperatures and, therefore, are more practical for some applications.

Emulsified diesel fuel, which is a verified BART 2 control option, is a blend of diesel fuel and water, suspended with a chemical surfactant designed to isolate the water molecules, making the fuel and water mixture miscible (capable of being mixed). This modified diesel fuel allows for more complete combustion of the fuel, and a reduction of particulate emissions.

A third verified control strategy option for meeting BART 2 is to combine the use of modified fuel with the retrofitting of a vehicle with an exhaust oxidation catalyst or flow-through filter. The modified fuel would be either emulsified diesel fuel or diesel fuel mixed with a fuel-borne catalyst.

Currently, there are a number of emissions control strategies available that satisfy BART 1. These strategies employ the use of an oxidation catalyst, an oxidation catalyst and nitric oxide

reduction catalyst combination, an oxidation catalyst in conjunction with a fuel-borne catalyst, and an oxidation catalyst used in conjunction with closed crankcase ventilation system, emulsified diesel fuel, and certain blends of biodiesel. A biodiesel blend of at least 65 percent biodiesel will likely be necessary to yield a particulate emissions reduction that would satisfy BART 1, according to biodiesel benefits calculator available through USEPA's verification web page, http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm.

The verification characteristics of the vehicle or equipment, such as required exhaust temperature profiles, emission controls installed upon the engine, engine model year, engine family, general engine condition, and the use to which the vehicle or equipment is put, will determine whether or not the technology of any particular BART level will achieve the emission reductions for which it has been certified by CARB or the USEPA. CARB and the USEPA also specify operational requirements for the verified technologies. For example, there are certain filters that require the use of ultra-low sulfur diesel fuel (15 ppm sulfur content) in order to perform properly and meet the verified reduction levels.

#### Voluntary Repowering or Rebuilding to Meet BART

Pursuant to N.J.S.A. 26:2C-8.39, proposed N.J.A.C. 7:27-32.8(b) would allow the owner of a regulated vehicle or piece of regulated equipment to voluntarily rebuild or repower (replace) the engine to a certified configuration that meets a more stringent emission standard as a means of meeting the required reductions in diesel particulate emissions. Using a rebuild or repower to

satisfy the control requirements is allowable only if the net benefit would yield the same or a lesser amount of diesel particulate emissions than would otherwise be achieved by retrofitting with BART. Proposed N.J.A.C. 7:27-32.11(b)2 would allow for reimbursement of the cost of a rebuild or repower up to the amount equal to what would have been the cost of retrofitting the regulated vehicle or piece of regulated off-road equipment to meet BART. Reimbursement is contingent upon annual appropriation of funds dedicated to this purpose.

The proposed rules would also place a limitation on any increase in the engine manufacturer's brake horsepower rating occurring as a result of the new certified configuration. The limit would allow no more than a 10 percent increase in the manufacturer's brake horsepower rating relative to the rating of the prior engine configuration. This limit is needed to prevent any significant increase in emissions effectuated by the increase in brake horsepower. Heavy-duty diesel engine emission standards are applied per each brake horsepower and, therefore, emissions can increase or decrease relative to the rated horsepower of the engine. BART requires emissions reductions as a percentage of the emissions from the original configuration. The Department believes that allowing an increase in brake horsepower of up to 10 percent will provide the owner with an adequate margin to allow for minor variations in brake horsepower ratings among similar engine configuration options available for rebuilding or repowering. Minor differences in brake horsepower ratings between certified configurations are common and may be necessary when changing to a different certified configuration. While it is unlikely that large changes in horsepower ratings would occur because of design limitations of

the vehicle or piece of equipment, the limit is proposed to ensure that any benefit realized by using an engine that may emit less particulate emissions per horsepower is not undermined by a significant increase in the quantity of horsepower.

#### The Closed Crankcase Ventilation System Program for School Buses

The proposed rules require that a closed crankcase ventilation system be installed on all diesel school buses currently in use throughout the State that do not meet the USEPA MY 2007 engine standard of 0.01 grams per brake horsepower-hour. A closed crankcase ventilation system prevents emissions from escaping from the engine crankcase and entering the cabin of the bus, where the passengers could breathe the emissions. The USEPA MY 2007 standards require measurement of all engine emissions, including crankcase emissions. This is a departure from MY 2006 and older on-road diesel engine emissions standards, where only the exhaust emissions were measured and evaluated for compliance with the standard. Because of this, the Department anticipates that diesel engines certified by USEPA as meeting the USEPA MY 2007 standards will have incorporated into their design closed or controlled crankcase ventilation systems. In researching this issue, Department staff saw consistent application of crankcase emissions control systems upon engine manufacturers' diesel engine designs intended to meet the 2007 standards.

The Diesel Retrofit Law requires the Department to provide reimbursement for the cost of the device and its installation. The proposed rules do not, however, require installation until

the Department notifies the school bus owner that the Department has funds available. Once the Department notifies the owner of the availability of funds, installation of the closed crankcase devices must take place within two years. Because children are highly susceptible to the effects of particulate pollution, the Department, has prioritized the installation of closed crankcase ventilation systems on school buses and will ensure these installations are the first to be fully funded.

As directed by the Diesel Retrofit Law at N.J.S.A. 26:2C-8.32a, the Department will undertake a study to determine if emissions from the bus tailpipe significantly affect the air quality inside a school bus. If the results of the study show that tailpipe controls would significantly improve in-cabin air quality, the Department is authorized by the law to promulgate regulations to require school buses with more than two years of service remaining to control tailpipe emissions through BART, as the proposed rules require of other vehicles, discussed above. Because the Diesel Retrofit Law requires the Department to undertake a study before requiring school buses to install BART, the proposed rules do not address BART as applied to school buses.

#### The Process Requirements of the Retrofit Program

Owners of regulated vehicles or equipment are required to provide vehicle information to the Department and to notify the Department whether the owner will install the prescribed BART level or submit a plan for Department approval if one or more vehicles will not meet the

prescribed BART level. School bus owners are not required to provide notice of whether the owner will have BART installed upon the vehicle or submit a fleet plan or fleet averaging plan since the proposed rules currently do not include regulated school buses within the definition of regulated vehicles. The Department is developing a web-based reporting mechanism and guidance information to facilitate the reporting of the required information. The web-based reporting mechanism will help to ease the owner's burden in providing information required by the proposed rules while providing a uniform format for processing. A fleet owner who meets the BART levels prescribed for each of its regulated vehicles and pieces of equipment, as applicable, will benefit from a streamlined review process available to those who give notice of intent to comply for each regulated vehicle or piece of equipment, as part of the inventory submittal. There may be certain instances, though, where it is not feasible to use a retrofit device at the BART level prescribed by the rules for a specific regulated vehicle or piece of equipment. Therefore, the rules also provide a vehicle owner the opportunity to request an alternate reduction level (a less stringent BART level) if he or she can demonstrate that the control technology available to meet the prescribed particulate reduction level is not compatible with the vehicle or piece of equipment in question. In this case, the owner or group of owners must submit a fleet plan to the Department for approval, indicating the control technology that would be used to achieve a lower reduction level in accordance with proposed N.J.A.C. 7:27-32. The fleet plan would also include additional documentation supporting the reason that one or more vehicles or pieces of equipment is incompatible with the required BART. A fleet of 75 or more

regulated vehicles, or a combination of fleets with a total of 75 or more regulated vehicles or equipment may, instead of a fleet plan, propose a fleet averaging plan through the web-based reporting mechanism.

The Diesel Retrofit Law, at N.J.S.A. 26:2C-8.35, requires the Department to review fleet plans and fleet averaging plans. The Department would evaluate plans for completeness and conformance with the proposed rules at N.J.A.C. 7:27-32. The Department would approve fleet plans or fleet averaging plans unless the Department determines that the plans or parts thereof do not conform to the proposed rules. The Department may also disapprove a notice of intent to comply, a fleet plan or a fleet averaging plan if the cost is unreasonable based upon prevailing market rates or acquisition by the State of similar equipment. The Department must also assure that funding is available for reimbursement of the cost of retrofitting. Vehicle and equipment owners will not be required to start installing the retrofit devices until the Department notifies them that there is funding available for the reimbursement of the purchase and installation costs.

In order to prioritize the retrofitting of different vehicle types based upon their prevalence within and impact upon communities, the Department proposes staggering the timeframes for the submission of documents and information according to vehicle-type. Specifically, owners of solid waste collection vehicles are required to submit their information first, followed by publicly-owned transit buses, then commercially-owned transit buses, and finally publiclyowned on-road vehicles and non-road equipment. Within each category of vehicles, the proposed rules further prioritize the installation based on vehicles that operate in communities

that service or have a base of operation within two miles of an urban center or urban complex as defined and identified by the State Planning Commission.

Each vehicle owner will demonstrate compliance by certifying that the control technology was installed, and will have the installation verified as part of a periodic vehicle inspection at a New Jersey licensed diesel emissions inspection center (DEIC). School bus owners must demonstrate compliance by certifying that the closed crankcase system was installed and by having the installation verified during a scheduled in-terminal inspection conducted by the Motor Vehicle Commission.

#### The Reimbursement Process

The Diesel Retrofit Law provides for the reimbursement of costs for the purchase and installation of closed crankcase ventilation systems and retrofit devices required by the law. To that end, it also established a special, non-lapsing fund in the Department of the Treasury (Diesel Risk Mitigation Fund or Fund) to fund both the reimbursements and the administrative costs of the Department and the Motor Vehicle Commission in implementing this program. (N.J.S.A. 26:2C-8.53.) In November 2005, New Jersey residents approved a constitutional amendment to dedicate a portion of the Corporate Business Tax to the Diesel Risk Mitigation Fund. Because the Fund will receive these monies annually for 10 years, the retrofit installations will be spread out over 10 or more years, depending on the availability of funding.

The Diesel Retrofit Law provides the Department with the option to reimburse the vehicle or equipment owner directly, or to develop an alternative approach whereby the entity performing the actual installation of the retrofit device or closed crankcase ventilation system would be reimbursed (N.J.S.A. 26:2C-8.45a.). As required by the Diesel Retrofit Law, the Department has determined that such an alternative approach would be feasible, cost-effective and efficient and, therefore, the Department proposes to directly reimburse the authorized installer of these devices. An authorized installer is an entity authorized through an agreement with a manufacturer to represent the manufacturer in the sales, installation, repair and/or dispersal of information regarding those retrofit devices or closed crankcase ventilation systems. Considering that the number of vehicle owners is significantly more than the number of authorized installers, the Department determined that it would be more efficient to reimburse authorized authorized installers, rather than vehicle owners.

In order for an authorized installer to be eligible for reimbursement pursuant to the requirements of proposed N.J.A.C. 7:27-32, the authorized installer must comply with the procurement processes established pursuant to Title 52 and be on a State contract issued pursuant to the subchapter. Alternatively, public entities that become authorized installers will be required to comply with the payment agreement established between the public entity and the Department.

The Department will issue a Request for Proposal (RFP) on which authorized installers can bid. Any installer who satisfies the conditions of the RFP will then be on the State contract.

Any authorized installer on a State contract can provide CCVS and retrofit services to both the public and private fleet owners that are regulated by this rule proposal.

The authorized installers would then apply to the Department for reimbursement of these costs. The application for reimbursement can occur as soon as practicable after the installation of the required device on the host vehicle. The request for reimbursement is not contingent on the verification of compliance requirements for school buses in proposed N.J.A.C. 7:27-32.6 or the one-time compliance inspection of retrofit devices pursuant to proposed N.J.A.C. 7:27-32.21. The State Treasurer, in coordination with Department, is required to reimburse entities within 30 days of receipt of a complete reimbursement application.

The Diesel Retrofit Law, at N.J.S.A. 26:2C-8.30, requires the Department to conduct a public outreach program to owners of affected vehicles and equipment. The outreach program is not reflected in the proposed rules. The Department will contact and inform owners about the proposed rules and what must be done to comply. Included in the outreach program are targeted mailings to known owners of regulated vehicles and equipment, a website, guidance documents and workshops to provide general instructions on how to comply with the rules. The guidance documents will provide detailed information about complying with the program. These will be available for electronic download from the program website at <u>www.nj.gov/dep/stopthesoot</u>, or by hard copy. In addition to this program, Department representatives, upon request, have been meeting with groups to provide further information and guidance about the program.

#### Diesel Emission Training and Education Program (DETEP)

As required by the Diesel Retrofit Law at N.J.S.A. 26:2C-8.46, the Department, in conjunction with the MVC, is proposing rules to create a diesel emission testing and inspection training program. This training, or the substitution of comparable work experience for portions thereof, will be required of any individual who inspects or reinspects vehicles under the diesel periodic and roadside inspection programs, or who repairs a vehicle that has failed a periodic or roadside emission inspection or re-inspection under the diesel periodic or roadside inspection programs. The Department's component of this inspection and repair training program is also referred to as the Diesel Emission Technician Education Program (DETEP). The Department is also proposing rules, as required by the Diesel Retrofit Law at N.J.S.A. 26:2C-8.44, providing for the training of each inspector who conducts the visual check for the installation of closed crankcase ventilation systems and retrofit devices.

Under the proposed rules, an inspector must be certified as trained in order to perform an inspection at a diesel emission inspection center (DEIC) as part of the diesel periodic inspection program, beginning on January 1, 2009. (Inspectors performing roadside inspections are trained and certified by the MVC.) The proposed rules require an inspector to attend a diesel emission inspector training course at a Department-approved third party training provider as part of DETEP, in order to be certified as trained. Alternately, the inspector can substitute three years of documented professional experience in the inspection of diesel engines for the Department training course. After completion of the course, the inspector will submit an application for

certification to the Department or its representative. The Department will issue a certificate, valid for two years, to successful applicants. The certified inspector will be required to attend any update courses offered during the two-year certification period.

Only a certified diesel emission repair technician or personnel supervised by a certified diesel emission repair technician will be qualified to perform emissions-related repairs on dieselpowered motor vehicles that have failed a diesel periodic or roadside inspection or reinspection. The proposed rules require a repair technician to successfully complete a diesel emission repair technician training course at a Department-approved third party training provider in order to be certified. Alternatively, a technician with five years of documented repair experience or an Electronic Diesel Engine Diagnosis Specialist certification (often referred to as "L2") from the Automotive Service Excellence (ASE) program, or certification from an original equipment manufacturer (OEM) training program approved by the Department, may substitute that experience or certification for portions of the training requirements related to general engine design and diagnostic techniques. After completing the course, the technician will submit an application for certification to the Department or its representative. The Department or its representative will issue a unique certificate, valid for five years, to successful applicants. The certified repair technician will be required to attend any update courses offered during the fiveyear certification period.

The Department will accept only training provided by Department-approved training providers in support of the training certification of an inspector. A prospective training provider

must apply to the Department to become a DETEP Training Provider. The Department is proposing a course of instruction that includes criteria for an approvable training curriculum, training facility equipment requirements, and instructor qualification criteria. The Department will make available to the inspector and repair community a list of all New Jersey-Approved DETEP Training Providers.

The proposed DETEP program will assure owners of diesel-powered vehicles that they are receiving top quality services when getting their vehicles inspected and repaired. The proper training and certification of emission inspectors and repair technicians will ensure that the vehicles are repaired by qualified people, resulting in the lowest possible emissions. Effective repairs are key to achieving the goals of the State's diesel inspection and maintenance program, so the State is committed to ensuring that the diesel repair industry has the capability to properly repair vehicles that fail diesel emission tests. As diesel engine technology continues to advance in an effort to further reduce emissions and improve fuel economy, the knowledge and training needed to service these vehicles properly will also grow.

A description of the proposed amendments and new rules follows.

N.J.A.C. 7:27-14 Control and Prohibition of Air Pollution from Diesel-Powered Motor Vehicles

#### N.J.A.C. 7:27-14.1 Definitions

The Department proposes to add new definitions, and to amend several existing definitions, to incorporate terms and meanings related to the Diesel Retrofit Law. In particular, the new and amended definitions relate to the verification of compliance with the installation of closed crankcase ventilation system requirements and the one-time compliance inspection for retrofitting required by the Department's proposed new rules at Subchapter 32. The Department also proposes administrative amendments to correct the names of State agencies.

Proposed new "diesel emission inspection center" or "DEIC" will reflect the role of a DEIC in performing the one-time compliance check/inspection to ensure that regulated vehicles have been retrofitted as required by proposed N.J.A.C. 7:27-32.

The Department proposes to replace the definition of "Division of Motor Vehicles" or "DMV" with a definition of "MVC" to reflect the change in that agency from a division within the New Jersey Department of Transportation to a commission. Wherever Division of Motor Vehicles or DMV appears in the existing rules, the Department proposes to replace it with Motor Vehicle Commission, or MVC.

The Department proposes to add definitions of the new terms "closed crankcase ventilation system" and "retrofit device," which are used in the proposed amendments to this subchapter.

The Department proposes to add a definition of a new term "NJ DEIC Inspection Form" to describe the forms currently used as part of the existing diesel vehicle inspection and maintenance program.

The Department proposes to amend the definition of "retrofitted diesel bus" to "retrofitted EPA urban diesel bus" to distinguish this category of vehicles from the diesel buses retrofitted under proposed new N.J.A.C. 7:27-32. The Department proposes to change the term wherever it appears throughout the subchapter.

#### N.J.A.C. 7:27-14.3 General prohibitions

At N.J.A.C. 7:27-14.3(d), to protect the integrity of the closed crankcase ventilation systems (CCVS) and retrofit requirements in proposed new N.J.A.C. 7:27-32, the Department proposes to prohibit tampering with a CCVS or retrofit device installed pursuant to those requirements. This new prohibition parallels a similar prohibition at N.J.A.C. 7:27-14.3(c) against tampering with a vehicle's emission control apparatus or element of design.

#### N.J.A.C. 7:27-14.4 General public highway standards

As part of the general prohibition of tampering with a CCVS or retrofit device installed pursuant to proposed new N.J.A.C. 7:27-32, the Department proposes, at N.J.A.C. 7:27-14.4(a)5, to prohibit operating a diesel-powered motor vehicle with such a tampered retrofit device or closed crankcase ventilation system. This language parallels the existing provision at N.J.A.C.

7:27-14.4(a)4 that prohibits the operation of a diesel-powered motor vehicle with a tampered emission control apparatus or element of design.

### N.J.A.C. 7:27-14.5 Test requirements

The Department proposes to rename the stall acceleration test procedure at N.J.A.C. 7:27-14.5 and 14.6, and 7:27B-4.3(c), as the "power brake" test procedure. This is a technical change only, the purpose of which is to more clearly indicate what the actual test procedure entails, and to prevent confusion with another common diagnostic procedure in use in the auto and truck repair industry. The "stall" test familiar to car and truck technicians is a stationary procedure for diagnosing automatic transmission problems, which entails running the vehicles engine at maximum governed speed for periods of up to several minutes at a time while the vehicle's transmission is engaged. The internal fluid pressure builds to a maximum point that is maintained, specifically to reveal or induce mechanical problems.

The "stall" smoke opacity test procedure in the existing rules, applicable to vehicles equipped with an automatic transmission only, entails accelerating the vehicles engine up to maximum governed speed while the vehicle's transmission is engaged, and using the vehicles brakes and wheel chocks to hold the vehicle safely in place during the test procedure. The engine is held at maximum governed speed for one-to-three seconds only, in order to generate and measure a cloud of exhaust smoke. This sequence is generally repeated five to six times to complete the test sequence.

Using the vehicle's brakes to generate a load on the engine as power is applied for short periods of time, or for successive engine accelerations, is a common industry diagnostic practice called "power braking." Therefore, because of the use and similarity of the power brake diagnostic test to the opacity testing procedure, the Department will replace the term "stall" with "power brake" in all references to this smoke opacity test throughout N.J.A.C. 7:27-14 and N.J.A.C. 7:27B-4.

Proposed new N.J.A.C. 7:27-14.5(f) and (g) require the one-time compliance inspection and the examination for the closed crankcase ventilation system be conducted consistent with the requirements for these inspections in the Air Test Rule at proposed new N.J.A.C. 7:27B-4.4(c) and (d), respectively. Because this section includes other test requirements for diesel vehicles, the Department determined that it is appropriate to include a reference to the one-time compliance inspection tests in the section. In this way, the owner of a diesel vehicle can determine, by reference to a single rule, what inspections are required. The inspections are more fully described below, in the discussion of the proposed amendments to N.J.A.C. 7:27B-4.

#### N.J.A.C. 7:27-14.6 Inspection standards

Under proposed new N.J.A.C. 7:27-14.6(f) and (g), a vehicle will pass the inspections for compliance with the new retrofit and closed crankcase ventilation requirements at N.J.A.C. 7:27-32 if a visual check confirms the installation of these retrofit devices and closed crankcase

ventilation systems, as applicable. The Department is including the standards in existing N.J.A.C. 7:27-14.6, which recites the standards for other inspections required of diesel vehicles.

#### N.J.A.C. 7:27-14.7 Diesel emission inspectors

Consistent with N.J.S.A. 26:2C-8.44 and 46, proposed new N.J.A.C.7:27-14.7 establishes the framework and requirements for the training, certification and responsibilities of diesel emission inspectors, and allows only certified diesel emission inspectors to perform diesel emission inspections and reinspections under the diesel periodic inspection programs. The proposed new rule requires the successful completion of Department-approved training in order to become a certified diesel emission inspector. This requirement for inspector training parallels requirements for training of inspectors performing roadside inspections pursuant to the MVC rules for the Diesel Emission Inspection and Maintenance Program and the licensing of DEICs at N.J.A.C. 13:20-46.8 and 47.15.

The proposed certification requirement in N.J.A.C. 7:27-14.7(a) does not take effect until January 1, 2009, to allow the Department sufficient time to develop the training program, solicit training providers, conduct outreach to inspectors, and ensure that all inspectors are properly trained or qualified. The Department anticipates that the training course will include an element regarding the compliance inspections for CCVS and retrofit devices. However, because inspectors will be conducting closed crankcase ventilation system compliance inspections and one-time retrofit compliance inspections shortly after the adoption of these rules and before

January 1, 2009, under proposed N.J.A.C. 7:27-14.7(b) the inspectors performing these inspections will not have to complete the third-party training currently under development for emission testing and repairs, but can instead complete Department-approved training for the CCVS and retrofit device compliance inspections.

The training course for inspectors, referenced at N.J.A.C. 7:27-14.7(c) and described more fully at N.J.A.C. 7:27-14.9(c), includes topics such as New Jersey-specific information (such as N.J.A.C. 7:27-14 and 7:27B-4), the use of the test equipment, and general background information on the diesel engine/vehicle. Proposed N.J.A.C. 7:27-14.7(c) allows an applicant with three years of documented professional experience in the inspection of diesel engines and related systems to substitute that experience for completion of the Department-approved training course.

Proposed N.J.A.C. 7:27-14.7(d) requires an inspector seeking certification to submit an application upon completion of a Department-approved course of instruction, and describes the information to be provided with the application. Proposed N.J.A.C. 7:27-14.7(e) and (f) provide for the issuance of a certification, valid for two years, if the Department determines that the requirements for certification have been met, and describe the process for recertification of an inspector, who has remained qualified and has completed all required training updates, for an additional two years. The proposed rule provides a two-year certification period to parallel the two-year license period for gasoline motor vehicle emission inspectors under the existing MVC Enhanced Motor Vehicle Inspection and Maintenance Program at N.J.A.C. 13:20-43.17(d).

Proposed N.J.A.C. 7:27-14.7(g) provides that, in order to remain certified or to qualify for recertification, inspectors must attend training update courses that the Department deems necessary, based upon advances in diesel engine and emissions control and testing technology. Diesel emission inspectors must remain knowledgeable about the state of the technology, including new test procedures. The Department will make every effort to minimize the frequency of required updates in order to minimize the impact of the training requirements on the regulated community.

Existing MVC rules regarding the Diesel Emission Inspection and Maintenance Program at N.J.A.C. 13:20-47.12(c) require each diesel emission inspection center (DEIC) to maintain for two years, and make available for inspection by (among others) the Department and the MVC, diesel vehicle inspection reports prepared at the DEIC. The DEICs currently use the form developed by the Department and referred to as the "NJ DEIC Inspection Form" to record the results of a diesel emission inspection and satisfy this requirement. Proposed new N.J.A.C. 7:27-14.7(h) requires inspectors to complete the NJ DEIC Inspection Form and retain a copy for two years. The inspection form includes items such as the vehicle owner's contact information, vehicle and engine identification information, test conditions and results, the DEIC number and the inspector performing the inspection. Through the inspection form, the Department can verify that each vehicle inspected at a DEIC complies with the general public highway standards under N.J.A.C. 7:27-14.4, and that the diesel emission inspector has met the inspection requirements of

N.J.A.C. 7:27-14.5, Test requirements, and N.J.A.C. 7:27B-4, Air Test Method 4: Testing Procedures for Diesel-Powered Motor Vehicles.

As proposed at N.J.A.C. 7:27-14.7(i), an inspector must submit the inspection form completed pursuant to N.J.A.C. 7:27-14.7(h) in a format acceptable to the Department. The Department is proposing to require the inspector, beginning on January 1, 2009, to submit the completed inspection form to the Department, electronically, within five business days after a MVC audit of the DEIC. DEICs currently submit these inspection forms in both paper and electronic formats. The current paper inspection form is in a format similar to those used in standardized testing, whereby the information on the form is scanned into a computer and then integrated into a database. The inspector writes the inspection data on the form and then fills in the bubbles corresponding to numbers or letters. Completing the form can be a time-consuming job. The person completing the form has to be very careful to fill in the correct bubbles and not to leave any stray marks on the form. Many errors occur in filling out the forms. Correcting the errors, and removing stray marks, which make the form unable to be scanned electronically, is a time-consuming process for the Department. The electronic version of the inspection form is more user-friendly and results in fewer errors. The electronic submittal process and the receipt and integration of the information into the Department's database will become easier and less time-consuming. The Department believes submittal of the inspection form electronically will improve the quality of information received from the DEICs, and decrease the time the Department spends correcting the errors on the inspection forms. Making electronic submittals

mandatory beginning January 1, 2009 would provide a sufficient transition period from paper form submittal to a one hundred percent electronic form submittal and would give DEICs enough time to make provisions for acquiring the necessary equipment to implement electronic submittal. The Department is developing a website portal that it anticipates will become the required means of submittal, replacing the current email system, which should further enhance the ease of reporting for both the Department and the regulated community. The proposed rules place the requirement on the inspector to submit the inspection forms to the Department because he or she is certified and is the one responsible for ensuring the inspection is performed correctly, as proposed in N.J.A.C. 7:27-14.7(a). When the inspector signs the inspection form, the inspector is certifying the inspection was done properly and met the requirements of N.J.A.C. 7:27-14, 7:27B-4, and 13:20-47. Under N.J.A.C. 13:20-47, the DEIC is required to maintain copies of every inspection report. The dual requirement for the DEIC and inspector to maintain copies of the inspection reports will help ensure a copy is available at the DEIC when an audit is performed at the DEIC.

Any inspector who feels it will be a hardship to submit the inspection forms to the Department electronically as of January 1, 2009 can request approval from the Department to continue submitting paper forms for a six-month period, as proposed at N.J.A.C. 7:27-14.7(j). As part of the hardship request, the inspector will cite the basis of the hardship that submittal of the inspection form electronically would impose, and the steps the inspector will undertake to ensure the inspection forms will be submitted electronically in the future. The Department will

review the hardship request and send the inspector a determination. If the Department grants a hardship waiver to an inspector, the inspector, pursuant to proposed N.J.A.C. 7:27-14.7(k), must submit the inspection form in a paper format to the MVC auditor at the time of the MVC audit.

#### N.J.A.C. 7:27-14.8 Diesel emission repair technicians

Consistent with N.J.S.A. 26:2C-8.46, proposed N.J.A.C.7:27-14.8 establishes the framework and requirements for the training, certification and responsibilities of diesel emission repair technicians, and allows only certified diesel emission repair technicians or someone working under the direct supervision of a certified diesel emission repair technician to perform an emission-related repair on a vehicle that has failed emissions testing, inspection or reinspection, under the diesel periodic or roadside program. The proposed new rule requires the successful completion of Department-approved training in order to be certified as a repair technician. There is, at present, no training program for a diesel emission repair technician; however, the Department is proposing to establish such a program through this rulemaking. The proposed DETEP provides training for both inspectors and technicians.

The proposed certification requirement in N.J.A.C. 7:27-14.8(a) will take effect after January 1, 2009, to allow the Department sufficient time to develop the training program, solicit training providers, conduct outreach to repair technicians, and ensure that all repair technicians are properly trained or qualified. Because the repair technician course has some of the same

elements as the inspector course described above at N.J.A.C. 7:27-14.7(a), the timelines for implementing both courses are the same.

In order to become certified, a diesel emission repair technician must successfully complete a training course from a Department-approved training provider. Proposed N.J.A.C. 7:27-14.8(c) allows an applicant for certification to substitute relevant professional certification from a diesel engine or vehicle original equipment manufacturer with approved training curricula, an Electronic Diesel Engine Diagnosis Specialist (L2) certification from the National Institute for Automotive Service Excellence (ASE) program, or five years of documented professional experience in the repair and maintenance of diesel engines and related systems for portions of the training requirements related to general engine operations and diagnosis. ASE certification is considered the training standard in the vehicle repair community. A technician with an ASE certification is considered adequately trained to perform any required emissionrelated repair covered by that ASE test sequence. A technician with a training certificate from an original equipment manufacturer of diesel engines/vehicles with approved curricula is also considered adequately trained to perform emission-related repairs for that brand of engine or vehicle. A technician who has accumulated five years of documented professional experience in the repair and maintenance of diesel engines and related systems will be allowed to credit that experience toward his or her training requirement, because, in the diesel repair industry, most trade schools provide a four-year curriculum, much of which is hands-on education. After trade school, most technicians go on to serve an apprenticeship of one or more years. Each technician

with either an ASE or approved OEM training certificate will be required to take a course containing New Jersey-specific requirements, including the relevant Department and MVC rules.

As proposed in N.J.A.C. 7:27-14.8(d) and (e), upon completion of a Departmentapproved course of instruction, the repair technician must submit an application for certification to the Department. The Department will issue to an applicant meeting all the training requirements a unique certification number and a certificate, valid for five years. The Department chose a five-year certification period to parallel the five-year certification period for a motor vehicle repair technician in the Enhanced Inspection and Maintenance program developed pursuant to N.J.A.C. 13:20-43. The Department will recertify the technician at the end of the five-year period if the technician submits an application that shows that he or she remains qualified and has completed all required coursework. The recertification is also valid for five years.

As this proposed at N.J.A.C. 7:27-14.7(g) for certified diesel emission inspectors, proposed N.J.A.C. 7:27-14.8(f) and (g) require repair technicians to attend training update courses that the Department deems necessary, based upon advances in diesel engine and emissions control and testing technology. A diesel repair technician should remain knowledgeable about the state of the relevant technology. The Department will make every effort to minimize the frequency of required updates in order to minimize the impact of the training requirements on the regulated community.

The Department is developing a form, referred to as the "NJ Diesel Emission Repair Report" form, to record the details of an emission-related repair of a diesel-powered vehicle that has failed a periodic or roadside emission inspection or re-inspection. Proposed N.J.A.C. 7:27-14.8(h), requires a certified repair technician to complete this repair report form after completing an emission-related repair, and maintain a copy of the form for two years after completion of the repair. Proposed N.J.A.C. 7:27-14.8(h) describes the information the repair technician will provide on the form, including information identifying the vehicle owner, the vehicle and engine, identifying the technician and his or her place of employment, and describing the repairs performed. This information will allow the Department to properly audit these repairs. The proposed rule requires the repair technician to submit the repair report form to the Department electronically, on and after January 1, 2009. The proposed new rules require the repair technician to submit the report, within five business days following the completion of the repairs. The proposed submission requirement is placed upon the repair technician, as he or she is the individual responsible for ensuring the correct performance of the repairs. The repair technician's signature of the repair report form constitutes his or her certification that the repairs have been completed properly.

Any repair technician who feels it will be a hardship to submit the repair report form to the Department electronically can request approval from the Department to continue submitting paper forms for a six-month period, as proposed at N.J.A.C. 7:27-14.8(i). As part of the hardship request, the repair technician must cite the grounds of the hardship that submittal of the repair

report form electronically would impose, and the steps the repair technician will undertake to ensure the electronic submission of the repair report form in the future. The Department will review the hardship request and send the repair technician a determination.

## N.J.A.C. 7:27-14.9 Training providers for diesel emission inspectors and diesel emission repair technicians

The Diesel Retrofit Law requires the Department to establish a training program for diesel emission inspectors and diesel emission repair technicians, as discussed above. Proposed N.J.A.C. 7:27-14.9 sets forth the requirements for training providers. A well-established automotive and diesel training network exists in New Jersey. The Department considers this third-party training system to be the most efficient method of training diesel emission inspectors and diesel repair technicians in order that they may be certified under the proposed rules. Because the Department does not have the resources necessary to train all the expected inspector and technician applicants, the Department is proposing to use a system similar to the Emission Technicians in the State's Enhanced Inspection and Maintenance Program for gasoline-fueled motor vehicles. ETEP establishes a minimum curriculum to be used by the approved third-party training providers. The guidelines for third-party training providers for training diesel emission inspectors and diesel emission repair technicians are similar under proposed DETEP.

Proposed N.J.A.C. 7:27-14.9(a) requires a facility to have at least two years of experience providing training courses related to automotive technology and repairs, and the ability to apply that knowledge to the repair of faults that can create excess exhaust emissions, in order to be a Department-approved training provider. The two years of experience is modeled after the third party requirements in the Gasoline Enhanced Inspection and Maintenance Program pursuant to N.J.A.C. 13:20-43.21(*l*). In its application to the Department, the prospective provider must provide contact information for itself and its instructors, as well as describe its relevant experience related to the training program. It must also demonstrate that it has at least one piece of emission inspection equipment related to the training, which the students will use in their training. The training provider will also submit a curriculum to the Department as part of the application. Utilizing the existing ETEP performance standard as a basis for the DETEP training curriculum, the proposed rules identify a list of topics that the courses of study must include.

It is important that a training provider have sufficient equipment and appropriate conditions for students to learn. Accordingly, the Department proposes at N.J.A.C. 7:27-14.9(e) and (f) a list of minimum equipment that a facility must have in order to provide appropriate classroom and hands-on instruction. Also, the proposed rules require a maximum student to teacher ratio of 25 to 1.

An important part of training an inspector or repair technician is the quality of hands-on training received, which is greatly influenced by the availability and condition of the demonstration area and equipment. The provider must make a test vehicle available to its

students, and must maintain the equipment in the emission and test demonstration area in accordance with the equipment manufacturer's specifications. Otherwise, there is no assurance that the equipment will work properly. The proposed rule, at N.J.A.C. 7:27-14.9(d), allows the Department to inspect a training provider's facility and course materials to be sure that the conditions of this section are met.

Proposed N.J.A.C. 7:27-14.9(g) sets forth the emission inspector and emission repair technician certification process. When a student completes a diesel emission inspector or a diesel emission repair technician training program, the training provider shall present the student with a certificate of course completion. The certificate of course completion is the student's proof that he or she has completed the required training course. The student will submit a copy of the certificate to the Department when the he or she applies to the Department for certification as a diesel emission inspector or diesel emission repair technician.

Proposed N.J.A.C. 7:27-14.9(h) requires training providers periodically to update their courses to conform to advances in diesel engine and emissions control and testing technology. The technology in the diesel engine/vehicle industry and testing industry is changing on a regular basis; therefore, the Department may require training providers to develop update courses for an inspector and technician to incorporate new test procedures or policies. The Department will work with the training providers to determine the content of the training course updates and the introduction date of the course updates.

Proposed N.J.A.C. 7:27-14.9(i) requires an approved training provider to maintain records of each student receiving emission inspector and/or emission repair technician training, whether or not the student completed the course. These records may be used by the Department to determine whether a student did in fact complete a training course at a school if a question arises regarding the student's inspector/technician qualifications. The information retained by the training provider will include items such as the student's contact information, the training dates, and the instructor of the course. These records may be electronically stored, and must be kept at the training facility for five years. The proposed rule includes a record retention period of five years for classroom training to match the length of the diesel emission repair technician certification, as proposed in N.J.A.C. 7:27-14.8(f). During the five-year period, the Department would be able to determine whether the student completed the required training from the training provider.

Under proposed N.J.A.C. 7:27-14.9(j), an approved training provider shall submit to the Department a quarterly report within 10 business days after the end of a calendar quarter. The report will contain the information required at proposed N.J.A.C. 7:27-14.9(i). This information will allow the Department to monitor the training progress of the students, and to perform a cross check on the inspector and technician certification applications. The quarterly report will help the Department track the training activity Statewide, to determine if there is adequate coverage of the training providers across the State. The Department is also proposing a requirement at N.J.A.C. 7:27-14.9(k) that the training providers submit to the Department, within 10 business

days after the completion of a class, a list of students that successfully completed the class. The class list will be used to verify the training information on the certification application the repair technician or emission inspector submits to the Department.

#### N.J.A.C. 7:27-14.10 Penalties

Anyone who violates the requirements of N.J.A.C. 7:27-14, whether or not the violation is related to the diesel retrofit program, is subject to civil administrative penalty. Although the existing rules do not contain a provision expressly stating that a violation of Subchapter 14 is subject to civil administrative penalty, the penalties associated with violations of Subchapter 14 are at existing N.J.A.C. 7:27A-3.10(m)14. The existing rules contain penalties only for violations of the general prohibitions at N.J.A.C. 7:27-14.3. As discussed more fully below, the proposed new penalties at N.J.A.C. 7:27A-3.10(m)14 relate to the proposed new rules in N.J.A.C. 7:27-14. New rule N.J.A.C. 7:27-14.10 also provides for the revocation of the certification for the diesel emission inspector, diesel emission repair technician and training provider when there has been a third or subsequent violation of proposed N.J.A.C. 7:27-14.7(g) through (i) and (k); 14.8(g) or (h); or 14.9(c) through (k). The proposed rule allows revocation in these cases to protect the integrity of the inspection, repair and training programs, as a third violation of these provisions strongly throws into question the competence and trustworthiness of the individuals to carry out the functions with which they have been entrusted. The revocation provisions identified in the proposed new section are consistent with existing N.J.A.C. 7:27-

22.16(g) and 7:27A-3.10(l), which identify certain violations as potentially leading to revocation of permits relating to air pollution control.

#### N.J.A.C. 7:27-14.11 Non-interference with the motor vehicle codes

The Department proposes to renumber existing N.J.A.C. 7:27-14.7 as 14.11, and add a reference to the Diesel Retrofit Law, which authorizes State agencies other than the Department to inspect diesel-powered motor vehicles.

#### Subchapter 32. Diesel Retrofit Program

#### N.J.A.C. 7:27-32.1 Definitions

Proposed N.J.A.C. 7:27-32 is new, and was developed in accordance with the Diesel Retrofit Law.

Proposed "authorized installer" is defined consistent with the meaning of this term as it is commonly used in the diesel engine industry.

The proposed definition of "best available retrofit technology" or "BART" is consistent with the definition in the Diesel Retrofit Law at N.J.S.A. 26:2C-8.27 that describes the technology that can be used to satisfy the retrofitting requirements of this subchapter and that would be eligible for reimbursement by the State.

Proposed "certified configuration" is based on that portion of the definition of "certified configuration" in N.J.A.C. 7:27-14 that is applicable to heavy-duty diesel engines, except that the proposed definition does not include the word "diesel," in order that the proposed definition allows for repowering or rebuilding configurations to a certified configuration other than a diesel engine, or converting an engine to operate using a different fuel source such as natural gas or gasoline.

Proposed "closed crankcase ventilation system" or "CCVS" describes the technology, referred to in the Diesel Retrofit Law at N.J.S.A. 26:2C-8.31 and elsewhere, as "closed crankcase ventilation technology." The proposed rules require such technology on school buses in order to reduce the level of diesel emissions within the cabin of the school bus in accordance with the Diesel Retrofit Law.

Proposed "compliance form" describes the form that the owner of regulated equipment or a regulated vehicle or regulated school bus will submit to the Department to document compliance with the requirements of this subchapter and establish eligibility for reimbursement for the cost of purchase and installation of closed crankcase ventilation systems and retrofit devices under this subchapter.

Proposed "constitutionally-dedicated monies" and "Diesel Risk Mitigation Fund" or "Fund" describe the appropriated funds and the dedicated fund into which they will be deposited pursuant to the Diesel Retrofit Law at N.J.S.A. 26:2C-8.53, to be used for the reimbursement of eligible costs incurred in compliance with this subchapter.

Proposed "Department," "California Air Resources Board" or "CARB," "Motor Vehicle Commission" and "USEPA" are State and Federal agencies referred to in the proposed new rules. The definitions are consistent with their use elsewhere in N.J.A.C. 7:27.

The definitions of the proposed terms describe the various types of engines, vehicles and equipment that are or may be regulated by these rules, consistent with their definitions at N.J.S.A. 26:2C-8.27 and N.J.S.A. 39:8-60: "diesel commercial bus," "diesel engine," "diesel solid waste vehicle," "off-road diesel equipment," "on-road diesel vehicle," "private regulated commercial bus," "public regulated commercial bus," "regulated commercial bus," "regulated diesel vehicle," "regulated off-road diesel equipment," "regulated on-road diesel vehicle," "regulated school bus," "regulated solid waste vehicle," "regulated vehicle," and "school bus." Some examples of a private regulated commercial bus are charter buses and tour buses.

Proposed "diesel emissions inspection center" or "DEIC," and "DEIC inspector" are defined consistent with the definition of these terms at N.J.S.A. 39:8-69 and N.J.A.C. 13:20-47 to refer to the facility and individual responsible under the Diesel Retrofit Law for performing the one-time compliance check that confirms the required retrofitting of regulated vehicles and regulated equipment in accordance with this subchapter.

Proposed "fine particle" and "fine particle diesel emissions" are used in the proposed new rules in describing the emissions from the vehicles and equipment regulated by this subchapter. These proposed definitions are consistent with the Diesel Retrofit Law. The proposed definitions do not include the Legislature's reference to "diesel" in the definition of "fine particle," in order

that the proposed rules recognize that such particles are also formed in the combustion of fuels other than diesel.

Proposed "fleet" describes the on-road diesel vehicles or pieces of off-road diesel equipment, regulated by this subchapter, or otherwise. In the context of these rules a fleet can be as small as a single vehicle or piece of equipment.

Proposed "fleet plan" describes the variety of plans submitted in compliance with the retrofitting requirements of this subchapter, including fleet retrofit plan, combined fleet retrofit plan and fleet averaging plan, submitted in lieu of a "notice of intent to comply."

Proposed "g/bhp-hr" describes a unit of measure, grams per brake horsepower-hour, that is used in by USEPA and CARB to describe emissions from heavy-duty engines.

Proposed "gross vehicle weight rating" or "GVWR" describes the weight of a diesel vehicle or piece of diesel equipment, and is a common term in the diesel vehicle industry.

Proposed "notice of intent to comply" describes the method some owners will use to indicate to the Department that he or she will comply with this subchapter by retrofitting each regulated vehicle or piece of regulated equipment in his or her fleet.

Proposed "owner," "retrofit device" and "technology" are consistent with the statutory definitions of these terms at N.J.S.A. 26:2C-8.27. The term "technology" is also an integral part of the term "best available retrofit technology" and its definition.

The proposed definition of "person" is consistent with the definition of that term elsewhere in N.J.A.C. 7:27. Person would also include, for example, the Port Authority of New York and New Jersey, and the South Jersey Port Corporation.

"Responsible official" is defined by reference to the definition at N.J.A.C. 7:27-1.4.

Proposed "retirement" matches the definitions of "Low Usage Vehicle" in the California Public Fleets BACT rule, found in Appendix A, California Code of Regulations Title 13, section 2022 (b), Definitions.

#### N.J.A.C. 7:27-32.2 Purpose

The proposed rules implement the Diesel Retrofit Law. The Legislature found, as described at N.J.S.A. 26:2C-8.26, that it "is of vital importance to the health of the people of the State to begin to reduce significantly fine particle emissions and exposure of school children to these emissions; and that this start can be most effectively and economically accomplished by requiring the use of the best available retrofit technologies for the reduction of fine particle emissions in diesel-powered commercial buses, school buses, solid waste vehicles, and publicly-owned on-road vehicles and off-road equipment."

As set forth in the proposed purpose at N.J.A.C. 7:27-32.2, the subchapter establishes the diesel retrofit program in order to reduce health risks that result from diesel emissions. Through the proposed subchapter, the Department is addressing the Legislature's findings.

#### N.J.A.C. 7:27-32.3 Applicability

Proposed N.J.A.C. 7:27-32 applies to all owners of regulated school buses, regulated equipment and regulated vehicles. The rules do not apply to farm equipment and farm vehicles, consistent with the exemption provided for them by N.J.S.A. 26:2C-8.51. Proposed 32.3 also applies to those authorized installers who intend to provide services to any vehicles or equipment regulated by these proposed rules and intend to request reimbursement for these services.

Equipment and vehicle engines that were manufactured and certified to meet the USEPA's particulate emissions standard of 0.01 grams per brake-horsepower-hour (g/bhp-hr), which includes all diesel engines manufactured in model year 2007 and later, will already achieve or exceed the emission reductions targeted by the Diesel Retrofit Law. Accordingly, proposed N.J.A.C. 7:27-32.3(c) exempts these vehicles from the requirements of this subchapter.

The USEPA standards for off-road diesel engines do not as neatly match the proposed exemption standard of 0.01 grams per brake-horsepower-hour. The USEPA has established standards for these off-road engines at 40 CFR Part 89. There are five ranges of engine horsepower classifications used by the USEPA for this purpose. Three engine classifications are at the low end with a horsepower rating of up to and including 75; a midrange class for engines with a horsepower rating of at least 75, but less than 750; and a large engine class for those at the high end with a horsepower rating of 750 or more. The applicability of the Federal particulate emissions standard of 0.015 g/bhp-hr to off-road diesel engines with midrange horsepower ratings (ratings of at least 75 and less than 750 horsepower), will phase in from model years 2011

through 2013. Accordingly, the proposed rule exempts the midrange engines, certified to comply with the 0.015 g/bhp-hr, from the requirements of this subchapter.

The Federal particulate emissions standards applicable to off-road diesel engines with a horsepower rating of less than 75 horsepower and those of at least 750 horsepower are similar to, but less stringent than the standards for the midrange engines, falling between 0.02 and 0.075 g/bhp-hr. Although these diesel engines are not explicitly exempted by the Diesel Retrofit Law, the Department anticipates that there will not be CARB or USEPA-verified diesel retrofit emissions control strategies designed for compatibility with these engines. The CARB and USEPA verification programs focus on verifying systems for diesel engines designed to meet existing and past emissions standards. Future engine emission standards are designed to incorporate state of the art emission control techniques that are at least as effective as currently available retrofit emission controls. Therefore, off-road equipment using these engines are exempt from the requirements of this subchapter.

The USEPA requires school buses of model year 2007 and later to be equipped with engines that are certified to meet a particulate emissions standard of 0.01 g/bhp-hr. Some earlier models of school buses are already equipped with engines meeting this standard. Federal engine certification rules and emissions standards for model year 2007 and newer engines provide that the measurement of emissions must include all emissions produced by the engine, including those from the crankcase. (See 40 CFR 86.) As a practical matter, this means that engine manufacturers must include stringent crankcase emissions controls within the engine design in

order to meet these more stringent emissions standards. Engines designed and certified to meet the 0.01 g/bhp-hr particulate emissions standard will be equipped with the highest level of emissions controls commercially available for a diesel engine. Therefore, the Department believes that these engines will be designed with crankcase ventilation system emissions control systems that are sufficiently stringent to prevent risk of contributing to elevated levels of diesel exhaust within the school bus cabin. Accordingly, proposed N.J.A.C. 7:27-32.3(c) exempts such school buses from the requirements of this subchapter.

Proposed N.J.A.C. 7:27-32.3(d) requires that, in order to be eligible for reimbursement, an authorized installer must follow the State procurement procedures in accordance with Title 52 of the Revised Statutes and must be on a State contract issued to provide services eligible for reimbursement for the purposes of these proposed rules. Public entities may choose to become authorized installers. In this instance, the public entity must comply with the agreement of payment procedures established between the public entity and the Department.

# N.J.A.C. 7:27-32.4 Installation of closed crankcase ventilation systems required on regulated school buses

Proposed N.J.A.C. 7:27-32.4(a) exempts a regulated school bus from the installation requirement of a CCVS if it will be retired from service before the installation deadline. The deadline occurs two years from the date the Department certifies that funding is available in the Diesel Risk Mitigation Fund for the purchase and installation costs of CCVS for school buses.

The Department expects to make this certification on or about the date of filing for adoption of this proposed rule, and will publish notice of the certification on the Department's website at <u>www.state.nj.us/dep</u>. At the time of adoption, the actual date on which this proposed section applies (two years from the date the notice of certification was published) will be determined and incorporated into the rule text. If the certification has not been made, and therefore no notice of it published by the time of adoption, the Department will amend the rule by notice of administrative change at the time it makes the certification and publishes notice of same on its website.

Consistent with the provisions of N.J.S.A. 26:2C-8.31, proposed N.J.A.C. 7:27-32.4(b) requires the installation of closed crankcase ventilation systems on all regulated school buses within two years of certification of the availability of the funds that will be used to reimburse the cost of purchasing and installing these systems. Some of these school buses will reach the age at which they must be retired from service as a school bus pursuant to N.J.S.A. 39:3B-5.1 and 5.2 (the end of the school year in which they reach 12 or 20 years, depending on the gross vehicle weight rating of the vehicle) before the deadline for installing the closed crankcase ventilation system is reached. Accordingly, the proposed rule exempts such school buses from the installation requirements. Also, as noted above, the installation deadline will be incorporated into the rule text at the time of adoption, or thereafter. Any regulated school bus that is added to the fleet after the established deadline must also install a CCVS and comply with the requirements of

the proposed rules unless the regulated school bus meets the exemption requirements of proposed N.J.A.C. 7:27-32.3.

It may be that an owner is unable to install the closed crankcase ventilation system on one or more of the buses he or she owns. In such a case, proposed N.J.A.C. 7:27-32.4(c) requires the owner to notify the Department so that the Department can work with the owner to resolve the situation. It may even be necessary to obtain technical support from the manufacturer of the school bus or the closed crankcase ventilation system. If it is determined that it is not possible to retrofit the school bus with a closed crankcase ventilation system, the Department will exempt the vehicle from the requirement.

The New Jersey Legislature has determined, after initially passing of the Diesel Retrofit Law, that in order to implement this program in a cost-effective manner, it is necessary to authorize the Department to reject the choice of closed crankcase ventilation system where the Department finds the estimated cost to be unreasonably high. The Legislature amended the Diesel Retrofit Law accordingly (P.L. 2006, c. 94). Proposed N.J.A.C. 7:27-32.4(d) parallels the amendments to the Diesel Retrofit Law, and requires owners to submit an estimated cost to purchase and install the CCVS on a school bus. The estimated cost should be developed in conjunction with the authorized installer. This section requires the Department to determine the reasonableness of costs based upon prevailing market rates, similar acquisitions by the State, or other means related to the known or expected costs to acquire and install a retrofit diesel emissions control device. Other means that the Department may use to evaluate a cost estimate

are retrofit pricing references developed by other government bodies or prominent stakeholders within the retrofitting industry, and surveys of retrofit prices from existing retrofit projects or retrofit providers. Any surveys or State contracts used to determine reasonableness of costs will be incorporated into guidance documents developed by the Department and made available to the public. If the Department finds that a cost estimate is unreasonably high, it can enter into negotiations with the owner to resolve discrepancies; however, the Department may ultimately disapprove the submittal if the parties do not reach an agreement, in which case the Department will identify an alternate CCVS of reasonable cost.

After installing the closed crankcase ventilation system, the owner is required, pursuant to proposed N.J.A.C. 7:27-32.4(e), to complete a compliance form. The owner of the school bus is required to submit the forms to the Department no more than five days after the installation is completed and no more than 30 days after the school bus receives a certification from a Motor Vehicle Commission inspector that the CCVS is installed. The deadlines for submittal of this information reflect the high priority placed upon school bus retrofits in the Diesel Law. The compliance form serves as evidence of compliance with the requirements of this subchapter, and supports the reimbursement of the installer of the closed crankcase ventilation system.

## N.J.A.C. 7:27-32.5 Standards for installation and maintenance of closed crankcase ventilation systems

Proposed N.J.A.C. 7:27-32.5 sets forth the elements of a correct installation of a closed crankcase ventilation system, including the use of an installer authorized by the manufacturer of the closed crankcase ventilation system. In the event that leaks are observed during or after the installation, the owner must arrange for the prompt repair of any such leaks. Similarly, the owner must maintain the closed crankcase ventilation system and make repairs, as necessary, to ensure the continued proper operation of the system to prevent emissions from escaping from the engine crankcase and entering the cabin of the school bus. Replacement and repair of these closed crankcase ventilation systems are not eligible for reimbursement under this program; however, warranty coverage should protect the investment in a properly maintained device. Maintenance costs associated with the after installation are not reimbursable as explained further in the summary of proposed N.J.A.C. 7:27-32.7.

#### N.J.A.C. 7:27-32.6 Inspection of the closed crankcase ventilation system

The MVC's rules at N.J.A.C. 13:20-30.15 require semi-annual in-terminal inspection of school buses by the MVC's School Bus Inspection Unit. To minimize the burden on school bus owners, proposed N.J.A.C. 7:27-32.6(a) takes advantage of this already-scheduled inspection to require a regulated school bus to have the closed crankcase ventilation system installation checked. At the first semi-annual inspection after installation of the retrofit device, as provided at proposed N.J.A.C. 7:27-32.6(b) and (c), the MVC's school bus inspection unit will check the installation and indicate on the compliance form whether or not the installation was done

properly and consistent with the requirements of this proposed subchapter. The owner of a school bus must ensure the installation occurs prior to the deadline established in proposed N.J.A.C. 7:27-32.4.

### N.J.A.C. 7:27-32.7 Retrofitting of regulated vehicles and regulated equipment

Proposed N.J.A.C. 7:27-32.7 provides three compliance options to the owner of regulated vehicles and regulated equipment. First, proposed N.J.A.C. 7:27-32.7(a) provides that an owner can retrofit all regulated vehicles and regulated equipment in accordance with the BART level established for each at N.J.A.C. 7:27-32.8. If the owner will retrofit all regulated vehicles and regulated equipment in accordance with the prescribed BART, the owner would submit to the Department a notice of intent to comply in accordance with proposed N.J.A.C. 7:27-32.12(a)2i. Within 180 days thereafter, the Department will notify the owner that compliance forms are available. Once the Department advises the owner that funds are available for reimbursement, the owner can proceed with installation of the prescribed BART on his or her fleet.

Second, if a retrofit device meeting the specified BART level is not available or appropriate for a particular vehicle or piece of equipment, the owner could submit a fleet retrofit plan. Under certain circumstances, set forth at proposed N.J.A.C. 7:27-32.12(a)2ii, the BART level established for a particular vehicle or piece of equipment may not be appropriate, and equivalent emission reduction benefits will have to be obtained from a retrofit at a lower BART level. Certain characteristics of the vehicle or equipment, such as required exhaust temperature

profiles, emission controls installed upon the engine, engine model year, engine family, general engine condition, and the use to which the vehicle or equipment is put, will determine whether or not the technology of any particular BART level will achieve the emission reductions for which it has been certified by CARB or the USEPA. If the vehicle or equipment does not match these characteristics, the technology may not be appropriate for the equipment or vehicle to be retrofitted. In other instances, the design configuration of the vehicle or the equipment may make it difficult or impossible to install the retrofit properly.

If the specified BART level is not available or appropriate for a particular vehicle or piece of equipment, proposed N.J.A.C. 7:27-32.7(b)1 and (c) allow an owner to develop a fleet retrofit plan or, where owners choose to combine their fleets for compliance purposes pursuant to proposed N.J.A.C. 7:27-32.7(c), a combined fleet retrofit plan. This plan may simply provide for a "drop-down" to a lower BART level, or allow the vehicle or equipment to go without a retrofit device while the rest of the fleet is retrofitted to the appropriate BART level. Proposed N.J.A.C. 7:27-32.7(c) allows the owner to opt for a combination of installing the prescribed BART level on some of the fleet and retiring or replacing the vehicle or equipment for which BART is not available.

Third, proposed N.J.A.C. 7:27-32.7(b)2 and (d) allows yet another alternative, whereby an owner of 75 or more vehicles may recapture the shortfall in emission reductions by retrofitting or retiring vehicles or pieces of equipment in the fleet that are not otherwise required to be retrofitted. In each of these alternatives, the owner achieves the required emission

reduction over multiple vehicles, although an individual vehicle may not achieve the required BART level. This is called a fleet averaging plan.

Proposed N.J.A.C. 7:27-32.7(e) provides that only authorized installers may do the retrofit installations. An authorized installer is an entity that has entered into a contractual agreement with the retrofit manufacturer that allows him or her to act as a representative of the retrofit manufacturer for the purposes of installation, repair, servicing and/or warranty determinations. This is consistent with the Diesel Retrofit Law at N.J.S.A. 26:2C-8.28.

The vehicle or equipment owner must maintain the retrofit in accordance with the retrofit manufacturer's instructions, in order to ensure that the retrofit provides the expected environmental benefits over its full useful life and to ensure eligibility of warranty coverage. (See proposed N.J.A.C. 7:27-32.7(f).) The Department expects that a properly-maintained retrofit system will function throughout the remaining useful life of the vehicle or equipment. Failure to properly use or maintain the system may require replacement or repair, but that is not eligible for reimbursement, pursuant to N.J.A.C. 7:27-32.11.

Proposed N.J.A.C. 7:27-32.7(g) provides that the owner may choose any BART within the established limitations, which reference USEPA and CARB verification documents and includes specific examples of primary limitations. BART may only be installed upon vehicles or equipment that meet the requirements set forth in a USEPA Verification Letter or CARB Executive Order associated with that BART. Further, BART may only be installed upon

vehicles or equipment where the installation may be done in accordance with the manufacturers instructions and would not otherwise compromise the design of the retrofit system.

Last, proposed N.J.A.C. 7:27-32.7(h) places upon the owner the responsibility to correct any pre-existing defects on the vehicle or equipment that would otherwise preclude successful installation and use of BART. Conditions caused by wear and tear beyond the original equipment manufacturer's tolerances, and damage, corrosion, emission control tampering, and other conditions, are not a valid basis for determining that the required BART is infeasible. (See proposed N.J.A.C. 7:27-32.14(a)).

# N.J.A.C. 7:27-32.8 Emission reduction levels for regulated on-road vehicles, regulated solid waste vehicles, regulated commercial buses and regulated off-road equipment

Proposed N.J.A.C. 7:27-32.8(a) directs the reader to two tables to determine the minimum control efficiency (that is, the particulate emission reduction by weight percentage) that the installed retrofit device must be verified to achieve. Proposed Table 2 sets BART level 1 (BART 1) at a minimum 25 percent reduction, BART level 2 (BART 2) at a minimum 50 percent reduction, and BART level 3 (BART 3) at a minimum 85 percent reduction. Proposed Table 1 establishes the BART level for various model years of commercial buses, solid waste vehicles and on-road vehicles and off-road equipment. The BART levels are based upon available emissions retrofit devices that are verified by the USEPA and CARB. A more detailed description of how the different BART levels and vehicle or equipment applications were

developed is in the Summary above.

At proposed N.J.A.C. 7:27-32.8(b), an owner may voluntarily replace or rebuild an engine to achieve at least as great a reduction in diesel particulate emissions as BART would have achieved when used with the original engine. Replacing an engine is known as "repowering." Rebuilding, when used in this rule, means to rebuild an engine to meet a different certified configuration that meets a more stringent particulate emissions standard. This option may be attractive to the owner of a vehicle with excessive engine wear, which would require extensive and expensive repairs before it will accept retrofit technology. In this case, the owner may choose to repower the vehicle or rebuild the engine to achieve emission reductions that are at least as great as would have been achieved by successful installation of BART. The combination of the vehicle or equipment and the method of repowering or rebuilding must be one that CARB or USEPA has certified as achieving the more stringent emissions standard, resulting in an equal or greater reduction in particulate emissions than the applicable BART level would achieve. The Department would reimburse the owner for the cost of repowering or rebuilding, in an amount not to exceed the cost to install BART. (See N.J.A.C. 7:32-11.)

## N.J.A.C. 7:27-32.9 Warranty requirements for closed crankcase ventilation systems and retrofit devices

Proposed N.J.A.C. 7:27-32.9 is designed to ensure that the retrofit system or closed crankcase ventilation system has warranty coverage, including warranty protection against any

potential engine damage that may be caused by the retrofitting of the regulated diesel vehicle or equipment. The Diesel Retrofit Law requires such a warranty for a retrofit system. (See N.J.S.A. 26:2C-8.28b(6).) While there are no parallel statutory requirements for warranty coverage for a CCVS, the Department believes it is important that each closed crankcase ventilation system and retrofit device is covered by a warranty sufficient to cover both the cost of purchasing and installing the closed crankcase ventilation system. The costs associated with failure of either a closed crankcase ventilation system or retrofit device are potentially very high, and could include the cost of catastrophic engine failure. Proposed N.J.A.C. 7:27-32.9 sets forth the minimum requirements of any warranty. Moreover, because damage could result not only from improper design and manufacture of the CCVS or retrofit device, but also from improper installation, the proposed rule requires an authorized installer to provide a warranty meeting the same minimum requirements as the product manufacturer. The warranty requirement for retrofit devices is consistent with the terms of the Diesel Retrofit Law at N.J.S.A. 26:2C-8.28d(1) and (2).

The specific proposed warranty requirements for retrofit devices parallel those that CARB established for the retrofit emissions control strategies that it verifies. Proposed N.J.A.C. 7:27-32.9, Table 3 is based on CARB's requirements at California Code of Regulations Title 13 Section 2707, and includes minimum warranty periods for retrofitting diesel engines designed for on-road use. The minimum duration of warranty coverage for retrofitting diesel engines designed engines designed for on-road use is five years or 60,000 miles, whichever occurs first, for

retrofits and engine damage for smaller on-road diesel engines with 70 to 170 horsepower or a GVWR of less than 19,500 pounds, and two years and unlimited mileage for on-road diesel engines with more than 300 horsepower used in a chassis with a GVWR of greater than 33,000 pounds. Retrofits and engine damage warranty coverage for off-road diesel regulated under this proposal will be for five years or 4,200 operating hours, whichever occurs first.

The warranty coverage that the manufacturer and authorized installer of CCVS and BART must provide include the repair and replacement cost due to defects in material and workmanship, damage caused to the vehicle engine up to the full cost of the damage caused by the CCVS or retrofit device. Additionally, BART must be warranted to perform as verified by the USEPA or CARB. Proposed N.J.A.C. 7:27-32.9(c) and (d) provide for warranty coverage exclusions if the owner fails to properly maintain components of the vehicle or equipment that may have a negative effect upon CCVS or BART, or where the CCVS or BART are not maintained in accordance with the manufacturer's maintenance schedule.

In order that the owner is aware of the warranty that the installer and manufacturer have provided for the CCVC or retrofit device, proposed N.J.A.C. 7:27-32.9(e) and (f) require the manufacturer and authorized installer of a CCVS and BART to provide warranty documentation to the owner.

N.J.A.C. 7:27-32.10 Labeling of retrofit devices

The uniform labeling of all retrofit devices is necessary to accommodate the one-time compliance inspection required at proposed N.J.A.C. 7:27-32.21. The label will allow the inspector to determine readily whether the correct retrofit device has been installed, and will also allow for the ready identification of the retrofit device for compliance or maintenance purposes. Similarly, the requirement that an additional label be visible in the engine compartment alerts the person conducting the one-time compliance inspection, and any person who repairs or maintains the vehicle that the device is installed.

Proposed N.J.A.C. 7:27-32.10 establishes labeling requirements for all retrofit devices sold or installed on regulated vehicles and equipment in New Jersey. The proposed labeling requirements generally parallel CARB's labeling requirements for the verification of diesel emissions control strategies, set forth at California Code of Regulations (CCR) Title 13, section 2706(g), so that CARB-verified retrofit systems can be used for compliance with the proposed rules without requiring a change to existing labels.

Specifically, proposed N.J.A.C. 7:27-32.10 requires that a durable and legible label be affixed in a conspicuous location upon the retrofit device, and another durable and legible label be affixed in a conspicuous location upon the engine or engine compartment. The labels must include a unique number that can be used to match the retrofit device to the label on retrofitted vehicle. The label must also contain basic information about the retrofit, as well as contact information for the retrofit manufacturer. The manufacturer will affix the label to the retrofit device of piece of

equipment. As in the CARB rule, the proposed rule also requires the designation of a retrofit device family name, which is an alphanumeric code indicating where the system was verified, manufacturing information and the level of emissions control provided by the retrofit system.

Some retrofit devices will be verified by the USEPA and not necessarily also by CARB. Accordingly, the Department is proposing labeling requirements at N.J.A.C. 7:27-32.10 that accommodate these USEPA-verified retrofit devices by requiring a label that conforms to the CARB labeling scheme, but is not necessarily issued by CARB. Specifically, the proposed new rule would require the labeling of USEPA-verified retrofit systems so that the assigned retrofit device family name, in addition to containing the information required by CARB at CCR Title 13, section 2706(g)2 for a diesel emission control strategy number, would also contain information indicating whether the device was verified by CARB or by the USEPA. Section 2706(g)2 requires inclusion of the letters "CA" at the beginning of the alphanumeric identifier. The proposed rule would require inclusion of the letters "US" to indicate USEPA verification for devices that were verified by the USEPA and not by CARB. Devices that were verified by both CARB and the USEPA would use "CA" at the beginning of the alphanumeric identifier. This would accommodate the use of retrofit systems verified through the USEPA "Retrofit Devices and Engine Modification Verification Process" permitted by the Diesel Retrofit Law, without requiring changes to labeling on CARB- verified retrofit devices. Such changes to labels would not be permitted under the CARB program. Otherwise, the Department's proposed requirements are identical to the CARB labeling requirements.

#### N.J.A.C. 7:27-32.11 Best available retrofit technology eligible for reimbursement

Proposed N.J.A.C. 7:27-32.11 establishes standards for BART that the retrofit technology must meet in order to be eligible for reimbursement. Proposed N.J.A.C. 7:27-32.11(a) provides that the technology must meet the minimum required reduction of diesel particulate emissions. It must be installed in accordance with the conditions established by CARB or USEPA verification, as well as the retrofit manufacturer's specifications. To ensure proper installation, the Department requires that only an authorized installer install the retrofit device. Moreover, both the manufacturer and the installer must provide the owner with a warranty, as described above in the discussion of proposed N.J.A.C. 7:27-32.9. The installed BART and the vehicle or equipment upon which it is installed must also be labeled in accordance with proposed N.J.A.C. 7:27-32.10.

Proposed N.J.A.C. 7:27-32.11(b) provides for reimbursement of additional costs associated with a CCVS or BART where those components are necessary for the daily operation of the device. Examples include backpressure monitors, exhaust insulation, and regeneration hardware for an actively regenerated particulate filter. This subsection also provides reimbursement of the cost of rebuilding or repowering pursuant to N.J.A.C. 7:27-32.8(b) up to an amount equal to the cost of purchasing and installing BART, when funding has been appropriated by the New Jersey Legislature for this purpose.

Pursuant to N.J.S.A. 26:2C-8.54, which allows for reimbursement of 100 percent of the cost to purchase and install a retrofit device, except the cost of fuel, proposed N.J.A.C. 7:27-32.11(c) establishes costs that are ineligible for reimbursement. These costs include fuel and fuel additives, facility upgrades, periodic maintenance and other costs that are not necessary to the daily operation of the vehicle or equipment upon which the CCVS or BART has been installed.

# N.J.A.C. 7:27-32.12 Required submissions by owners of regulated vehicles and regulated off-road diesel equipment

Consistent with N.J.S.A. 26:2C-8.34, proposed N.J.A.C. 7:27-32.12 requires the owner of a regulated vehicle or equipment to submit certain documents to the Department before installing the retrofit device, in order that the Department can verify compliance with this subchapter.

Proposed N.J.A.C. 7:27-32.12(a) requires each owner of a regulated vehicle or regulated equipment to submit to the Department an inventory of all on-road diesel vehicles and off-road diesel equipment he or she owns or operates. The owner has the option to either comply with the requirements of N.J.A.C. 7:27-32.7 through the use of an approved best available retrofit device, or the use of a fleet plan. The preferred option is to submit a notice of intent to comply with the requirements of N.J.A.C. 7:27-32.7. The notice of intent to comply is a one-time identification to the Department, indicating that the owner will use the BART prescribed at proposed N.J.A.C. 7:27-32.7 on each of his or her regulated on-road diesel vehicles, regulated commercial buses, regulated solid waste vehicles and pieces of regulated equipment. The Department intends for

this to be a line item indication for each vehicle or piece of equipment, contained within the inventory submittal. The owner must include the estimated cost of each retrofit device and installation as part of the submittal. These requirements are consistent with the Diesel Retrofit Law at N.J.S.A. 26:2C-8.34a.

However, if an owner is unable to submit a notice of intent to comply because he or she cannot meet the prescribed BART level on a vehicle or piece of equipment, then the proposed rule allows the owner to submit a fleet plan, which can be a fleet retrofit plan, a combined fleet retrofit plan, or a fleet averaging plan. The elements of a fleet retrofit plan and fleet averaging plan are discussed further in the discussion of proposed N.J.A.C. 7:27-32.14 and 32.15 below.

Proposed N.J.A.C. 7:27-32.12(b) establishes the timeframes for submittals of the information required in subsection (a). The proposed rule incorporates the dates set forth in the Diesel Retrofit Law at N.J.S.A. 26:2C-8.34b. As in the Diesel Retrofit Law, no owner of a private regulated commercial bus must submit the information in proposed subsection (a) until after the owners of public regulated commercial buses have submitted their information. The statute does not say how much time must pass after the public commercial buses have submitted their information before the private commercial buses must submit; however, the statute is clear that the owners of private regulated commercial buses have at least one year plus 180 days from the operative date of these proposed rules before their submittals are due. The Department proposes to post on its website notice to the owners of private commercial buses of any extension to this requirement that may be caused by a delay in submittal by the owner of publicly-owned

commercial buses. The notification would occur at least 60 days before the owners of private commercial buses would be required to make their submittals and would allow at least an additional 60 days after the submittal by the owner of publicly-owned commercial buses. In no case, though, will the owners of private regulated commercial buses have to submit before the time that the statute provides. The Department anticipates that the period of at least 120 days will allow the owners who have not yet prepared their submittals sufficient time to prepare and submit the required information.

Some owners will not have commenced operation of their fleets at the time these proposed regulations are operative. Accordingly, as provided in the Diesel Retrofit Law at N.J.S.A. 26:2C-8.43d, proposed N.J.A.C. 7:27-32.12(c) allows such owners to submit their information on the later of the applicable date in proposed N.J.A.C. 7:27-32.12(b), or 180 days after the operative date of these proposed rules. This will allow the owners of new operations sufficient time to assemble and submit the required information.

Proposed N.J.A.C. 7:27-32.12(d) provides contact information for the Department.

Proposed N.J.A.C. 7:27-32.12(e) reflects additional submission requirements for annual supplements and modifications to notices of intent to comply and fleet plans as well as compliance forms, each of which is addressed elsewhere in the proposed rules. The proposed cross-reference to these other provisions will provide the fleet owner with a list, in one section of the rules, of all the submission requirements of this proposed new subchapter.

#### N.J.A.C. 7:27-32.13 Required contents of an inventory

Proposed N.J.A.C. 7:27-32.13 lists the information to be included in an inventory for each on-road diesel vehicle and off-road diesel piece of equipment. The Department is requesting this information in order to create a reliable and easily accessible database, which is the Department's method for monitoring compliance with the subchapter. The Department anticipates that it will also use the information to develop models of air quality impacts and target enforcement actions.

# N.J.A.C. 7:27-32.14 Required elements of a fleet retrofit plan and combined fleet retrofit plan

Proposed N.J.A.C. 7:27-32.14 lists the information that an owner must include in a fleet retrofit plan submitted pursuant to N.J.A.C. 7:27-32.7(b). As part of the inventory, the owner who chooses to submit a fleet retrofit plan will provide a description of which vehicles within the fleet will meet the best available retrofit technology pursuant to N.J.A.C. 7:27-32.8, and which will not. For those vehicles that will not be able to meet the prescribed BART level, under proposed N.J.A.C. 7:27-32.14(a)2 the owner must provide documentation that the BART required by N.J.A.C. 7:27-32.8 is not feasible for the vehicle or equipment. In that case, the owner shall request approval from the Department to use the next most stringent level of best available retrofit technology that is feasible for the vehicle or equipment. If the owner has determined that no BART level is feasible, then the owner must provide documentation

supporting this determination. For example, an owner of a vehicle required to install a BART 3 retrofit device may determine that there is no verified technology at this level for his or her specific vehicle make or engine model. The owner would then determine whether there are retrofit devices at the next most stringent BART level feasible for the vehicle. In this case the next most stringent BART level would BART 2. If due to use constraints or other vehicle design characteristics, the owner determines BART 2 is not feasible, the owner must determine whether there is a feasible retrofit device at the next most stringent BART level, which would be BART 1. If even BART 1 is not feasible, the owner can request to be exempted from the retrofit requirements entirely and must provide justification to support this request. The owner must document and justify for each BART level why the BART level was not feasible for the identified vehicle. These requirements are based on the Diesel Retrofit Law at N.J.S.A. 26:2C-8.34f and g.

If an owner of a regulated vehicle or equipment has determined that the required best available retrofit technology is not feasible, under proposed N.J.A.C. 7:27-32.14(b) the owner may propose an enforceable commitment to retire the regulated vehicle or equipment and replace it with a vehicle or equipment certified to particulate emission levels at or below the emission levels that would have been achieved through the use of the required best available retrofit technology; or repower or rebuild pursuant to proposed N.J.A.C. 7:27-32.8(b) the engine of the vehicle or the equipment with an engine certified to the particulate emission levels that would

have been achieved through the use of the required best available retrofit technology. These proposed provisions are based on the Diesel Retrofit Law at N.J.S.A. 26:2C-8.34g(1) and (2).

Proposed N.J.A.C. 7:27-32.14(c) requires the owner of a retired vehicle or equipment to maintain records of the usage of the retired vehicle or equipment or documentation that the engine of the retired vehicle or equipment was destroyed. If the retired vehicle or equipment is operated more than the maximum of 1,000 miles/50 hours per year, the owner must amend the fleet plan application to include additional control measures, or else apply best available retrofit technology to the vehicle or equipment. Failure to comply with any condition of the fleet plan will lead to an enforcement action.

For a combined fleet plan, proposed N.J.A.C. 7:27-32.14(d) requires an individual with management authority at each party to the combined plan to sign a statement of liability. By signing the statement, the individual will bind the owner to liability for any violation of the combined plan, by any party to the plan. Therefore, if the Department needs to take enforcement action against any one or more parties to a combined fleet plan, the Department may cite all parties within that combined fleet plan for the actions of even one party. The resolution of the enforcement action, whether monetary fines or otherwise, will be the responsibility of all parties to the combined fleet plan, regardless of ownership of the offending vehicles or equipment.

#### N.J.A.C. 7:27-32.15 Use of a fleet averaging plan

Proposed N.J.A.C. 7:27-32.15 implements the Diesel Retrofit Law at N.J.S.A. 26:2C-8.34h and i, which allows an owner or group of owners to propose a fleet averaging plan in lieu of a fleet retrofit plan. In order to be eligible to submit a fleet averaging plan, the owner or group of owners must have 75 or more vehicles or pieces of equipment regulated by these proposed rules. A fleet averaging plan differs from a fleet plan in that it allows the owner(s) to include non-regulated vehicles and equipment, and methods other than installing retrofit devices as a means of achieving the required diesel particulate reductions. Conversely, a fleet retrofit plan includes the installation of retrofits consisting of a combination of prescribed BART installations or less-stringent BART installations on all regulated vehicles or regulated pieces of equipment. A fleet retrofit plan does not allow for the substitution of non-regulated vehicles or equipment. As with the fleet retrofit plan, the fleet averaging plan must include a justification by the owner(s) as to why the installation of the prescribed BART or a fleet retrofit plan is not feasible. A fleet averaging plan would allow the owner(s) to propose the early retirement of a nonregulated vehicle or piece of equipment, and hence the retirement of its diesel particulate matter in lieu of installing retrofits on a regulated vehicle or equipment. Ultimately the owner must justify and provide calculations to show that the net percent reductions of the fleet averaging plan would achieve the same or greater net percent particulate emissions reduction than would have been accomplished if a fleet retrofit plan or combined fleet retrofit plan were submitted and implemented for the regulated vehicles or regulated equipment, or both, as calculated pursuant to proposed N.J.A.C. 7:27-32.16.

#### N.J.A.C. 7:27-32.16 Required elements of a fleet averaging plan

Proposed N.J.A.C. 7:27-32.16 establishes the framework and identifies the elements of a fleet averaging plan. Fleet averaging plans are allowed by the Diesel Retrofit Law as an option for a fleet with 75 or more regulated vehicles or equipment where one or more vehicles cannot meet the required BART pursuant to proposed N.J.A.C. 7:27-32.7(a). Additionally, owners of two or more fleets may combine their inventories to meet the required minimum of 75 regulated vehicles and equipment. The intent of a fleet averaging plan is to offer a fleet owner greater flexibility to achieve the diesel particulate emissions reduction than is offered through a fleet retrofit plan. The reduction achieved in a fleet averaging plan must be equal to or greater than that achieved through the implementation of a fleet retrofit plan. The owner may consider both regulated and non-regulated vehicles or equipment within the fleet averaging plan to achieve the necessary reductions. These reductions can be achieved through the installation of CARB or USEPA-verified retrofit technology, use of a CARB or USEPA-verified fuel strategy, early retirement either through reducing the use of a vehicle or permanently removing the vehicle or equipment from service, or the rebuilding or repowering of an existing engine to more stringent particulate emission standards. Each fleet averaging plan will require review and approval by the Department.

The fleet averaging plan, consistent with proposed N.J.A.C. 7:27-32.16(a) and (b), must identify each regulated vehicle or equipment for which it is infeasible to install the prescribed

BART, and describe why BART is infeasible, and identify the regulated or non-regulated vehicles or equipment that will be retrofitted, repowered, rebuilt or retired.

The elements needed to be included in a fleet averaging plan as required in proposed N.J.A.C. 7:27-32.16(c) and (d) are those elements needed to show the Department how the plan will achieve the necessary diesel particulate emissions reductions. Therefore, the plan must list an inventory of the vehicle or equipment to be included in the averaging plan, the measure to be taken for each vehicle or equipment that will reduce their diesel particulate emissions and the estimated purchase and installation costs associated with any proposed retrofit device. The plan must also include a strategy for achieving reductions in the event one of the measures does not achieve the proposed reductions listed in the plan, or an element is unable to be implemented.

The emission reductions to be calculated by the applicant as required in proposed N.J.A.C. 7:27-32.16(d) must demonstrate that the fleet averaging plan will achieve equal or greater reductions as those reductions that would have occurred if the fleet owner had prepared a fleet retrofit plan. The fleet owner or owners must provide calculations that compare the emissions before any control methods are used and the emission reductions after the control measures are instituted for both the fleet retrofit plan scenario and the fleet averaging plan scenario. The calculations shall be developed based on the most recent USEPA guidance for quantifying benefits from diesel retrofits and shall demonstrate benefits for the full calendar year

that the fleet averaging plan submittal is required in accordance with the schedule in proposed N.J.A.C. 7:27-32.12.

Proposed N.J.A.C. 7:27-32.16(d)5 also requires the fleet owner or owners to show that the reimbursement cost associated with the fleet averaging plan would not exceed the cost associated with retrofitting the regulated vehicles or equipment through a fleet retrofit plan. The amount collected in the Fund is based on the cost of retrofitting all regulated vehicles or regulated equipment using BART. Although the fleet averaging plan provides for flexibility in meeting diesel particulate emissions reductions, it does not allow for flexibility in costs expended. As an example, it is neither acceptable nor cost effective to retrofit 20 vehicles at a total cost of \$20,000 to meet the same particulate emissions reduction that would have been achieved through retrofitting one vehicle at a cost of \$6,000.

Proposed N.J.A.C. 7:27-32.16(e) allows owners a number of options for achieving emissions reductions in a fleet averaging plan. The proposed rules provide that the retirement of any vehicle or equipment must be pursuant to an enforceable agreement with the Department. If the vehicle is retired through reduced usage of the vehicle, then the owner or owners will be required to keep records of vehicle usage in accordance with the recordkeeping requirements in proposed N.J.A.C. 7:27-32.24. If the vehicle is permanently taken out of service by destroying the engine, then the vehicle owner is required to submit documentation to this effect in accordance with proposed N.J.A.C. 7:27-32.24. Sale or reuse of the vehicle, equipment or

engine is not allowed as an option for achieving reductions since this activity merely relocates the source of diesel particulate emissions. Retirement, as defined in proposed N.J.A.C. 7:27-32.1, is the only allowable method of restricted use of a vehicle or equipment as a method of achieving emissions reductions in a fleet averaging plan as required in proposed N.J.A.C. 7:27-32.16(f).

Proposed N.J.A.C. 7:27-32.16(g) requires that in a combined fleet averaging plan, the highest level official responsible for each fleet must sign a statement acknowledging joint liability for failure to comply with the combined fleet averaging plan. A combined fleet averaging plan relies upon the full compliance of reductions from the combination of vehicles and equipment to achieve the desired emission reduction level. Where one entity within a combined fleet averaging plan does not fully comply, the emission reductions of the plan will not be achieved. In this instance, the plan is not fully implemented and all of the owners are responsible for having failed to meet the commitments of the fleet averaging plan. They are then jointly liable for enforcement action pursuant to proposed N.J.A.C. 7:27A-3.10.

#### N.J.A.C. 7:27-32.17 Department review of fleet plans and notice of intent to comply

This section establishes the process by which the Department will review fleet plans. It includes the factors the Department will consider in prioritizing plan review, the process for reviewing and approving or disapproving fleet plans, and means of communicating status to the

fleet owner. This section also reflects the Department's authority to disapprove a notice of intent to comply or fleet plan if it determines the submitted costs or cost estimates to be unreasonable.

The Diesel Retrofit Law prioritizes the types of vehicles required to be retrofitted by establishing a staggered schedule for submittals. The schedule for submittals set forth at N.J.S.A. 26:2C-8.34 was designed to address foremost the types of vehicles that operate in and among densely populated areas in the performance of daily tasks. This approach emphasizes implementation of retrofits in the most densely populated areas, primarily urban and surrounding environments. The Department further emphasizes this approach by giving priority to fleet retrofit and fleet averaging plans submitted by fleets whose base of operation is within two miles of an urban center or urban complex as identified by the State Planning Commission. Urban centers and urban complexes are areas within the State Development and Redevelopment Plan that have been identified for future expected growth. Many of the communities that have submitted an application to the Environmental Justice Task Force are also urban centers or urban complexes. Therefore, addressing the sources in urban centers and urban complexes will also address many of the areas that are subject to Environmental Justice Task Force applications. Prioritizing these areas conforms to the goals contained within the State Development and Redevelopment Plan.

This section also sets forth the proposed conditions under which the Department may approve or disapprove fleet plans. Pursuant to proposed N.J.A.C. 7:27-32.17(b), the Department

can approve or disapprove parts of a fleet plan. If portions of a fleet plan conform to the requirements of the proposed rules, and are severable from the remainder of the plan, then the Department will approve those portions of the plan. It will disapprove the remainder of the plan, and require the owner or owners to revise and resubmit those portions on or before a revised submittal date. (See proposed N.J.A.C. 7:27-32.17(e).) If the Department disapproves a fleet averaging plan or combined fleet averaging plan because it does not contain a technically sound basis for achieving the required emissions reductions with the proposed plan, then the Department can require the owner or group of owners to submit and comply with an approved fleet retrofit plan.

The New Jersey Legislature has amended the Diesel Retrofit Law to authorize the Department to reject a notice of intent to comply, fleet retrofit plan or fleet averaging plan if it finds the estimated cost to be unreasonably high. (P.L. 2006, c. 94.) Proposed N.J.A.C. 7:27-32.17(d) parallels the amendment to the Diesel Retrofit Law, which requires the Department to determine the reasonableness of costs based upon prevailing market rates, similar acquisitions by the State, or other means related to the known or expected costs to acquire and install a retrofit diesel emissions control device. Other means that the Department can use to determine if a cost estimate is unreasonable include retrofit pricing references developed by other government bodies or prominent stakeholders within the retrofitting industry, or surveys of retrofit prices from existing retrofit projects or retrofit providers. If the Department determines that a cost estimate is unreasonable, the Department will enter into negotiations with the owner to resolve

discrepancies. However, the Department may ultimately disapprove a submittal if the Department determines that the estimated costs are unreasonable.

Any Department disapproval pursuant to proposed N.J.A.C. 7:27-32.17(e) through (g) will be in writing and include a timetable to resubmit any revisions, an explanation of the basis for disapproval, and recommendations for remedying any deficiencies. Proposed N.J.A.C. 7:27-32.17(h) allows Department to contact the applicant of the fleet plan to resolve deficiencies in order to approve the submittal. Proposed N.J.A.C. 7:27-32.17(f) through (k) require specific timeframes for the owner to submit a revised fleet plan and the Department to respond to the revisions by approving, disapproving, or taking no action. If the Department takes no action within the specified time, then the revision is deemed approved. If the revision is not acceptable, the Department will continue to work with the owner or owners to achieve an acceptable plan. While a plan is in effect, the Department can continue to work with the owner or owners on deficient items to obtain resolution and may also direct the owner to proceed with installing the retrofits included in the approved parts of the plan. The Department may use enforcement action to resolve remaining deficiencies in the final revised fleet plan pursuant to N.J.A.C. 7:27-32.17(k).

The Department may take into account the retrofit of any vehicle or equipment that occurred prior to the adoption of these proposed rules, pursuant to proposed N.J.A.C. 7:27-32.17(*l*) and consistent with the Diesel Retrofit Law at N.J.S.A. 26:2C-8.34j. Similarly, the

Department may acknowledge any retrofit performed by the NJ Transit Corporation (NJT) prior to the submission of a fleet plan, and any alternative fuel that the NJT fleet uses pursuant to proposed N.J.A.C. 7:27-32.17(m). For example, NJT has installed retrofit devices on a certain number of its transit buses, using funds received from an enforcement settlement. Retrofits associated with the settlement will constitute part of NJT's compliance with these proposed rules, provided the retrofits do comply with the emissions reduction requirements of the rules. If a device that NJT installed on a vehicle as part of the settlement does not comply with the proposed new rules, then NJT will be required to install the prescribed BART on that vehicle. The proposed rules give the same consideration for owners other than NJT when the retrofit installation occurred as part of a grant or through an enforceable agreement with the Department or USEPA. It is possible that an owner will have to remove a non-compliant, previously installed retrofit device and replace it with one that meets the proposed rule requirements.

If the Department is able to approve the fleet plan in whole, the fleet owner will be issued in writing a final approval date as required in proposed N.J.A.C. 7:27-32.17(o). The fleet owner will not be required to implement the fleet plan until the owner receives notification from the Department that there is sufficient funding to reimburse for the installation of retrofits or other reimbursable items included in the plan pursuant to proposed N.J.A.C. 7:27-32.17(n). The owner must take immediate action to implement the fleet plan if it is approved after the Department certifies the availability of funds. The certification by the Department does not impact the requirements for the annual supplements or modifications. Therefore, the owner is

still responsible for submitting a timely supplement or modification irrespective of whether funds have been certified by the Department.

#### N.J.A.C. 7:27-32.18 Deadline for the installation of retrofit technology

This section proposes deadlines for retrofitting regulated diesel vehicles and regulated off-road diesel equipment covered in a notice of intent to comply or a fleet plan. The proposed rules provide these timeframes to allow for sufficient time for owners to purchase and install BART and coordinate installation within the context of smaller and larger fleet sizes. Generally, the proposed rules allow larger fleets more time to comply due to the complexities of managing a larger fleet and to buffer surges in demand against available supply and production of retrofit devices. The Department is concerned that a large fleet, faced with a brief compliance deadline, may create a surge in demand resulting in scarce availability of retrofit devices to other owners of regulated vehicles and equipment. Surges in demand can potentially elevate the cost of retrofitting, reducing the number of regulated vehicles and equipment that can be addressed within this program.

The timeframes associated with retrofitting a vehicle or piece of equipment covered by the notice of intent to comply are contingent on the notice of receipt by the Department of the notice of intent to comply or the Department's certification of available funds, whichever is later.

Vehicles and equipment covered by a fleet plan must be retrofitted in accordance with the deadlines in the proposed rules. These deadlines depend on the size of the fleet, and range from 120 days for a fleet of fewer than 75 regulated vehicles and equipment, to 270 days for a fleet of more than 150 regulated vehicles or equipment. This section also allows the fleet owner to request an extension of the retrofit deadline when necessary, pursuant to proposed N.J.A.C. 7:27-32.18(b). The owner must make this request to the Department at least 10 days before the deadline for completing retrofit installations occurs. The Department will approve the request for an extension if the delay was caused by external factors and beyond the control of the owner. The device's availability or delays in the installer's schedule are considered to be external and beyond the owner's control.

Proposed N.J.A.C. 7:27-32.18(c) provides that an owner of a private regulated commercial bus is not required to install and use a retrofit device until after the New Jersey Transit Corporation has begun to do so. The Legislature recognized that publicly-owned commercial buses should be given priority due to nature of their regular operation in densely populated residential communities.

Proposed N.J.A.C. 7:27-32.18(d) requires each owner to submit to the Department the one-time compliance form for each vehicle within five business days after the retrofit device has been installed. Each compliance form submitted at this time must include all identifying

information for the vehicle and retrofit device, as well as certification by the installer that the installation was completed in accordance with proposed N.J.A.C. 7:27-32.20(e)5.

#### N.J.A.C. 7:27-32.19 Annual supplements and annual modifications

The Diesel Retrofit Law, at N.J.S.A. 26:2C-8.36, provides for changes that may occur to a fleet after the submission of the original notice of intent to comply or fleet plan. An owner may change the composition of his or her fleet by buying, selling or retiring vehicles or pieces of equipment that would impact identifying a notice of intent to comply on the inventory, or the fleet plan. Because it may be many years before the retrofitting of all covered vehicles and equipment is complete, there may well be a series of changes to the fleets and to the fleet plans. The Diesel Retrofit Law provides a uniform system for the updating of these notices and fleet plans by requiring the annual submission of updates. Updates to fleet retrofit plans and combined fleet retrofit plans, including notification to the Department that there has been no change to the fleet, are referred to in the statute and the proposed rules as "supplements." The Department also proposes to require owners to submit supplements when there is a change to a fleet for which a notice of intent to comply has been submitted. In some cases the changes to the fleet may require the submission of a fleet plan if the owner is no longer able to use the requisite BART to retrofit the additions to the fleet. The supplement would address the newly-added vehicles or equipment, or reflect the sale or retirement of vehicles or equipment from the original

notice of intent to comply or fleet retrofit plan. It would also reflect a status quo if there has not been any change to the fleet.

Updates to fleet averaging plans or combined fleet averaging plans, including notification to the Department that there has been no change to the fleet, are referred to in the statute and the proposed rules as "modifications," since changes to a fleet covered by a fleet averaging plan could require modification of the averaging and the calculations or demonstrations required at proposed N.J.A.C. 7:27-32.16. If, because of changes to his or her fleet, an owner no longer needs to use a fleet averaging plan to satisfy the emission reduction requirements of this subchapter, the owner could submit a fleet retrofit plan, or a notice of intent to comply pursuant to N.J.A.C. 7:27-32.12.

The date on which the supplements or modifications are due to the Department depends on the "anniversary date" assigned to a fleet. Based on the provisions of the Diesel Retrofit Law at N.J.S.A. 26-2C-8.36a, the anniversary date will be the date that the Department receives a notice of intent to comply or the date when all parts of a fleet retrofit plan have been approved and in effect. This accommodates the approval process of fleet plans, which can involve a certain amount of back-and-forth between the owner and the Department and may also involve the approval of the plan in stages. In some cases, the Department may approve part, but not all, of a plan. Only when all parts of the plan are approved and in effect would the anniversary period begin.

Consistent with the provisions of the Diesel Retrofit Law at N.J.S.A. 26:2C-8.36a, proposed N.J.A.C. 7:27-32.19(c) requires the submittal of a supplement or modification on the later of the annual anniversary date, or a date 90 days after the approval of the most recent supplement or modification.

The following examples illustrate this timing:

Scenario 1. The Department approves an initial fleet plan on February 1, 2007. Because there has not yet been a supplement submitted, the annual anniversary of approval of the fleet retrofit plan (February 1, 2008) will be later than 90 days after approval of the fleet retrofit plan (May 1, 2007), and so the first supplement will be due on February 1, 2008.

Scenario 2. The Department approves an initial fleet retrofit plan on February 1, 2007. The first supplement is submitted on February 1, 2008 and the Department approves it on August 1, 2008. The due date for the next supplement is calculated by determining which is later, the next anniversary date of the initial fleet retrofit plan (February 1, 2009) or 90 days after the approval of the most recent supplement (November 1, 2008). As with scenario 1, the anniversary date is later.

Scenario 3. Again, the Department approves an initial fleet retrofit plan on February 1, 2007. Again, the first supplement is submitted on February 1, 2008, but this time the Department does not approve it until December 1, 2008 (perhaps due to extended efforts between the owner and the Department to develop an acceptable plan). In this case, the next anniversary date of

February 1, 2009 will be earlier than 90 days after the approval of the most recent supplement (March 1, 2009) so the supplement will not be due until March 1, 2009.

These scenarios work identically in the case of modifications to fleet averaging plans and combined fleet averaging plans.

Proposed N.J.A.C. 7:27-32.19(d) identifies the information that an owner must include in a supplement or modification. This information is based upon the requirements of the Diesel Retrofit Law, N.J.S.A. 26:2C-8.36b and c. This information will help keep the Department's database current and will ensure that any new vehicles or equipment added to the fleet will comply with the requirements of this subchapter. The proposed rule requires owners to submit information relating only to the addition or elimination of vehicles or equipment, or changes to a fleet plan. This would include, for any regulated vehicles or equipment added to the fleet, a description of the best available retrofit technology pursuant to N.J.A.C. 7:27-32.8 to be used on the regulated vehicle or equipment. In the case that no best available retrofit technology can be used on the new vehicle or equipment, the owner must submit a fleet plan and all of the required elements pursuant to proposed N.J.A.C. 7:27-32.14 and 32.16.

Proposed N.J.A.C. 7:27-32.19(e) addresses the situation where vehicles or equipment added to a fleet covered by a notice of intent to comply cannot be retrofitted pursuant to N.J.A.C. 7:27-32.7(a). In this case, the owner would be required to submit a fleet plan for review and approval by the Department in accordance with N.J.A.C. 7:27-32.14 or 32.16, as applicable

Proposed N.J.A.C. 7:27-32.19(f) requires the submission of information in a modification to a fleet averaging plan in addition to that required in N.J.A.C. 7:27-32.19(d), because this information, relating only to the averaging and demonstration aspects of a fleet averaging plan, is not common to both supplements and modifications. Unless the owner proposes to use best available technology on the new vehicles or equipment, the changes in the fleet would impact the fleet averaging plan and the environmental benefits projected by the plan. Accordingly, proposed N.J.A.C. 7:27-32.19(f)1 requires that the owner resubmit, with the new information, the demonstration of the actual environmental benefit pursuant to N.J.A.C. 7:27-32.16(d)4.

In the case where there has not been complete implementation of a fleet averaging plan, proposed N.J.A.C. 7:27-32.19(f)2 would require a demonstration designed to calculate the emission reduction shortfall of the fleet covered by the plan. Proposed N.J.A.C. 7:27-32.19(f)3 would require the owner to develop a remedial plan and timetable to address this shortfall.

The Diesel Retrofit Law at N.J.S.A. 26:2C-8.36d and e sets forth the process for the Department's review and approval of supplements and modifications. Proposed N.J.A.C. 7:27-32.19(g) through (k) incorporates the requirements of the law. Proposed N.J.A.C. 7:27-32.19(*l*) implements the provisions of the Diesel Retrofit Law at N.J.S.A. 26:2C-8.36f concerning when a fleet owner is subject to the provisions of a fleet plan.

#### N.J.A.C. 7:27-32.20 Issuance and completion of compliance forms

Proposed N.J.A.C. 7:27-32.20 sets forth the requirements for obtaining, completing and submitting to the Department a compliance form. The compliance form serves as a method for the Department to ensure the installation requirements of these proposed rules have been met. As required by the Diesel Retrofit Law (N.J.S.A. 26:2C-8.42(b)), the compliance form is a single-paged document for storing the information needed to verify the installation of the retrofit device or closed crankcase ventilation system on its host vehicle. This section contains the provisions for the Department's notification to the owner of the availability of the form, the procedure for the owner to obtain and complete it and the method to submit the completed form to the Department. This section requires the Department, within 180 days of approval of a fleet plan or notice of intent to comply, to notify the owner of the availability on its web site of the one-page compliance form. On this form, the owner is required to designate the choice of BART, retrofit device family name and serial number, and certification date on which the installation was completed.

Proposed N.J.A.C. 7:27-32.20(a) and (b) identify the regulated entities required to complete and submit the compliance form in order to demonstrate compliance and, if needed, to receive reimbursement of cost associated with the purchase and installation of the closed crankcase ventilation systems or retrofit devices.

Proposed N.J.A.C. 7:27-32.20(c) provides when and how the Department will make the forms available to the regulated entities. The forms will be available from the Department's website. School bus owners will be able to obtain the form once the Department has certified

that funding is available for the reimbursement of costs. For other regulated vehicles, the form will be available based on the type of submittal given to the Department. For example, if a notice of intent to comply is submitted, then the form will be available 180 days after the Department received the notice. If a fleet plan is submitted, then the form is provided 180 days after the effective date of the plan.

Proposed N.J.A.C. 7:27-32.20(d) and (e) describe the information to be provided by the owner of the vehicle or piece of equipment. Information about the owner, vehicle, equipment, installation cost and an explanation of any differences between the estimated and actual cost of purchasing and installing the retrofit are required by this section. The school bus owners will receive a blank form to complete. The owners of equipment and vehicles other than school buses will receive compliance forms that may have information from their inventory submittal included on the form. In this case, the owner will be required to review the information and provide additional information in the designated spaces on the form. All owners will be required to certify the accuracy of the information.

Proposed N.J.A.C. 7:27-32.20(f) through (h) define the responsibility of the vehicle owner to obtain the compliance form. The owner is required to submit the compliance form to the Department with the appropriate completed information within five days after installation of the CCVS or retrofit device and within 30 days after completing the one-time compliance inspection pursuant to proposed N.J.A.C. 7:27-32.21. The owner is required to keep the form in the vehicle, as well as at a single location at place of business where all similar such files and

records are kept. The form must be kept on the vehicle to facilitate the one-time compliance inspection and the certification of installation requirements. Additionally, the Department will be conducting routine enforcement compliance inspections. It is possible that these inspections may occur either at the owner's place of business or during roadside inspections. These inspections will include the review of records as well as inspection of vehicles or equipment to ensure compliance with the requirements of these proposed rules. Therefore, the storage of records in the stated manner will aid the Department's enforcement efforts.

#### N.J.A.C. 7:27-32.21 One-time compliance inspection

Proposed N.J.A.C. 7:27-32.21 establishes the framework for one-time compliance inspections required to be conducted upon regulated diesel vehicles as required at N.J.S.A. 26:2C-8.43 and 8.44. This proposed section is designed to work in conjunction with MVC rules relative to one-time confirmation of compliance with the Diesel Retrofit Law. Each owner of a vehicle on which a retrofit device or closed crankcase ventilation system is installed pursuant to these proposed rules is required to have the vehicle inspected to confirm the installation. The required inspection is a visual one, conducted at a diesel emission inspection center (DEIC) or by the MVC School Bus Inspection Program. Once the DEIC or MVC School Bus Inspection unit has confirmed the installation, no further visual confirmations are required. It is during this inspection that the owner must obtain the inspector's certification of installation on the

compliance form. Some vehicles may already be required by MVC rules to have annual inspections at a DEIC as part of the Periodic Inspection Program. For these vehicles, and in accordance with proposed N.J.A.C. 7:27-32.21(b), the inspection of the vehicle must occur at the next scheduled inspection after the installation occurs. In some instances, the owner is authorized to conduct the periodic inspections of his or her vehicle. In this instance, N.J.A.C. 7:27-32.21(a) provides that the owner may conduct the visual inspection and verification of the retrofit installation within one-year after installation, and provide the required certifications on the compliance form.

For those vehicles not subject to the Periodic Inspection Program, the owner will be required, pursuant to proposed N.J.A.C. 7:27-32.21(a), to present the vehicle to a DEIC for the one-time compliance inspection. In this instance, the owner has 90 days from the date of installation to verify the presence of the retrofit device.

Proposed N.J.A.C. 7:27-32.21(c) through (e) are the verification, inspection and certification requirements for the DEIC or owner who is authorized to self-inspect to complete when a vehicle is presented to it for a one-time compliance inspection in accordance with this proposed rule. A DEIC is responsible for visually inspecting the vehicle for the presence of the retrofit device as listed on the compliance form, determining that the retrofit device on the vehicle and the vehicle itself match the information on the compliance form, and providing certification that the retrofit installation has occurred. As provided in proposed N.J.A.C. 7:27-32.21(f), this inspection is required only once if it shows compliance with the installation of the

required BART. This requirement is consistent with the requirements of the Diesel Retrofit Law at N.J.S.A. 26:2C-8.43.

If the inspection determines that the installation did not occur, then the owner of the vehicle must ensure the installation occurs prior to the deadline established for that vehicle in proposed N.J.A.C. 7:27-32.18(a) and have the installation verified within 30 days after the retrofit device was installed on the vehicle.

#### N.J.A.C. 7:27-32.22 Recordkeeping requirements

Proposed N.J.A.C. 7:27-32.22 requires owners of regulated vehicles or regulated equipment to keep in a single location records of each regulated vehicle's or regulated equipment's compliance with the proposed rules. This allows the Department to access these records easily and ensure proper compliance by the regulated community with the proposed rules. The requirement that the information be kept in a single location eliminates the problems associated with the owner's having to assemble the records from multiple locations if a review of the records becomes necessary. The proposed five-year record retention period is consistent with the retention periods elsewhere in N.J.A.C. 7:27, such as N.J.A.C. 7:27-22, Operating Permits. The proposed rule allows the Department to obtain the assistance of the State Police, if required, to review an owner's compliance records. This is consistent with the provisions of the Diesel Retrofit Law at N.J.S.A. 26:2C-8.39.

In addition to maintaining records at his or her place of business, the owner must also keep in each regulated vehicle or piece of equipment the current updated compliance form pursuant to N.J.A.C. 7:27-32.20.

#### N.J.A.C. 7:27-32.23 Program support

Proposed N.J.A.C. 7:27-32.23 provides contact information for the Department and the program that the proposed rules implement.

#### N.J.A.C. 7:27-32.24 Application for reimbursement

Proposed N.J.A.C. 7:27-32.24 establishes the application process for receiving a reimbursement of the purchase and installation costs associated with the installation of best available retrofit technology and closed crankcase ventilation systems. Proposed N.J.A.C. 7:27-32.24(a) and (b) identify the authorized installer as the only entity eligible for reimbursement of these costs and, therefore, the entity that must front the money for the costs. An owner may decide to become an authorized installer, in which case the owner would pay for the purchase and installation of the device. Thereafter, the Department would reimburse the owner-installer.

Because the proposed rules will not result in costs to an owner for the purchase or installation of a CCVC or retrofit device, or other approved costs, proposed N.J.A.C. 7:27-32.24(b) prohibits an authorized installer from seeking monetary compensation from the owner of the vehicle for any costs related to the initial purchase and installation of a CCVC or retrofit

In order to receive the reimbursement, the authorized installer must complete an application pursuant to proposed N.J.A.C. 7:27-32.24(c). Although the application will be available from the Department's website, certain items such as purchase receipts and work orders will need to be submitted in hard copy in original form. It is the responsibility of the authorized installer to ensure that the vehicle owner verifies that the installation occurred and was completed. The authorized installer will also need to provide justification for any difference in the estimated costs to purchase and install the retrofit device or CCVS.

Pursuant to proposed N.J.A.C. 7:27-32.24(d), the reimbursement application will be reviewed and either approved or disapproved by the Department. Once an application is approved, the Department will forward the approved application to the State Treasurer. The State Treasurer will issue a reimbursement only to an authorized installer after installation is complete and an approved reimbursement application has been received.

Proposed N.J.A.C. 7:27-32.24(e) prescribes the criteria for application denial. A reimbursement application can be denied if the retrofit device or closed crankcase ventilation system was not actually purchased or installed on the vehicle listed in the reimbursement application and if the authorized installer provided false information.

Any investigation into the validity, source or contents of an application for reimbursement is within the discretion of the State Treasurer, the Department, or any other State agency or department to pursue pursuant to proposed N.J.A.C. 7:27-32.24(f).

If the application is incomplete, the Department may request addition information pursuant to proposed N.J.A.C. 7:27-32.24(g). This information may include fiscal items needed to release monies from the Fund. The process by which the Department makes payment for billed costs, like this reimbursement, is in accordance with the Treasury Circular letter 98-17-OMB and can be found electronically at <u>http://www.state.nj.us/infobank/circular/cir9817b.htm.</u>

Pursuant to proposed N.J.A.C. 7:27-32.24(h), an authorized installer will receive payment from the State Treasurer within 30 days after the State Treasurer receives an approved application from the Department.

#### N.J.A.C. 7:27-32.25 Recovery of reimbursement

Pursuant to proposed N.J.A.C. 7:27-32.25, the State Treasurer may recover any reimbursement monies found to have been obtained through false pretenses.

Proposed N.J.A.C. 7:27-32.25(a) prescribes the criteria for recovery of funds to include an incomplete application, or the applicant provided false information such as listing a reimbursement amount larger than actually incurred by the installer, listing a device that is not reimbursable through these proposed rules, or requesting reimbursement for vehicles or equipment not regulated by these proposed. Any investigation into the validity, source or contents of an application for reimbursement is within the discretion of the State Treasurer, the Department, or any other State agency or department to pursue pursuant to proposed N.J.A.C. 7:27-32.25(b).

# N.J.A.C. 7:27A-3.10 Civil administrative penalties for violation of rules adopted pursuant

#### to the Act

N.J.A.C. 7:27A-3.10 establishes the dollar amount of penalties to be assessed by the Department for violations of the proposed rules for any entity subject to the requirements of the proposed N.J.A.C. 7:27-14 and 32. The violations are specific to the listed citation and provide a dollar amount for each penalty for the initial and repeat offenses. The initial penalty is the lowest amount in the matrix and increases with each repeated offense. In addition to monetary penalties, certifications issued by the Department under N.J.A.C. 7:27-14 may be revoked. The proposed penalties for N.J.A.C. 7:27-32 listed in N.J.A.C. 7:27A-3.10(m)32 are consistent with the statutory stipulation of a maximum penalty assessment of \$5,000.

Each citation listed in N.J.A.C. 7:27A-3.10(m)14 and N.J.A.C. 7:27A-3.10(m)32 is defined either "NM" for non-minor or "M" for minor with non-minor being the more serious violation of the two.

The Department considers any violation associated with emissions to be designated as non-minor. Non-minor violations are not eligible for a Grace Period and thus require an Administrative Order with Notice of Civil Administrative Penalty Assessment in accordance with NJAC 7:27A-3 (Penalty Code). Types of violations also deemed non-minor are in accordance with N.J.A.C. 7:27A-3.6 through 3.8.

Minor violations are considered eligible for a grace period and are those actions that are not the result of purposeful, knowing, reckless or criminally negligent conduct; pose minimal risk to public health, safety and natural resources; do not materially and substantially undermine or impair the goals of the regulatory program; and can be corrected within a timely manner as prescribed by the Department.

The proposed penalties in N.J.A.C. 7:27A-3.10(m)14 are weighted to the severity of the violation. For instance, administrative violations, such as failure to have properly completed an inspection form, carries a small assessment of \$200.00 for the first offense. Because reporting of inspection and/or repairs is the primary method the Department has to validate the associated emissions reductions, failure to submit reports can be equated to allowing excess emissions of fine particulate matter and other pollutants to continue unabated, and therefore, result in direct human exposure that deters the Department from meeting its goal of reducing excess emissions. Therefore, each subsequent violation carries an escalating penalty amount, up to \$1,500 for a fourth offense. Penalties may be assessed singly, and in some cases, based on multiple violations of the same nature. For example, if an inspector or technician fails to perform the requisite inspection on multiple vehicles pursuant to proposed N.J.A.C. 7:27-14.5(f), they could be assessed \$100.00 total for the first vehicle improperly inspected or repaired, \$200.00 for the second vehicle, \$500.00 for the third, and \$1,500 for the fourth and each additional vehicle. Since the intent of the proposed rules is to reduce the exposure of the public to emissions of fine particulate matter, and other pollutants, multiple offenses serve only to delay this goal; therefore,

the penalties are higher. Additionally, inspector or repair technician certification may be revoked, as provided in the proposed footnotes 11, 12, and 13. The Department will consider revoking a certification when the inspector or repair technician has triggered a third or subsequent offense.

The proposed penalties in N.J.A.C. 7:27A-3.10(m)32 are also weighted to the severity of the violation and whether the violation impacts air quality or human exposure to diesel particulate matter. For example, any administrative violations not directly resulting in elevated human exposure or environmental impact, such as failure to have the compliance form on a regulated vehicle, carries a small assessment of \$100.00 for the first offense. However, the failure to install a closed crankcase ventilation system within the timeframes of the rules will result in prolonging the in-cabin exposure of children to fine particulate matter, resulting in direct human exposure and deterring the Department from meeting its reduction goals. Therefore, this violation carries a \$1,000 fine for the first offense and increases for each subsequent violation. In some instances, the violations are based on a group of vehicles and not on a per vehicle basis. For example, if an owner fails to retrofit his or her fleet within the timeframe established by the proposed rules, depending on the fleet size the owner could be assessed \$1,000 total for the first 10 vehicles that are not retrofitted. He or she could also be assessed \$3,000 for any additional 10 vehicles not retrofitted and, \$5,000 for any group of vehicles in addition to the ones mentioned. Since the intent of the proposed rules is to reduce the

exposure of children and communities to emissions of fine particulate matter, the proposed penalties associated with delaying this goal are higher.

## N.J.A.C. 7:27B-4 Air Test Method 4: Testing Procedures For Diesel-Powered Motor Vehicles

#### N.J.A.C. 7:27B-4.1 Definitions

The Department proposes to amend the definition of "inspector" to allow such a person to perform inspections that may be required under proposed new N.J.A.C. 7:27-32.

The Department proposes to add definition of "Best Available Retrofit Technology" or "BART," "closed crankcase ventilation system" or "CCVS," "person," and "retrofit device" in order that they are consistent with the new definition at proposed N.J.A.C. 7:27-32.1.

The Department proposes to amend the definition of "peak smoke opacity" to rename the stall acceleration test procedure the "power brake" test procedure.

## N.J.A.C. 7:27B-4.3 Procedures for using a smokemeter to measure the smoke opacity of heavy-duty diesel vehicles and diesel buses

The Department proposes to rename the stall acceleration test procedure at N.J.A.C. 7:27B-4.3(c) as the "power brake" test procedure. This is a technical change only, and is consistent with the amendments proposed at N.J.A.C. 7:27-14.5 and 14.6. The purpose of this amendment is to indicate more clearly what the actual test procedure entails, and to prevent

confusion with another common diagnostic procedure in use in the auto and truck repair industry. As discussed above, the "stall" test familiar to car and truck technicians is a stationary procedure for diagnosing automatic transmission problems, which entails running the vehicles engine at maximum governed speed for periods of up to several minutes at a time while the vehicle's transmission is engaged. The internal fluid pressure builds to a maximum point that is maintained, specifically to reveal or induce mechanical problems.

The "stall" opacity test procedure in the existing rules, applicable to vehicles equipped with an automatic transmission only, entails accelerating the vehicles engine up to maximum governed speed while the vehicle's transmission is engaged, and using the vehicles brakes and wheel chocks to hold the vehicle safely in place during the test procedure. The engine is held at maximum governed speed for one-to-three seconds only, in order to generate and measure a cloud of exhaust smoke. This sequence is generally repeated five to six times to complete the test sequence.

Using the vehicle's brakes to generate a load on the engine while power is applied for short periods of time, or for successive engine accelerations, is a common industry diagnostic practice called "power braking." Therefore, because of the use and similarity of the power brake diagnostic test to the opacity testing procedure, the Department will replace the term "stall" with "power brake" in all references to this opacity test throughout Subchapter 14, and in Chapter 27B.

# N.J.A.C. 7:27B-4.4 Emission control apparatus, retrofit device and closed crankcase ventilation system examination procedure

Proposed N.J.A.C. 7:27B-4.4(c) establishes the procedure for performing a one-time compliance inspection upon a regulated diesel vehicle that is retrofitted pursuant to proposed N.J.A.C. 7:27-32.4. This procedure requires the inspector to check that the vehicle identification number, diesel emission control strategy family name and the BART number on the compliance form matches the information on the vehicle and retrofit label. If these conditions are met, the inspector is required to certify upon the compliance form that the vehicle has been demonstrated to be in compliance with the requirements on the compliance form. If the conditions are not met, the inspector must terminate, and the owner must reschedule, the one-time compliance inspection.

Proposed N.J.A.C. 7:27B-4.4(d) establishes the procedure for performing a one-time compliance inspection upon a regulated school bus to determine that it has been retrofitted with a closed crankcase ventilation system pursuant to proposed N.J.A.C. 7:27-32.4 through 32.6. This procedure requires the inspector to check that the vehicle identification number (VIN) on the compliance form matches the vehicle VIN. The inspector must then perform a visual verification to determine that the closed crankcase ventilation system is properly installed upon the vehicle. Elements of this verification procedure include a determination that the crankcase vent does not emit to the atmosphere and is otherwise ducted to the engine intake air plenum for recombustion. The procedure requires the inspector to verify that there are no visible indications

of leaks or other signs of fugitive emissions. The procedure also allows for intermediary filtration of crankcase emissions, provided that any draining mechanism is collected. If these conditions are met, the inspector is required to certify upon the compliance form that the vehicle has been demonstrated to be in compliance with the requirements on the compliance form.

#### Social Impact

The proposed new rules and amendments are expected to have a positive social impact on the residents of New Jersey. The proposed amendments and rules will help reduce ozone,  $PM_{2.5}$ , carbon monoxide, hazardous air pollutants (HAPs), toxic substances and greenhouse gas emissions, all of which are present in diesel exhaust. The requirement to install aftermarket control devices will help reduce  $PM_{2.5}$  in diesel exhaust. The requirement to install closed crankcase ventilation systems on school buses will reduce children's exposure to  $PM_{2.5}$  in the cabin of the school buses. Many communities, particularly urban ones, will see a direct positive impact to their ambient air quality since the vehicles targeted by this legislation are those vehicles that regularly operate within neighborhoods such as solid waste vehicles and transit buses.

As discussed in the Background section of the Summary above,  $PM_{2.5}$  is a combination of directly emitted primary particles as well as secondary particles formed from precursor compounds. The health effects associated with exposure to fine particles are significant, mainly due to the fact that particles of this size can easily reach into the deepest regions of the lungs, from there diffusing into the circulatory system and causing system-wide injury, such as cardiac-

cell inflammation and altered blood viscosity. Epidemiological studies have shown a significant correlation between elevated fine particle levels and premature mortality.<sup>25</sup> Other significant health effects associated with fine particle exposure include aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days); lung disease; decreased lung function and difficulty breathing; asthma attacks; and certain cardiovascular problems such as heart attacks and cardiac arrhythmia.

The Department has estimated that there are approximately 1,900 deaths and 53,000 cases of asthma in the State each year attributable to the exceedance of the  $PM_{2.5}$  standard, with associated medical costs of approximately \$15 billion.

Individuals particularly sensitive to fine particle exposure include older adults, people with heart and lung disease, and children. Lung impairment from acute exposure can persist for two to three weeks. The elderly have been shown to be particularly at risk for premature death from the effects of particulate matter. Health studies have shown that there is no clear threshold below which adverse effects are not experienced by at least certain segments of the population.<sup>26</sup>

According to The Pediatric/Adult Asthma Coalition of New Jersey (Coalition), "approximately 10-13% of New Jersey's students have asthma." In fact, according to the NJ Department of Health and Senior Services, "children are more likely to be hospitalized with asthma than adults." (Asthma in New Jersey Update 2005 report) One identified method to control asthma is to prevent exposure to substances that may irritate the airways.

(http://www.state.nj.us/health/fhs/asthma/index.shtml, May 24, 2006). One source of exposure for children is diesel-powered school buses. Several studies have been conducted to determine the in-cabin school bus levels of diesel particulate matter. The Clean Air Task Force conducted a study that tested the emissions on school buses equipped with a variety of retrofit combinations, one of which was a closed crankcase ventilation system. The study shows that school bus engine crankcase emissions contribute significantly to school bus self-pollution of  $PM_{2.5}$ . The study also demonstrated that installing closed crankcase ventilation systems significantly reduces the in-cabin levels of  $PM_{2.5}$  and, hence, the exposure of school children to this pollutant.<sup>27</sup>

Heavy-duty diesel vehicles are significant contributors of  $PM_{2.5}$ . The Department's concern with PM is primarily, but not exclusively, its negative impact on human health. PM is an irritant to the lungs and respiratory system and can cause irreversible damage if inhaled into the deeper regions of the lungs. Aside from its inherent irritant effects, PM also has the ability to adsorb other harmful compounds to it, potentially creating a substance more detrimental to human health than the PM alone. These factors have caused the USEPA to label PM a possible human carcinogen.

#### **Economic Impact**

The proposed new rules and amendments are expected to have a positive economic impact on the State. By furthering the State's goal of significantly reducing diesel particulate emissions, the proposed amendments and rules will result in reduced human exposure to these

contaminants, thereby reducing the substantial costs to the State and its citizens that are associated with air pollution, such as health care costs, missed days of work, and absences from school.

The primary costs of implementing this program are the capital costs associated with retrofitting. These costs are eligible for reimbursement from the Diesel Risk Mitigation Fund whose constitutionally dedicated money is supplied from the Corporate Business Tax as appropriated by the Legislature. Thus, the primary economic impact associated with this program has been mitigated. A minimal economic impact may be experienced by authorized installers since they must cover the cost of the retrofit and then request reimbursement from the Department. The cost of each retrofit is expected to range from \$1,000 to \$9,000. However, based on conversations with the retrofit industry, it appears that it is commonplace for the vendor or installer to not get paid by the client until after the expenses have been incurred. In addition, the Diesel Retrofit Law requires the State Treasurer to reimburse within 30 days of receiving an approved application for reimbursement from the Department, thereby minimizing the economic impact.

Some of the financial benefits to the public include decreased medical care and hospitalization. Each incident of asthma has an expenditure of approximately \$30.00 to \$400.00 for treatment and/or hospitalization, depending on the severity of the asthma attack. The Department estimates that this program will avoid up to 150 premature deaths which have an associated cost of up to \$1.4 billion. These figures do not show the cost to the individual and

family through decreased quality of life and the effect of early mortality on family members and to the individual. A reduction in diesel emissions, resulting from this proposed rulemaking, would help to reduce the number of individuals affected with this type of burden.

Some economic impact to the regulated community may be realized as the result of required routine maintenance for certain retrofit devices. This maintenance is dependent on the type of retrofit device installed, but will primarily consist of annual regeneration of most BART 3 devices at an average cost of \$200.00, or cleaning or changing of a closed crankcase filter at an average cost of less than \$50.00. Most maintenance can occur at the same time as other routine vehicle maintenance requirements. The Department believes this cost is very small when compared to the associated health care costs borne by the State and its citizens.

The proposed training program will add to the cost to become a diesel emission inspector and a diesel emission repair technician. Individuals wishing to pursue these positions will have to pay for their training at a licensed third party training facility. These training fees are estimated at approximately \$200.00 to \$500.00 for inspectors, and approximately \$2,000 for diesel emission repair technicians based on the tuition charges for the current ETEP training. The cost associated with training updates is estimated at \$200.00 to \$500.00. However, the third party training providers will set the actual fee for the training courses and the updates, which may be more than estimated. Training updates are anticipated to last from half a day to three days, depending on the content of the update. While these costs do represent a new burden on inspectors and technicians, such training will make them a more valuable resource to their

employers and, therefore, are likely to benefit them in the long term. It is also likely that many DEIC facilities and repair facilities may share these costs with their employees.

Third party training providers, such as technical schools and vehicle and engine manufacturer training centers, are expected to experience an increase in enrollment due to the proposed program. It is expected that approximately 600 inspectors and 1,200 repair technicians will make an initial application to the proposed program once the proposed new rules and amendments are adopted, with more to follow as new individuals elect to pursue jobs as diesel emission inspectors or repair technicians. Furthermore, periodic follow-up training for all licensed inspectors and repair technicians will be required as advances in diesel engine technology necessitate. This will result in both an initial surge in tuition paying students for these third party training facilities, as well as continued business for them in the future.

#### **Environmental Impact**

The proposed new rules and amendments are expected to have a positive impact on the environment. Diesel exhaust has been identified as a toxic air contaminant and a probable human carcinogen by USEPA and the International Agency for Research on Cancer (IARC). The proposed new rules and amendments are expected to reduce the amount of particulate matter emitted from diesel vehicles, which will improve the air quality for citizens and the environment. Implementation and strong enforcement of the proposed new rules will decrease emissions of particulate matter by 150 tons per year.

 $PM_{2.5}$  also contributes to decreased visibility. The 1977 Clean Air Act amendments (P.L. 95-95; 91 Stat. 685) set a national visibility goal for certain designated national parks and wilderness areas, known as Class 1 areas. New Jersey has a Class I area at the Brigantine Wilderness Area of the Edwin B. Forsythe National Wildlife Refuge. In response to the USEPA Regional Haze requirements at 40 CFR Part 51, New Jersey must work with its neighboring states to establish goals to improve visibility at that Class I area. Reducing  $PM_{2.5}$  emissions is a major part of the plan to meet those goals.

The implementation of these proposed new rules and amendments will complement the Department's efforts to decrease  $PM_{2.5}$  emissions, characterized by the Department's diesel risk reduction strategies, and help in its effort to improve the environment in New Jersey.

#### **Federal Standards Statement**

Executive Order No. 27(1994) and P.L. 1995, c. 65 (N.J.S.A. 52:14B-22 et seq.) require State agencies that adopt, readopt or amend State regulations that exceed any Federal standards or requirements to include in the rulemaking document a comparison with Federal law. The proposed new rules at N.J.A.C. 7:27-32 and proposed amendments at N.J.A.C. 7:27-14, 7:27A-3.10, and 7:27B-4, are not promulgated under the authority of, or in order to implement, comply with or participate in any program established under Federal law or under a State statute that incorporates or refers to Federal law, Federal standards or Federal requirements.

As discussed in the Summary above, the USEPA has established a technology verification program in support of the Voluntary Diesel Retrofit Program, under which it verifies diesel exhaust emission control strategies for retrofit upon diesel vehicles and equipment. The program establishes an emission reduction value that is achievable when the verified emission control strategy is used in conjunction with a particular vehicle application. The USEPA currently has listed 25 verified emission control strategies for various applications of on- and off-road diesel-powered vehicles and equipment. To the extent that the USEPA-verified controls meet the emissions reduction requirements of the proposed amendments and rules, the proposed amendments and rules allow the use of the USEPA-verified technology to satisfy the retrofit requirements. The USEPA program is not mandatory. Accordingly, the proposed amendments and rules are not inconsistent with a Federal requirement. Thus, Executive Order No. 27(1994) and P.L. 1995, c. 65 (N.J.S.A. 52:14B-22 et seq.) do not require a Federal standards analysis.

#### Jobs Impact

The proposed new rules and amendments are expected to have an impact on employment and jobs in New Jersey, and will result in the expansion of several areas of the emissions control market, from an increase in manufacturing of the devices, to the vending and sales component and the installation needs in New Jersey. Since the purchase and installation costs are funded by the State, the costs expected to be incurred by vehicle owners to comply with the proposed new

rules and amendments will not affect their operations in such a way as to negatively impact employment.

The proposed new rules and amendments could generate job opportunities at the Department-approved third party training providers with the introduction of the Diesel Emission Training and Education Program (DETEP) and opportunities for trained diesel repair technicians at facilities performing diesel emission related repairs. Experienced trainers may need to be hired by the training providers to teach the emission inspector course of instruction, and various courses in the emission repair technician course of instruction.

#### **Agriculture Industry Impact**

Pursuant to P.L. 1998, c. 48, the proposed new rules and amendments have been evaluated to determine the nature and extent of the impact of the proposed new rules and amendments on the agriculture industry.

The proposed new rules and amendments are expected to have no detrimental impact on the State's agriculture industry. Rather, these amendments will have a positive impact. As discussed in the Environmental Impact statement above, one of the primary environmental benefits expected to result from the proposed amendments and rules will be a reduction in emissions of particulate matter, which accumulates in air and deposits in soil, as well as in water. According to the USEPA, these depositions can make lakes and streams acidic, change the

nutrient balance in coastal waters and large river basins, deplete the nutrients in soil, damage sensitive forests and farm crops, and negatively affect the diversity of ecosystems.

There will also be a reduction in particulate matter accumulation on agricultural growth. This reduction in accumulation will have a positive impact by reducing the damage to that growth that interferes with photosynthesis.

#### **Regulatory Flexibility Analysis**

As required by the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq., the Department, MVC and Treasury have evaluated the reporting, recordkeeping and other compliance requirements that the proposed new rules and amendments would impose upon small businesses. The Regulatory Flexibility Act defines the term "small business" as "any business which is a resident in this State, independently owned and operated and not dominant in its field, and which employs fewer than 100 full-time employees." Based upon this definition, some small businesses would be subject to the proposed new rules and amendments for certain vehicle categories, such as the privately-owned commercial buses or the privately-owned solid waste collection vehicles used in public contracts. The small businesses would be subject to the compliance requirements of the proposed new rules and amendments, as well as application, reporting and recordkeeping requirements. Authorized installers of closed crankcase ventilation systems and retrofit devices also generally fit the description of small businesses and would be required to meet compliance requirements of the proposed new rules and amendments in

documenting the installation of the closed crankcase ventilation systems and retrofit devices and applying for reimbursement of the purchase and installation costs. It is not expected that any small business will be required to retain a consultant or other professional in order to comply with the proposed new rules and amendments.

The cost of compliance for small businesses would not differ from the cost borne by all other affected entities, since one would expect that a small business would own a minimal number of vehicles and, thus, the initial out-of-pocket costs for the vehicle or equipment owners who are authorized installers and perform the installations on their fleets prior to reimbursement would be proportional to owners with larger fleets who also do installation. For those small businesses that are authorized installers, there will be an initial out-of-pocket cost associated with the purchase and installation of a CCVS or retrofit device until such time that the Department provides reimbursement for these costs. Ultimately these out-of-pocket costs would be reimbursed in a timely manner. The law provides that all applications shall be processed within 30 days of receipt. As these increased compliance costs are not expected to be excessive or to fall disproportionately on these small businesses, no provision is being made to minimize their impact.

In light of the cost to comply with the proposed new rules and amendments, when compared to the overall benefits attributable to the anticipated resulting reduction in emissions, the effect of the amendments on small businesses would be reasonable. New Jersey is under a Federal mandate, under the authority of the Clean Air Act, to reduce air emissions. Failure to

achieve these reductions could subject New Jersey to economic sanctions, which would adversely affect all businesses in the State, including small businesses. To exempt small businesses from any requirements or to reduce any requirements would compromise the goals of the rules.

The proposed new rules and amendments will affect small businesses, as defined in the Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq., if the business employs diesel emission inspectors or repair technicians, or supplies training to inspectors or repair technicians. Under the proposed new rules and amendments, inspectors employed at DEICs are required to be certified by the Department; employers need to ensure their inspectors have the proper certification. Facilities that perform diesel emission related repairs will be required to have one certified diesel emission repair technician in its employ either performing the repairs or supervising the repairs. Third party training facilities offering the DETEP will be required to have an Department–approved trainer.

The proposed new rules and amendments will impose new reporting, recordkeeping and compliance requirements on private businesses that choose to become third-party training providers. Providers shall be required to keep records on every person receiving emission inspector and/or emission repair technician training whether or not the person completes the training. Every quarter, the training provider shall submit to the Department all records of training class attendees, and a summary of all graduates at the close of each training course.

#### **Smart Growth Impact**

Executive Order No. 4 (2002) requires State agencies that adopt, amend or repeal State regulations to include in the rulemaking document a Smart Growth Impact statement that describes the impact of the proposed rule on the achievement of smart growth and implementation of the State Development and Redevelopment Plan (State Plan). The proposed new rules and amendments do not relate to the State's official land use and development policies in a way that would either encourage or discourage any development or redevelopment in this State contrary to the guiding principles of the State Plan. As a result, the Department, MVC and Treasury do not expect the proposed new rules and amendments to have an impact on the State's achievement of Smart Growth or the implementation of the State Plan.

The proposed new rules and amendments make use of the State Plan's designation of areas as urban centers or urban complexes in prioritizing the review of fleet plans. Moreover, the proposed new rules and amendments will help protect and improve air quality through reduction  $PM_{2.5}$  from diesel exhaust; accordingly, the proposed new rules and amendments support the State Plan's goal of protecting the environment and preventing air pollution by implementing a strategy of reducing air pollution at the source.

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**<u>Full</u>** <u>text</u> of the proposal follows (additions indicated in boldface <u>thus</u>; deletions indicated in brackets [thus]):

#### CHAPTER 27

#### **AIR POLLUTION CONTROL**

## SUBCHAPTER 14 CONTROL AND PROHIBITION OF AIR POLLUTION FROM DIESEL-POWERED MOTOR VEHICLES

### 7:27-14.1 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

. . .

<u>"Closed crankcase ventilation system" means a system installed upon an</u> <u>internal combustion engine and that is designed to capture all solids, liquids and</u> <u>gases that are emitted from the vent and divert them to the engine intake air plenum</u> <u>for recombustion.</u>

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<u>"Diesel emission inspection center" or "DEIC" means a diesel emissions</u> <u>inspection center licensed by the MVC pursuant to N.J.S.A. 39:8-59 et seq. and</u> <u>N.J.A.C. 13:20-47.</u>

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["Division of Motor Vehicles" or "DMV" means the Division of Motor Vehicles within the New Jersey Department of Transportation.]

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"MVC" means the New Jersey Motor Vehicle Commission.

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<u>"NJ DEIC Inspection Form" means the form issued by the MVC to document</u> <u>inspections performed in connection with the periodic inspection program</u> <u>established pursuant to N.J.A.C. 13:20-26.</u>

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<u>"Retrofit device" means a best available retrofit technology for installation</u> on an on-road diesel vehicle or on a piece of off-road diesel equipment.

"Retrofitted <u>EPA urban</u> diesel bus" means a diesel bus which is equipped with an engine which has been retrofitted or rebuilt to meet a particulate emission standard of 0.10 g/bhp-hr (grams per brake horsepower per hour) in conformance with the requirements set forth at 40 C.F.R. 85.1403(b) or (c).

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#### 7:27-14.3 General prohibitions

(a) - (c) (No change.)

(d) [(Reserved)] No person shall cause, suffer, allow or permit any retrofit device or any part thereof, or any closed crankcase ventilation system or any part thereof, installed on any diesel-powered motor vehicle pursuant to N.J.S.A. 26:2C-8.26 et seq. and N.J.A.C. 7:27-32 to be disconnected, detached, deactivated, or in any other way rendered inoperable or less effective, in respect to limiting or controlling emissions, than it was designed to be by the original retrofit device or closed crankcase ventilation system manufacturer, except for the purposes of diagnostics, maintenance, repair or replacement and only for the duration of such operations.

#### 7:27-14.4 General public highway standards

(a) No person shall cause, suffer, allow or permit the operation of any diesel-powered motor vehicle upon the public roads, streets or highways of the State or upon any public property or upon any quasi-public roadway in the State, if the vehicle:

1. -2. (No change.)

3. Does not have a properly functioning and properly maintained emission control apparatus, as determined according to the emissions control apparatus examination procedures established at N.J.A.C. 7:27B-4.4; [or]

4. Has an emission control apparatus or an element of design installed on the vehicle or diesel engine which has been disconnected, detached, deactivated, or in any other way rendered inoperable or less effective than designed by the original equipment or vehicle or engine manufacturer; or

5. Has a retrofit device or any part thereof, or a closed crankcase ventilation system or any part thereof, that was installed pursuant to N.J.S.A. 26:2C-8.26 et seq. and N.J.A.C. 7:27-32 and that has been disconnected, detached, deactivated, or in any other way rendered inoperable or less effective, with respect to limiting or controlling emissions, than it was designed to be by the original retrofit device or closed crankcase ventilation system manufacturer.

## 7:27-14.5 Test requirements

(a) A person testing a diesel-powered motor vehicle as part of the roadside enforcement program established pursuant to N.J.S.A. 39:8-64 and N.J.A.C. 13:20-46 shall use one or more of the following tests, as designated by the [Director] <u>Chief Administrator</u> of the [Division of Motor Vehicles] <u>MVC</u> in consultation with the Department and the New Jersey Department of Transportation, and with the approval of the Attorney General:

1. - 2. (No change.)

3. The [stall] **<u>power brake</u>** smoke opacity test, for a vehicle with a medium or high speed diesel engine and an automatic transmission, only, as described at N.J.A.C. 7:27B-4.3(c); or

4. (No change.)

(b) A person testing a heavy-duty diesel vehicle as part of the periodic inspection program established pursuant to N.J.S.A. 39:8-64 and N.J.A.C. 13:20-26.17 shall use one of the following tests:

1. - 2. (No change.)

The [stall] power brake smoke opacity test, for a vehicle with a medium or high speed diesel engine and an automatic transmission, only, as described at N.J.A.C.
 7:27B-4.3(c); or

4. (No change.)

(c) A person testing a diesel bus as part of the periodic inspection program pursuant to N.J.A.C. 13:20-30, or N.J.S.A. 48:4-1 et seq. and N.J.A.C. 16:53, shall use one of the following tests:

- 1. (No change.)
- 2. The [stall] **power brake** smoke opacity test, for a vehicle with an automatic transmission, only, as described at N.J.A.C. 7:27B-4.3(c).

(d) A person testing a diesel-powered motor vehicle as part of the self-inspection programs pursuant to N.J.A.C. 13:20-26 or at N.J.A.C. 16:53-3.27[,] shall use one of the following tests:

- 1. 2. (No change.)
- 3. The [stall] **power brake** smoke opacity test, for a vehicle with an automatic transmission, only, as described at N.J.A.C. 7:27B-4.3(c).

(e) (No change.)

(f) A person inspecting a diesel-powered motor vehicle as part of the one-time compliance inspection for a retrofit device required at N.J.A.C. 7:27-32.21 shall conduct an examination as described at N.J.A.C. 7:27B-4.4(c).

(g) A person inspecting a diesel bus as part of the closed crankcase ventilation system compliance inspection required at N.J.A.C. 7:27-32.6 shall conduct an examination as described at N.J.A.C. 7:27B-4.4(d).

#### 7:27-14.6 Inspection standards

(a) (No change.)

(b) A heavy-duty diesel vehicle tested using the snap acceleration smoke opacity test, the rolling acceleration smoke opacity test, or the [stall] **power brake** smoke opacity test set forth at N.J.A.C. 7:27B-4, shall not emit smoke in the exhaust emissions which exceeds the following opacity standards:

1. -4. (No change.)

(c) A diesel bus, tested using the snap acceleration smoke opacity test, or the [stall] **power brake** smoke opacity test, set forth at N.J.A.C. 7:27B-4, shall not emit smoke in the exhaust emissions which exceeds the following opacity standards:

1. - 3. (No change.)

(d) A retrofitted <u>EPA urban</u> diesel bus, tested using the snap acceleration smoke opacity test, or the [stall] <u>power brake</u> smoke opacity test, set forth at N.J.A.C. 7:27B-4, shall not emit smoke in the exhaust emissions which exceeds a peak smoke opacity standard of 30 percent[;].

(e) A diesel-powered motor vehicle, tested using the snap acceleration smoke opacity test, the rolling acceleration smoke opacity test or the [stall] **power brake** smoke opacity

test, set forth at N.J.A.C. 7:27B-4, and for which an alternative smoke opacity standard has been established in accordance with the procedures set forth at N.J.A.C. 7:27B-4.5, shall not emit smoke in the exhaust emissions which exceeds the smoke opacity standard established as the alternative smoke opacity standard for that vehicle.

(f) A diesel-powered motor vehicle required to have been retrofitted pursuant to N.J.A.C. 7:27-32 shall be deemed to have passed a one-time retrofit compliance inspection if a visual check confirms the installation and presence of the retrofit device.

(g) A diesel bus required to have been equipped with a closed crankcase ventilation system pursuant to N.J.A.C. 7:27-32 shall be deemed to have passed a one-time compliance inspection if a visual check confirms the installation and presence of the closed crankcase ventilation system.

#### 7:27-14.7 Diesel emissions inspectors

(a) On and after January 1, 2009, no person shall perform a diesel emission inspection under the periodic inspection program established pursuant to N.J.A.C. 13:20-26 unless the person is certified by the Department as a diesel emission inspector.

(b) No person shall perform a visual verification of compliance required by N.J.A.C. 7:27-32.6 or a one-time compliance inspection required by N.J.A.C. 7:27-32.21 unless the person is certified by the Department as a diesel emission inspector

or has successfully completed Department-approved training to perform such inspections.

(c) In order to be certified by the Department, a diesel emission inspector shall complete a Department-approved course of instruction, as described at N.J.A.C. <u>7:27-14.9(c)</u>. The Department will accept three years of documented professional experience in the inspection of diesel engines and related systems as a substitute for successful completion of the Department-approved course of instruction.

(d) Upon completion of a Department-approved emission inspector course of instruction, the applicant shall submit an application for certification to the Department on a form supplied by the Department or in a format approved by the Department. The applicant shall provide the information required on the form, including personal contact information and information regarding the professional expertise and training of the applicant, and shall include with the application proof of training course completion, as described at N.J.A.C. 7:27-14.9(g) or documentation of substitute work experience, as provided at (c) above.

(e) The Department will review the application, and will issue a diesel emission inspector certificate and assign a unique non-sequential certificate number to an applicant who has satisfied (c) and (d) above.

(f) The diesel emission inspector certificate issued by the Department is valid for two years. The Department will recertify an inspector upon a showing of proof of completion of all required training updates, as described in (g) below. The recertification is valid for two years.

(g) A certified diesel emission inspector shall complete all training updates that the Department determines necessary as a result of advances in diesel engine and emissions control and testing technology. The Department will notify certified inspectors when training updates have been prepared and must be completed. (h) A certified diesel emission inspector shall be responsible for the completion of a NJ DEIC Inspection Form for each vehicle for which the inspector conducted a periodic inspection or reinspection. The inspector shall provide the information required on the NJ DEIC Inspection Form, which includes, but is not limited to, owner's contact information, vehicle and engine identification requirements, ambient weather conditions, engine test parameters, and emission inspection results, and shall maintain a copy of the NJ DEIC Inspection Form for a period of two years from the date of the periodic inspection or reinspection or reinspection.

(i) On and after January 1, 2009, a certified diesel emission inspector shall electronically submit to the Department the NJ DEIC Inspection Form completed pursuant to (h) above, within five business days of the MVC audit of the DEIC that immediately follows the inspection of the vehicle for which the form was prepared. (i) If it is a hardship for a certified diesel emission inspector to submit an NJ DEIC Inspection Form electronically, the inspector can request approval from the Department to submit the NJ DEIC Inspection Form in paper format to the MVC auditor for transmission to the Department. The approval is valid for six months. The Department will approve such a request provided that:

1. The inspector certifies the request in accordance with N.J.A.C. 7:27-1.39; and

## 2. The inspector states:

i. The basis for the claim that electronic submittal would impose a hardship;
ii. The effort(s) the inspector will make to ensure the inspector's ability to
make electronic submittals in the future; and
iii. That the inspector agrees to make every effort to become able to submit

the form electronically within a reasonable amount of time.

(k) A certified diesel emission inspector submitting a paper version of the NJ DEIC Inspection Form pursuant to (j) above shall submit the form to the MVC auditor at the time of the MVC audit of the DEIC that immediately follows the inspection of the vehicle for which the form was prepared.

## 7:27-14.8 Diesel emissions repair technicians

(a) On and after January 1, 2009, no person other than a certified diesel emission repair technician or a person performing repairs under the direct supervision of a certified diesel emission repair technician shall perform any emission-related repair upon a diesel-powered motor vehicle that has failed a periodic or roadside emission inspection or reinspection.

(b) Except as provided at (c) below, in order to be certified by the Department, a diesel emission repair technician shall complete a Department-approved course of instruction, as described at N.J.A.C. 7:27-14.9(c)2.

(c) The Department will accept professional certifications from the National Institute for Automotive Service Excellence (ASE) program, or original equipment

manufacturer training programs approved by the Department, or five years of documented professional experience in the repair and maintenance of diesel engines and related systems for the portions of the Department-approved course of instruction required at (b) above that pertain to general engine operations and diagnosis.

(d) Upon completion of a Department-approved diesel emission repair technician course of instruction, the applicant shall submit an application for certification to the Department on a form supplied by the Department or in a format approved by the Department. The applicant shall provide the information required on the form, including personal contact information and information regarding the professional expertise and training of the applicant, and shall include with the application proof of training course completion as described at N.J.A.C. 7:27-14.9(h) or documentation of substitute work experience, as provided at (c) above.

(e) The Department will review the application, and will issue a diesel emission repair technician certificate and assign a unique non-sequential certificate number to an applicant who has satisfied the requirements at (b) through (d) above.

(f) The diesel emissions repair technician certificate issued by the Department is valid for five years. The Department will recertify a diesel emission repair technician upon a showing of proof of completion of all required training updates, as described at (g) below. The recertification is valid for five years.

(g) A certified diesel emission repair technician shall complete all training updates that the Department determines necessary as a result of advances in diesel engine

and emission control and testing technology. The Department will notify certified diesel emission repair technicians when training updates have been prepared and <u>must be completed.</u>

(h) A certified diesel emission repair technician shall be responsible for preparing the NJ Diesel Emission Repair Report form, which is available from the Department, for each vehicle on which the technician performed emission-related repairs to correct the problems which caused the vehicle to fail a periodic or roadside inspection or reinspection. The technician shall provide the information required on the NJ Diesel Emission Repair Report form, including vehicle owner's contact information, technician identification information and place of employment, vehicle and engine identification requirements, and repairs performed on the vehicle. On and after January 1, 2009, the technician shall submit the NJ Diesel Emission Repair Report form electronically, within five business days after performing the repairs. The technician shall maintain a copy of each NJ Diesel Emission Repair Report form he or she prepared for a period of two years from the date the repairs were completed.

(i) If it is a hardship for a certified diesel emission repair technician to submit an NJ Diesel Emission Repair Report form electronically, the technician can request approval from the Department to submit the NJ Diesel Emission Repair Report form in a paper format. The approval is valid for six months. The Department will approve such a request provided that:

**<u>1. The technician certifies the request in accordance with N.J.A.C. 7:27-1.39;</u> <u>and</u>** 

2. The technician states:

<u>i. The basis for the claim that electronic submittal would impose a hardship;</u> <u>ii. The effort(s) the technician will make to ensure his or her ability to make</u> <u>electronic submittals in the future; and</u> <u>iii. That the technician agrees to make every effort to become able to submit</u>

the form electronically within a reasonable amount of time.

<u>7:27-14.9 Training providers for diesel emissions inspectors and diesel emissions</u> <u>repair technicians</u>

(a) An applicant seeking approval as a provider of an emission inspector or repair technician training program shall have a minimum of two years' experience in diesel technology training or two years' experience in either the development of a diesel emissions inspector or diesel emission repair technician training program or the administration of an emission inspector or repair technician training program for either a basic or enhanced inspection and maintenance program for motor <u>vehicles.</u>

(b) A training provider seeking approval of a training program for diesel emission inspectors or diesel emission repair technicians shall file with the Department an application that includes:

1. Contact and ownership information for the provider;

2. The names of trainers employed by the training program provider and copies of their qualifications;

3. Copies of any accreditations held by the training provider;

4. Verification that the provider possesses or has available to it at least one

type of approved emissions inspection equipment for hands-on training; and

5. A curriculum pursuant to (c) below.

(c) A training provider shall develop a curriculum in consultation with the

Department. The training provider shall submit a curriculum to the Department

for approval, and shall use only a curriculum that has been approved by the

**Department.** An approvable curriculum must contain the following elements:

**<u>1. For diesel emission inspector training:</u>** 

i. Theory of diesel engine operation and exhaust emissions;

ii. Emission standards set forth at N.J.A.C. 7:27-14; and

iii. Test methods and equipment-operating principles, and proper use

of the emission testing and diagnostic equipment pursuant to N.J.A.C.

<u>7:27B-4.</u>

2. For diesel emission repair technician training:

i. Theory of diesel engine operation, the combustion cycle, and the production of exhaust emissions;

ii. Emission standards set forth at N.J.A.C. 7:27-14;

<u>iii. Diesel inspection program test methods set forth at N.J.A.C.</u> <u>7:27B-4;</u>

<u>iv. Exhaust emission reduction technology;</u>
<u>v. Emission control systems;</u>
<u>vi. Engine diagnostics, including electronic diagnosis;</u>
<u>vii. Repairs to emission-related systems; and</u>
<u>viii. Repairs and maintenance practices that help to reduce exhaust</u>
emissions.

(d) The classroom facility and course materials of a training provider are subject to inspection by the Department.

(e) A training provider shall provide:

**1.** Classroom instruction, including hands-on emissions testing demonstrations;

2. Adequate materials or facilities relating to the subject matter of the training

for each student, including seating, display apparati, and writing and instructional materials;

3. Trained instructors in a student to instructor ratio in each class sufficient to ensure that each student is provided with adequate interaction with the instructor, but not to exceed a ratio of 25 students per instructor per class; and

4. A motor vehicle for hands-on emissions and test demonstration.

(f) A training provider shall ensure that the emission testing equipment is

calibrated, operated and maintained as required by the equipment manufacturer.

If the training provider uses a simulator in the class, he or she shall submit a written

explanation of its design and function for Department approval.

(g) A training provider shall present a certificate of training course completion to each student who passes a written test designed to demonstrate a thorough understanding of the subject matter and who otherwise successfully completes the training program. This certificate shall contain:

**<u>1. The name of the diesel emission inspector or diesel emission repair technician</u> training program;** 

2. A unique, non-sequential certificate number assigned to the applicant;

3. The following statement, appropriately completed: "This is to certify that (name of student) has successfully completed the New Jersey Department of Environmental Protection Diesel Emission (Inspector or Repair Technician) training on this (number) day, (month) of (year)";

4. The printed name of the instructor;

5. The dated signature of instructor; and

6. The name, address, and phone number of the training provider.

(h) A training provider shall prepare course updates as may be required by the Department due to advances in diesel engine and emissions control and testing technology.

(i) For each person who enrolls in the diesel emission inspector or diesel emission repair technician course of study, whether or not the person completes the training, a training program provider shall maintain at its principal place of business a record of the contact information for the student, the name of the course for which the student enrolled, the name of the course instructor, and the dates the course was

given. The training program provider shall maintain the record in hard copy or electronic form, at its principal place of business, available for Department inspection for a period of at least five years.

(i) For each calendar quarter in which a training program provider offers classes in diesel emission inspector training or diesel emission repair technician training, the training program provider shall submit to the Department the information required under (i) above no later than 10 business days after the end of the calendar quarter for which the report was prepared. The training provider shall provide the report to the Department on a form supplied by the Department and in a format approved by the Department. The training provider shall submit the report electronically, unless otherwise approved by the Department. The Department will notify training program providers of the appropriate form or format on its website at

www.nj.gov/dep.

(k) Within 10 business days after the completion of each training class, the training provider shall send the Department a list of the students who have successfully completed the diesel emission inspector training class or diesel emission repair <u>technician training class.</u>

## 7:27-14.10 Penalties

Any person who violates the provisions of this subchapter may be subject to civil administrative penalties under the provisions of N.J.A.C. 7:27A-3.10(m)14. The Department may also revoke a certification issued pursuant to N.J.A.C. 7:27-14.7(e)

and 14.8(e) and an approval as a training provider issued pursuant to N.J.A.C. 7:27-14.9(b) after a diesel emission inspector, diesel emission repair technician or training provider has violated, for the third or subsequent time, the provisions of N.J.A.C. 7:27-14.7(g) through (i) or (k); 14.8(g) or (h); or 14.9(c) through (k).

7:27-[14.7]**14.11** Non-interference with the motor vehicle codes

Nothing in this subchapter is intended to limit or deny any existing authority to inspect diesel-powered motor vehicles in accordance with regulations established pursuant to N.J.S.A. <u>26:2C-8.44</u>, 39:8-2, 39:3-70, 39:3-76, 39:10-26 and 48:4-2.1a.

## SUBCHAPTER 32 DIESEL RETROFIT PROGRAM

#### 7:27-32.1 Definitions

<u>The following words and terms, when used in this subchapter, shall have the</u> <u>following meanings, unless the context clearly indicates otherwise.</u>

<u>"Authorized installer" means a person authorized, pursuant to a written</u> agreement with a manufacturer of a retrofit device or closed crankcase ventilation system to represent the manufacturer for the purpose of the sale, installation, repair and/or dispersal of information regarding that retrofit device or closed crankcase ventilation system.

"Best available retrofit technology" or "BART" means an aftermarket particulate emissions control device that, as determined by the Department, can be used on or in a regulated vehicle or regulated equipment, at a reasonable cost to achieve substantial reduction of fine particulate diesel emissions, and is a either a diesel emissions control strategy for which CARB has issued an Executive Order, or a verified retrofit technology for which the USEPA has issued a Verification Letter. "Best available retrofit technology" includes only those retrofit devices and fuel for which the retrofit device manufacturer or fuel manufacturer certifies that the installation and use would not jeopardize the original engine warranty in effect at the time of the installation or the commencement of use of the retrofit device or fuel, and for which the manufacturer has issued a warranty pursuant to N.J.A.C. 7:27-32.9.

<u>"California Air Resources Board" or "CARB" means the agency or its</u> <u>successor agency established and empowered to regulate sources of air pollution in</u> <u>the State of California, including motor vehicles, pursuant to section 39003,</u> <u>California Health & Safety Code, 1999, as amended or supplemented.</u>

<u>"Certified configuration" means a heavy-duty engine design certified by</u> <u>either of the following agencies as meeting the applicable emission standards for</u> <u>motor vehicles manufactured in a given model year:</u>

1. USEPA for model year 1968 or for a more recent model year; or

2. CARB for model year 1966 or for a more recent model year.

<u>"Closed crankcase ventilation system" or "CCVS" means a system, installed</u> <u>upon an internal combustion engine, that is designed to capture all solids, liquids</u> <u>and gases that are emitted from the vent and to divert them to the engine intake air</u> <u>plenum for recombustion.</u>

"Compliance form" means a form used for ascertaining compliance with the requirements of N.J.A.C. 7:27-32.4 and 32.7, or eligibility for reimbursement of costs associated therewith, and issued and completed pursuant to N.J.A.C. 7:27-32.20.

<u>"Constitutionally-dedicated monies" means monies dedicated pursuant to</u> <u>Article VIII, Section II, paragraph 6, subparagraph (d) of the State Constitution.</u>

"DEIC inspector" means a person who is trained to perform an inspection of

a diesel-powered motor vehicle at a diesel emissions inspection center.

"Department" means the Department of Environmental Protection.

"Diesel commercial bus" means a diesel bus as defined pursuant to N.J.S.A. 39:8-60, except that "diesel commercial bus" includes only diesel commercial buses with a gross vehicle weight rating in excess of 14,000 pounds, and does not include school buses.

<u>"Diesel emission inspection center" or "DEIC" means any person licensed by</u> <u>the MVC to perform a diesel vehicle inspection pursuant to N.J.S.A. 39:8-69 and</u> <u>N.J.A.C. 13:20-47.</u>

<u>"Diesel engine" means an internal combustion engine with compression</u> <u>ignition using diesel fuel, including the fuel injection system, but excluding the</u> <u>exhaust system.</u>

<u>"Diesel Risk Mitigation Fund" or "Fund" means the special, nonlapsing</u> <u>fund established pursuant to N.J.S.A. 26:2C-8.53.</u>

"Diesel solid waste vehicle" means any on-road diesel vehicle with a gross vehicle weight rating in excess of 14,000 pounds that is used to collect or transport residential or commercial solid waste. "Diesel solid waste vehicle" includes a vehicle powered by a diesel engine, used for transporting removable waste containers, including, but not limited to, open boxes, dumpsters or compactors. "Diesel solid waste vehicle" includes a solid waste cab and solid waste single-unit vehicle.

<u>"Fine particle" means a particle emitted directly into the atmosphere from</u> <u>exhaust produced by the combustion of fuel and having an aerodynamic diameter of</u> 2.5 micrometers or less.

<u>"Fine particulate diesel emissions" means the emission of fine particles from</u> <u>an on-road diesel vehicle or from off-road diesel equipment.</u>

<u>"Fleet" means one or more on-road diesel vehicles or pieces of off-road diesel</u> <u>equipment.</u>

<u>"Fleet plan" means a fleet retrofit plan, combined fleet retrofit plan,</u> <u>combined fleet averaging plan or fleet averaging plan and any supplement or</u> <u>modification thereto.</u>

"g/bhp-hr" means grams per brake-horsepower hour.

<u>"Gross vehicle weight rating" or "GVWR" means the value specified by the</u> <u>vehicle manufacturer as the maximum loaded weight of a single or combination</u> <u>vehicle.</u>

"MVC" means the New Jersey Motor Vehicle Commission.

<u>"Notice of intent to comply" means notice by an owner of a regulated vehicle</u> or piece of regulated equipment to the Department that he or she intends to apply best available retrofit technology to comply with this subchapter.

<u>"Off-road diesel equipment" means any equipment or vehicle, powered by a</u> <u>diesel engine, that is used primarily for construction, loading, and other off-road</u> <u>purposes, and that is not commonly operated on a roadway except when used for</u> <u>roadway construction and repair. "Off-road diesel equipment" includes, but is not</u> <u>limited to, rollers, scrapers, excavators, rubber tire loaders, crawler/dozers, and offhighway trucks. "Off-road diesel equipment" also includes any equipment and vehicle that is not used primarily for transportation and is considered off-road equipment and vehicle, but are required to have "in-transit" plates issued by the MVC. "Off-road diesel equipment" does not include a boat or train, diesel construction truck, or any non-mobile equipment, such as a generator or pump.</u>

<u>"On-road diesel vehicle" means any vehicle, other than a private passenger</u> <u>automobile, that is powered by a diesel engine and operated on the roadways of the</u> <u>State, and includes, but is not limited to, a diesel bus, diesel-powered motor vehicle,</u> <u>and heavy-duty diesel truck as defined at N.J.S.A. 39:8-60.</u>

<u>"Owner" means any person who owns any on-road diesel vehicle or off-road</u> <u>diesel equipment subject to the provisions of this subchapter.</u>

<u>"Person" means an individual, public or private corporation, company,</u> <u>partnership, firm, association, society or joint stock company, municipality, state,</u> <u>interstate body, the United States, or any board, commission, employee, agent,</u> <u>officer or political subdivision of a state, an interstate body or the United States.</u> <u>"Person" expressly includes the Port Authority of New York and New Jersey, and</u> the South Jersey Port Corporation.

<u>"Private regulated commercial bus" means any regulated commercial bus</u> <u>not owned by the New Jersey Transit Corporation or any regulated commercial bus</u> <u>owned by the New Jersey Transit Corporation that is leased or operated by a</u> <u>provider of regulated commercial bus service other than the New Jersey Transit</u> <u>Corporation.</u>

<u>"Public regulated commercial bus" means a regulated commercial bus</u> owned and operated by the New Jersey Transit Corporation.

<u>"Regulated commercial bus" means a diesel bus, as defined at N.J.S.A. 39:8-</u> <u>60, that is registered and operating in the State, except that "regulated commercial bus" includes only regulated commercial buses with a gross vehicle weight rating in excess of 14,000 pounds, and does not include school buses.</u>

<u>"Regulated equipment" means any regulated off-road diesel equipment or</u> any piece of off-road diesel equipment that is required to use best available retrofit technology pursuant to an approved fleet averaging plan.

<u>"Regulated off-road diesel equipment" means any model year 1996 or newer</u> <u>off-road diesel equipment operated in the State that is owned by the State or any</u> <u>political subdivision thereof, or a county or municipality, or any political</u> <u>subdivision thereof, and that is equipped with a more than 175 horsepower engine.</u>

<u>"Regulated on-road diesel vehicle" means any on-road diesel vehicle</u> <u>registered in the State that is owned by the State or any political subdivision thereof,</u> <u>or a county or municipality, or any political subdivision thereof.</u>

<u>"Regulated school bus" means an in-service school bus that is originally</u> <u>designed to carry 10 or more passengers, powered by a diesel engine and owned by a</u> <u>school district, nonpublic school, or school bus contractor who has entered into a</u> <u>contract with a school district or a nonpublic school to transport children to and</u> <u>from a primary or secondary school in the States.</u>

<u>"Regulated solid waste vehicle" means any diesel solid waste vehicle</u> <u>registered in the State, that is owned by the State, or any political subdivision</u> <u>thereof, or a county or municipality or any political subdivision thereof, or that is</u> <u>owned by a person providing solid waste services with the vehicle pursuant to a</u> <u>contract with the State or any political subdivision thereof, or a county or</u> <u>municipality or any political subdivision thereof.</u>

<u>"Regulated vehicle" means any regulated commercial bus, regulated on-road</u> <u>diesel vehicle, regulated solid waste vehicle, or any on-road diesel vehicle registered</u> <u>in the State that is required to use best available retrofit technology pursuant to an</u> <u>approved fleet averaging plan.</u>

<u>"Responsible official" means responsible official as defined at N.J.A.C. 7:27-</u> <u>1.4.</u>

<u>"Retirement" means the relegation of a vehicle to service of less than 1,000</u> <u>miles per year, or the restriction of the use of a piece of off-road diesel equipment to</u> <u>less than 50 hours per year.</u>

<u>"Retrofit device" means a best available retrofit technology for installation</u> on an on-road diesel vehicle or on a piece of off-road diesel equipment.

"School bus" means a school bus as defined under N.J.S.A. 39:1-1.

"State Treasurer" means the Treasurer of the State of New Jersey.

<u>"Technology" means any equipment, device, or fuel used alone or in</u> <u>combination to achieve the reductions in emissions required for best available</u> <u>retrofit technology under this subchapter.</u>

"USEPA" means the United States Environmental Protection Agency.

7:27-32.2 Purpose

<u>This subchapter establishes a diesel retrofit program for a variety of on-road diesel</u> vehicles and off-road diesel equipment in order to reduce health risks by minimizing

the amount of diesel exhaust in the cabins of school buses, and lowering the levels of fine particulate diesel emissions emitted from regulated vehicles. This program requires the installation and use of closed crankcase ventilation systems on school buses, and the installation and use of best available retrofit technologies in dieselpowered commercial buses, solid waste vehicles, and publicly-owned on-road vehicles and off-road equipment.

7:27-32.3 Applicability

(a) This subchapter applies to any person who owns one or more regulated school buses, regulated vehicles or pieces of regulated equipment.

(b) This subchapter does not apply to any vehicle or equipment used on, or in the course of the operation of a farm, or for any agricultural purpose.

(c) <u>This subchapter does not apply to any regulated on-road diesel vehicle or</u> <u>regulated school bus certified by the USEPA or CARB to meet a particulate</u> <u>emissions standard of 0.01 g/bhp-hr, or any off-road diesel equipment rated from</u> <u>175 to 750 horsepower and certified by the USEPA or CARB to meet a particulate</u> <u>emissions standard of 0.015 g/bhp-hr, or any off-road diesel equipment rated above</u> <u>750 horsepower and certified to a particulate emissions standard of 0.03 g/bhp-hr</u> phased in from 2011 to 2015.

(d) <u>No authorized installer will be eligible for a reimbursement unless:</u>

1. <u>The authorized installer complies with the procurement processes under</u>

<u>Title 52 of the Revised Statutes and is on a State contract issued</u> <u>specifically for the purposes of this subchapter; or</u>

2. <u>The authorized installer is a State agency or political subdivision thereof</u>, <u>or a county or municipality, or political subdivision thereof</u>, and has an <u>agreement with the Department for reimbursement specifically for the</u> <u>purposes of this subchapter</u>.

7:27-32.4 Installation of closed crankcase ventilation systems required on regulated school buses

(a) This section does not apply to the owner of a regulated school bus that is scheduled to be retired from service pursuant to N.J.S.A. 39:3B-5.1 and 5.2 before (date two years after the Department publishes notice on its website that the Department has certified that sufficient monies are available in the Fund to reimburse for CCVSs).

(b) The owner of a regulated school bus shall have installed on the regulated school bus a CCVS in conformance with N.J.A.C. 7:27-32.5 no later than (date two years after the Department publishes notice on its website that the Department has certified that sufficient monies are available in the Fund to reimburse for CCVSs). No regulated school bus shall operate or transport children without complying with the provisions of this subchapter after (date two years after the Department

publishes notice on its website that the Department has certified that sufficient monies are available in the Fund to reimburse for CCVSs).

(c) If installation of a CCVS is incompatible with an individual regulated school bus, the owner shall notify the Department and include documentation detailing the reason why the CCVS cannot be installed on said school bus. If the Department determines that the owner's documentation supports the exemption of said school bus from the installation requirements of this section, it will issue a compliance form pursuant to N.J.A.C. 7:27-32.20 to the owner indicating the exemption. If the Department determines that the owner's documentation does not support the exemption of said school bus, the Department will issue a final determination requiring the installation of the CCVS.

(d) The owner of a regulated school bus shall, prior to installation, submit to the Department, for its approval, a cost estimate, developed in conjunction with an authorized installer, detailing the cost of any CCVS to be installed and any cost associated with the installation of the CCVS. The estimate will be on a form or in a format supplied by the Department. The Department will make a determination as to the reasonableness of the estimated costs, based upon prevailing market rates and/or the acquisition cost to the State of comparable technology, and will notify the owner of its determination. If the Department determines the estimated costs to be reasonable, the Department will so notify the owner and approve the purchase and installation of the CCVS. If the Department determines the estimated costs to be unreasonable, the Department will work with the owner of the regulated school bus

<u>to identify a mutually acceptable CCVS at reasonable cost.</u> If no mutually <u>acceptable agreement is reached, the Department will issue a final determination,</u> <u>identifying an alternate CCVS of reasonable cost or providing for an exemption.</u> <u>Once the Department has approved the cost estimate, the owner shall proceed with</u> <u>the installation of the CCVS.</u>

(e) Within five business days after the installation of the CCVS, the owner of a regulated school bus shall, for each regulated school bus, complete the original and submit to the Department a copy of the compliance form in accordance with N.J.A.C. 7:27-32.20(f). In accordance with N.J.A.C. 7:27-32.20(g), no later than 30 days after presenting the regulated school bus for inspection of the installation of the CCVS, as provided at N.J.A.C. 7:27-32.6, the owner shall submit to the Department an updated copy of the compliance form reflecting the results of the inspection.

7:27-32.5 Standards for installation and maintenance of closed crankcase ventilation systems

(a) The owner of a regulated school bus subject to N.J.A.C. 7:27-32.4 shall ensure that:

**<u>1.</u>** The installation of the CCVS is performed by an authorized installer;

2. The installation results in a CCVS with no open tubing from the crankcase ventilation system and no exhausting of crankcase gases, liquids or solids to the atmosphere;

3. Tubing or similar ducting material originates at the crankcase vent and is ducted to the engine air intake system or routed to an intermediary filtration system, and then to the engine air intake system; and 4. Each tube, duct, or pipe, or connection, leading from the crankcase vent to the terminal point in the air intake system, is closed and secure, as is each connection to an intermediary filter or drain line and its terminal point.

(b) The owner of a regulated school bus subject to N.J.A.C. 7:27-32.4 shall promptly repair any leak observed at any time during or after the installation of the CCVS. Such leaks may be indicated by oil residue at connection points or by visible <u>emissions from the CCVS.</u>

(c) The owner of a regulated school bus subject to N.J.A.C. 7:27-32.4 shall ensure that the CCVS is maintained and used in accordance with the manufacturer's instructions and shall make all repairs needed, including replacement of the system, to ensure the proper use and operation of the CCVS.

#### 7:27-32.6 Inspection of the closed crankcase ventilation system

(a) After installation of a closed crankcase ventilation system, the owner of a regulated school bus subject to N.J.A.C. 7:27-32.4 shall present the school bus for inspection at the next regularly scheduled semi-annual in-terminal inspection by the MVC's School Bus Inspection Unit in accordance with N.J.A.C. 13:20-30.15. At this inspection, the owner shall make available to the MVC inspector a copy of the compliance form submitted to the Department pursuant to N.J.A.C. 7:27-32.4(e), for

<u>use by the inspector in verifying compliance with the CCVS requirements at</u> N.J.A.C. 7:27-32.4 and 32.5.

(b) As part of the semi-annual in-terminal inspection, an inspector from the MVC school bus inspection unit will determine whether the CCVS is properly installed and will so indicate on the compliance form.

(c) If the inspector from the MVC school bus inspection unit is unable to confirm that a CCVS has been properly installed, the owner of the regulated school bus shall ensure the proper installation of a CCVS no later than (date two years after Department certifies sufficient monies are available in the Fund to reimburse for CCVSs)4, and shall have compliance verified at the next regularly scheduled semiannual in-terminal inspection after the installation of the CCVS.

#### 7:27-32.7 Retrofitting of regulated vehicles and regulated equipment

(a) Except as provided in (b) below, the owner of a regulated vehicle or regulated off-road diesel equipment shall comply with the requirements of this subchapter by ensuring, by the dates set forth at N.J.A.C. 7:27-32.18, that the regulated vehicle or regulated off-road diesel equipment has been retrofitted using BART, at emission reduction levels as described at N.J.A.C. 7:27-32.8.

(b) When the use of best available retrofit technology is not feasible for a particular regulated vehicle or regulated off-road diesel equipment, the owner of a regulated vehicle or regulated off-road diesel equipment shall comply with the requirements of this subchapter by developing:

1. A fleet retrofit plan or combined fleet retrofit plan in accordance with N.J.A.C. 7:27-32.14; or

2. A fleet averaging plan or combined fleet averaging plan in accordance with N.J.A.C. 7:27-32.15.

(c) One or more owners of regulated vehicles or regulated off-road diesel equipment may develop and submit to the Department a combined fleet retrofit plan that includes all of their regulated vehicles and regulated off-road diesel equipment.

(d) One or more owners of regulated vehicles or regulated equipment who qualify for the development of a fleet averaging plan pursuant to N.J.A.C. 7:27-32.15 may develop and submit to the Department a combined fleet averaging plan that includes <u>all the vehicles and equipment in their fleets.</u>

(e) Only an authorized installer may install best available retrofit technology, other than fuel.

(f) The owner of an on-road diesel vehicle or piece of off-road diesel equipment who installs a retrofit device under this subchapter shall ensure that the retrofit device is maintained and used in accordance with the manufacturer's instructions, including the use of ultra-low sulfur diesel fuel or other required fuels and shall make all repairs needed to ensure the proper use and operation of the retrofit device, including the replacement of the retrofit device.

(g) The owner of a vehicle or equipment to be retrofitted under this section may choose any BART that achieves the emission reductions at N.J.A.C. 7:27-32.8, provided:

1. The BART is appropriate for the equipment or vehicle to be retrofitted in that the equipment or vehicle has the characteristics described in the Executive Order or Verification Letter issued by CARB or the USEPA, respectively. These characteristics include, but are not limited to, required exhaust temperature profiles, existing emission controls installed upon the engine, engine model year, engine family, general engine condition, and the use to which the vehicle or equipment is put, such as "urban bus." Where the Executive Order or Verification Letter specifies exhaust contaminant criteria, emissions testing data available for specific engine families from the USEPA is available at http://www.epa.gov/otaq/certdata.htm and may be used for this purpose; and 2. The proper installation of the BART, in accordance with the manufacturer's instructions and specifications, is not compromised by the design configuration of the vehicle or the equipment.

(h) If successful installation or effective operation of BART is not possible due to deterioration, misuse or poor maintenance of the vehicle, engine or equipment, or modification of the vehicle, engine or equipment from the original equipment manufacturer's original configuration, then the owner shall, at his or her own expense, correct the condition that makes successful installation or effective operation impossible. Such conditions include, but are not limited to:

- 1. Excessive corrosion or debris;
- 2. <u>Deteriorated, damaged or modified exhaust system components;</u>
- 3. <u>Modification of the fuel system or emissions control system;</u>
- 4. <u>A dirty air filter; excessive blue or black smoke in the exhaust; excessive oil</u> <u>or coolant consumption; and</u>
- 5. Missing parts.

7:27-32.8 Emission reduction levels for regulated on-road diesel vehicles, regulated solid waste vehicles, regulated commercial buses and regulated off-road diesel equipment

(a) Except as set forth in (b) below, the owner of a vehicle or equipment that is subject to N.J.A.C. 7:27-32.7(a) or (b)1 shall ensure that the vehicle or equipment is retrofitted using BART no less stringent than the minimum BART level for that vehicle or equipment, as set forth in Tables 1 and 2 below.

# TABLE 1

## **BART Level by Vehicle and Equipment Type**

Vehicle or Equipment Type

Engine Model Minimum BART

<u>Year</u> <u>Level</u>

Commercial buses	<u>1994-2006</u>	BART 3
	<u>1988-1993</u>	<u>BART 2</u>
	<u>1987 and older</u>	BART 1
<u>Solid waste vehicle</u>	<u>1988-2006</u>	BART 2
	<u>1987 and older</u>	BART 1

<u>On-road vehicle other than a commercial bus</u> <u>2006 and older</u> <u>BART 2</u> <u>or solid waste vehicle</u>

Off-road equipment >175 horsepower1996 - 2014\*BART 3

<u>\* BART installation requirements do not apply to engines in this category that are</u> <u>rated from 175-750 horsepower and were certified to a particulate emissions</u> <u>standard of 0.015 g/bhp-hr, or rated above 750 horsepower and were certified to a</u> <u>particulate emissions standard of 0.03 g/bhp-hr phased in from 2011 to 2015.</u>

## TABLE 2

**Best Available Retrofit Technology Minimum Control** 

BART Level	Minimum Control Efficiency	
	(particulate emission reduction by weight)	
<u>3</u>	<u>85 percent</u>	
<u>2</u>	<u>50 percent</u>	
<u>1</u>	<u>25 percent</u>	

(b) The owner of a vehicle or equipment that is subject to N.J.A.C. 7:27-32.7(a) or (b)1 may repower or rebuild the engine in any on-road diesel vehicle or piece of offroad diesel equipment to achieve at least as great a particulate emission reduction by weight as the applicable BART level in Table 1. The repowered or rebuilt engine must be a certified configuration that meets a particulate emissions standard that is equal to or lower than the amount of diesel particulate emissions that would otherwise be emitted from the vehicle or equipment when using the required BART pursuant to N.J.A.C. 7:27-32.8(a). In the case of a repowered engine, the removed engine must be permanently placed out of service. Additionally, the manufacturer's brake horsepower rating for the repowered or rebuilt engine may exceed the brake horsepower rating of the existing engine by no more than 10 percent.

7:27-32.9 Warranty requirements for closed crankcase ventilation systems and retrofit devices

(a) Each closed crankcase ventilation system or BART must be accompanied by a warranty whereby the manufacturer and the installer warrant, at a minimum:

 To the owner of the regulated vehicle or piece of regulated equipment, the full repair and replacement cost of the BART, including parts and labor, if the BART fails to perform as verified;
 To the owner of the regulated school bus, regulated vehicle or piece of regulated equipment, the full repair and replacement cost of the CCVS or BART, including parts and labor, if the CCVS or BART contains defects in material or workmanship; and

3. To the owner of the regulated school bus, regulated vehicle or piece of regulated equipment, if the installation or use of the CCVS or BART damages the engine or the engine components of the vehicle or equipment, the cost to repair or replace engine components to return the engine components of the affected vehicle or equipment to the condition they were in prior to damage caused by the CCVS or BART.

(b) The warranty for the CCVS or BART will run for the minimum periods shown in Table 3 below, provided the operation of and conditions of use for the vehicle, equipment, engine, and best available retrofit technology conform with the operation and conditions specified in the Executive Order issued by CARB or the Verification Letter issued by the USEPA.

(c) The repair or replacement of any warranted part otherwise eligible for warranty coverage may be excluded from warranty coverage if the BART, vehicle, equipment or engine has been abused, neglected, or improperly maintained, and such abuse, neglect or improper maintenance directly caused the need for the repair or

#### replacement of the part.

(d) Failure of the owner of the vehicle, equipment or engine to perform scheduled maintenance or to keep maintenance records for the vehicle, equipment, engine or best available retrofit technology may, but shall not, per se, be grounds for disallowing a warranty claim.

## Table 3

## **Minimum Warranty Periods**

Engine	Engine Size	<u>Minimum Warranty</u>		
Type		<u>Period</u>		
	<u>70 to 170 horsepower, GVWR ≤ 19,500</u>	<u>Five years or 60,000 miles</u>		
	pounds.			
	<u>170 to 250 horsepower, GVWR ≥</u>	<u>Five years or 100,000</u>		
	<u>19,500 pounds and ≤ 33,000 pounds.</u>	<u>miles</u>		
	<u>170 to 250 horsepower, GVWR &gt;</u>	<u>Five years or 150,000</u>		
	<u>33,000 pounds.</u>	miles		
<u>On-road</u>	>250 horsepower, GVWR > 33,000			

use	pounds, and the truck is:	Two	years,	unlimited
	1. <u>Typically driven more than 100,000</u>	<u>miles</u>		
	miles per year and			
	2. <u>Has fewer than 300,000 miles on the</u>			
	odometer at the time of installation			
<u>Off-road</u>				

<u>use</u>  $\geq$  50 horsepower

Five years or 4,200 hours

(e) The owner's manual for the CCVS or BART installed pursuant to the requirements of this subchapter must include a statement describing the warranty coverage required in this section. The owner's manual may also include a description of circumstances that may result in a denial of warranty coverage, but this description shall not be used to limit warranty coverage in any way.

(f) The authorized installer of a CCVS or BART installed pursuant to the requirements of this subchapter shall provide the owner of the regulated vehicle, piece of regulated equipment or school bus with a copy of the installation warranty coverage.

## 7:27-32.10 Labeling of retrofit devices

(a) Each retrofit device sold or installed pursuant to this subchapter must be labeled with a legible and durable label affixed to a conspicuous location on the engine or engine compartment and on the retrofit device so that it can be easily read and understood during daylight without the assistance of artificial lighting or reflective devices. The label must provide a unique identification number to be matched to the specific retrofit device and the specific vehicle required to use the retrofit device.

(b) At a minimum, any retrofit label affixed pursuant to (a) above must include:

1. The name, address, and phone number of the manufacturer;

2. A unique serial number;

3. The month and year of manufacture. The month and year of manufacture are not required on the label if the manufacturer of the retrofit device provides or encodes this information in the serial number; and

4. The retrofit device family name, as described at (c) below.

(c) The installer of a retrofit device installed pursuant to this subchapter shall assign a retrofit device family name to each retrofit device in the following format:

## CA or US/MMM/YYYY/BART#/APP/XXXXX;

where:

<u>CA designates a retrofit device verified solely by CARB or by both CARB</u> and the USEPA, and US designates a retrofit device verified solely by the <u>USEPA</u>;

<u>MMM designates and is to be replaced by the manufacturer code. For a</u> <u>retrofit device verified by CARB, MMM will be replaced by the</u> <u>manufacturer code assigned by the CARB Executive Officer; for a retrofit</u> <u>device verified by the USEPA, the MMM will be replaced by three zeroes</u> (000);

YYYY designates and is to be replaced by the year of verification;

**BART#** designates and is to be replaced by the BART level of the retrofit device by replacing the pound sign (#) with the number of the BART level;

<u>APP designates and is to be replaced by the application for which the retrofit</u> <u>device has been verified by CARB or the USEPA. The verified application</u> <u>may include a combination of on-road (ON), off-road (OF) or stationary</u> (ST); and

XXXXX designates and, for a retrofit device verified by CARB, is to be replaced by the five alphanumeric character code issued by the CARB

Executive Officer; for a retrofit device verified by the USEPA, the XXXXX

will be replaced by five zeroes (00000).

7:27-32.11 Best available retrofit technology eligible for reimbursement

(a) In order to be eligible for purchase and installation cost reimbursement, a

CCVS or retrofit device must be

1. Covered by a warranty in accordance with N.J.A.C. 7:27-32.9;

2. Labeled in accordance with N.J.A.C. 7:27-32.10; and

3. Installed by an authorized installer.

(b) In addition to the cost of purchasing and installing a CCVS or retrofit device, the following costs are eligible for reimbursement:

**<u>1. The initial purchase and installation costs of ancillary components necessary</u>** for the daily operation of the retrofit device; and

2. The cost of rebuilding or repowering the engine of a regulated vehicle or piece of regulated off-road diesel equipment in lieu of using BART pursuant to N.J.A.C. 7:27-32.8(b), up to an amount equal to the cost of purchase and installation of the required BART pursuant to N.J.A.C. 7:27-32.8(a), but only to the extent that money has been appropriated by the New Jersey Legislature for the purpose of reimbursing such rebuilding or repowering.

(c) Costs that are ineligible for reimbursement include the costs of fuel, fuel additives and other expenses not necessary to the daily operation of the retrofit device including periodic maintenance costs, external regeneration systems, and

<u>facility upgrades.</u> The cost of replacing or repairing a CCVS or retrofit device is <u>ineligible for reimbursement.</u>

<u>7:27-32.12</u> Required submissions by owner of regulated vehicles and regulated offroad diesel equipment

(a) Except as otherwise provided in this section, the owner of a regulated vehicle or a piece of regulated off-road diesel equipment shall, prior to purchasing and installing a retrofit device in compliance with N.J.A.C. 7:27-32.7, complete and submit electronically to the Department, on a form supplied by the Department, the following:

**<u>1.</u>** An inventory of all on-road diesel vehicles and off-road diesel equipment owned, operated, or leased by the owner;

2. Identification of the chosen method of compliance for the vehicles and equipment in the inventory that are subject to the retrofit requirements at N.J.A.C. 7:27-32.7 by the following:

i. Including on the inventory, for each regulated vehicle or regulated piece of equipment, a notice of intent to comply; or

ii. Submitting a fleet plan, for review and approval by the Department, if one or more of the regulated vehicles or regulated equipment in the fleet cannot comply through the use of the best available retrofit technologies as

designated and provided for at N.J.A.C. 7:27-32.8. A fleet plan must include a justification for each regulated vehicle or regulated equipment not meeting the minimum BART level requirements of N.J.A.C. 7:27-32.8. A fleet plan shall be developed in accordance with N.J.A.C. 7:27-32.14 and 15, as applicable; and

3. A cost estimate, developed in conjunction with an authorized installer, detailing the cost of any retrofit device and any cost associated with the installation of that retrofit device for review and approval or disapproval in accordance with N.J.A.C. 7:27-32.17(d). The estimate will be on a form or in a format supplied by the Department.

(b) The owner of a regulated vehicle or regulated equipment shall make the submittals required pursuant to (a) above in accordance with the following schedule:

**1.** For regulated solid waste vehicles, no later than (180 days after the operative date of these rules);

2. For public regulated commercial buses, no later than (one year after the operative date of these rules):

3. For private regulated commercial buses, no later than (one year and 180 days after the operative date of these rules), except that no owner of a private regulated commercial bus will be required to comply with this deadline until the

owner of public regulated commercial buses has made its submittal. The Department will, on or before (one year and 120 days after the operative date of these rules), place notice on its website at http://www.state.nj.us/dep/stopthesoot/ of any change to the (one year and 180 days after the operative date of these rules) deadline, and shall extend the deadline by no fewer than 60 days; and

4. For regulated on-road diesel vehicles and regulated equipment, other than regulated solid waste vehicles and regulated commercial buses, no later than {four years after the operative date of these rules}.

(c) The owner of a regulated vehicle or regulated equipment who commences operation of a fleet after (the operative date of this subchapter) shall submit the documents in (a) above, within 180 days after the date on which operation commenced, or by the applicable date in (b)1 through 4 above, whichever is later.

<u>(d) Forms and information may be obtained by contacting the Department at (609)</u> <u>292-3600 or visiting the Department's website at</u> <u>http://www.state.nj.us/dep/stopthesoot.</u>

(e) The owner of a regulated vehicle or piece of regulated off-road diesel equipment shall also submit annual supplements and modifications to notices of intent to comply and fleet plans, pursuant to N.J.A.C. 7:27-32.19, and, after the installation

of the retrofit device, a copy of the compliance form, pursuant to N.J.A.C. 7:27-

<u>32.20.</u>

# 7:27-32.13 Required contents of an inventory

(a) An inventory submitted pursuant to N.J.A.C. 7:27-32.12 must include, for

each on-road diesel vehicle and off-road diesel piece of equipment:

- 1. The name of the owner or owners;
- 2. The owner's address;
- 3. The base of operations for the regulated equipment or regulated vehicle;
- 4. The owner's telephone number;
- 5. The VIN/serial number of the vehicle or piece of equipment;
- 6. The license plate number of the vehicle;
- 7. The model year of the chassis;
- 8. The USEPA engine family, obtained from the Vehicle Emissions Control

Information label in the engine compartment;

- 9. The engine manufacturer;
- **10. The model year of the engine;**
- **<u>11. The engine horsepower;</u>**

12. A description of the on-road diesel vehicle or off-road diesel equipment;

13. The GVWR of the vehicle;

14. Whether the vehicle or piece of equipment will be retired within the next five

<u>years;</u>

15. Whether the vehicle or piece of equipment is a regulated vehicle, regulated equipment, on-road vehicle, off-road equipment;

16. The method of compliance (notice of intent to comply, fleet plan or other method):

**17. Whether the owner retrofitted the vehicle or piece of equipment before** <u>required to do so by this subchapter; and</u>

18. The minimum applicable BART level at N.J.A.C. 7:27-32.8.

7:27-32.14 Required elements of a fleet retrofit plan and combined fleet retrofit plan (a) An owner submitting a fleet retrofit plan or combined fleet retrofit plan pursuant to N.J.A.C. 7:27-32.7(b) shall include, for each regulated vehicle or piece of regulated equipment, either:

**<u>1. A description of the best available retrofit technology that will be used, as</u>** <u>**determined by the owner pursuant to N.J.A.C. 7:27-32.8; or**</u>

2. Documentation indicating that the BART level indicated at N.J.A.C. 7:27-32.8 is not feasible for the specific regulated vehicle or piece of regulated equipment. The owner shall request approval from the Department to use the next most stringent level of best available retrofit technology feasible to meet the requirement for that vehicle or piece of equipment. Where the owner has determined that no BART level is feasible for the specific regulated vehicle or piece of regulated equipment, the owner may provide justification and request

approval by the Department to be exempted from the retrofit requirements of this subchapter for that vehicle or piece of equipment.

(b) As an alternative to seeking approval from the Department to install a retrofit device at a lower BART level or to be exempted from the retrofit requirement as provided at (a) above, the owner of a regulated vehicle or piece of regulated equipment who has determined that the BART as required under N.J.A.C. 7:27-32.8 is not feasible for the regulated vehicle or piece of regulated equipment may, but is not required to:

**1.** Retire through reduced usage or removal from service the regulated vehicle or piece of regulated equipment and replace it with a vehicle or piece of equipment certified to particulate emission levels at or below the emission level that would have been achieved by the use of the required best available retrofit technology; or

2. Repower or rebuild the engine of the vehicle or the equipment in accordance with N.J.A.C. 7:27-32.8(b) for the vehicle.

(c) An owner who acts in accordance with (b) above shall maintain records of the retirement of the vehicle or equipment or permanent removal of the engine, in accordance with the recordkeeping requirements of N.J.A.C. 7:27-32.22. Any exceedance in usage of a retired vehicle or equipment will require additional control measures in the fleet plan or the application of best available retrofit technology to the retired vehicle or equipment.

(d) A combined fleet plan must include a statement, certified in accordance with N.J.A.C. 7:27-1.39, from the responsible official at each organization participating in the combined fleet plan, acknowledging that the responsible official is jointly and severally liable with each other party to the combined fleet plan if any party fails to comply with the combined fleet plan.

### 7:27-32.15 Use of a fleet averaging plan

(a) The owner of 75 or more regulated vehicles or pieces of regulated equipment, or any group of owners who elect to develop a combined fleet retrofit plan pursuant to N.J.A.C. 7:27-32.7(b) that would include 75 or more regulated vehicles or pieces of regulated equipment, may propose to the Department a fleet averaging plan, in lieu of a fleet retrofit plan or a combined fleet retrofit plan, for the fleet or fleets affected, subject to (b) below.

(b) The owner or group of owners described in (a) may propose a fleet averaging plan, provided that the total net percent reductions in diesel particulate emissions under the proposed fleet averaging plan are greater than or equal to the estimated reductions in particulate emissions that would have been achieved by the owner or group of owners if a fleet retrofit plan or combined fleet retrofit plan were submitted and implemented for the regulated vehicles or regulated equipment, or both, as calculated pursuant to N.J.A.C. 7:27-32.16. The owner or group of owners

<u>vehicle, off-road diesel equipment, regulated vehicle, or regulated equipment owned</u> <u>by the owner or group of owners, or the retirement of any of those vehicles or</u> <u>equipment, and shall submit the proposed fleet averaging plan to the Department in</u> <u>accordance with N.J.A.C. 7:27-32.16.</u>

## 7:27-32.16 Required elements of a fleet averaging plan

(a) A fleet averaging plan must contain documentation demonstrating that use of BART to meet N.J.A.C. 7:27-32.8 is not feasible for one or more regulated vehicles or pieces of regulated equipment in the fleet or combined fleet. Such documentation must be provided for each vehicle or piece of equipment for which it is infeasible to meet the required emission reduction at N.J.A.C. 7:27-32.8.

(b) A fleet averaging plan may contain a proposal to install and use one or more retrofit devices, or to retire, or repower through replacement or rebuild the engine to a certified configuration that meets a more stringent particulate emission standard, any regulated vehicle or piece of regulated equipment, or any on-road diesel vehicle or off-road diesel equipment not otherwise required to be retrofitted by the provisions of this subchapter.

(c) A fleet averaging plan or combined fleet averaging plan must describe:

**1.** How the plan will achieve the required particulate reductions through a combination of the use of best available retrofit technology, retirement, and engine repower or rebuilding, of the specific vehicles or equipment;

2. The alternative measures or applications, if any, of best available retrofit technology including, but not limited to, use of a less stringent best available retrofit technology level, repowering or rebuilding pursuant N.J.A.C. 7:27-32.8(b), or the retiring of vehicles or equipment; and

3. The remedial measures the owner will take if the total actual diesel particulate emissions reduction is less than the particulate emissions reduction in the approved fleet averaging plan.

(d) A fleet averaging plan or combined fleet averaging plan must include:

**1.** The inventory of all on-road diesel vehicles, off-road diesel equipment, regulated vehicles, or regulated equipment owned by the owner or group of owners to be included in the plan;

2. A description of the retrofit device to be installed and used on each on-road diesel vehicle, off-road diesel equipment, regulated vehicle, or regulated equipment owned by the owner or group of owners;

3. An estimate, developed in conjunction with an authorized installer, of the cost of any retrofit device and any cost associated with the installation of that retrofit device:

4. A demonstration that the fleet averaging plan will yield an annual diesel particulate emissions reduction that is equal to or greater than the reductions that would be achieved if the regulated vehicles or regulated equipment complied with the requirements set forth in 7:27-32.7(b)1. This demonstration will be based on:

i. A calculation of the reduction of fine particulate diesel emissions from the regulated vehicles and regulated off-road equipment in the fleet that would have occurred through the implementation of a fleet retrofit plan. This calculation must be conducted using the most recent guidance from the USEPA for quantifying and using the benefits of diesel retrofits. The calculations must clearly list the regulated vehicle or regulated equipment's annual fine particulate diesel emissions as the result of operating with and without best available retrofit technology for the calendar year when the plan is required to be submitted to the Department. Emissions reductions shall be reported in pounds of fine particulate diesel emissions reduced per calendar year; and

ii. A calculation of the reduction of fine particulate diesel emissions from the vehicles and equipment subject to the fleet averaging plan. This

calculation must be conducted using the most recent guidance from the USEPA for quantifying and using the benefits of diesel retrofits and must clearly list the on-road vehicle or off-road equipment's annual fine particulate diesel emissions as result of operating with and without the strategies identified in the fleet averaging plan for the calendar year when the plan is required to be submitted to the Department. Emissions reductions shall be reported in pounds of fine particulate diesel emissions reduced per calendar year; and

5. A demonstration that the reimbursement cost associated with the fleet averaging plan would not exceed the cost associated with retrofitting the regulated vehicles or regulated equipment in compliance with the requirements set forth at N.J.A.C. 7:27-32.7(b)1.

(e) Any of the following emission control strategies can be used as an element of a fleet averaging plan:

**<u>1. A retrofit device or fuel strategy that the USEPA lists as a Verified Retrofit</u>** <u>Strategy under the Voluntary Diesel Retrofit Program;</u>

2. A retrofit device or fuel strategy that CARB lists as a verified Diesel Emissions Control Strategy;

3. Repowering of a vehicle or equipment engine with a replacement or rebuilding to a different configuration that the USEPA or CARB has certified to a more stringent particulate emissions standard than the existing engine; or

4. Entering into an enforceable agreement with the Department to retire an onroad diesel vehicle or off-road diesel equipment.

(f) A fleet averaging plan cannot limit the use of a vehicle or equipment, other than by retirement, as a means of reducing emissions.

(g) A combined fleet averaging plan must include a statement certified in accordance with N.J.A.C. 7:27-1.39 from the responsible official within each organization, responsible for the activities of the fleet, acknowledging that the responsible official is jointly and severally liable for the failure to comply with the combined fleet averaging plan of any other party or parties to the combined fleet averaging plan.

### 7:27-32.17 Department review of fleet plans and notice of intent to comply

(a) The Department will use its best efforts to give the highest priority to the review of fleet retrofit plans for fleets that service or have a base of operation within two miles of an urban center or urban complex, as designated by the State Planning <u>Commission.</u>

(b) The Department will review, and either approve or disapprove each part of any fleet plan submitted pursuant to N.J.A.C 7:27-32.14, 32.16 and (c)2 below. If the Department determines that parts of a fleet plan are severable, it shall approve those portions of the fleet plan that comply with this subchapter.

(c) In such a case, the Department shall, prior to the final approval of the other parts of the fleet plan, require the owner of the regulated vehicles or regulated equipment to comply with the approved part or parts of the fleet plan, and:

**<u>1. Direct the owner to comply with the approved part or parts of the fleet plan</u> <b>prior to final approval of other parts of the fleet plan; or** 

2. In the case of a fleet averaging plan, determine that the owner or the group of owners cannot comply with the emission reduction requirements of N.J.A.C. 7:27-32.15 by implementing the proposed fleet averaging plan, and shall require the owner to submit a fleet retrofit plan, or the group of owners of the fleets to submit a combined fleet retrofit plan or individual fleet retrofit plans.

(d) The Department will make a determination as to the reasonableness of the estimated costs submitted to the Department pursuant to N.J.A.C. 7:27-32.12(a)3 or 32.16(d)3, based upon prevailing market rates and/or the acquisition cost to the State of comparable technology, and will notify the owner of its determination. If the Department determines the estimated costs to be reasonable, the Department will so notify the owner and approve the purchase and installation of the retrofit device. If the Department determines the estimated costs to be unreasonable, the Department will negotiate with the owner to identify a mutually acceptable retrofit device of reasonable cost. If no mutually acceptable agreement is reached the Department will issue a final disapproval of the notice of intent to comply or the fleet plan.

(e) The Department will provide each affected owner with a written copy of any determination made or requirement established pursuant to (b) above.

(f) If the Department requires submission of a fleet retrofit plan or plans as provided by (c)2 above, it will issue a modified timetable for the submittal of a fleet retrofit plan for the regulated vehicles or regulated equipment, a combined fleet retrofit plan for the group of owners, or individual fleet retrofit plans for the owners in the group. The submittal date will be no earlier than 180 days after the date of the determination pursuant to (c)2 above. The Department will review, approve or disapprove any fleet retrofit plan or plans or combined fleet retrofit plan in accordance with (b) above, submitted in accordance with this modified timetable.

(g) The Department will provide an explanation to the owner indicating the deficiencies of any disapproved fleet plan, or part thereof, and the Department's recommendations regarding the correction of the deficiencies.

(h) During the review process or prior to final approval of a fleet plan, or the part thereof in question, the Department may contact and negotiate with the owner to resolve discrepancies between the requirements of this subchapter, the submitted fleet plan, and any requests by the owner for alternatives pursuant to N.J.A.C. 7:27-32.16.

(i) The owner or a group of owners whose fleet plan or any part thereof is disapproved by the Department shall make the recommended revisions to the

disapproved fleet plan, or the disapproved part thereof, and submit a final revised fleet plan, or the final revised part thereof to the Department within 60 days after the receipt of the disapproval notification from the Department.

(j) If the Department takes no further action within 30 days after receipt of the final revised fleet plan, or the final revised part that the Department previously disapproved, the fleet plan, or the part that had been disapproved and revised, will be deemed approved and in effect.

(k) If the Department finds within 30 days after the receipt of the final revised fleet plan that the owner has not complied with the recommended revisions, the Department will take such further action necessary to obtain compliance with this subchapter, but the plan will be in effect 30 days following the receipt of the final revised plan, or part thereof.

(1) In applying the fleet plan requirements of this subchapter, the Department will deem compliant with the retrofit installation requirements of this subchapter any regulated school bus, regulated vehicle or regulated equipment for which an owner had, before (the operative date of the rule), acted, under the terms of a grant or an enforceable agreement from the Department or the USEPA, to voluntarily retrofit, retire, or repower the regulated vehicle or regulated off-road equipment.

(m) In applying the fleet plan requirements of this subchapter to any actions or efforts by the New Jersey Transit Corporation, prior to the submittal of a fleet plan

to reduce fine particulate diesel emissions by voluntarily retrofitting, retiring, or repowering any regulated vehicle or regulated off-road equipment in its fleet, the Department will deem as compliant with the retrofit installation requirements of this subchapter any such actions or efforts by the New Jersey Transit Corporation.

(n) Upon the date of the Department's final approval of the fleet plan, or any part thereof, the owner will be subject to the provisions of the approved fleet plan, or any approved part thereof, and will be required to comply with these provisions on or after the final approval date or the date on or by which certification of funds in accordance with N.J.S.A. 26:2C-8.34 has occurred, whichever is later.

(o) The Department will notify the owner of a regulated vehicle or regulated equipment in writing of its approval of a fleet plan or parts thereof.

#### 7:27-32.18 Deadline for the installation of retrofit technology

(a) The owner of a regulated on-road diesel vehicle, regulated solid waste vehicle, regulated commercial bus or piece of regulated off-road diesel equipment, or any combination thereof, shall ensure the installation and use of a retrofit device on each vehicle and equipment as required by a notice of intent to comply, or a fleet plan, as applicable, as follows:

**1.** For a fleet of fewer than 75 vehicles or pieces of equipment to be retrofitted, within 120 days of notice of receipt by the Department of the notice of intent to

<u>comply, approval of the fleet plan or the certification of funds in accordance</u> <u>with N.J.S.A. 26:2C-8.34, whichever is later;</u>

2. For a fleet of at least 75 but no more than 150 vehicles or pieces of equipment to be retrofitted, within 180 days of notice of receipt by the Department of the notice of intent to comply, approval of the fleet plan or the certification of funds in accordance with N.J.S.A. 26:2C-8.34, whichever is later; and

3. For a fleet of more than 150 vehicles or pieces of equipment to be retrofitted, within 270 days of notice of receipt by the Department of the notice of intent to comply, approval of the fleet plan or the certification of funds in accordance with N.J.S.A. 26:2C-8.34, whichever is later.

(b) The owner of a regulated vehicle or piece of regulated equipment subject to the installation timeframes in this section may request an extension of time within which to comply by notifying the Department in writing at least 10 business days prior to the installation deadline as determined pursuant to (a) above. This request must include the reasons for the delay in compliance and specify a date certain for the completion of the installation. The Department shall approve or disapprove the extension request and will notify the owner in writing of its decision. The Department will consider extending timeframes for delays beyond the control of the owner such as supply issues, scheduling issues, correction of defects in vehicle and data logging collection.

(c) The owner of a private regulated commercial bus shall install and begin using retrofit devices on a private regulated commercial bus no later than 180 days

after the owners of public regulated commercial buses have been required to install and have begun using retrofit devices on public regulated commercial buses.

(d) Within five business days after the installation of the retrofit device, the owner shall, for each regulated on-road diesel vehicle, regulated solid waste vehicle, regulated commercial bus or regulated off-road diesel equipment or any combination thereof, complete the original and submit to the Department a copy of the compliance form in accordance with N.J.A.C. 7:27-32.20. Submission of the compliance form shall precede the inspection of the installation of the retrofit device addressed at N.J.A.C. 7:27-32.21 and the application for reimbursement of the installer addressed at N.J.A.C. 7:27-32.24.

### 7:27-32.19 Annual supplements and annual modifications

(a) The date on which all parts of a fleet plan have been approved and are in effect will serve as the anniversary date of the fleet plan approval.

(b) The date on which the Department receives a notice of intent to comply will serve as the anniversary date of the notice.

(c) Every year, each owner of a regulated vehicle or regulated equipment shall submit a supplement to the notice of intent to comply, fleet retrofit plan or combined fleet retrofit plan, or a modification of the fleet averaging plan or combined fleet averaging plan, as applicable, indicating any changes made to the

fleet not reflected in the preceding plan, modification or supplement or indicating that there have been no such changes to the fleet. The owner shall submit this supplement or modification on whichever of the following events occurs later:

1. The anniversary date of the notice of intent to comply or fleet plan; or

2. Ninety days after the Department approves the notice of intent to comply, fleet plan, or most recent supplement or modification thereto, as applicable.

(d) A supplement or modification submitted pursuant to (c) above must include:

**1.** An update of the material and information required at N.J.A.C. 7:27-32.12(a), including relevant supporting documentation, as described at (d)2, 3 and 4 below, submitted electronically on forms supplied by the Department;

2. Inventory information pursuant to N.J.A.C. 7:27-32.13 for any on-road diesel vehicles or off-road diesel equipment owned, operated, or leased by the owner added to or removed from the fleet since the submission of the notice of intent to comply, fleet plan, or the most recent supplement or modification thereto;

3. <u>For any regulated vehicles or regulated equipment added to the fleet, a</u> <u>description of the method of compliance consistent with N.J.A.C. 7:27-32.7 to</u> <u>indicate what best available retrofit technology will be used and the specific</u> <u>vehicle or piece of equipment on which the specific best available retrofit</u> <u>technology will be used or, to indicate that the best available retrofit technology</u> will not be used and that the owner will submit a fleet plan; and

- 4. For any regulated vehicles or regulated equipment removed from the fleet:
  - i. <u>An explanation of how the change to the fleet will affect the fleet</u> <u>averaging plan; or an explanation of how the change to the fleet will allow</u> <u>the owner to submit a notice of intent to comply instead of a fleet plan, or</u> <u>a fleet retrofit plan instead of a fleet averaging plan; and</u>
  - ii. <u>An indication that the owner will accordingly submit a notice of intent to</u> <u>comply or a fleet retrofit plan.</u>

(e) An owner who originally submitted a notice of intent to comply, and who adds a vehicle or equipment to the fleet for which the use of BART is not feasible, shall submit a fleet plan for review and approval by the Department, in accordance with N.J.A.C. 7:27-32.14 or 32.16, as applicable.

(f) A modification to a fleet averaging plan submitted pursuant to (c) above must also include:

1. A demonstration in accordance with N.J.A.C. 7:27-32.16(d)4;

2. In the event the fleet averaging plan has not been completely implemented, a demonstration of the actual environmental benefit obtained by the part of the plan that was implemented, using the methodology in N.J.A.C. 7:27-32.16(d)4. This demonstration must include a calculation of the difference between the predicted and actual environmental benefit; and

3. The remedial measures the owner will take if the actual particulate emissions reduction demonstrated pursuant to (f)2 above is less than the particulate emissions reduction in the approved fleet averaging plan, including a timetable for the completion of the remedial measures.

(g) The Department will review and approve or disapprove each part of the supplement to a fleet plan or the modification of a fleet averaging plan no later than one year after the Department receives it. If the Department determines that parts of a supplement or modification are severable, it shall approve those portions of the supplement or modification that comply with this subchapter. In such a case, the Department shall, prior to the final approval of the other parts of the supplement or the modification, require the owner of the regulated vehicles or regulated equipment to comply with the approved part or parts of the supplement or modification.

(h) The Department will provide a detailed explanation to the fleet owner or operator indicating the deficiencies of a disapproved supplement or modification, or part thereof, including the Department's recommendations as to how the deficiencies could be corrected.

(i) The owner or group of owners who receive disapproval of a supplement, modification, or a part thereof, submitted pursuant to (c) above, shall, within 60 days of receiving the notice of disapproval, revise the supplement, modification, or part thereof, and submit the final revised supplement, modification, or part.

(i) If the Department does not take further action within 30 days after receipt of the final revised supplement, modification, or part thereof submitted pursuant to (i) above, the supplement, modification, or revised part shall be deemed approved and in effect.

(k) If within 30 days after receipt of the final revised supplement, modification, or part thereof submitted pursuant to (i) above the Department finds that that the owner or group of owners has not corrected the deficiencies in the disapproved supplement, modification or part thereof, the Department will take such further action as is necessary to obtain compliance with this subchapter, but the supplement or modification will be in effect 30 days after receipt of the final revised supplement or modification.

(*l*) Except as is provided at (i) above, the owner shall be subject to the provisions of the fleet retrofit plan or combined fleet retrofit plan, and the supplement thereto, or the fleet averaging plan and the modification thereto, upon the date of final approval of the applicable part, and the effective date of the final supplement or <u>modification.</u>

### 7:27-32.20 Issuance and completion of compliance forms

(a) The Department will notify the owner of a regulated school bus, regulated vehicle or piece of regulated equipment of the availability of a one-page compliance

form for each vehicle or piece of equipment for which the installation of a CCVS or BART is required. The compliance form will be available through the Department's website at http://www.state.nj.us/dep/stopthesoot.

(b) The Department will make the compliance form for regulated school buses available after it has certified, pursuant to N.J.S.A. 26:2C-8.28c(3)(b), that sufficient funds are available for the installation of the required CCVSs.

(c) The Department will make the compliance form for an on-road diesel vehicle other than a regulated school bus or piece of off-road diesel equipment available no later than 180 days after:

1. The date on which the owner submits a notice of intent to comply pursuant to N.J.A.C. 7:27-32.7;

2. The effective date of the fleet plan pursuant to N.J.A.C. 7:27-32.17; or

3. The effective date of any supplement or modification submitted pursuant to N.J.A.C. 7:27-32.19 for those vehicles that are added to the fleet, or for which the notice of intent to comply or fleet plan has been modified.

(d) The owner of a regulated school bus shall provide the following information on the compliance form:

1. The owner's name and business address;

2. The vehicle identification number (VIN);

3. A statement by the owner, certified in accordance with N.J.A.C. 7:27-1.39, that any required CCVS has been installed and the installation date:

4. The purchase and installation cost of the CCVS and a statement by the owner explaining any difference between this cost and the estimated cost provided pursuant to N.J.A.C. 7:27-32.4(d); and

5. A statement by the inspector, certified in accordance with N.J.A.C. 7:27-1.39, that the CCVS installation requirement has been met in accordance with the inspection procedure at N.J.A.C. 7:27-32.6.

(e) The owner of a regulated vehicle or piece of regulated equipment shall provide the following information on the compliance form:

1. The owner's name and business address;

2. The vehicle identification number (VIN) for the regulated vehicle or the serial number for the piece of regulated equipment required to install BART;

3. A description of the BART to be used by the specific regulated vehicle or piece of regulated equipment or the corresponding requirements of the approved fleet plan;

4. The retrofit device family name and serial number;

5. A statement by the owner, certified in accordance with N.J.A.C. 7:27-1.39, that any required retrofit devices have been installed, and the installation date;

6. The purchase and installation cost of the retrofit device and a statement by the owner explaining any difference between this cost and the estimated cost provided pursuant to N.J.A.C. 7:27-32.12(a)3 or N.J.A.C. 7:27-32.16(d)3; and 7. A statement by the inspector, certified in accordance with N.J.A.C. 7:27-1.39,

that the retrofit requirement has been met in accordance with the inspection procedure at N.J.A.C. 7:27-32.21.

(f) Within five business days after installing a CCVS or retrofit device, the owner of a regulated school bus, regulated vehicle or piece of regulated equipment shall complete the original and submit to the Department a copy of the compliance form for the vehicle or piece of equipment, as described at (d)1 through 4 and (e)1 through 6 above, to demonstrate compliance with the requirements of this subchapter.

(g) No later than 30 days after the one-time compliance inspection required by N.J.A.C. 7:27-32.21, or the inspection of the CCVS pursuant to N.J.A.C. 7:27-32.6, the owner shall add the information required by (d)5 or (e)7 above, as applicable, to the compliance form and submit a copy of the updated form to the Department.

(h) The owner shall keep a copy of the compliance form, completed in accordance with (f) and (g) above, with the vehicle or piece of equipment for which it was issued and shall maintain the original updated compliance form at the owner's place of business, as provided at N.J.A.C. 7:27-32.22(d).

#### 7:27-32.21 One-time compliance inspection

(a) As soon as practicable, but no later than 90 days after meeting the requirements of N.J.A.C. 7:27-32.18, the owner of any vehicle retrofitted under the provisions of this subchapter that is not required to be inspected under the periodic inspection program shall have the vehicle inspected by a licensed diesel emissions inspection center for the presence of the required retrofit device and compliance with the requirement described on the compliance form issued pursuant to N.J.A.C. 7:27-32.20. In the case of an owner who is authorized under N.J.A.C. 39:8-69 to selfinspect his or her vehicles, the owner shall perform this inspection no later than one year after installation of the retrofit device and provide the certification required on the compliance form.

(b) For any retrofitted vehicle that is subject to inspection under the periodic inspection program, the owner, after complying with the installation provisions of this subchapter, shall have the regulated vehicle inspected for compliance with this subchapter as soon as practicable after completing and submitting the compliance form pursuant to N.J.A.C. 7:27-32.20, but no later than the next scheduled annual periodic inspection.

(c) The person performing the inspection shall verify:

**1.** The presence of the required retrofit device;

2. That the label identification number on the form matches the number on the device in the vehicle; and

3. That the vehicle identification number on the vehicle is the same as is entered on the form.

(d) The person performing the inspection shall certify on the compliance form, in accordance with N.J.A.C. 7:27-1.39, whether the retrofit requirement has or has not been met, based on verification of (c)1 through 3 above.

(e) If the owner of the regulated vehicle is a licensed diesel emissions inspection center or is otherwise authorized to self-inspect his or her vehicles, the owner may perform the inspection and provide the certification required pursuant to (d) above.

(f) Each regulated vehicle must be inspected one time, in accordance with this section, to confirm installation of the required best available retrofit technology. If the inspector is unable to confirm that the required best available retrofit technology has been installed, the owner of the regulated vehicle shall ensure the installation of the required best available retrofit technology no later than the installation deadline established for the owner of the regulated vehicle in accordance with N.J.A.C. 7:27-32.18(a) and shall have compliance verified in accordance with this section within 30 days after installation.

7:27-32.22 Recordkeeping requirements

(a) Each owner of a regulated school bus, regulated vehicle or regulated equipment shall keep in a single location at his or her place of business, available for Department inspection, the following:

**1.** The current and completed original compliance form pursuant to N.J.A.C. <u>7:27-32.20 for each vehicle or piece of equipment, or any other document that</u> <u>may be issued or required pursuant to N.J.S.A. 26:2C-8.45 to verify compliance;</u>

2. Maintenance records for the CCVS or best available retrofit technology;

3. For each vehicle or piece of equipment required to use modified fuel or fuel additives pursuant to N.J.A.C. 7:27-32.8, or the approved fleet plan or approved supplement or approved modification thereto, as applicable, records of fuel purchases since the use of the retrofit and fuel additive or fuel began, or for the two preceding calendar years, whichever is of shorter duration;

4. The original, approved fleet plan, any supporting documentation submitted to the Department, and approvals or disapprovals of the requests, plans, supplements, or modifications, as applicable:

5. Maintenance records of the usage or documentation demonstrating permanent removal of the engine from service of any vehicle or piece of equipment retired from the fleet and included in a fleet retrofit plan, combined fleet retrofit plan, fleet averaging plan or combined fleet averaging plan; and

6. Any other documentation pertinent to fleet averaging plan approvals.

(b) The Department may call upon the State Police to assist with inspections pursuant to this section, if necessary.

(c) The owner of a regulated school bus, regulated vehicle or regulated equipment shall retain the records listed in (a) above for a minimum of five years.

7:27-32.23 Program support

(a) Any person seeking further information concerning this program or specific technical guidance for the preparation of the fleet retrofit plans, combined fleet retrofit plans, and fleet averaging plans required pursuant to this section and any revisions, supplements, or modifications thereto may contact the Department as <u>follows:</u>

2. Write the Department at Diesel Risk Reduction Program, 401 E. State St., P.O. Box 423, Trenton, NJ 08625-0423; or

3. Call the Diesel Risk Reduction Program at (609) 292-7953.

7:27-32.24 Application for reimbursement

(a) The State Treasurer will reimburse the authorized installer of a retrofit device or closed crankcase ventilation system for the purchase and installation costs

incurred in installing the retrofit device or closed crankcase ventilation system pursuant to the requirements of this subchapter.

(b) The authorized installer will be responsible for the purchase and installation of the retrofit devices or closed crankcase ventilation systems. An authorized installer who is reimbursed for the costs associated with the purchase and installation of a closed crankcase ventilation system or retrofit device may not impose any charge on any owner of a regulated vehicle or piece of regulated equipment for any cost associated with the purchase and installation of said device.

(c) To receive reimbursement, the authorized installer shall complete and submit to the Department a reimbursement application on a form or in a format supplied by the Department. The Department will make the reimbursement application available electronically on the Department's website at http://www.state.nj.us/dep/stopthesoot/. The authorized installer shall include the following information and support documentation in the reimbursement application:

**1.** Proof of purchase, such as purchase order, receipt or invoices for the retrofit device or closed crankcase ventilation system, that demonstrates actual costs incurred. The authorized installer shall also include the vehicle identification number or serial number of the regulated vehicle or regulated equipment;

 Proof of installation to include an itemized listing or work order of the parts, materials, labor and actual costs, and written authorization by the vehicle owner indicating the vehicle owner's approval to perform the specified work;
 The authorized installer certification that purchase and installation were in accordance with the manufacturer's instructions and N.J.A.C. 7:27-32.5, if applicable, and warranty requirements at N.J.A.C. 7:27-32.9;

4. The vehicle owner's certification that the installation was completed and that access will be provided to vehicles or equipment to determine compliance with the terms and conditions of the reimbursement award;

5. The authorized installer certification that he or she did not provide false information or withhold information on the application for reimbursement such that the processing of the application based on the false or withheld information could result in the reimbursement of the authorized installer:

i. Where the authorized installer was ineligible for reimbursement;

ii. In an amount greater than that for which the authorized installer would otherwise be eligible; or

iii. In an amount in excess of the actual costs of the installation or the amount to which the authorized installer is legally eligible; and

6. Justification for any difference between the actual cost provided pursuant N.J.A.C. 7:27-32.20(d) or (e) and the estimated cost provided pursuant to N.J.A.C. 7:27-32.4(d), 32.12(a)3 or 32.16(d)3.

(d) The Department will review and approve or deny each application for reimbursement and will forward the approved applications for reimbursement to the State Treasurer for payment. The State Treasurer will pay the reimbursement to the authorized installer only after the installation of the retrofit device or closed crankcase ventilation system, as approved by the Department.

(e) The Department will deny an application for reimbursement upon a finding that the applicant for reimbursement:

<u>i.</u> Provided false information on an application in support of reimbursement from the fund for which he or she was not otherwise eligible; or

ii. Withheld information on an application that renders the applicant ineligible for reimbursement from the fund or ineligible for the amount of reimbursement applied for.

(f) Nothing in this section shall be construed to require the Department, the State Treasurer, or any other State agency or department, to undertake an investigation or make any findings concerning the conduct described in (e) above.

(g) During the review of the application, the Department may request additional information related to the purchase and installation cost estimates, and any support documentation needed from the applicant to warrant and support payment in accordance with Treasury Circular Letter No. 98-17-OMB, as supplemented or amended, available at http://www.state.nj.us/infobank/circular/circindx.htm.

(h) The State Treasurer shall pay the reimbursement amount within 30 days after receipt of the approved application for reimbursement from the Department.

### 7:27-32.25 Recovery of reimbursement

(a) The State Treasurer may recover any reimbursement from the fund, upon a

<u>finding that:</u>

1. The purchase or installation of a CCVS or BART on the vehicle or equipment

for which the application for reimbursement was filed was not completed; or

2. The applicant for reimbursement:

**<u>i.</u>** Provided false information or withheld information on an application that renders the applicant ineligible for reimbursement from the fund;

ii. Received a larger reimbursement from the fund than the applicant would otherwise be eligible; or

iii. Received payments from the fund in excess of the actual costs incurred by the applicant or received reimbursement in excess of the amount for which the applicant is legally eligible.

(b) Nothing in this section shall be construed to require the State Treasurer, the Department, or any other State agency or department, to undertake an investigation or make any findings concerning the conduct described in (a) above.

## CHAPTER 27A

## AIR ADMINISTRATION PROCEDURES AND PENALTIES

# SUBCHAPTER 3. CIVIL ADMINISTRATIVE PENALTIES AND REQUESTS FOR ADJUDICATORY HEARINGS

# 7:27A-3.10 Civil administrative penalties for violation of rules adopted pursuant to the Act

(a)-(k) (No change.)

(*l*) Footnotes 3, 4, and 8 set forth in the Civil Administrative Penalty Schedule in (m) below are intended solely to put violators on notice that in addition to assessing a civil administrative penalty, the Department may also revoke the violator's Operating Permit, Certificate or variance. These footnotes are not intended to limit the Department's discretion in determining whether or not to revoke an Operating Permit, Certificate or variance, but merely to indicate the situation in which the Department would be most likely to seek revocation. Footnotes 11, 12 and 13 to the Civil Administrative Penalty Schedule in (m) below are intended solely to put violators on notice that in addition to assessing a civil administrative penalty, the Department may revoke the violator's discretion or diesel repair technician certification or the approval of a provider of diesel training. These footnotes are not intended to limit the Department's discretion in determining whether or not to revoke a certificate or training provider approval, but merely to indicate the situation in which the Department would be most likely to take such action.

(m) The violations of N.J.A.C. 7:27, whether the violation is minor or non-minor in accordance with (q) through (t) below, and the civil administrative penalty amounts for

each violation are as set forth in the following Civil Administrative Penalty Schedule. The numbers of the following subsections correspond to the numbers of the corresponding subchapter in N.J.A.C. 7:27. The rule summaries for the requirements set forth in the Civil Administrative Penalty Schedule in this subsection are provided for informational purposes only and have no legal effect.

#### CIVIL ADMINISTRATIVE PENALTY SCHEDULE

1. - 13. (No change.)

14. The violations of N.J.A.C. 7:27-14, Control and Prohibition of Air Pollution from Diesel-Powered Motor Vehicles, and the civil administrative penalty amounts for each violation, per vehicle, are as set forth in the following table:

<b>Citation</b>	<u>Class</u>	Type of	First	Second	Third <b>H</b>	Fourth and
		<b>Violation</b>	<u>Offense</u>	<u>Offense</u>	<u>Offense</u>	Each
					S	Subsequent
						<u>Offense</u>
N.J.A.C. 7:27-14.3(a)	Passenger Vehicle	NM	\$100	\$200	\$500	\$1,500
	Registration					

	Commercial Vehicle	NM	\$200	\$400	\$1,000	\$3,000
	Registration					
	Property Owner	NM	\$200	\$400	\$1,000	\$3,000
<u>N.J.A.C. 7:27-14.3(d)</u>	<u>Disabled Closed</u>					
	Crankcase Ventilation	<u>NM</u>	<u>\$1,000</u>	<u>\$2,000</u>	<u>\$3,500</u>	<u>\$5,000</u>
	<u>System or Retrofit</u>					
	<u>Device</u>					
<u>N.J.A.C. 7:27-14.5(f)</u>	<b>Inspection</b>	<u>M</u>	<u>\$100</u>	<u>\$200</u>	<u>\$500</u>	<u>\$1,500</u>
and (g)						

### N.J.A.C. 7:27-14.7(a) Certified Diesel

	Emission Inspector	<u>NM</u>	<u>\$500</u>	<u>\$750</u>	<u>\$1,500</u>	<u>\$2,500</u>
<u>N.J.A.C. 7:27-14.7(b)</u>	Visual Verification	<u>NM</u>	<u>\$500</u>	<u>\$750</u>	<u>\$1,500</u>	<u>\$2,500</u>
<u>N.J.A.C. 7:27-14.7(d)</u>	Submit Application	M	<u>\$250</u>	<u>\$500</u>	<u>\$750</u>	<u>\$1,500</u>
<u>N.J.A.C. 7:27-14.7(g)</u>	Complete Updates	M	<u>\$250</u>	<u>\$500</u>	<u>\$750<sup>11</sup></u>	<u>\$1,500<sup>11</sup></u>
<u>N.J.A.C. 7:27-14.7(h)</u>	Complete Form and					
	<u>Maintain Records</u>	М	<u>\$250</u>	<u>\$500</u>	<u>\$750<sup>11</sup></u>	<u>\$1,500<sup>11</sup></u>
<u>N.J.A.C. 7:27-14.7(i)</u>	Submit Inspection	IVI				
<u>and (k)</u>	<u>Form</u>	<u>M</u>	<u>\$250</u>	<u>\$500</u>	<u>\$750<sup>11</sup></u>	<u>\$1,500<sup>11</sup></u>
<u>N.J.A.C. 7:27-14.8(a)</u>	Certified Diesel					
	Emission Repair	<u>NM</u>	<u>\$500</u>	<u>\$750</u>	<u>\$1,500</u>	<u>\$2,500</u>
	<u>Technician</u>					
<u>N.J.A.C. 7:27-14.8(d)</u>	Submit Application	M	<u>\$250</u>	<u>\$500</u>	<u>\$750</u>	<u>\$1,500</u>
<u>N.J.A.C. 7:27-14.8(g)</u>	Complete Updates	<u>M</u>	<u>\$250</u>	<u>\$500</u>	<u>\$750<sup>12</sup></u>	<u>\$1,500<sup>12</sup></u>
<u>N.J.A.C. 7:27-14.8(h)</u>	Submit Report and					
	<u>Maintain Records</u>	<u>M</u>	<u>\$250</u>	<u>\$500</u>	<u>\$750<sup>12</sup></u>	<u>\$1,500<sup>12</sup></u>
<u>N.J.A.C. 7:27-14.9(c)</u>	Failure to Use					
	<u>Approved Curriculum</u>	M	<u>\$1,000</u>	<u>\$1,500</u>	<u>\$2,500<sup>13</sup></u>	<u>\$5,000<sup>13</sup></u>
<u>N.J.A.C. 7:27-14.9(e)</u>	<u>Training</u>	M	<u>\$500</u>	<u>\$750</u>	<u>\$1,500<sup>13</sup></u>	<u>\$2,500<sup>13</sup></u>
<u>N.J.A.C. 7:27-14.9(f)</u>	<u>Maintain Equipment</u>	M	<u>\$500</u>	<u>\$750</u>	<u>\$1,500<sup>13</sup></u>	<u>\$2,500<sup>13</sup></u>
<u>N.J.A.C. 7:27-14.9(g)</u>	Present Certificate	M	<u>\$500</u>	<u>\$750</u>	<u>\$1,500<sup>13</sup></u>	<u>\$2,500<sup>13</sup></u>

<u>and (k)</u>	<u>M</u>	<u>\$500</u>	<u>\$750</u>	<b>\$1,500</b> <sup>13</sup>	<u>\$2,500<sup>13</sup></u>
N.J.A.C. 7:27-14.9(j) Submit Records					
N.J.A.C. 7:27-14.9(i) Maintain Records	<u>M</u>	<u>\$500</u>	<u>\$750</u>	<u>\$1,500<sup>13</sup></u>	<u>\$2,500<sup>13</sup></u>
N.J.A.C. 7:27-14.9(h) Update Training	<u>M</u>	<u>\$500</u>	<u>\$750</u>	<u>\$1,500<sup>13</sup></u>	<u>\$2,500<sup>13</sup></u>

<sup>11</sup> Revoke certification as a diesel emission inspector under N.J.A.C. 7:27-14

<sup>12</sup> Revoke certification as a diesel emission repair technician under N.J.A.C. 7:27-14

<sup>13</sup> Revoke approval as a diesel training provider under N.J.A.C. 7:27-14

15. – 31. (No change.)

32. The violations of N.J.A.C. 7:27-32, Diesel Retrofit Program, and the civil administrative penalty amounts for each violation, per vehicle or piece of equipment for each day of violation, are as set forth in the following table:

#### Fourth and

<u>Citation</u>	<u>Class</u>	<b>Type of</b>	<u>Each</u>	<u>Second</u>	<u>Third</u>	<u>Each</u>
		<b>Violation</b>	<u>Offense</u>	<u>Offense</u>	<b>Offense</b>	<u>Subsequent</u>
						<u>Offense</u>
<u>N.J.A.C. 7:27-</u>	<u>1-10 vehicles</u>		£1 000	£2 000	\$2 000	\$5 000
<u>32.4(b)</u>		NM	<u>\$1,000</u>	<u>\$2,000</u>	<u>\$3,000</u>	<u>\$5,000</u>

<u>Required</u>	<b>11-20 vehicles</b>					
<u>installation of</u>			<u>\$3,000</u>	<u>\$4,000</u>	<u>\$5,000</u>	<u>\$5,000</u>
<u>closed</u>		NM				
<u>crankcase</u>						
<u>ventilation</u>						
systems by	<u>More than 20</u>	<u>NM</u>	<u>\$5000</u>	<u>\$5,000</u>	<u>\$5,000</u>	<u>\$5,000</u>
<u>owner of</u>	<u>vehicles</u>		<u>\$3000</u>	<u>\$3,000</u>	<u>\$3,000</u>	<u>\$3,000</u>
<u>regulated</u>						
<u>school buses</u>						

<u>N.J.A.C. 7:27</u> -	Failure to submit	М	¢100	<b>#3</b> 00	<b>#200</b>	<b>6 400</b>
<u>32.4(d)</u>	<u>cost estimate</u>	<u>M</u>	<u>\$100</u>	<u>\$200</u>	<u>\$300</u>	<u>\$400</u>
<u>N.J.A.C. 7:27-</u>	Complete and					
<u>32.4(e)</u>	<u>submit compliance</u>	M	<u>\$250</u>	<u>\$500</u>	<u>\$750</u>	<u>\$1000</u>
	<u>form</u>					
<u>N.J.A.C. 7:27-</u>	<b><u>Repair of all leaks</u></b>					
<u>32.5(a), (b) and</u>	and maintain					
<u>(c)</u>	<u>closed crankcase</u>					
	ventilation system	<u>NM</u>	<u>\$100</u>	<u>\$500</u>	<u>\$1,000</u>	<u>\$2,000</u>
	<u>in accordance with</u>					
	manufacturer's					
	<u>instructions</u>					
<u>N.J.A.C. 7:27</u> -	<u>1-10 vehicles</u>	<u>NM</u>	<u>\$1,000</u>	<u>\$2,000</u>	<u>\$3,000</u>	<u>\$5,000</u>
<u>32.6 (a) and (b)</u>	<u>11-20 vehicles</u>	<u>NM</u>	<u>\$3,000</u>	<u>\$5,000</u>	<u>\$5,000</u>	<u>\$5,000</u>

### <u>Verify</u>

installation of

<u>closed</u>

<u>crankcase</u>	More than 20	NM	<u>\$5,000</u>	<u>\$5,000</u>	<u>\$5,000</u>	<u>\$5,000</u>
<u>ventilation</u>	<u>vehicles</u>		<u>\$3,000</u>	<u>\$3,000</u>	<u>\$3,000</u>	<u>\$3,000</u>
system on						
<u>regulated</u>						
<u>school bus</u>						
<u>N.J.A.C. 7:27</u>	<u>- 1-10 vehicles</u>	<u>NM</u>	<u>\$1,000</u>	<u>\$2,000</u>	<u>\$3,000</u>	<u>\$5,000</u>
<u>32.7 (a), (b), (e</u>	<u>) 11-20 vehicles</u>	<u>NM</u>	<u>\$3,000</u>	<u>\$4,000</u>	<u>\$5,000</u>	<u>\$5,000</u>
<u>and (f)</u>						
<b>Required</b>						
<u>retrofitting by</u>						
<u>owner of</u>	M (1 20					
<u>regulated</u>	More than 20	<u>NM</u>	<u>\$5,000</u>	<u>\$5,000</u>	<u>\$5,000</u>	<u>\$5,000</u>
vehicles and	<u>vehicles</u>					
<u>regulated</u>						
<u>equipment</u>						
<u>N.J.A.C.</u> 7:27	- Labeling of retrofit		\$ <b>500</b>	Ф <b>750</b>	¢1000	<b>630</b> 00
<u>32.10(a)</u>	devices	<u>M</u>	<u>\$500</u>	<u>\$750</u>	<u>\$1000</u>	<u>\$2000</u>

<u>N.J.A.C. 7:27-</u>	<u>Inventory</u>	<u>M</u>	<u>\$500</u>	<u>\$1,000</u>	<u>\$1,500</u>	<u>\$2,000</u>
<u>32.12(a), (b)</u>						
<u>and (c)</u>						
<u>Required</u>						
<u>submissions by</u>						
<u>owner of</u>						
<u>regulated</u>						
vehicles and						
<u>regulated</u>						
<u>equipment</u>						

Notice that the

	Notice that the					
	owner has chosen	<u>M</u>	<u>\$500</u>	<u>\$1,000</u>	<u>\$1,500</u>	<u>\$2,000</u>
	to comply					
	<u>Fleet plan in lieu of</u>					
	<u>complying through</u>	<u>M</u>	<u>\$500</u>	<u>\$1,000</u>	<u>\$1,500</u>	<u>\$2,000</u>
	the use of BART					
	Late or incomplete					
	<u>submittal</u>	<u>M</u>	<u>\$500</u>	<u>\$1,000</u>	<u>\$1,500</u>	<u>\$2,000</u>
<u>N.J.A.C. 7:27-</u>	<u>Failure to retire or</u>	<u>NM</u>	<u>\$1,000</u>	<u>\$2,000</u>	<u>\$3,000</u>	<u>\$5,000</u>
<u>32.14(c)</u>	<u>replace</u>		<u>\$1,000</u>	<u>\$2,000</u>	<u>\$3,000</u>	<u>\$3,000</u>
<u>N.J.A.C. 7:27-</u>	<b>Failure to include</b>	М	<u>\$100</u>	¢200	£200	<u>\$400</u>
<u>32.14(d)</u>	<u>certification</u>	<u>M</u>	<u>\$100</u>	<u>\$200</u>	<u>\$300</u>	<u>\$400</u>
<u>N.J.A.C. 7:27-</u>	Late or incomplete					
<u>32.17(h), (i) and</u>	<u>submittal of final</u>	M	<u>\$100</u>	<u>\$200</u>	<u>\$300</u>	<u>\$400</u>
<u>(k)</u>	<u>revised plan</u>					
<u>N.J.A.C. 7:27-</u>	Failure to meet					
<u>32.17(n)</u>	emission reduction					
	<u>limit in fleet</u>	NINA	£1000	£2 000	£2 000	\$ <b>5</b> 000
	averaging or	<u>NM</u>	<u>\$1000</u>	<u>\$2,000</u>	<u>\$3,000</u>	<u>\$5,000</u>
	combined fleet					
	averaging plan					

<u>N.J.A.C. 7:27-</u>	<u>Failure to submit</u>	<u>M</u>	<u>\$100</u>	<u>\$200</u>	<u>\$300</u>	<u>\$400</u>
<u>32.19(c) and (i)</u>	annual supplement		<u>\$100</u>	<u>\$200</u>	<u>4500</u>	<u>\$400</u>
<u>N.J.A.C. 7:27-</u>	<u>Failure to</u>					
<u>32.20(d)</u>	<u>electronically</u>					
<u>through (g)</u>	complete and	<u>M</u>	<u>\$100</u>	<u>\$200</u>	<u>\$300</u>	<u>\$400</u>
	submit compliance					
	<u>form</u>					
<u>N.J.A.C. 7:27-</u>	<u>Retaining form on</u>					
<u>32.20(h)</u>	regulated school					
	<u>bus, regulated</u>	M	<u>\$100</u>	<u>\$200</u>	<u>\$300</u>	<u>\$400</u>
	<u>vehicle, piece of</u>		<u>\$100</u>	<u>\$200</u>	<u>4500</u>	<u>\$400</u>
	equipment; record					
	<u>copies</u>					
<u>N.J.A.C. 7:27-</u>	<b>Failure to have</b>	<u>NM</u>	<u>\$500</u>	<u>\$1,000</u>	<u>\$1,500</u>	<u>\$2,000</u>
<u>32.21(a) and (b)</u>	vehicle inspected		<u>\$300</u>	<u>\$1,000</u>	<u>\$1,500</u>	<u>\$2,000</u>
<u>N.J.A.C. 7:27-</u>	Failure to inspect					
<u>32.21(c), (d)</u>	and certify	<u>M</u>	<u>\$100</u>	<u>\$200</u>	<u>\$300</u>	<u>\$400</u>
<u>and (e)</u>	<u>inspection</u>					
<u>N.J.A.C. 7:27-</u>	<b>Recordkeeping</b>					
<u>32.22(a), (c) and</u>	requirements	<u>M</u>	<u>\$100</u>	<u>\$200</u>	<u>\$300</u>	<u>\$400</u>

<u>(d)</u>

#### **CHAPTER 27B**

#### SAMPLING AND ANALYTICAL PROCEDURES

## SUBCHAPTER 4. AIR TEST METHOD 4: TESTING PROCEDURES FOR DIESEL-POWERED MOTOR VEHICLES

#### 7:27B-4.1 Definitions

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise.

"Best available retrofit technology" or "BART" means an aftermarket particulate emissions control device that, as determined by the Department, can be used on or in a regulated vehicle or regulated equipment, at a reasonable cost to achieve substantial reduction of fine particulate diesel emissions, and is a either a diesel emissions control strategy for which CARB has issued an Executive Order, or a verified retrofit technology for which the USEPA has issued a Verification Letter. "Best available retrofit technology" includes only those retrofit devices and fuel for which the retrofit device manufacturer or fuel manufacturer certifies that the installation and use would not jeopardize the original engine warranty in effect at the time of the installation or the commencement of use of the retrofit device or fuel, and for which the manufacturer has issued a warranty pursuant to N.J.A.C. 7:27-32.9.

<u>"BART 1" means a BART that achieves a minimum particulate emissions</u> <u>control level of 25 percent reduction in mass.</u>

<u>"BART 2" means a BART that achieves a minimum particulate emissions</u> <u>control level of 50 percent reduction in mass.</u>

<u>"BART 3" means a BART that achieves a minimum particulate emissions</u> <u>control level of 85 percent reduction in mass.</u>

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<u>"Closed crankcase ventilation system" or "CCVS" means a system, installed</u> <u>upon an internal combustion engine, that is designed to capture all solids, liquids</u> <u>and gases that are emitted from the vent and to divert them to the engine intake air</u> <u>plenum for recombustion.</u>

•••

["Division of Motor Vehicles" or "DMV" means the Division of Motor Vehicles within the New Jersey Department of Transportation.]

•••

"Inspector" means any person authorized by the State of New Jersey to determine whether a vehicle complies with the requirements of N.J.A.C. 7:27-14 **and 32**.

•••

### "MVC" means the New Jersey Motor Vehicle Commission.

• • •

"Peak smoke opacity" means the highest numerical value of smoke opacity measured during a snap acceleration smoke opacity test at N.J.A.C. 7: 27B-4.3(a), a

rolling acceleration smoke opacity test at N.J.A.C. 7:27B-4.3(b), or a [stall] **power brake** smoke opacity test at N.J.A.C. 7: 27B-4.3(c).

<u>"Person" means an individual, public or private corporation, company,</u> <u>partnership, firm, association, society or joint stock company, municipality, state,</u> <u>interstate body, the United States, or any board, commission, employee, agent,</u> <u>officer or political subdivision of a state, an interstate body or the United States.</u> <u>"Person" expressly includes the Port Authority of New York and New Jersey, and</u> the South Jersey Port Corporation.

•••

<u>"Retrofit device" means a best available retrofit technology that is installed</u> on an on-road diesel vehicle or on a piece of off-road diesel equipment pursuant to <u>N.J.A.C. 7:27-32.</u>

"School bus" means a school bus as defined under N.J.S.A. 39:1-1.

# 7:27B-4.3 Procedures for using a smokemeter to measure the smoke opacity of heavy-duty diesel vehicles and diesel buses

(a) - (b) (No change.)

(c) The testing procedures for the [stall] **<u>power brake</u>** smoke opacity test, required pursuant to N.J.A.C. 7:27-14.5 shall be performed, on a vehicle with a medium or high speed diesel engine and an automatic transmission only, as follows:

1. – 12. (No change.)

13. Initiate the test sequence on the smokemeter. Some smokemeters may not have a testing sequence entitled "[stall] **power brake** acceleration test." For these smokemeters, the snap acceleration test sequence may be used;

14. - 20. (No change.)

- 21. Three valid [stall] **<u>power brake</u>** accelerations shall constitute a successful test procedure and terminates the test;
- 22. 23. (No change.)
- (d) (e) (No change.)

# 7:27B-4.4 Emission control apparatus<u>, retrofit device and closed crankcase</u> <u>ventilation system</u> examination procedure

(a) - (b) (No change.)

(c) The procedure for the one-time compliance inspection of the retrofit device of a diesel-powered motor vehicle required to be retrofitted pursuant to N.J.A.C. 7:27-32.7, as required at N.J.A.C. 7:27-32.21 and 14.5(f), shall be performed as follows:

**1.** Confirm that the vehicle identification number on the vehicle matches the vehicle identification number on the compliance form:

2. Confirm that the diesel emission control strategy family name on the retrofit label matches the diesel emissions control strategy family name on the compliance form;

3. Confirm that the BART number (BART1, BART2 or BART3) on the compliance form matches the BART number on the retrofit label;

4. Visually confirm the presence of a retrofit device upon the vehicle;

5. If the vehicle satisfies all of the conditions of (c)1 through 4 above, certify on the compliance form that the retrofit requirement has been met; and

6. If the vehicle fails to satisfy any of the conditions at (c)1 through 4 above, certify on the compliance form that the retrofit requirement has not been met.

(d) The procedure for examination of the closed crankcase ventilation system of a school bus required to have a closed crankcase ventilation system installed pursuant to N.J.A.C. 7:27-32.4 and N.J.S.A. 26:2C-8.31, as required at N.J.A.C. 7:27-32.6 and 14.5(g), shall be performed as follows:

**<u>1. Confirm that the vehicle identification number on the vehicle matches the</u>** <u>vehicle identification number on the compliance form;</u>

2. Visually confirm the presence of a closed crankcase ventilation system that meets the following:

<u>i. The closed crankcase ventilation system must not have any opening that</u> <u>would permit the uncontrolled release of crankcase emissions from the</u> <u>engine, as specified by (d)2ii through v below;</u>

ii. The tubing or similar ducting material originating at the crankcase vent must be ducted to the engine air intake plenum and may include an in-line filtration system;
iii. An in-line filtration system may also have a drainpipe that returns condensed fluids to the crankcase or a collection vessel;
iv. All tubing, ducting or pipes, or connections thereto, leading from the crankcase vent to the terminal point in the air intake system must be closed and secure. This includes connections to any intermediary filters or drain lines, and their terminal points; and

v. There are no visible indications of leaks from closed crankcase ventilation system, such as oil residue at connection points or visible emissions from the closed crankcase ventilation system;

3. If the vehicle satisfies all of the conditions set forth at (d)1 and 2 above, certify upon the compliance form that the closed crankcase ventilation system installation requirement has been met; and

4. If the vehicle fails to satisfy any of the conditions at (d)1 and 2 above certify on the compliance form that the closed crankcase ventilation system installation requirement has not been met.