

Date: December 22, 2005
To: Environmental Quality Commission
From: Stephanie Hallock, Director
Subject: Agenda Item F, Rule Adoption: Oregon Low Emission Vehicle Rules

Department Recommendation The Department of Environmental Quality (DEQ) recommends that the Environmental Quality Commission (EQC) adopt temporary rules to require that new light and medium-duty vehicles sold in Oregon meet California motor vehicle emission standards as presented in Attachment A. Adopting temporary rules now would preserve Oregon's opportunity to adopt California standards for the 2009 model year as requested by Governor Kulongoski.

Need for Rulemaking This proposed rulemaking is part of a joint effort by west coast governors to address global warming and reduce greenhouse gas (GHG) emissions. Motor vehicles represent one of the largest sources of GHG emissions in Oregon. Federal emission laws (currently in force in Oregon) do not require GHG reduction. California vehicle emission standards will curb GHG emissions and provide additional reductions in smog and air toxics. Under the federal Clean Air Act, states can adopt (also referred to as "opting-in to") California vehicle emission standards in lieu of the federal standards.

Adopting California vehicle emission standards by January 1, 2006, would give manufacturers two-year notice required by law, and would allow Oregon to enforce the standards for new vehicles beginning with the 2009 model year, when GHG emission standards first take effect. Since adopting a permanent rule by January 2006 was not feasible, DEQ proposes this temporary rule, valid for 180 days, to be followed by the permanent rule slated for public comment and EQC review in early 2006. In addition, Oregon's temporary rule would allow Washington, which has adopted California vehicle emission standards contingent upon Oregon adoption of the program, to enforce California standards beginning with the 2009 model year.

If the EQC does not adopt the proposed temporary rule, or if the EQC adopts the temporary rule but does not adopt the permanent rule in early 2006, federal vehicle emission standards will continue to apply in Oregon.

Background Federal law requires states that opt-in to California Emission Standards to do so identically, in order to prevent the need for manufacture of a "third vehicle"—a vehicle that is different from that required by federal law and California standards. However, states do have flexibility to customize *implementation* of the standards. In order to evaluate implementation options and related issues while drafting the

proposed temporary rule, DEQ drew from the following sources, which are discussed in detail below:

- 2004 Governor's Advisory Group on Global Warming
- 2005 Governor's Vehicle Emissions Workgroup
- California Code of Regulations, Title 13, sections 1900 to 2235
- Washington Department of Ecology rules adopting California Motor Vehicle Standards

Early in 2004, Governor Kulongoski appointed business, community, and public leaders to the Governor's Advisory Group on Global Warming to develop a strategy for reducing GHG in Oregon. The group's final report is available online at <http://egov.oregon.gov/ENERGY/GBLWRM/Strategy.shtml>. An executive summary of the report is included here as Attachment D.

The 2004 report describes specific impacts to human health and Oregon resources that are likely to occur from climate change resulting from GHG emissions. According to the report, the long-term impacts on Oregon citizens, businesses, and environment are likely to be extensive and destructive. Scientists at Oregon and Washington universities project the consequences of global warming in the Pacific Northwest to include increased coastal flooding and erosion, diminished snow pack, reduced river flows in summer, increased river flooding in winter, impacts on farm and forest productivity, increased energy costs, increased pressure on fish and wildlife and harm to human health. The report explains, "Several thousand of the earth's scientists...agree that global warming caused by greenhouse gas pollution from human activities represents a profoundly serious threat to human civilization and to even the most robust and insulated natural ecosystems."¹

The 2004 Global Warming Advisory Group recognized that Oregon's contribution to the *global* problem of climate change is relatively small. However, greenhouse gas emissions from California, Washington, and Oregon combined make the west coast the seventh largest emitter of GHG globally. Oregon efforts to reduce GHG will add to the collective efforts of other states and nations and will provide national leadership in the prevention of climate change.

The advisory group recommended action in several major areas, including transportation.² In response to one high priority recommendation, in August 2005, Governor Kulongoski appointed a variety of business and citizen representatives to the Governor's Vehicle Emissions Workgroup to investigate—but not necessarily reach consensus on—approaches to implementing California Emission Standards in

¹ *Oregon Strategy for Greenhouse Gas Reductions*, Executive Summary, Attachment D, page i.

² See Attachment E for a full list of the group's recommended actions to reduce GHG.

Oregon.³ The workgroup met for 4½ days over a 5-week period and reported their deliberations to Governor Kulongoski on November 2, 2005.⁴ Some of the more prominent issues and stakeholder positions discussed in the report are summarized below at “Stakeholder Involvement.”

In developing Oregon’s proposed temporary rule, DEQ also worked with the Washington Department of Ecology, which is finalizing Washington’s Cal-LEV rules, to create uniformity across the two programs. The agencies collaborated to align phase-in schedules and compliance verification methods to the extent possible, in order to create a level playing field for automakers and dealers serving Oregon, Washington, and California.

Effect of Rule

Key features of California’s vehicle program and proposed Oregon customizations are discussed at length in the *Governor’s Vehicle Emission Workgroup Report* (Attachment C) and are briefly described below.

California vehicle emissions standards are divided into two main sections collectively known as California Low Emission Vehicles or Cal-LEV. One set of requirements reduces GHG emissions from motor vehicles. Those rules are sometimes referred to as the Pavley amendments after California Assemblywoman Fran Pavley who originally sponsored the GHG legislation. The second section reduces emissions of traditional pollutants that are precursors to ground-level ozone (smog) and air toxics. The precursors of ozone include non-methane organic gases (NMOG) and oxides of nitrogen (NOx).⁵

When Cal-LEV’s GHG requirements are fully phased in by 2016, new vehicles will be required to emit an average of 30% less carbon dioxide equivalent (CO₂E), a measure of GHG emission.⁶ These requirements are expected to be achieved with existing technologies that improve new vehicle efficiency. The technologies include turbo charging, cylinder deactivation, variable valve lift and timing, low-leak air conditioning, continuously variable transmissions, direct fuel injection, and electric power steering.⁷

The second set of Cal-LEV requirements will lower emissions of traditional pollutants that lead to ground-level ozone (smog). In 2020, these requirements will lower NMOG emissions from new vehicles 12% to 21% and lower NOx approximately 30% more than federal vehicle emission requirements. The rules will also reduce air toxics from new vehicles by 22% to 38%.⁸

³ See *Governor’s Vehicle Emission Workgroup Charter*, Attachment B, for more information.

⁴ See *Governor’s Vehicle Emission Workgroup Report*, Attachment C, for more information.

⁵ See Attachment C, pages 9 to 14, for more information.

⁶ See attachment C, pages 23 to 28, for more information.

⁷ See attachment C, pages 80 to 82, for more information.

⁸ See attachment C, pages 23 to 28, for more information.

The Cal-LEV requirements include a subsection intended to stimulate the development of new technologies for Zero Emission Vehicles (ZEV), including battery/electric and hydrogen fuel cell vehicles. California has modified the ZEV requirements several times, since they were first adopted, to respond to slower-than-expected development of true zero emission vehicle technologies. Currently, California Air Resources Board (CARB) has provided manufacturers flexibility to meet the ZEV requirements by producing Partial Zero Emission Vehicles (PZEVs) and Advanced Technology Partial Zero Emission Vehicles (ATPZEVs), both of which produce very low amounts of pollution and are technologically feasible today.⁹

As noted above, any state opting in to California vehicle standards must adopt requirements virtually identical to California's. However, opt-in states have flexibility in the way they implement the standards. In most respects, DEQ's proposed temporary rule adopts California standards by reference. However, it includes the following custom features, which will be discussed in more detail at "Key Issues" below:

- Tailored exemptions and phase-in provisions.
- Modified compliance date for fuel cell vehicles used in Oregon.
- Modified extended warranty requirements for PZEVs.¹⁰

**Stakeholder
Involvement**

Discussions between key stakeholders on the Governor's Vehicle Emissions Workgroup informed DEQ development of the proposed temporary rule. Some of the more prominent issues and stakeholder positions discussed in the *Governor's Vehicle Emissions Workgroup Report* (Attachment C) are summarized below.

Benefits of Oregon Low Emission Vehicles (LEV): The Alliance of Automobile Manufacturers and the Oregon Auto Dealers Association argue that adopting Cal-LEV in Oregon will not reduce greenhouse gas emissions enough to affect global warming. The Oregon Environmental Council, Better World Club, and Northwest Automotive Trades Association argue that Oregon should adopt Cal-LEV to address greenhouse gas emissions and get the additional benefit for smog and toxics. All workgroup participants agreed that, for smog and toxics, Cal-LEV provides an incremental additional reduction beyond the federal standards; however, there was disagreement over the significance of that additional benefit.¹¹

Costs: The Alliance of Automobile Manufacturers argues that California GHG rules

⁹ See attachment C, pages 49 to 59, for more information.

¹⁰ See attachment C for more information on the following: Warranties, page 39; ZEV/PZEV, page 49; Exemptions, page 60; Phase-in provisions, page 62.

¹¹ See attachment C, pages 29 to 32, for more information.

will increase the initial purchase price of California-compliant cars by as much as \$3,000 and will not be economical for Oregon consumers. CARB estimates that the rule could increase the initial cost of a vehicle by up to \$1,000 by 2016 but would produce a net savings to consumers in reduced fuel costs.¹²

Diesel Vehicle Availability: The Alliance of Automobile Manufacturers argues that passenger diesel vehicles (such as Mercedes, Volkswagen and Jeep Liberty) will not be able to meet California emissions standards. CARB, however, disagrees. Based on its discussions with auto makers, CARB argues that diesel vehicles will be able to meet the California standards in 2009¹³. On a related issue, the Oregon Environmental Council argues that the use of bio-diesel fuel in Oregon would not be jeopardized by adopting the California standards. Heavy-duty trucks, construction equipment, and other users, which are the chief market for bio-diesel, are not covered by the Cal-LEV requirements.¹⁴ Also, diesel passenger vehicles that are covered by Cal-LEV will be able to use bio-diesel fuel.

Zero Emission Vehicles (ZEV): The workgroup discussed whether Oregon should adopt the Zero Emission Vehicle (ZEV) requirement of the Cal-LEV standards, which rely heavily on vehicle technology advancements. All participants agreed that requirements to use hydrogen fuel cell ZEVs in Oregon, beginning in 2012, should be considered with caution, due to the need to develop a hydrogen-refueling infrastructure. The Washington Legislature excluded the ZEV requirements from Washington's program, but the Washington Department of Ecology plans to ask the Legislature to restore the requirements. The Alliance of Automobile Manufacturers argues that the ZEV program should not be implemented in Oregon. However, the Oregon Environmental Council, Flexcar, and Oregon Business Association argued that current uncertainties with fuel cell vehicles should not preclude the ZEV requirements. The workgroup also discussed the pros and cons of Oregon-specific modifications to the ZEV program.¹⁵ The proposed temporary rule includes an Oregon-specific ZEV program that would delay requirements for fuel cell vehicles until the hydrogen fueling infrastructure is available in Oregon. (See "Key Issues" below for more information.)

Extended Vehicle (PZEV) Warranty: While ZEV technology is developing, California allows manufacturers to meet the ZEV standard by substituting some partial zero emission vehicles (PZEV) and advanced technology PZEVs (ATPZEV) for true ZEV vehicles. California requires manufacturers to give purchasers of PZEVs and ATPZEVs an extended (15 year/150,000 mile) warranty on emission control systems as compared to the 8 year/80,000 mile federal warranty. The

¹² See attachment C, pages 41 to 42, for more information.

¹³ See attachment C, pages 44 to 47, for more information.

¹⁴ See attachment C, pages 47 to 48, for more information.

¹⁵ See attachment C, pages 55 to 59, for more information.

Northwest Auto Trades Association, representing independent auto repair facilities, argues that the extended warranty would hurt its members, because a large percentage of auto repair is related to emission control equipment, and extended warranty work would have to be done by vehicle dealers as opposed to independent repair shops. The Northwest Auto Trades Association and Oregon Auto Dealers Association argued that the PZEV warranty requirement should be removed. Several workgroup members argued that the extended warranties should be required to better ensure on-going emission reduction and as a consumer benefit.¹⁶ The proposed temporary rule excludes the extended PZEV warranty but requires manufacturers to provide PZEV vehicles to Oregon that are as durable as those provided in California. However, the proposed rule does retain the extended 10-year warranty for batteries used in some ATPZEVs (hybrid electric vehicles) to ensure that consumers do not have to pay for replacement batteries during the warranty period. (See “Key Issues” below for more information.)

Compliance and Enforcement: Six of eight opt-in states enforce Cal-LEV by denying vehicle registration and titling for any new vehicle that is not California compliant. Under current statutes, Oregon DMV does not have authority to deny vehicle registration for noncompliant cars.

The Alliance of Automobile Manufacturers and the Oregon Auto Dealers Association argue that the Cal-LEV program should not be adopted in Oregon without DMV authority for registration denial. Auto dealers expressed concern that they might lose sales to out-of-state dealers (supplying non-compliant vehicles), unless those vehicles would be denied Oregon registration. Other workgroup members recognized the benefits of registration denial but supported adopting the Cal-LEV standards using alternate methods of compliance verification. They argued that effective compliance verification could be achieved without registration denial through a combination of record reviews, dealer outreach, and inspections. The workgroup recommended that the Governor seek legislative authority in the future to deny vehicle titling or registration to new vehicles that do not comply with California standards.¹⁷ The proposed rule relies on compliance verification methods other than registration denial such as records review and dealer inspections.

Resources to Support the Program: The workgroup discussed various options for funding Oregon’s Cal-LEV program, including requesting general fund and imposing a fee on automakers. There was no consensus on the best funding mechanism. Several workgroup members argued that a fee on dealers would be fair because it focuses on those who sell, buy, or register new cars. Others argued that collecting a fee from 10-15 manufacturers would be more efficient than collecting from several

¹⁶ See attachment C, pages 41 to 42, for more information.

¹⁷ See attachment C, pages 70 to 71, for more information.

¹⁸ See attachment C, pages 72 to 74, for more information.

hundred dealers. The Auto Alliance thought that the cost of the program should be spread across the entire population using general funds, because everyone will benefit from the regulations.¹⁸ DEQ plans to address the issue of program funding in the permanent rule.

Public Comment Meetings of the Governor's Vehicle Emissions Workgroup included opportunities for public comment. Those comments influenced the workgroup discussions and are summarized in the workgroup report (Attachment C). The workgroup forwarded all written comments to the Governor. There is no opportunity for formal public comment during the adoption of a temporary rule. However, the permanent Cal-LEV rulemaking in 2006 would include opportunity for public comment, including several hearings. Provisions adopted in the temporary rule may be re-shaped by public comment, before inclusion in the permanent rule.

Key Issues **Customizing Cal-LEV implementation**

DEQ is proposing to adopt the Cal-LEV program essentially in its entirety. However, the following Oregon-specific customizations are being proposed:

1. Oregon ZEV: DEQ proposes to adopt the Zero Emission Vehicles (ZEV) requirement, but to delay the deadline for providing hydrogen fuel cell ZEVs in Oregon. The delayed deadline will allow DEQ and the Commission the opportunity to monitor the progress and development of a hydrogen-refueling infrastructure. If DEQ finds that the fueling infrastructure has advanced sufficiently, then DEQ rules could be revised to require manufacturers to provide Oregon's share of fuel cell vehicles. Other vehicles used within the ZEV program (including battery-electric vehicles, PZEVs, and ATPZEVs) will be required under this rulemaking as specified in the California program.

2. Extended (PZEV) Warranty: Under California provisions, manufacturers must provide low-emission PZEVs and ATPZEVs with a 15 year/150,000 mile warranty on all emissions-related components. The warranty was devised to ensure that manufacturers design emission control systems that last as long as today's more durable vehicles. DEQ proposes excluding this extended warranty but requiring that PZEVs include the same quality components as those vehicles supplied to areas where the extended warranty applies, in order to ensure that Oregon does not receive less durable vehicles. PZEV/ATPZEV vehicles will still be covered by the federal 8-year/80,000 mile warranty, as are all vehicles under California's program. The proposed rule also retains the extended 10-year warranty for batteries used in some ATPZEVs (hybrid electric vehicles) to ensure that the cost of replacement batteries is covered during the warranty period.

Elimination of the extended warranty will not affect the expected reduction of greenhouse gas emissions, but may slightly diminish the reduction of smog forming

emissions over the life of a vehicle if non-warranty emission repairs are cost-prohibitive. While loss of the extended warranty will affect consumers, PZEV/ATPZEV vehicles will still be covered by the federal 8 year/10,000 mile warranty. DEQ is concerned about the potential long-term economic impact on independent auto repair shops, especially in rural parts of the state, if an extended warranty were adopted as part of the ZEV program. This is because repair work covered under an extended warranty could only be done by franchise dealers, and so would decrease work available for independent auto repair businesses. Unlike California, Oregon currently meets all federal air quality standards, and any slight loss of emission benefit due to dropping the extended warranty will not jeopardize Oregon attainment status. DEQ believes that elimination of the extended warranty should not significantly reduce the overall emission reduction benefit from Cal-LEV.

Legal Risk of Customizing Cal-LEV

Many opt-in states have customized aspects of Cal-LEV implementation, in order to design a program that best serves their needs. The legality of such customization is less than clear. However, EPA has stated that it believes customizing implementation is permissible, so long as variations from California standards do not trigger the need for a 'third car' to meet the state standard. DEQ believes that Oregon's proposed variation from California's ZEV requirements would not require manufacture of a "third vehicle," and thus would be permissible.

Customizations made by other Cal-LEV opt-in states remain untested in court and the risk of litigation appears small. If an opt-in state's customizations were ever disallowed under the Clean Air Act, the remedy would simply be to align the state program fully with California rules or opt-out of the California program and return to the federal standards.

Corporate Average Fuel Economy Lawsuit

Under the Energy Policy and Conservation Act of 1976, Congress established Corporate Average Fuel Economy (CAFE) regulations to reduce fuel consumption and imports. The Alliance of Automobile Manufacturers claims that California's GHG limits are preempted by the CAFE standards even though they are permissible under the Clean Air Act. This case is scheduled to go to trial in 2007 and the outcome is certain to be taken to the U.S. Ninth Circuit Court of Appeals. If the challenge is ultimately successful, California will have to revise the Cal LEV program to be consistent with the court ruling. In that case, Oregon would still benefit from reduced emissions of ozone precursors and air toxics, as well as any new approaches California utilizes to reduce GHG emissions.

Implementation To successfully launch the Cal-LEV program in Oregon, staff would conduct a variety of outreach activities during the phase-in period (2006-2009), including

reviewing requirements with auto manufacturers, preparing fact sheets for dealers and the independent auto repair shops, working with Oregon DMV on procedures for tracking vehicles registrations, managing the early banking of emission credits, and developing DEQ's internal data tracking infrastructure needed to support the program. DEQ estimates that one full-time-equivalent (FTE) position would be needed to accomplish these tasks in the short term for the 2006-2009 phase-in period.

After 2009, staff would review annual reports from manufacturers to verify compliance with emission standards and ZEV sales targets, review DMV registration records to identify non-compliant vehicles, conduct dealer inspections and outreach, investigate cross-boarder sales issues, pursue enforcement actions as needed, and keep current with changes to California Cal-LEV rules. DEQ estimates that 1.5 FTE would be needed in the long term for this work. This resource estimate is consistent with other opt-in states. CARB would continue to conduct all emission certifications for new vehicle types and technologies developed for market in Cal-LEV states. Opt-in state activities would focus primarily on implementation and compliance verification.

DEQ is considering a fee on manufacturers to support the program. This fee is not included in the temporary rule but would be considered as part of the permanent rulemaking.

Next Steps

If the EQC adopts the proposed temporary rules in December, DEQ will file the rules with the Oregon Secretary of State with an effective date of January 1, 2006, and will immediately begin permanent rulemaking. At this time, DEQ intends to hold public hearings in Portland, Medford, Pendleton and Bend as part of the permanent rulemaking process. Once permanent rules are adopted, staff assigned to the program will develop data tracking systems, conduct outreach, and provide technical assistance to prepare for the 2009 model year.

The permanent rule would also include revisions to DEQ Division 12 enforcement rules to incorporate Cal-LEV enforcement provisions, and possibly other conforming changes to other existing DEQ rules.

In addition to the permanent rule, DEQ would be developing internal implementation guidance for public and dealer outreach as well as compliance verification and enforcement procedures.

- Commission Authority** The Commission has authority to take this action under ORS 468.020, 468A.025, and 468A.360.
- Attachments**
- A. Proposed Temporary Rule: Divison 257, Oregon Low Emission Vehicles.
 - B. *Governor's Vehicle Emissions Workgroup Charter.*
 - C. *Governor's Motor Vehicle Emission Workgroup Report.* Also available online at:
<http://www.deq.state.or.us/aq/aqplanning/CalLev/Index.htm>.
 - D. *Governor's Greenhouse Gas Strategy Report, Executive Summary.*
 - E. Summary of greenhouse gas reduction strategies recommended by the governor's Advisory Group on Global Warming.
 - F. List of current automakers subject to Cal-LEV standards.
 - G. DEQ Statement of Need and Justification.
 - H Governor Kulongoski's letter regarding Low Emission Vehicle rules.

Available Upon Request *Oregon Strategy for Greenhouse Gas Reductions*

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