

MEMORANDUM

TO: Board of Environmental Protection

FROM: Lynne Cayting, Bureau of Air Quality

DATE: April 16, 2009

RE: Request to Adopt Amendments to Chapter 127, New Motor Vehicle Emission Standards Regulation (Amendments to Low Emission Vehicle and Zero Emission Vehicle Programs)

Statutory and Regulatory Reference:

A. Statutory authority.

38 MRSA Section 585 provides that the Board of Environmental Protection may establish and may amend standards, herein called "emission standards", limiting and regulating in a just and equitable manner the amount and type of air contaminants which may be emitted to the ambient air within a region. Such standards shall be designed to prevent air pollution and to achieve the ambient air quality standards within the region in which it is applicable.

38 MRSA Section 585-A provides that the Board of Environmental Protection may establish and amend regulations to implement ambient air quality standards and emission standards. These regulations shall be designed to achieve and maintain ambient air quality standards and emission standards within any region and prevent air pollution.

38 MRSA Section 585-D provides that the Board of Environmental Protection may adopt and enforce standards that meet the requirements of the federal Clean Air Act, Section 177, 42 United States Code, Section 7507 relating to control of emissions from new motor vehicles or new motor vehicle engines.

B. Specific legal mandates requiring adoption.

Section 177 of the 1990 Clean Air Act Amendments (CAAA) allows any State to adopt and enforce for any model year standards relating to control of emissions from new motor vehicles or new motor vehicle engines if:

- (1) the standards are identical to the California standards for which a waiver has been granted for such model year; and

- (2) California and each State adopt the standards at least two years before commencement of such model year.

Location/Applicability:

The proposed regulation will apply statewide.

Description:

On January 15, 2009, the Board of Environmental Protection held a public hearing on the proposed amendments to Chapter 127 New Vehicle Emission Standards. The comment period remained open until January 26, 2009. The Department received comments from three interested parties.

The purpose of this rulemaking is to adopt the amendments to the Low Emission Vehicle Program (LEV) approved by the California Air Resources Board. Maine shall adopt these amendments in accordance with Section 177 of the Clean Air Act Amendments to remain identical with California's new vehicle emission standards. All new vehicles sold in the U.S. must meet vehicle emissions standards certified by either the federal government or the State of California. California is the only state with the authority to set its own vehicle standards. Under Section 177 of the Clean Air Act Amendments of 1990, Congress granted states with air pollution problems the authority to adopt motor vehicle emissions standards that are *identical* to the California standards.

Proposed amendments to Chapter 127 include changes to the Zero Emission Vehicle (ZEV) program to introduce significant flexibility into the ZEV sales requirement and broaden the scope of vehicles that can qualify for meeting some portion of the ZEV sales requirement. Adopted by the California Air Resources Board (CARB) in 1990, the ZEV program is a long-term technology forcing regulation, which mandates a percentage of the vehicles offered for sale by a manufacturer have zero emissions. In 1990, battery electric vehicles were the only vehicles available that could meet the ZEV requirements. Since then CARB has revised its ZEV program to better align the program requirements with the status of current technology development. In October 2008, CARB modified the ZEV program again to address the state of technologies available to meet the regulation and create incentives for new vehicle designs. The most significant amendments pertain to model years 2012-2017, while 2009-2011 requirements remain largely unchanged. The amendments require commercialization of pure ZEV technologies while recognizing the technological limitations and costs of current vehicles. The amendment is expected to reduce the cost of compliance by the auto manufacturers by reducing the number of vehicles incorporating the most expensive technologies (fuel cell and battery EVs).

The proposed amendments to Chapter 127 also require new cars beginning with the 2010 model year display California's new Environmental Performance label which scores a vehicle's global warming and smog emissions from 1-10 with the highest score being the cleanest vehicle options.

And lastly the proposed amendments include California's new in-use vehicle requirements for 2008 and subsequent model year heavy-duty diesel engines which require an engine automatic shutdown system or certification to meet an optional NOx idling emission standard of 30 grams per hour. In addition, all diesel-fueled auxiliary power units and heaters installed on vehicles certified to 2007 and subsequent model year heavy-duty diesel engine standards must be certified to meet California emission standards.

The Department received comments on these proposed amendments from members of the regulated community and the U.S. Environmental Protection Agency (EPA). After reviewing these comments, the Department has revised the proposed amendments to include the suggested regulatory language. Those additional changes are shaded in the attached draft rule. The primary comments were to 1) allow the environmental performance label on 2009 vehicles; 2) to exempt all ZEV Type vehicles that qualify for the travel provision from being offered for sale in Maine; 3) and provide an end date of 2011 for the offer for sale requirements for the alternative compliance path.

Discussion:

Environmental Performance Label. The proposed amendments to Chapter 127 require new cars beginning with the 2010 model year display California's new environmental performance label which scores a vehicle's global warming and smog emissions from 1-10 with the highest score being the cleanest vehicle options. However, California required all vehicles manufactured after January 1, 2009 to affix the environmental performance label, therefore all 2009 model-year vehicles will have this label. The Department does not intend to retroactively enforce this requirement but will allow the environmental performance label in lieu of the smog index label for 2009 model year vehicles.

Travel Provisions. Type III ZEVs (fuel cell vehicle) were the only ZEV type that qualified for the travel provision under California's previous ZEV regulations. Under the new ZEV regulations, additional ZEV types qualify for the travel provision. Further, the travel provision provides for qualifying ZEV types that are placed in service in California or in a Section 177 State to be counted towards compliance in California and in all Section 177 States, either at full value for 2009 and earlier model year vehicles, or at proportional value for 2010 and later model year vehicles. The travel provision for ZEV Types 1, 1.5, or II is from model year 2009-2014. Those zero emission vehicles subject to the travel provision are exempt from the offer for sale requirements in Maine. The concern is that Maine will not receive electric vehicles until 2015. However, it has been determined that the ZEV Types 1-5 are not currently commercially available and would not be sent to Maine regardless. However, Maine will continue to receive hybrid vehicles and will receive the enhanced AT PZEVs which include plug-in hybrids.

Alternative Compliance Requirements End Date. The Large Volume Manufacturers requested that Maine specify a clear end date for the offer for sale requirements. Subsections 4D(1)(d) and 4D(2)(c) provide start dates of MY2007 and MY2009 respectively, but offer no certain end date. The offer for sale requirements are part of the alternative compliance mechanisms and these are a transitional feature of Maine's program to address the fact that Maine adopted the California program midstream. The Department modified its regulations to clearly specify that the offer for sale requirements for the alternative compliance path apply

through the 2011 model year. In addition, since Maine's ZEV program became effective with model year 2009, we have omitted the paragraph requiring ZEV vehicles starting with model year 2007.

Environmental Issues:

Despite the impressive progress made in developing and introducing clean vehicles and fuels, motor vehicles still contribute a significant portion of the emission inventory for ozone, fine particulate matter, and air toxics. While per vehicle emissions have declined dramatically vehicle ownership and miles traveled continue to increase.

Reductions in mobile source emissions are an important part of achieving air quality goals. Mobile sources are a major contributor to air toxics such as benzene and greenhouse gases such as carbon dioxide. The more stringent new vehicle emission standards become necessary for Maine to meet federally-mandated clean air goals as the state's passenger vehicle fleet continues to grow with the increased use of sport utility vehicles and pickup trucks as passenger cars rather than work vehicles. The LEV program is included in the State Implementation Plan (SIP) which provides the attainment and maintenance plans for compliance with the National Ambient Air Quality Standards for ozone and particulate to ensure that future air quality reaches and continues to achieve these health-based standards.

Departmental Recommendation:

The Department recommends the Board adopt the proposed amendments to the Zero Emission Vehicle program, heavy-duty diesel engine certification requirements, and requirement of the new environmental performance label.

Estimated Time of Presentation:

15 minutes.