



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

MITT ROMNEY  
Governor

KERRY HEALEY  
Lieutenant Governor

ELLEN ROY HERZFELDER  
Secretary

ROBERT W. GOLLEDGE, Jr.  
Commissioner

**Bureau of Waste Prevention  
Division of Consumer and Transportation Programs**

**310 CMR 7.40:  
THE MASSACHUSETTS  
LOW EMISSION VEHICLE PROGRAM**

**Background Document and Technical Support for Public Hearings on  
the Proposed Amendments to the  
State Implementation Plan for Ozone; and  
Public Hearing and Findings Under the  
Massachusetts Low Emission Vehicle Statute**

**Regulatory Authority: Massachusetts General Laws, Chapter 111,  
Sections 142A through 142M**

**May 2005**

This information is available in alternate format. Call Debra Doherty, ADA Coordinator at 617-292-5565. TDD Service - 1-800-298-2207.

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## APPENDICES\*

- Appendix A. Chapter 410 of the Acts of 1990 and M.G.L., Chapter 111, Section 142K;
- Appendix B. Text of Amendments to 310 CMR 7.40;
- Appendix C. Title 13 CCR 1962, California Exhaust Emission Standards and Test Procedures for 2005 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes.

\* These documents are available for public review at the Department of Environmental Protection, One Winter Street, 2<sup>nd</sup> Floor, Boston, Massachusetts.

**Background Document and Technical Support For Public Hearing:  
To Consider Amendments to Adopt a Voluntary Alternative Compliance  
Plan, which will Supplement the Zero Emission Vehicle Requirements.**

**310 CMR 7.40: The Massachusetts Low Emission Vehicle Program**

**May 2005**

*The proposed amendments to the Massachusetts Low Emission Vehicle (LEV) program adopt a Zero Emission Vehicle (ZEV) voluntary Alternative Compliance Plan (ACP). The proposed ACP, developed in concert with New York, Vermont and the automobile manufacturers, will provide flexibility to the manufacturers to comply with the ZEV mandate as well as promoting the early introduction of advanced technology vehicles into Massachusetts.*

**I. INTRODUCTION**

The federal Clean Air Act (CAA) allows states to adopt California motor vehicle emission standards which are more stringent than the federal motor vehicle emission standards if the standards are identical to California standards and are adopted at least two years before the start of the model year to which the standards apply. Under M.G.L. c.111, Sections 142B and 142K, the Department is required to adopt California emission standards unless the standards will not achieve greater emission reductions, in the aggregate, than federal emission standards.

In 1991, the Department promulgated the first set of LEV regulations in Massachusetts. These regulations adopted the California motor vehicle emissions standards, including the mandate for zero emission vehicles (ZEVs). The Massachusetts LEV regulation has been modified numerous times to reflect revisions to the California program.

The Department adopted the most recent amendments to California's ZEV regulations on December 19, 2003 as an emergency regulation and made them final in June, 2004. At the request of the automobile manufacturers, the Department is proposing a voluntary option, the Massachusetts Alternative Compliance Plan (ACP), which will provide the automobile manufacturers added flexibility to comply with the latest ZEV mandate requirements. Manufacturers can choose to comply with either the California ZEV mandate beginning in MY 2007 or opt into the ACP. While the ACP provides flexibility to manufacturers from MY 2006 – 2008, manufacturers opting into the plan will be required to implement the full California ZEV mandate in MY 2009.

The introduction of the voluntary ACP, in conjunction with the ZEV amendments adopted in 2004, will result in emission reductions of non-methane hydrocarbons (NMHC), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM), and carbon monoxide (CO).

**II. BACKGROUND**

**The Federal Clean Air Act Provisions**

Section 209(b) of the Clean Air Act allows the State of California to adopt its own motor vehicle emissions standards if the U.S. Environmental Protection Agency (EPA) grants a waiver for the

standards. According to section 209(b), EPA must approve a waiver proposal if it finds that the California standard "...will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards."

Section 177 of the CAA authorizes states to adopt and enforce California's motor vehicle emission standards, which are more stringent than federal emission standards. Section 177 also mandates that states electing this option must adopt standards that are identical to California's at least two years before the commencement of the model year to which the standards will apply.

### **Massachusetts Law**

In 1990, the Massachusetts Legislature enacted Chapter 410 of the Acts of 1990, which is codified at M.G.L. c. 111, Section 142K. This law mandates that the Department adopt and implement California motor vehicle emission standards

"unless, after a public hearing, the Department establishes, based on substantial evidence, that said emission standards and a compliance program similar to the state of California's will not achieve, in the aggregate, greater motor vehicle pollution reductions than the federal standards and compliance program for any such model year."

Chapter 410 of the Acts of 1990 and M.G.L. c. 111, Section 142K are included as Appendix A.

### **History of the Massachusetts LEV Program**

In 1991, the Department promulgated 310 CMR 7.40, the LEV Program regulation. This regulation adopted the California LEV program and the LEV I emissions standards for all passenger cars (PC) and Light Duty Trucks (LDT) up to 6,000 pounds gross vehicle weight rating (GVWR) delivered for sale in Massachusetts, effective with Model Year (MY) 1995 vehicles. The Department also adopted California's Zero Emission Vehicle (ZEV) requirements, which called for progressively more zero emission vehicles to be sold beginning in MY 1998.

The Department has amended the LEV regulation to adopt the fleet-wide emission average for non-methane organic gases (NMOG), the next generation of California emission standards known as "LEV II", the LEV I & II emission standards for medium-duty vehicles, including diesel vehicles and engines, revisions to the ZEV regulations, and California's "Not-to-Exceed" (NTE) emission standards and test procedures for heavy-duty diesel engines (HDDE) and vehicles. In 2002, the Department adopted the Northeast ACP as a voluntary compliance option that allowed the auto manufacturers flexibility in complying with the ZEV Mandate.

The most recent amendments to the LEV Regulations occurred in 2004 when the Department adopted California's 2003 changes to the ZEV rules. As part of that process, the ACP was removed from the regulations with the understanding that it would be reintroduced at a later date. The Department determined that changes to the ACP were needed in order for it to be a more effective alternative. In concert with New York, Vermont and the automobile manufacturers, changes to the ACP were developed and agreed upon in the summer of 2004 which benefit the manufacturers and the states.

Details of the changes to the ACP are included in Section IV of this document.

### **III. CHARACTERIZATION OF THE OZONE PROBLEM**

#### **Formation and Sources of Ozone**

Ground level ozone, or smog, is formed when NO<sub>x</sub> and volatile organic compounds (VOCs) emissions from automobiles and other pollution sources react in the presence of sunlight and heat. Ozone occurs most frequently during summer months.

VOCs are emitted in the form of exhaust and evaporative emissions from petroleum-fueled automobiles, trucks and boats, some industrial and fueling operations, and other sources of evaporative emissions such as lawn mowers, paints, hairsprays and cleaning liquids. NO<sub>x</sub> is produced whenever fuels are burned and is emitted from motor vehicle, power plants, industrial boilers and other combustion sources.

#### **Health and Environmental Effects of Ozone and Ozone Precursors**

Ozone is a photochemical oxidant that can cause lung dysfunction and eye, nose and throat irritation. It can also exacerbate respiratory illness and reduce resistance to infection. Ozone is of particular concern for children, the elderly, people with asthma and other chronic respiratory diseases and people exercising and working outdoors for prolonged periods of time. It can also damage forests, other vegetation and agricultural crops as well as natural and synthetic materials.

Besides being a predominant factor in the formation of ozone, many VOCs are toxic and some are suspected carcinogens. NO<sub>x</sub> emissions contribute to the nitrification of water bodies, acid deposition, and increased particulate and ambient nitrogen dioxide (NO<sub>2</sub>) levels. NO<sub>2</sub>, one component of NO<sub>x</sub>, may cause severe respiratory inflammation, pulmonary distress and severely aggravate symptoms associated with asthma and bronchitis.

#### **Massachusetts Ozone Non-Attainment Areas**

Eastern and western Massachusetts are currently classified as “serious” nonattainment areas under the federal one-hour ozone standard of 0.12 parts per million (ppm) and as “moderate” non-attainment areas under the eight-hour standard of 0.08 ppm. In 1997, EPA adopted the more protective eight-hour standard of 0.08 ppm to provide for increased public health protection against longer exposure periods. In July 2003, Governor Mitt Romney recommended to EPA that the entire state be classified as non-attainment for the eight-hour standard with the same two non-attainment areas—eastern and western Massachusetts. On April 15, 2004, EPA formally designated the entire state as non-attainment, consistent with Governor Romney’s recommendation. On June 15, 2005, EPA will revoke the one-hour standard as the more protective eight-hour standard becomes effective.

In addition to violating the eight-hour ozone standard within its own borders, Massachusetts contributes to violations of the eight-hour standard in southern New Hampshire and Maine. The Department believes that additional regional and local emission reductions will be necessary if Massachusetts is to attain the eight-hour ozone standard and reduce its contribution to ozone transport into these two states. Adoption of the ACP, will, in conjunction with the ZEV requirements, help Massachusetts attain and maintain the ozone standard by reducing emissions of air contaminants from motor vehicles.

## IV. SUMMARY OF THE AMENDMENTS TO 310 CMR 7.40

### ZEV Rule and the ACP

As noted in Section II, the Department had previously adopted an ACP as part of the ZEV mandate but removed it from the LEV regulations when the 2003 California (CA) ZEV amendments were finalized in June, 2004. The 2003 CA ZEV amendments included significant and comprehensive changes to the previously adopted ZEV rule. The Northeast ACP, as written, contained effective dates, percentage requirements, and other language that were inconsistent with the ZEV rule and which would have made it difficult for the ACP to achieve the desired goals, i.e., flexibility for the manufacturers to comply with the ZEV requirements while at the same time promoting the early introduction of advanced technology vehicles in Massachusetts.

Some of the important changes to the CA ZEV mandate which affected the usefulness of the Northeast ACP include:

- The effective date for the ZEV mandate in CA shifted from MY 2003 to MY 2005 (The two year lead time requirement pushes the effective date in MA from 2005 to 2007).
- The auto manufacturers may either meet their ZEV obligation by following the Base Compliance path (a combination of ZEVs, partial ZEVs (PZEVs)<sup>1</sup>, and advanced technology partial ZEVs (AT PZEVs)<sup>2</sup>.
- The auto manufacturers may choose a new option, the California Alternative Compliance Path (CA ACP), and produce a combination of fuel cell vehicles (type III ZEVs) and other ZEVs. If the manufacturers opt into the CA ACP, it also allows the manufacturers to apply AT PZEVs to the pure ZEV category and PZEVs to the AT PZEV category, thereby encouraging manufacturers to advance fuel cell technology while producing significant numbers of AT PZEVs and PZEVs.
- Other significant changes to the regulation include amendments to the hybrid electric vehicle (HEV) criteria for determining if a HEV earns credit for advanced ZEV components, elimination of the fuel efficiency credits for AT PZEVs, and revisions and additions to the existing vehicle credit structure.

The new ACP being proposed for Massachusetts addresses the latest CA ZEV mandate changes in a number of ways.

First, it extends the date from 2007 to 2009, by which the auto manufacturers must achieve the same percentage of ZEV vehicles in MA as is required by the CA ZEV mandate. It provides increased flexibility for the manufacturers to generate credits in preparation for higher ZEV obligation requirements starting in 2009 by providing a broader range of phase-in credit multipliers, including a new category of multipliers for AT PZEVs. It also extends and modifies the percentage requirements for the placement of advanced technology vehicles, leading up to full compliance with the CA ZEV percentage requirements.

Second, the new ACP relies on CARB's methodology in calculating and handling credits and aligns the reporting requirements with those of the ZEV rule.

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<sup>1</sup> PZEVs are vehicles that meet super ultra low emission vehicle (SULEV) standards, have zero evaporative emissions and an extended vehicle warranty for emission control equipment of 150,000 miles or 15 years, whichever occurs first. Types of vehicles in this category are typically gasoline powered and utilize improved catalytic converters and advanced evaporative emission controls. Several manufacturers are currently producing PZEV vehicles.

<sup>2</sup> AT PZEVs are vehicles that also meet the SULEV standards but have advanced ZEV components as well. Types of vehicles included in this category are hybrid vehicles that have advanced batteries and electric motors integral to the operation of the vehicle power train, or vehicles that utilize alternative fuels, such as compressed natural gas.

The following section describes in detail the revised ACP, which is proposed for incorporation into the Massachusetts LEV program regulations. The proposed amendments to 310 CMR 7.40 cite and incorporate by reference applicable sections of the California regulations (promulgated within Title 13 of the California Code of Regulations (CCR.)). The text of the proposed amendments to 310 CMR 7.40 is provided in Appendix B.

## **Alternative Compliance Plan**

The ACP is comprised of seven elements:

1. A core credit scheme;
2. A three year phase-in toward full California equivalency;
3. Advanced technology vehicle (ATV) percentage requirements;
4. Generation and use of credits;
5. Additional ZEV Credits; and
6. Reporting.

A premise of the program is that manufacturers can satisfy 100 percent of their ZEV requirement by using any combination of available credits, subject to the limitations identified below. The program outlined here is included in the regulation as a voluntary compliance alternative, with the full ZEV mandate also included in the regulation, consistent with California.

All of the terms used in this ACP have the same meaning as defined in the CCR. The ACP does not override other aspects of the LEV program. For example, manufacturers must comply with the fleetwide emission average requirements, as previously adopted.

### *1. Core Credits*

Core credits are credits awarded to specific vehicles in accordance with California's CCR Section 1962 and CARB's certification process, which establishes emissions standards and baseline qualifications for Partial Zero Emission Vehicles (PZEVs), Advanced Technology (AT) PZEVs, and ZEVs, and assigns credit for those vehicles depending on the vehicle characteristics.

The MA ZEV regulation relies on CA's core crediting system to determine the level of ZEV credits for vehicles placed in MA. For those manufacturers opting into the MA ACP, qualifying vehicles will be awarded additional credits according to the phase-in multipliers, which are discussed below.

### *2. Phase-in Multiplier*

After the credit type and value is established by CARB for a particular vehicle, it will be eligible for the Massachusetts ACP phase-in multiplier. This multiplier will give vehicles additional credit in the early years and phase-in to California equivalency over three years. To qualify for the multiplier, the vehicle must meet the baseline qualifications for a PZEV, AT PZEV, or ZEV under the California regulation. The Massachusetts ACP phase-in multipliers identified in Table 1 will apply to the full range of vehicle credits issued by CARB, including the California phase-in credit.

For MY 2002 through 2005, manufacturers will be allowed to generate early credits voluntarily. During the phase-in years of the regulatory program (2006-2008) for the ACP, more credit will be given for vehicles in the early years. The credit generated by each vehicle will be reduced gradually until 2009 when the credit values will be the same as the California program. Table 1 details the multiplier for the phase-in years.

**Table 1: Phase-In Multiplier**

Model Year	Requirement	PZEV Credit Multiplier	AT PZEV Credit Multiplier	ZEV Credit Multiplier
2002	Voluntary Early Introduction	1.5	1.5	3
2003	Voluntary Early Introduction	1.5	1.5	3
2004	Voluntary Early Introduction	1.5	2.25	3
2005	Voluntary Early Introduction	1.3	1.7	2
2006	Mandatory Compliance	1.15	1.3	1.5
2007	Mandatory Compliance	1.15	1.3	1.5
2008	Mandatory Compliance	1.15	1.3	1.5

### 3. Percentage Requirements

For large volume manufacturers (LVM)<sup>3</sup>, as defined by CARB in Title 13 CCR 1900, the ACP phases-in the percentage of ZEVs, AT PZEVs and PZEVs that are required, as shown in Table 2. LVMs will be allowed to satisfy the ten percent ZEV requirement for MY 2006 entirely with PZEV credits. In MY 2007, the ten percent ZEV requirement can be met if up to nine percent of manufacturer's sales consist of PZEV or PZEV credits, with another 1 percent consisting of ZEV, AT PZEV or any combination thereof. In MY 2008, the ten percent ZEV requirement can be met if up to seven percent of manufacturer's sales consist of PZEV or PZEV credits, with another two percent consisting of AT PZEVs, and one percent consisting of ZEVs.

**Table 2: Percentage Requirements for ATVs**

Model Year	Minimum Percent ZEV Credit	Minimum Percent AT PZEV Credit	Maximum Percent PZEV Credit
2006	0	0	10
2007	1 percent of manufacturer's sales must be ZEV, AT PZEV or any combination thereof		9
2008	1	2	7

Intermediate volume manufacturers<sup>4</sup> can meet the entire ZEV requirement with 100 percent PZEV credit. Small and independent low volume manufacturers<sup>4</sup> are not required to meet the ZEV percentage requirements but are able to generate and trade credits.

### 4. Generation and Use of Credits

ZEV, AT PZEV and PZEV credit calculation, credit life, credit banking and credit deficits will be calculated using the method developed by CARB in Title 13 CCR Section 1962. Credits may be bought, sold or traded among manufacturers. Manufacturers not subject to the ZEV requirements may also

<sup>3</sup> As determined by California ARB Title 13 CCR 1900, the current list of large volume manufacturers is as follows; DaimlerChrysler, Ford, General Motors, Honda, Nissan, Toyota.

<sup>4</sup> As determined by California ARB Title 13 CCR 1900 (b) (18) & (19).



generate credits and such credits may then be sold or traded to manufacturers subject to the ZEV requirements.

A manufacturer has the option to generate credits by providing twice as many MY 2006 or earlier PZEVs than required under the ACP in MY 2006. The manufacturer would then have until MY 2009 to comply with the MY 2007 AT PZEV/ZEV requirement. A manufacturer that qualifies to carry forward excess MY2006 PZEV credits, as described above, and then generates twice as many PZEV credits as necessary for MY 2007, would have through MY 2010 to comply with the MY 2008 AT PZEV/ZEV requirement.

A manufacturer may use excess PZEV credits as AT PZEV credits in MYs 2007 and 2008 provided the following criteria are met:

- The average volume of passenger cars (PC) and light duty trucks (LDT1) (all vehicles with loaded vehicle weights less than 3,750 pounds) that were delivered for sale in Massachusetts during MYs 1997, 1998, 1999 is calculated.
- The Manufacturer delivers for sale in Massachusetts, model year 2003, 2004, 2005 or 2006 PZEVs that generate credits exceeding the number of credits equal to 6 percent (10 percent for model year 2006) of the average annual sales volume as determined above.

## **5. Additional ZEV Credits**

There are three areas where infrastructure hurdles are most acute: alternative fuel refueling, fuel cells and personal consumer use of electric vehicles (home recharging). To provide special incentives and opportunities to reward and acknowledge investment in these areas, manufacturers can seek credit towards their ZEV requirement through special projects to provide alternate fuel vehicle refueling, fuel cell or personal electric vehicle use. In addition, credits can be granted for Transportation System projects that result in the placement of advanced technology vehicles in innovative transportation systems. In determining the credits to award to these projects, the Massachusetts Department of Environmental Protection can take into account associated project costs, and to what extent the proposed project relates to increased usage of the advanced technology vehicles supported by the project.

The maximum additional credit allowed for Infrastructure and Transportation System projects will be capped annually at 25 percent of the total 10 percent ZEV requirement. In other words, 25 percent of a manufacturer's total annual requirement for ZEVs, AT PZEVs and PZEVs under the terms of this alternative compliance plan could be replaced by credits generated by Infrastructure or Transportation System projects. Credits generated in this section are not subject to the phase-in multiplier.

## **6. Reporting**

Manufacturers will be required to submit Projected Compliance Reports to the Department by the commencement of the model year. These reports will include projected vehicle sales organized by engine family, marketing plans, dealerships targeted for advanced technology vehicle sales and support, Infrastructure, or Transportation System projects and credits proposed to be earned, and manufacturer projected compliance rates, including the number of credits or debits projected for the upcoming MY.

Compliance Reports will be required and due with annual sales reports by March 31 (with the potential to amend, based on late sales) following the completed model year. This report shall include vehicle sales organized by engine family, infrastructure and transportation system projects, manufacturer compliance rates including credits or debits accrued and the method the manufacturer plans to utilize to erase any debit.

## **V. REGULATORY DECLARATIONS**

### **Section 177 of the Clean Air Act**

The proposed ACP is a voluntary plan. Modifications to the ZEV mandate were finalized in 2004 and met the provisions of Section 177 of the CAA, which require that the Massachusetts emissions standards be put in place two years before the model year to which they will apply. The Department adopted the ZEV standards more than two model years prior to the effective date of the standards in MY 2007 by filing an emergency regulation with the Massachusetts Secretary of State on December 19, 2003. MY 2007 is the first model year that will be affected by the ZEV Program amendments.

Section 177 of the CAA also mandates that if a state adopts the California motor vehicle emission standards, the standards must be “identical to the California standards” for which California received a waiver of preemption from implementing the federal motor vehicle emission standards from EPA. The ZEV amendments finalized in 2004 directly cite and/or incorporate by reference the applicable sections within Title 13 of the CCR and they also include language from the “California Exhaust Emission Standards and Test Procedures for 2005 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes,” which can be found in Appendix C. The proposed ACP is a voluntary option for the manufacturers and is intended to provide more compliance flexibility to them with respect to the ZEV requirements. The proposed ACP does not impose any new emission standards or requirements that would lead to the manufacturers producing vehicles not already required by the existing LEV and ZEV rule.

### **M.G.L. c. 111, Section 142K**

The regulatory amendments meet the requirements of M.G.L. c. 111, Section 142K, which requires the Department to adopt and implement California motor vehicle emission standards

“unless, after a public hearing, the Department establishes, based on substantial evidence, that said emission standards and compliance program similar to the state of California’s will not achieve, in the aggregate, greater motor vehicle pollution reductions than the federal standards and compliance program for any such model year.”

The Department analyzed the emission benefits of LEV II and the ZEV mandate during the rulemaking process in 1999. This analysis found that the California emission standards in the aggregate would achieve greater emission reductions than the federal standards.

## **VI. AIR QUALITY IMPACTS**

### **Ozone Non-Attainment**

In accordance with M.G.L. c. 111, Section 142K, the Department assessed the air quality impacts of adopting the California LEV II standards, including the modifications to the ZEV mandate, as compared to the impacts of having federal standards in place in Massachusetts. This assessment was part of the Department’s rulemaking process in 1999. The Department engaged the services of Cambridge Systematics, Inc. through a contract with Northeast States for Coordinated Air Use Management (NESCAUM) to perform a technical analysis prior to the adoption of the standards. The results of this analysis showed that the adoption of the LEV II standards, including the ZEV mandate, in the aggregate

would result in the lowest level of on-road motor vehicle emissions in Massachusetts for NMHC, NO<sub>x</sub>, CO, and air toxics. The technical analysis is available through the Department.

Adoption of the proposed voluntary ACP, which will enhance the effectiveness of the ZEV mandate and promote the early introduction of advanced technology vehicles in the state, will further enable the state to meet its ozone attainment goals.

## **VII. ECONOMIC IMPACTS**

### **Impact on Vehicle Cost and Cost Effectiveness**

As part of the 2003-2004 rulemaking process to adopt the latest amendments to the CA ZEV rule, the impact on vehicle costs and cost effectiveness were evaluated and presented in the associated Background/Technical support Document, which can be found at (<http://www.mass.gov/dep/bwp/daqc/files/regs/tsdzzev2.pdf>). Although the ZEV rules may lead to increased costs of some vehicles, under the voluntary ACP, ZEVs are not required until MY 2008 and the Department expects that in MY 2006 – 2007, manufacturers may decide to meet the requirements of the ACP with PZEVs and AT PZEVs. This may lead to the average incremental costs of vehicles delivered for sale in Massachusetts being substantially lower than under the full California mandate in the early years of the program. In addition, this should also result in lower costs to the automobile manufacturers to comply with the program in Massachusetts.

## **VIII. OTHER PROGRAM IMPACTS**

### **Massachusetts Municipalities & Proposition 2½**

Municipal facilities will not be affected by the proposed changes to 310 CMR 7.40. The LEV Program is primarily directed toward vehicle and engine manufacturers. The only impact on municipalities will be when purchasing vehicles.

### **Massachusetts Environmental Policy Act**

The amended LEV regulation is “categorically exempt” from the Massachusetts Environmental Policy Act (MEPA) regulations, 301 CMR 11.00, because the regulation will result in reduced emission levels. All reasonable measures have been taken to minimize adverse impacts.

### **Agricultural Impacts**

M.G.L., c. 30A, Section 18, requires state agencies to evaluate the impact of programs on agriculture within the Commonwealth. The Department has determined that the regulation will not adversely impact agriculture in Massachusetts. The only impact on agriculture will be beneficial, as the program will help reduce emissions of ozone precursors, thus lowering crop damage attributable to high ozone concentrations in the summer. Notably, the LEV standards do not apply to farm machinery.

## **IX. PUBLIC PARTICIPATION**

As required by M.G.L. c. 111, Section 142K and M.G.L. c. 30A the Department gives notice and provides the opportunity to review background and technical information at least 21 days prior to

proposing the regulation amendments at a public hearing. To assure more adequate notice for processing a rule as an amendment to the SIP, formal notice will be issued 30 days before the public hearing. The hearing will be held in Boston.