

Virginia Regulatory Town Hall

Notice of Intended Regulatory Action Agency Background Document

Agency Name:	State Air Pollution Control Board
Regulation Title:	Regulation for On-Road Heavy-Duty Diesel Engines
Primary Action:	9 VAC 5-230-10 et seq.
Secondary Action(s):	None
Action Title:	On-Road Heavy-Duty Diesel Engines
Date:	November 15, 2001

This information is required prior to the submission to the Registrar of Regulations of a Notice of Intended Regulatory Action (NOIRA) pursuant to the Administrative Process Act § 9-6.14:7.1 (B). Please refer to Executive Order Twenty-Five (98) for more information.

Purpose *

Please describe the subject matter and intent of the planned regulation.

The purpose of the proposed action is to establish testing and certification procedures for manufacturers of on-road heavy-duty diesel engines sold in Virginia. This action is being taken pursuant to Virginia's gubernatorial commitment to the other states of the Ozone Transport Commission for the Northeast United States.

Statutory Authority

Please identify the section number and provide a brief statement relating the content of the statutory authority to the specific regulation contemplated.

Section 10.1-1308 of the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia) authorizes the State Air Pollution Control Board to promulgate regulations abating, controlling and prohibiting air pollution in order to protect public health and welfare.

Need *

Please provide an explanation of the need for the contemplated regulation and potential consequences that may result in the absence of the regulation. Also set forth the specific reasons the agency has determined that the proposed regulatory action would be essential to protect the health, safety or welfare of citizens or would be essential for the efficient and economical performance of an important

governmental function. Include a discussion of the problems the regulation's provisions are intended to solve.

Among the primary goals of the federal Clean Air Act are the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS) and the prevention of significant deterioration (PSD) of air quality in areas cleaner than the NAAQS.

The NAAQS, developed and promulgated by the U.S. Environmental Protection Agency (EPA), establish the maximum limits of pollutants that are permitted in the outside ambient air. EPA requires that each state submit a plan (called a State Implementation Plan or SIP), including any laws and regulations necessary to enforce the plan, that shows how the air pollution concentrations will be reduced to levels at or below these standards (attainment). Once the pollution levels are within the standards, the SIP must also demonstrate how the state will maintain the air pollution concentrations at the reduced levels (maintenance).

A SIP is the key to the state's air quality programs. The Clean Air Act is specific concerning the elements required for an acceptable SIP. If a state does not prepare such a plan, or EPA does not approve a submitted plan, then EPA itself is empowered to take the necessary actions to attain and maintain the air quality standards--that is, it would have to promulgate and implement an air quality plan for that state. EPA is also, by law, required to impose sanctions in cases where there is no approved plan or the plan is not being implemented, the sanctions consisting of loss of federal funds for highways and other projects and/or more restrictive requirements for new industry. Generally, the plan is revised, as needed, based upon changes in the federal Clean Air Act and its requirements.

The basic approach to developing a SIP is to examine air quality across the state, delineate areas where air quality needs improvement, determine the degree of improvement necessary, inventory the sources contributing to the problem, develop a control strategy to reduce emissions from contributing sources enough to bring about attainment of the air quality standards, implement the strategy, and take the steps necessary to ensure that the air quality standards are not violated in the future.

The heart of the SIP is the control strategy. The control strategy describes the emission reduction measures to be used by the state to attain and maintain the air quality standards. There are three basic types of measures: stationary source control measures, mobile source control measures, and transportation source control measures. Stationary source control measures are directed at limiting emissions primarily from commercial/industrial facilities and operations and include the following: emission limits, control technology requirements, preconstruction permit programs for new industry and expansions, and source-specific control requirements. Stationary source control measures also include area source control measures which are directed at small businesses and consumer activities. Mobile source control measures are directed at tailpipe and other emissions primarily from motor vehicles and include the

following: Federal Motor Vehicle Emission Standards, fuel volatility limits, reformulated gasoline, emissions control system anti-tampering programs, and inspection and maintenance programs. Transportation source control measures limit the location and use of motor vehicles and include the following: carpools, special bus lanes, rapid transit systems, commuter park and ride lots, bicycle lanes, signal system improvements, and many others.

Generally, a SIP is revised, as needed, based upon changes in air quality or statutory requirements. For the most part the SIP has worked, and the standards have been attained for most pollutants in most areas. However, attainment of NAAQS for one pollutant--ozone--has proven problematic. While ozone is needed at the earth's outer atmospheric layer to shield out harmful rays from the sun, excess concentrations at the surface have an adverse effect on human health and welfare. Ozone is formed by a chemical reaction between volatile organic compounds (VOCs), nitrogen oxides (NOX), and sunlight. When VOC and NOX emissions from mobile sources and stationary sources are reduced, ozone is reduced.

Congress enacted the 1977 Amendments to the Clean Air Act in order to address unsuccessful SIPs and areas that had not attained the NAAQS (that is, nonattainment areas). Although SIP revisions submitted pursuant to the requirements of the 1977 amendments did achieve some progress in eliminating nonattainment areas, some areas remained.

In 1990 Congress once again enacted comprehensive amendments to the Act to address SIP requirements for nonattainment areas. The new Act established a process for evaluating the air quality in each region and identifying and classifying each nonattainment area according to the severity of its air pollution problem. Nonattainment areas are classified as marginal, moderate, serious, severe and extreme. Marginal areas are subject to the least stringent requirements and each subsequent classification (or class) is subject to successively more stringent control measures. Areas in a higher classification of nonattainment must meet the mandates of the lower classifications plus the more stringent requirements of their class. In addition to the general SIP-related sanctions, nonattainment areas have their own unique sanctions. If a particular area fails to attain the federal standard by the legislatively mandated attainment date, EPA is required to reassign it to the next higher classification level (denoting a worse air quality problem), thus subjecting the area to more stringent air pollution control requirements. The Clean Air Act includes specific provisions requiring these sanctions to be issued by EPA if so warranted.

The new Act required EPA, based on the air quality data from each state, to propose geographic boundaries and pollution classification levels for all nonattainment areas to each state's governor. If states disagreed with EPA's proposals, they had the opportunity to propose different boundaries; however, EPA had the authority to make the final decision.

The process provided in the new Act yielded three nonattainment areas for Virginia. The classifications for Virginia's nonattainment areas were marginal for the Hampton Roads Nonattainment Area, moderate for the Richmond Nonattainment Area, and serious for the Northern Virginia Nonattainment Area. Since that time, air quality has improved. Although Northern Virginia remains as a nonattainment area, Richmond and Hampton Roads have achieved the one-hour ozone standard and are now considered maintenance areas--that is, specific strategies that were implemented must continue; however, no additional new requirements are necessary provided the areas do not measure ozone concentrations in levels high enough to reclassify them into nonattainment.

Once the nonattainment areas were defined, each state was then obligated to submit a SIP demonstrating how it will attain the air quality standards in each nonattainment area. First, the new Act requires that certain specific control measures and other requirements be adopted and included in the SIP. In addition, the state had to demonstrate that it would achieve a VOC emission reduction of 15%. Finally, the SIP had to include an attainment demonstration by photochemical modeling (including annual emission reductions of 3% from 1996 to 1999) in addition to the 15% emission reduction demonstration. In cases where the specific control measures were inadequate to achieve the emission reductions or attain the air quality standard, the state was obligated to adopt other control measures as necessary to achieve this end. The attainment demonstration was based the assumption that on-road heavy-duty diesel engines would meet the federal standards.

Federal guidance on states' approaches to the inclusion of control measures in the SIP has varied considerably over the years, ranging from very general in the early years of the Clean Air Act to very specific in more recent years. Many regulatory requirements were adopted in the 1970s when no detailed guidance existed. In recent years, the Clean Air Act, along with EPA regulations and policy, has become much more specific, thereby removing much of the states' discretion to craft their own air quality control programs. However, the legally binding federal mandate for this regulation is general, not specific, consisting of the Clean Air Act's broad-based directive to states to attain and maintain the air quality standards.

In the 1990s, seven large manufacturers of heavy-duty diesel engines (HDDEs) violated federal certification regulations by turning off, or defeating, emissions control equipment during in-use highway driving. To address this violation, the Department of Justice, the EPA, and the California Air Resources Board (CARB) signed consent decrees with the seven engine manufacturers. In the consent decrees, the settling manufacturers are required, among other things, to produce HDDEs that comply with prescribed emission standards that are lower than those currently required by CARB and EPA regulations, as measured by the Federal Test Procedure (FTP), no later than October 1, 2002. (These standards are about 50 percent cleaner than those for currently available engines). In addition, because it was found that the FTP was not adequate to ensure that exhaust emissions were controlled during all in-use driving, it was agreed that compliance with supplemental test procedures would be necessary. Thus, the majority

of the settling manufacturers agreed to produce engines by October 1, 2002, that would meet supplemental test procedures including the Not-To-Exceed (NTE) test and the EURO III European Stationary Cycle (ESC) test. The consent decrees state that these requirements must be met for a period of two years. Together with the FTP test, the supplemental test procedures will require control of emissions during the majority of real world operating conditions, ensuring that in the future defeat devices will no longer be employed. The consent decrees would cover about 80% of engines manufactured for sale in the United States.

Recognizing the effectiveness of the supplemental tests, on October 29, 1999, the EPA published a Notice of Proposed Rulemaking (64 FR 58472) proposing to adopt similar supplemental test procedures for 2004 and subsequent model year HDDEs. However, because of statutory federal timing constraints, the NTE and ESC test procedures will not be required until the 2007 model year for federally-certified HDDEs (65 FR 59896, October 6, 2000). Therefore, once the consent decree requirements expire in 2004, the settling manufacturers will not be obligated to comply with the supplemental test procedures for model years 2005 or 2006. Not until the 2007 model year, when the federal rule comes into effect, will HDDE manufacturers be required to comply with the supplemental test procedures, federally.

In order to assure continued compliance during model years 2005 and 2006 by the settling manufacturers and to begin compliance by all other manufacturers with model year 2005, California adopted rules on December 8, 2000, to include the NTE and ESC tests in the required California certification process for 2005 and subsequent model year HDDEs. California's supplemental test procedures parallel those in the consent decrees and the EPA's Final Rule for 2007 and subsequent model year HDDEs, but differ by adding options for flexibility and by exempting "ultra-small volume manufacturers" and "urban buses" until the 2007 model year in order to allow additional lead time for compliance. (Urban buses are already subject to more stringent standards for model years 2002 through 2007 in California.) Thus California's rulemaking closes the two-year gap, for vehicles sold in that state, between the termination of the consent decrees and the effective date of the new federal standards, during which time engine manufacturers would only have been required to satisfy the FTP test procedure currently required under the EPA's regulations. By adopting California's NTE standards, Virginia, like California, would address the regulatory temporal gap for heavy-duty diesel engines sold in its jurisdiction between the end date for standards established by the consent decrees discussed above (in effect until 2004) and the start date of the EPA's new heavy-duty diesel engine standards (not in effect until model year 2007).

Virginia's failure to adopt the limits could result in an additional 2216 tons of NO_x for 2005 and 4296 tons for 2006. When the models that predict ozone formation were run to make the attainment demonstration for the Northern Virginia area, these emissions were unaccounted for since it was assumed the engines in question would be meeting the NTE limits. If the limits are not adopted and defeat devices are used, these emissions would have to be added to the estimates originally used in the planning process, thus increasing the amount of NO_x emission reductions Virginia would need in

order to make the attainment demonstration. These emission reductions would have to come from other sources of NO_x, including industrial sources.

The proposed regulatory action is essential to protect the health, safety, and welfare of Virginia's citizens. NO_x reductions of the magnitude described above will play an important role not only in ameliorating ambient levels of ground-level ozone, but in addressing various other serious air quality and environmental problems, as well. States that adopt the California NTE and ESC test procedures will also experience such important environmental benefits as the following:

(1) Reduced particulate matter levels. NO_x in the atmosphere is transformed into substances known as nitrates. These nitrates take the form of dangerous fine particulate matter, which is breathed deep into the lungs. By decreasing NO_x emissions, the formation of these harmful fine particles is reduced. Therefore, adopting the California requirements will reduce ambient levels of particulate matter.

(2) Reduced acid rain. Through complex atmospheric chemical reactions, some of the NO_x emitted by mobile sources is transformed into nitric acid and nitrates. Precipitation causes these harmful substances to wash out of the atmosphere and be deposited on the land and in water bodies. The nitric acid lowers pH levels in lakes and streams and turns many of these water bodies into dead zones. It also damages forests and crops, as well as man-made objects, such as buildings and statues. Lowering NO_x emissions by opting in to the California requirements will reduce these impacts.

(3) Reduced eutrophication. Excess NO_x in the atmosphere provides too much nitrogen to lakes, streams, and larger water bodies. This overabundance of nitrogen promotes a proliferation of aquatic plant life (especially algae) in a process known as eutrophication that reduces the dissolved oxygen content of the water, thereby killing other aquatic life. Airborne emissions of NO_x are responsible for much of the eutrophication in the Chesapeake Bay and other important water bodies. Decreased NO_x emissions through adoption of the California NTE and ESC test procedures will reduce these harmful effects.

States across the nation have joined Virginia and the other states of the Ozone Transport Commission in committing to adopt the standards promulgated by California, bringing the total of committed states to about 15 at this time. Once a sufficient number of states have adopted these standards to reach a critical level of new engines which must meet these standards, the NTE standards are expected to become de facto national in character, since engine manufacturers will almost certainly find it less economical to produce two different engines. This should result in an even greater emission reduction benefit to states such as Virginia, which play host to many heavy-duty diesel vehicles purchased and registered in other states.

Potential Issues *

Please supply a statement delineating any potential issues that may need to be addressed as the regulation is developed.

The primary issue to be addressed during regulatory development will be deciding which of three options would best accomplish the purpose of the regulatory action. These three options differ from each other in complexity and projected completion time. Option 1 would require that vehicles equipped with heavy-duty diesel engines for model years 2005 and 2006 (or 2005 and beyond) be certified by the California Air Resources Board (CARB) before being registered, imported, sold, leased, or purchased in Virginia. Option 2 would explicitly incorporate by reference the CARB requirements (both existing requirements and future amendments) into the Virginia Administrative Code. Option 3, which would be more complex and time-consuming than either Option 1 or Option 2, would necessitate Virginia's development of laws, regulatory language, and test procedures equivalent in stringency (and perhaps other aspects) to the California rules.

Regardless of which regulatory approach is chosen, cost should not be a major issue. Based on the EPA's calculations for the new federal standards, the California Air Resources Board (CARB) projects the average manufacturer's cost of compliance with its rules to be less than \$800 per engine, resulting in a lifetime reduction of 2.41 tons of NO_x, at a cost of \$0.17 per pound.

Alternatives *

Please describe the process by which the agency has considered, or will consider, less burdensome and less intrusive alternatives for achieving the need. Also describe, to the extent known, the specific alternatives to the proposal that have been considered and will be considered to meet the need, and the reasoning by which the agency has rejected any of the alternatives considered.

Alternatives to the proposed regulation amendments are being considered by the Department. The Department has tentatively determined that the first alternative is appropriate, as it is the least burdensome and least intrusive alternative that fully meets the purpose of the regulatory action. The alternatives being considered by the Department, along with the reasoning by which the Department has rejected any of the alternatives being considered, are discussed below.

1. Amend the regulations to insure that adequate reductions are achieved from on-road heavy-duty diesel engines in order to meet the requirements of Virginia's attainment demonstration.

2. Make alternative regulatory changes to those suggested by the provisions of the law and associated regulations and policies. This option is not being selected because such alternatives would require Virginia to achieve the necessary emissions reductions from industrial sources, a process that would be more expensive, difficult, burdensome,

and time-consuming than establishing the subject test procedures for on-road heavy-duty diesel engines.

3. Take no action to amend the regulations. This option is not being selected because Virginia's failure to achieve emissions reductions sufficient to make the required attainment demonstration would result in sanctions being levied by the federal government.

Public Participation *

Please indicate the nature of the comments the Department is soliciting pursuant to this notice and whether a public meeting is to be held to receive comments on this notice. If a public meeting is to be held, indicate where information on the public meeting (i.e. date, time, and place) may be found. Indicate whether it is the Department's intent to hold at least one public hearing on the proposed regulation after it is published in the Virginia Register.

The Department is soliciting comments on (i) the intended regulatory action, to include ideas to assist the Department in the development of the proposal, (ii) the impacts of the proposed regulation on farm and forest lands, and (iii) the costs and benefits of the alternatives stated in this notice or other alternatives. All comments must be received by the Department by 4:30 p.m. on the first business day after public meeting (see information below) in order to be considered. It is preferred that all comments be provided in writing to the Department, along with any supporting documents or exhibits; however, oral comments will be accepted at the meeting. Comments may be submitted by mail, facsimile transmission, e-mail, or by personal appearance at the meeting, but must be submitted to Dr. Kathleen Sands, Policy Analyst, Office of Air Regulatory Development, Department of Environmental Quality, P.O. Box 10009, Richmond, Virginia, 23240 (e-mail: krsands@deq.state.va.us) (fax number: 804-698-4510). Comments by facsimile transmission will be accepted only if followed by receipt of the signed original within one week. Comments by e-mail will be accepted only if the name, address and phone number of the commenter are included. All testimony, exhibits and documents received are a matter of public record. Only comments (i) related to the potential issues, alternatives, and costs and benefits (see supporting information below) as specified in this notice and (ii) provided in accordance with the procedures specified in this notice will be given consideration in the development of the proposed regulation amendments.

A public meeting will be held by the Department to receive comments on and to discuss the intended action. Information on the date, time, and place of the meeting is published in the Calendar of Events section of the Virginia Register. Unlike a public hearing, which is intended only to receive testimony, this meeting is being held to discuss and exchange ideas and information relative to regulation development.

After publication in the Virginia Register of Regulations, the Department will hold at least one public hearing to provide opportunity for public comment on any regulation amendments drafted pursuant to this notice.

Ad Hoc Advisory Group *

Please indicate the extent to which the participatory approach will be used in the development of the proposed regulation. Indicate whether the Department is will be using an ad hoc advisory group in the development of the proposal.

The Department is soliciting comments on the advisability of forming an ad hoc advisory group, utilizing a standing advisory committee or consulting with groups or individuals registering interest in working with the Department to assist in the drafting and formation of any proposal. The primary function of any group, committee or individuals that may be utilized is to develop recommended regulation amendments for Department consideration through the collaborative approach of regulatory negotiation and consensus. Any comments relative to this issue must be submitted to the agency contact in writing by 4:30 p.m. the last day of the comment period.

Legal Requirements

Please identify the state and/or federal source of the legal requirements that necessitate promulgation of the contemplated regulation. The discussion of these requirements should include a description of their scope and the extent to which the requirements are mandatory or discretionary. Full citations for the legal requirements and, if available, web site addresses for locating the text of the cited legal provisions should be provided.

Federal Requirements

Federal Clean Air Act (CAA):

<http://www.epa.gov/ttn/oarpg/gener.html>

Code of Federal Regulations (CFR):

<http://www.access.gpo.gov/nara/cfr/cfr-retrieve.html>

Federal Register (FR):

http://www.gpo.gov/su_docs/aces/aces140.html

This specific regulation is not required by federal mandate. Rather, the regulation constitutes one of many measures implemented by Virginia in fulfillment of its legal obligations under the State Implementation Plan.

Sections 109 (a) and (b) of the Clean Air Act require EPA to prescribe primary and secondary air quality standards to protect public health and welfare, respectively, for each air pollutant for which air quality criteria were issued before the enactment of the 1970 Clean Air Act. These standards are known as the National Ambient Air Quality Standards (NAAQS). Section 109 (c) requires EPA to prescribe such standards simultaneously with the issuance of new air quality criteria for any additional air pollutant. The primary and secondary air quality criteria are authorized for promulgation under Section 108.

Section 110(a) of the Clean Air Act (CAA) mandates that each state adopt and submit to EPA a plan which provides for the implementation, maintenance, and enforcement of each primary and secondary air quality standard within each air quality control region in the

state. The state implementation plan shall be adopted only after reasonable public notice is given and public hearings are held. The plan shall include provisions to accomplish, among other tasks, the following:

(1) establish enforceable emission limitations and other control measures as necessary to comply with the provisions of the CAA, including economic incentives such as fees, marketable permits, and auctions of emissions rights;

(2) establish schedules for compliance;

(3) prohibit emissions which would contribute to nonattainment of the standards or interference with maintenance of the standards by any state; and

(4) require sources of air pollution to install, maintain, and replace monitoring equipment as necessary and to report periodically on emissions-related data.

Section 177 of the Clean Air Act (CAA) allows other states to adopt California's motor vehicle and engine standards and associated rules. The states must observe the mandates in section 177, however. In particular, the standards and associated test procedures adopted by another state must be identical to the California rules in terms of stringency. This requirement ensures that auto and engine manufacturers need not produce many different types of motor vehicles and engines. Most states are eligible to adopt the California rules. CAA section 177 only requires that the state have or had an approved "Part D" state implementation plan (SIP) for at least one pollutant (*i.e.*, an EPA-approved "nonattainment" plan for a criteria pollutant). In addition, section 177 requires that states adopt the California requirements at least two years before commencement of the first affected model year. Therefore, for states wishing to adopt the California requirements beginning with the 2005 model year (which will begin production in 2004), it will be safest to issue rules (or adopt the mandates through legislation) by the end of 2001.

Part D describes how nonattainment areas are established, classified, and required to meet attainment. Subpart 1 provides the overall framework of what nonattainment plans are to contain, while Subpart 2 provides more detail on what is required of areas designated nonattainment for ozone.

40 CFR Part 50 specifies the NAAQS: sulfur dioxide, particulate matter, carbon monoxide, ozone (and its precursors, volatile organic compounds) nitrogen dioxide, and lead.

40 CFR Part 51 sets out requirements for the preparation, adoption, and submittal of state implementation plans. These requirements mandate that any such plan shall include several provisions, including those summarized below.

Subpart G (Control Strategy) specifies the description of control measures and schedules for implementation, the description of emissions reductions estimates sufficient to attain and maintain the standards, time periods for demonstrations of the control strategy's

adequacy, an emissions inventory, an air quality data summary, data availability, special requirements for lead emissions, stack height provisions, and intermittent control systems.

Subpart K (Source Surveillance) specifies procedures for emissions reports and record-keeping, procedures for testing, inspection, enforcement, and complaints, transportation control measures, and procedures for continuous emissions monitoring.

Subpart L (Legal Authority) specifies the requirements for legal authority to implement plans.

Section 51.230 under Subpart L specifies that each state implementation plan must show that the state has the legal authority to carry out the plan, including the authority to perform the following actions:

(1) adopt emission standards and limitations and any other measures necessary for the attainment and maintenance of the national ambient air quality standards;

(2) enforce applicable laws, regulations, and standards, and seek injunctive relief;

(3) abate pollutant emissions on an emergency basis to prevent substantial endangerment to the health of persons;

(4) prevent construction, modification, or operation of a facility, building, structure, or installation, or combination thereof, which directly or indirectly results or may result in emissions of any air pollutant at any location which will prevent the attainment or maintenance of a national standard;

(5) obtain information necessary to determine whether air pollution sources are in compliance with applicable laws, regulations, and standards, including authority to require record-keeping and to make inspections and conduct tests of air pollution sources;

(6) require owners or operators of stationary sources to install, maintain, and use emission monitoring devices and to make periodic reports to the state on the nature and amounts of emissions from such stationary sources; and

(7) make emissions data available to the public as reported and as correlated with any applicable emission standards or limitations.

Section 51.231 under Subpart L requires the identification of legal authority as follows:

(1) the provisions of law or regulation which the state determines provide the authorities required under this section must be specifically identified, and copies of such laws or regulations must be submitted with the plan; and

(2) the plan must show that the legal authorities specified in this subpart are available to the state at the time of submission of the plan.

Subpart N (Compliance Schedules) specifies legally enforceable compliance schedules, final compliance schedule dates, and conditions for extensions beyond one year.

State Requirements

Code of Virginia:

<http://leg1.state.va.us/000/cod/codec.htm>

Virginia Administrative Code (VAC):

<http://leg1.state.va.us/000/reg/toc.htm>

This specific regulation is not required by state mandate. Rather, Virginia's Air Pollution Control Law gives the State Air Pollution Control Board the discretionary authority to promulgate regulations "abating, controlling and prohibiting air pollution throughout or in any part of the Commonwealth" (§ 10.1-1308). The law defines such air pollution as "the presence in the outdoor atmosphere of one or more substances which are or may be harmful or injurious to human health, welfare or safety, to animal or plant life, or to property, or which unreasonably interfere with the enjoyment by the people or life or property" (§ 10.1-1300). The board exercises this authority through the Department of Environmental Quality, whose first statutory purpose is "to assist in the effective implementation of the Constitution of Virginia by carrying out state policies aimed at conserving the Commonwealth's natural resources and protecting its atmosphere, land and waters from pollution" (§ 10.1-1183).

Other Requirements

Applicable California regulation:

www.arb.ca.gov/regact/ntetest/ntetest.htm

A state that wishes to significantly reduce NO_x emissions by adopting NTE and ESC test procedures for HDDEs must adopt requirements that are substantively identical to California's requirements. Although this mandate does not require that the two sets of rules contain the exact same language, they cannot diverge in any substantive aspects such that an engine vehicle or engine manufacturer would be required to make a "third vehicle." Thus, states are also barred from adopting CARB requirements for a model year earlier than California has selected. Section 177 of the Clean Air Act further requires that California and other states adopt the requirements at least two years before the commencement of the model year. Because manufacturing for the 2005 model year can commence as early as the beginning of 2004, states that wish to adopt the California HDDE requirements must act quickly.

Family Impact Statement

Please provide a preliminary analysis of the potential impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children;

2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; 4) increase or decrease disposable family income.

It is not anticipated that these regulation amendments will have a direct impact on families. However, there will be positive indirect impacts in that the regulation amendments will ensure that the Commonwealth's air pollution control regulations will function as effectively as possible, thus contributing to reductions in related health and welfare problems.

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