



DEPARTMENT OF
ECOLOGY
State of Washington

Concise Explanatory Statement
Chapter 173-423 WAC
Low Emission Vehicles

Summary of rule making and response to comments

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Concise Explanatory Statement

Chapter 173-423 WAC Low Emission Vehicles

Air Quality Program
Washington State Department of Ecology
Olympia, Washington 98504-7600

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Introduction

The purpose of a Concise Explanatory Statement is to:

- Meet the Administrative Procedure Act (APA) requirements for agencies to prepare a Concise Explanatory Statement (RCW 34.05.325).
- Provide reasons for adopting the rule.
- Describe any differences between the proposed rule and the adopted rule.
- Provide Ecology's response to public comments.

This Concise Explanatory Statement provides information on The Washington State Department of Ecology's (Ecology) rule adoption for:

Title: Low Emission Vehicles
WAC Chapter(s): WAC 173-423
Adopted date: November 28, 2012
Effective date: December 29, 2012

To see more information related to this rule making or other Ecology rule makings please visit our web site: <http://www.ecy.wa.gov/laws-rules/index.html>

Reasons for Adopting the Rule

The Washington Legislature requires automotive emissions standards to be consistent with California low emission vehicles standards in Title 13 of the California Code of Regulations. The federal Clean Air Act allows states to opt into the California clean car program and requires that states who opt in maintain consistency with the California vehicle emission standards. RCW 70.120A.010 directs Ecology to "amend the rules from time to time, to maintain consistency with the California motor vehicle emission standards." This rule-making consists of updates to Chapter 173-423 WAC to maintain consistency with the latest version of Title 13 of the California Code of Regulations.

Differences Between the Proposed Rule and Adopted Rule

RCW 34.05.325(6)(a)(ii) requires Ecology to describe the differences between the text of the proposed rule as published in the *Washington State Register* and the text of the rule as adopted, other than editing changes, stating the reasons for the differences.

There are some differences between the proposed rule filed on October 3, 2012 and the adopted rule filed on November 28, 2012. Ecology made these changes for all or some of the following reasons:

- In response to comments we received.
- To ensure clarity and consistency.
- To meet the intent of the authorizing statute.

The following content describes the changes and Ecology's reasons for making them.

Rule text change:

WAC 173-423-070: The following text was deleted.

“Note to reader: The California Air Resources Board (ARB) is updating its rules to allow manufacturer compliance with the Environmental Protection Agency National Program greenhouse gas requirements for model years 2017-2025 to serve as compliance with the California requirements for those same model years. The rules affected include Title 13, section(s) 1900, 1956.8, 1960.1, 1961, 1961.2, 1961.3, and 1976. Should California finalize its rules before ecology finalizes these rule revisions, then the effective dates for the California Title 13 sections in this draft version of Table 070(1) will be adopted into the state rule.”

Reason for change:

The text was clearly labeled a note to the reader in the proposed rule and was never intended to be included in the final rule. California ARB did not finalize the rule making in question prior to our adoption date. Therefore, Ecology did not update the specified sections. We plan to adopt the updates to California's program at a later time. This is consistent with both the note to reader and the Proposed Rule Making (CR-102) form filed October 3, 2012, WSR 12-20-068.

Rule text change:

WAC 173-423-070, Table 070(1): The following text was added back to the rule.

Title 13 CCR Division 3 Air Resources Board	Title	California Effective Date
Section 2036	Defects Warranty Requirements for 1979 Through 1989 Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles; 1979 and Subsequent Model Motorcycles and Heavy-Duty Vehicles; and Motor Vehicle Engines Used in Such Vehicles	5/15/99

Reason for change:

This text was mistakenly deleted from the existing rule in the proposed rule text. Ecology is correcting the mistake by returning the text to the form that exists in the currently adopted rule. This meets state and federal requirements that require Washington's program to be consistent with California's program and the stated purpose of this rule making.

Commenter Index

The table below lists the names of organizations or individuals who submitted a comment on the rule proposal and where you can find Ecology's response to the comment(s). Each comment is included in verbatim followed by Ecology's response. Comments are arranged in alphabetical order by commenter.

Table A: Commenter Index

Name	Affiliation	Comment Number
Steven Douglas	Alliance of Automobile Manufacturers	1
Julia Rege	Association of Global Automakers	2
Antonio Santos	Manufacturers of Emission Controls Association	3
Tony Splane	Public	4
Lisa	Public	5

Response to Comments

Description of comments:

Ecology accepted comments between October 3, 2012 and November 14, 2012. This section provides verbatim comments that we received during the public comment period and our responses. Comments are arranged in alphabetical order by commenter. Ecology's response follows each comment. Copies of the original comments, including attachments, are also available in Appendix A. Appendix B contains the transcript of the public hearing for this rule making. No comments were given during the public hearing. (RCW 34.05.325(6)(a)(iii))

Commenter identification:

Comments are arranged in alphabetical order by commenter. The commenter is identified at the beginning of each comment. Table A lists each commenter in the order that their comments appear in this section.

Alliance of Automobile Manufacturers

I am writing on behalf of the Alliance of Automobile Manufacturers (Alliance), a trade association of 12 car and light-truck manufacturers representing about 75 percent of the new vehicle market in the U.S. The Alliance worked with the California Air Resources Board (ARB) and other Section 177 states in the development of the criteria emissions regulations under the Low Emissions Vehicle III program (or LEV III). We support the changes adopted by California and changes to Washington's regulations needed to harmonize with California.

We recommend the following minor changes to streamline the regulations and fully harmonize with the California regulations.

1. **2014MY LEV II and LEV III Fleet Averages (WAC 173-423-080(1)(a) and (2)(a)):** Part of this section applies only to the 2014MY fleet and allows manufacturers to comply with either the LEV III NMOG+NO_x fleet average or the LEV II NMOG fleet average specified therein. LEV II does not require MDPVs in the LDT2 fleet average; however, it appears that MDPVs were inadvertently included in the change to this section. This typographical error was also in the adopted LEV III regulations, but has been corrected in the proposed "deemed to comply" regulations which ARB will hear on November 15, 2012 (see <http://www.arb.ca.gov/regact/2012/leviiiidtc12/dtcappa.pdf>, §1961(b)(1) page A-9). We recommend the following correction to both sections (1)(a) and (2)(a) of Chapter 173-423-080:

(a) Effective model year 2009 through 2014, except as provided in this subsection, each motor vehicle manufacturer's NMOG fleet average emissions from passenger cars and light duty trucks delivered for sale in Washington shall not exceed the Fleet Average NMOG Exhaust Emission Requirement set forth in the California Code of Regulations, Title 13, section 1961(b). For the 2014 model year only, a manufacturer may comply with the fleet average NMOG + NO_x values in subsection (b) of this section in lieu of complying with the NMOG fleet average emissions in this subsection. A manufacturer must either comply with the NMOG + NO_x fleet average requirements for both its PC/LDT1 fleet and its LDT2/MDPV fleet or comply with the NMOG fleet average requirements for both its PC/LDT1 fleet and its LDT2/MDPV fleet. A manufacturer must calculate its fleet average NMOG + NO_x values using the applicable full useful life standards.

2. **Greenhouse Gas (GHG) Reporting (WAC 173-423-090(7)):** This section contains the GHG fleet average reporting requirements. It specifies that manufacturers must report GHG fleet average no later than March 1 for the preceding MY. However, California’s GHG report is not required until May 1. We recommend the Department update this requirement for consistency with California as shown below:

*(7) Reporting on greenhouse gas requirements. Beginning with the 2009 model year, each manufacturer shall submit by **March-May 1** a report to the department of ecology that shall include:*

3. **Failure of Emission Related Components (FERC) Reporting (WAC 173-423-110(3)):** We do not oppose providing the Department FERC reports. However, generating and submitting reports consumes manufacturer resources, which we have no issues with, provided the Department of Ecology needs them. Adding the “upon request” to these sections ensures the Department has access to needed reports, but reduces the burden on manufacturers when the reports are not needed. We recommend the following changes to this section:

(3) Upon request, All-manufacturers shall submit to the department of ecology Failure of Emission-Related Components reports as defined in the California Code of Regulations, Title 13, section 2144 for vehicles subject to this regulation. For purposes of compliance with this requirement, manufacturers may submit copies of the Failure of Emission-Related Components reports that are submitted to the California Air Resources Board, in lieu of submitting reports for vehicles subject to this chapter. ~~Manufacturers may discontinue submitting these reports if so notified by the department of ecology.~~

4. **Exemptions (WAC 173-423-060(7)):** This paragraph was revised to exempt vehicles purchased by law enforcement (police, sheriff, and state patrol) and fire districts. The Alliance appreciates this modification, which is responsive to manufacturer requests for alignment with California’s regulations regarding emergency vehicle exemptions (see California Vehicle Code Section 27156.2). Please note that Section 27156.2 also exempts “emergency vehicle[s] used by an emergency medical technician-paramedic”—in other words, ambulances. Given the critical functions performed by ambulances and the special equipment they require, it seems clear that ambulances should be exempted from emissions requirements as California has recognized. For these reasons, we recommend the following change:

*(7) ~~((An emergency vehicle when a public safety agency has demonstrated to the department of ecology's satisfaction that a vehicle that will meet said agency's needs is not otherwise reasonably available.))~~ Motor vehicles **that are 1) purchased for use by a local police department, county sheriff, fire district, or the Washington state patrol; or 2) purchased by hospitals or other emergency medical providers for use as an ambulance.***

Response

Thank you for your comments. Ecology appreciates your interest in this rule making and support of our efforts to harmonize with California’s program.

1. Ecology is updating WAC 173-423 Low Emission Vehicles to incorporate recent changes to the California regulations. Changes to sections (1)(a) and (2)(a) of Chapter 173-423-080 involve changes adopted by California in August, 2012. While including medium duty vehicles in the 2014 MY NMOG fleet average may have been inadvertent, Ecology must incorporate the language as it was adopted by California. Modifying Ecology's rule language prior to California finalizing changes to its regulation, as proposed by the commenter, would be premature and could lead to inconsistencies between Washington's and California's programs.

Ecology will be updating its rule to incorporate California's "deemed to comply" provision after California has completed its rule making. We will also adopt any other finalized changes to California's program, potentially including the suggested change regarding the MDPV fleet, at that time. Until then, Ecology will exercise enforcement discretion, in this regard – ensuring that Washington's emission standards remain consistent with California emission standards.

2. Ecology appreciates the commenter's interest in aligning Washington and California reporting dates. Ecology recognizes the value in aligning the reporting date in WAC 173-423-090(7) Fleet average greenhouse gas exhaust emission requirements, reporting, and compliance with California's program.

However, the suggested change is to language that has been in Washington's rule since the rule was originally adopted in 2005 and was not identified as a potential change in Ecology's proposed rule text. Therefore, adopting the suggested change at this time would not allow for full public comment on the change. To address the commenter's concern, Ecology will continue to work with and remain flexible towards manufacturers that have difficulty meeting this administrative requirement. Ecology will make note and further consider the requested modification in its next update to WAC 173-423 Low Emission Vehicles when the suggested change can go through a more thorough public comment process.

3. Ecology did not propose amending Failure of Emission Related Components (FERC) Reporting in WAC 173-423-110(3) Warranty requirements. As written, the rule provides an administrative path that allows manufacturers to discontinue submitting copies of these reports if so notified by Ecology. Ecology will re-visit this requirement and determine the degree to which they are still beneficial. We will notify manufacturers to discontinue the reports if they are no longer needed - without going through rule making process. Ecology will also make note and further consider the requested modification in its next update to WAC 173-423 Low Emission Vehicles when the suggested change can go through a more thorough public comment process.

4. Ecology adopted WAC 173-423 Low Emission Vehicles in 2005. Since then, on occasion manufacturers have expressed concern with their ability to adequately meet the demand for certain law enforcement vehicles that comply with WAC 173-423 Low Emission Vehicles. In response to these concerns, Ecology is proposing to exempt vehicles purchased for use by local police departments, county sheriffs, fire districts, and the Washington State Patrol. The commenter acknowledges Ecology responsiveness to manufacturer requests, in this regard.

WAC 173-423 Low Emission Vehicles applies to passenger cars, light duty trucks and medium duty passenger vehicles. Most "emergency vehicle[s] used by an emergency medical technician-paramedic"—(ambulances) are classified as medium or heavy duty vehicles and are not subject to Washington's low emission vehicle rule. Moreover, neither Ecology nor Washington State Department of Licensing has heard any concerns expressed by ambulance manufacturers,

ambulance purchasers, or personnel about their ability to purchase emission-compliant vehicles to meet their need.

Ecology will be updating its rule to incorporate California's "deemed to comply" provision after California has completed its rule making. Ecology will make note and further consider the requested modification in its next update to WAC 173-423 Low Emission Vehicles when the suggested change can go through a more thorough public comment process. Until then, Ecology will exercise enforcement discretion, and on a case-by-case basis work with hospitals or emergency medical providers who find there is a need for an ambulance that would otherwise be subject to WAC 173-423 Low Emission Vehicles.

No change to the rule language has been made based on this comment.

Association of Global Automakers

The Association of Global Automakers, Inc. (Global Automakers)¹ appreciates the opportunity to provide comments to the Washington Department of Ecology (Ecology) on the proposed amendments to WAC 173-423, Low Emission Vehicles, to incorporate new low emission vehicle standards (LEV III) and greenhouse gas (GHG) emission standards.

Global Automakers supports a single, harmonized program for GHG and criteria emissions and has been actively engaged in promoting harmonization between the U.S. Environmental Protection Agency (EPA), National Highway Traffic Safety Administration (NHTSA), and California Air Resources Board (ARB). ARB's GHG regulations for model years (MYs) 2017-2025 GHG emission standards and the updates to the environmental performance label provisions are in line with such harmonization. Also, based on discussions with EPA, we expect EPA to propose and adopt Tier 3 emissions standards to nationalize the benefits of LEV III and to propose national gasoline quality improvements to reduce sulfur in gasoline, which will more closely align national fuel with California's cleaner fuels. California's gasoline pool average sulfur content is about one-third of the average sulfur content of gasoline in the other 49 States. As in the past, we continue to support the need to treat vehicles and fuels as a system to achieve the greatest environmental benefits. Gasoline quality improvements will assist automobiles in achieving more stringent criteria emissions standards, enable advanced engine technologies needed to meet stringent GHG emissions standards, and will also result in significant emission reductions from the existing vehicle fleet. We believe harmonization for emission standards and fuels will maximize environmental benefits, while streamlining reporting and other compliance efforts for industry and agencies.

¹ The Association of Global Automakers, Inc. represents international motor vehicle manufacturers, original equipment suppliers, and other automotive-related trade associations. Our members' market share of both U.S. sales and production is 40 percent and growing. We work with industry leaders, legislators, regulators, and other stakeholders in the United States to create public policy that improves motor vehicle safety, encourages technological innovation and protects our planet. Our goal is to foster an open and competitive automotive marketplace that encourages investment, job growth, and development of vehicles that can enhance Americans' quality of life. For more information, please visit www.globalautomakers.org.

As Ecology notes in the proposed regulations, ARB proposed amendments to its MYs 2017-2025 GHG emission standards on September 14, 2012 to allow for compliance based on the national program:

Note to reader: The California ARB is updating its rules to allow manufacturer compliance with the Environmental Protection Agency National Program greenhouse gas requirements for model years 2017-2025 to serve as compliance with the California requirements...Should California finalize its rules before ecology finalizes these rule revisions, then the effective dates for the California Title 13 sections in this draft version of Table 070(1) will be adopted into the state rule.²

ARB's amendments are expected to be approved on November 15, 2012, and a final regulation would be expected at the latest by September 14, 2013, though it will likely be finalized much sooner. If Ecology can delay finalizing its regulations to add these amendments to this proposed regulation, we would support such action.

In addition, we support Ecology's proposal to remove the pre-model year NMOG report from the LEV requirements. Global Automakers maintains that the pre-model year NMOG report is unnecessary with highly variable data based on projected sales and provides no environmental benefit. Additionally, California does not require this report, and for consistency with the LEV requirements, it is appropriate to remove this provision.

Global Automakers, however, is concerned with Ecology's GHG reporting timeframe, which requires that "...each manufacturer shall submit by March 1 a report to the department of ecology."³ While we believe that Ecology's intent is to be consistent with ARB's reporting requirements, ARB requires data to be submitted by May 1, two months later than Washington's requirements.⁴ In order to fully harmonize with ARB's provisions, and to provide reporting consistency for automakers, Global Automakers strongly recommends that Ecology amend the GHG fleet average reporting deadline to May 1.

Response

Thank you for your comments. Ecology appreciates your interest in this rule making and support of our efforts to harmonize with California's program.

We appreciate the commenter's interest in Ecology moving in step with California as they update their rules. Ecology initiated this rule update nearly two years ago. Due to numerous delays in the California rule making, we have delayed this effort several times. Moreover, regarding California's "deemed to comply" rule making, there is no certainty as to when it will be finalized. For Ecology to further postpone at this time could require us to cancel this rule making - only to

² Proposed Rule Text, pg 4. <http://www.ecy.wa.gov/laws-rules/wac173423/p1101a.pdf>.

³ Ibid, pg 14.

⁴ California 2001 Through 2014 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2009 Through 2016 Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, pg H-5, and California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures For Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, pg H-4. http://www.arb.ca.gov/msprog/levprog/cleandoc/ldtps_2001-2014_cp_or_2016_ghg_my_clean_complete_lev_iii_8-12.pdf and http://www.arb.ca.gov/msprog/levprog/cleandoc/ldtps_2015+_cp_or_2017+_ghg_my_lev_iii_clean_complete_8-12.pdf, respectively.

restart the public comment process when California has completed their effort. Moving forward with this rule update as planned ensures that Washington remains consistent with California emissions standards sooner rather than at some unknown future date.

Ecology will be updating its rule to incorporate California's "deemed to comply" provision after California has completed its rule making. Until then, Ecology will continue to exercise enforcement discretion – ensuring that Washington's emission standards remain consistent with California emission standards.

Ecology appreciates the commenter's interest in aligning Washington and California reporting dates. Ecology recognizes the value in aligning the reporting date in WAC 173-423-090(7) Fleet average greenhouse gas exhaust emission requirements, reporting, and compliance with California's program.

However, the suggested change is to language that has been in Washington's rule since the last rule making and was not identified as a potential change in Ecology's proposed rule text. Therefore, adopting the suggested change at this time would not allow for full public comment on the change. To address the commenter's concern, Ecology will continue to work with and remain flexible towards manufacturers that have difficulty meeting this administrative requirement. Ecology will make note and further consider the requested modification in its next update to WAC 173-423 Low Emission Vehicles when the suggested change can go through a more thorough public comment process.

No change to the rule language has been made based on this comment.

Manufacturers of Emission Controls Association

The Manufacturers of Emission Controls Association (MECA) is pleased to provide comments in support of the Washington Department of Ecology's proposed amendments to its Clean Car Program, which would adopt the California ARB's new Low Emission Vehicle (LEV) III, greenhouse gas (GHG), and zero-emission vehicle (ZEV) standards for new motor vehicles and motor vehicle engines. These amendments, if adopted, will reset the bar for state-of-the-art exhaust and evaporative emission controls for light-duty vehicles through 2025. MECA applauds the Washington Department of Ecology for bringing forward a comprehensive set of proposals covering light-duty criteria pollutant emission standards and vehicle greenhouse gas emission standards for future vehicles.

MECA is a non-profit association of the world's leading manufacturers of emission control technology for mobile sources. Our members have over 40 years of experience and a proven track record in developing and manufacturing emission control technology for a wide variety of on-road and off-road vehicles and equipment, including extensive experience in developing exhaust and evaporative emission controls for gasoline and diesel light-duty vehicles in all world markets. A number of our members have extensive experience in the development, manufacture, and application of three-way catalyst technologies to help enable motor vehicles to meet existing LEV II and Tier 2 emission standards for new vehicles. Our industry has played an important role in the emission control success story associated with light-duty vehicles around the world, and has continually supported efforts to develop innovative, technology-forcing, emission control programs to deal with unique air quality problems.

MECA provided detailed written comments to ARB in January of this year (see: www.meca.org/galleries/default-file/MECA%20comments%20on%20ARB%20LEV%20III,%20post-2016%20GHG%20012512.pdf) as part of their proposed rulemaking for the Advanced Clean Cars program, which was officially approved by the ARB Board on January 27, 2012. In those comments, MECA agreed with ARB staff's assessment that achieving the proposed LEV III exhaust and evaporative emission standards and associated emission reductions are both technically feasible and cost-effective. This fact is clearly demonstrated by the more than two million SULEV- and PZEV-compliant light-duty vehicles that have been sold in the California market since these near-zero emission, gasoline vehicles were first introduced more than ten years ago. The technology base of advanced three-way catalysts, exhaust hydrocarbon adsorber materials, high cell density substrates, emission system thermal management strategies, secondary air injection systems, advanced carbon canisters, advanced low fuel permeation materials, and air intake hydrocarbon adsorber materials that have already been commercialized for PZEV gasoline vehicle applications can be extended to and further optimized to allow all light-, medium-, and heavy-duty gasoline vehicles to achieve the exhaust and evaporative emission reductions needed by vehicle manufacturers to comply with the LEV III emission limits.

In addition, advanced diesel emission control technologies, including diesel particulate filters, lean NO_x adsorber catalysts, and selective catalytic reduction catalysts, will be combined with future, advanced diesel engines to allow light-duty diesel vehicles to achieve the LEV III emission limits.

MECA also fully supported ARB's post-2016 greenhouse gas emission standards for light-duty vehicles. Implicit in federal and state greenhouse gas emission analyses is the ability of these advanced powertrain options to meet the applicable criteria pollutant emission standards, such as for carbon monoxide (CO), oxides of nitrogen (NO_x), and non-methane organic gases (NMOG). All of these advanced, light-duty powertrain options combined with the appropriately designed and optimized emission control technologies can meet all current and future federal and state criteria emission requirements. In this manner, advanced emission controls for criteria pollutants enable advanced powertrains to also be viable options for reducing greenhouse gas emissions. A range of powertrain technologies, including engine turbochargers, exhaust gas recirculation systems, advanced fuel systems, variable valve actuation technology, advanced transmissions, hybrid powertrain components, and powertrain control modules, that can be applied to both light-duty gasoline and diesel powertrains to help improve overall vehicle efficiencies, also help reduce fuel consumption, both of which can result in lower CO₂ exhaust emissions. In many cases, the application and optimization of advanced emission control technologies on advanced powertrains can be achieved with minimal impacts on overall fuel consumption. Auto manufacturers will also take advantage of synergies between advanced emission control technologies and advanced powertrains to assist in their efforts to optimize their performance with respect to both criteria pollutant and greenhouse gas emissions.

In summary, there are significant opportunities to reduce both criteria pollutant and greenhouse gas emissions from the transportation sector through the design of fuel-efficient powertrains that include advanced exhaust emission controls for meeting even the most stringent criteria pollutant standards that are included in the Washington Department of Ecology's proposed amendments to its Clean Car Program. MECA believes that advanced emission control systems have a critically important role in current and future policies that aim to reduce mobile source criteria pollutant and greenhouse gas emissions. These advanced exhaust and evaporative emission control technologies

will allow all current and future high-efficiency powertrain options to comply with the Washington Department of Ecology's LEV criteria pollutant standards, thus enabling these powertrains to be viable options for complying with existing and proposed state greenhouse gas pollutant standards.

MECA commends the Washington Department of Ecology for taking important steps through its proposed amendments to its Clean Car Program to reduce criteria pollutant and greenhouse gas emissions and to improve fuel economy from light-duty vehicles in the state. Together, these new standards will provide consumers with the next generation of light-duty vehicles, designed to reduce multiple pollutants, while preserving vehicle choice and saving money. Our industry is prepared to do its part to deliver cost-effective, advanced emission control technologies to the marketplace.

Response

Thank you for your comments. Ecology appreciates your interest in this rule making and support of our efforts to harmonize with California's program.

Washington law currently prohibits Ecology from adopting California's zero-emission vehicle (ZEV) standards, therefore that program is not included in this rule making.

No change to the rule language has been made based on this comment.

Tony Splane

Enclosed is several reports on problems with ethanol fuels. For example, the California Air Resources Board show that ethanol gasoline increases nitrogen oxide and other smog-forming emissions. Ethanol gasoline decreases gas mileage by 3 to 5 percent.

For example with my vehicles

	Non Ethanol	Ethanol
Pickup with 8000# trailer	16 MPG	14 MPG
Truck loaded 34,000#	6 MPG	4 MPG

Constant problems with vapor lock (ethanol).

It is also noted in the owners manuals for my lawn mowers, power saws, golf cart that the use of ethanol gasoline is not recommended. Ethanol also creates problems with the fuel system in many vehicles older than 1994.

Due to the problems with ethanol, some states have recommended that gas stations have one gas pump of non-ethanol gas. We also found this at gas stations in Canada while on a trip.

I would suggest that the Washington Department of Ecology give serious thought to this idea sooner than later. I have more information on ethanol gasoline if it would be of use to you. Please consider this info at your Nov. 7 meeting at Lacey.

Response

Thank you for your comments. Ecology appreciates your interest in this rule making and motor vehicle emissions.

Ecology acknowledges and recognizes the commenter's concern and frustration with ethanol in gasoline. WAC 173-423 Low Emission Vehicles applies to passenger cars, light duty trucks, and medium duty passenger vehicles. The rule implements California emission standards for these vehicles as required by the Washington state Legislature in 2005. Regulation of a fuel or fuel additive (ethanol) in a motor vehicle is beyond the scope of this rule update. We will consider your comments when working on other fuel related policies.

No change to the rule language has been made based on this comment.

Lisa

You government run a mucks should disban and save our tax dollar for industries development and jobs. And quit robbing the working class, If there needs to be an adjustment in yhere air quality that should come from an independent study not a government backed idiot.

Response

Thank you for your comment and expressing your concerns.

No change to the rule language has been made based on this comment.

Appendix A: Copies of all written comments

From: [Steve Douglas](#)
To: [Caudill, Neil \(ECY\)](#); [ECY RE AQComments](#); [Rude, Brett \(ECY\)](#)
Subject: Chap 173-423 Low Emission Vehicles - Alliance of Automobile Manufacturer Comments
Date: Wednesday, November 14, 2012 7:17:50 AM
Attachments: [2012-11-14 WA LEV III Revision - Alliance Comments.pdf](#)

Neil/Brett,

Attached are the comments of the Alliance on the subject regulatory changes. Please don't hesitate to call me if you have any questions or need clarification on any of the proposed changes.

Best regards,
Steve

Steven Douglas
Senior Director, Environmental Affairs
AutoAlliance
1415 L Street, Suite 1190
Sacramento, CA 95814
Mobile (call or text): (916) 538-1197



November 14, 2012

VIA ELECTRONIC MAIL TO AQcomments@ecy.wa.gov

Mr. Neil Caudill
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Dear Mr. Caudill,

I am writing on behalf of the Alliance of Automobile Manufacturers (Alliance), a trade association of 12 car and light-truck manufacturers representing about 75 percent of the new vehicle market in the U.S. The Alliance worked with the California Air Resources Board (ARB) and other Section 177 states in the development of the criteria emissions regulations under the Low Emissions Vehicle III program (or LEV III). We support the changes adopted by California and changes to Washington's regulations needed to harmonize with California.

We recommend the following minor changes to streamline the regulations and fully harmonize with the California regulations.

1. **2014MY LEV II and LEV III Fleet Averages (WAC 173-423-080(1)(a) and (2)(a))**: Part of this section applies only to the 2014MY fleet and allows manufacturers to comply with either the LEV III NMOG+NOx fleet average or the LEV II NMOG fleet average specified therein. LEV II does not require MDPVs in the LDT2 fleet average; however, it appears that MDPVs were inadvertently included in the change to this section. This typographical error was also in the adopted LEV III regulations, but has been corrected in the proposed "deemed to comply" regulations which ARB will hear on November 15, 2012 (see <http://www.arb.ca.gov/regact/2012/leviiidtc12/dtcappa.pdf>, §1961(b)(1) page A-9). We recommend the following correction to both sections (1)(a) and (2)(a) of Chapter 173-423-080:

BMW Group • Chrysler Group LLC • Ford Motor Company • General Motors Company • Jaguar Land Rover
Mazda • Mercedes-Benz USA • Mitsubishi Motors • Porsche • Toyota • Volkswagen • Volvo

(a) Effective model year 2009 through 2014, except as provided in this subsection, each motor vehicle manufacturer's NMOG fleet average emissions from passenger cars and light duty trucks delivered for sale in Washington shall not exceed the Fleet Average NMOG Exhaust Emission Requirement set forth in the California Code of Regulations, Title 13, section 1961(b). For the 2014 model year only, a manufacturer may comply with the fleet average NMOG + NOx values in subsection (b) of this section in lieu of complying with the NMOG fleet average emissions in this subsection. A manufacturer must either comply with the NMOG + NOx fleet average requirements for both its PC/LDT1 fleet and its LDT2/MDPV fleet or comply with the NMOG fleet average requirements for both its PC/LDT1 fleet and its LDT2/MDPV fleet. A manufacturer must calculate its fleet average NMOG + NOx values using the applicable full useful life standards.

2. **Greenhouse Gas (GHG) Reporting (WAC 173-423-090(7))**: This section contains the GHG fleet average reporting requirements. It specifies that manufacturers must report GHG fleet average no later than March 1 for the preceding MY. However, California's GHG report is not required until May 1. We recommend the Department update this requirement for consistency with California as shown below:

*(7) Reporting on greenhouse gas requirements. Beginning with the 2009 model year, each manufacturer shall submit by **March-May** 1 a report to the department of ecology that shall include:*

3. **Failure of Emission Related Components (FERC) Reporting (WAC 173-423-110(3))**: We do not oppose providing the Department FERC reports. However, generating and submitting reports consumes manufacturer resources, which we have no issues with, provided the Department of Ecology needs them. Adding the "upon request" to these sections ensures the Department has access to needed reports, but reduces the burden on manufacturers when the reports are not needed. We recommend the following changes to this section:

*(3) **Upon request**, All manufacturers shall submit to the department of ecology Failure of Emission-Related Components reports as defined in the California Code of Regulations, Title 13, section 2144 for vehicles subject to this regulation. For purposes of compliance with this requirement, manufacturers may submit copies of the Failure of Emission-Related Components reports that are submitted to the California Air Resources Board, in lieu of submitting reports for vehicles subject to this chapter. **Manufacturers may discontinue submitting these reports if so notified by the department of ecology.***

4. **Exemptions (WAC 173-423-060(7))**: This paragraph was revised to exempt vehicles purchased by law enforcement (police, sheriff, and state patrol) and fire districts. The Alliance appreciates this modification, which is responsive to manufacturer requests for alignment with California's regulations regarding emergency vehicle exemptions (see California Vehicle Code Section 27156.2). Please note that Section 27156.2 also exempts "emergency vehicle[s] used by an emergency medical technician-paramedic"—in other words, ambulances. Given the critical functions performed by ambulances and the special equipment they require, it seems clear that ambulances should be exempted from emissions requirements as California has recognized. For these reasons, we recommend the following change:

(7) ((An emergency vehicle when a public safety agency has demonstrated to the department of ecology's satisfaction that a vehicle that will meet said agency's needs is not otherwise reasonably available.)) Motor vehicles **that are 1)** purchased for use by a local police department, county sheriff, fire district, or the Washington state patrol, **or 2) purchased by hospitals or other emergency medical providers for use as an ambulance.**

We sincerely appreciate the work of the Department of Ecology staff and look forward to working with you in the future. If you have any questions, please do not hesitate to contact me at (916) 538-1197 or sdouglas@autoalliance.org.

Sincerely,



Steven P. Douglas
Senior Director, Environmental Affairs

From: [Julia Rege](#)
To: [ECY RE AQComments](#)
Cc: [John Cabaniss](#)
Subject: Globa Automakers" Comments on Chapter 173-423 WAC - Low Emission Vehicles
Date: Monday, November 12, 2012 10:36:39 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[Global Automakers Comments on WA LEV III-GHG 11 12 2012 \(ID 4254\).pdf](#)

Please find attached comments being submitted by the Association of Global Automakers on Washington's proposed changes to Chapter 173-423 WAC - Low Emission Vehicles.

Best, Julia

Julia Rege
Senior Manager, Environment & Energy
Association of Global Automakers, Inc. (Global Automakers)
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jrege@globalautomakers.org



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November 12, 2012

SUBMITTED ELECTRONICALLY TO AQCOMMENTS@ECY.WA.GOV

Department of Ecology
Neil Caudill
PO Box 47600
Olympia, WA 98504-7600

Dear Mr. Caudill,

The Association of Global Automakers, Inc. (Global Automakers)¹ appreciates the opportunity to provide comments to the Washington Department of Ecology (Ecology) on the proposed amendments to WAC 173-423, *Low Emission Vehicles*, to incorporate new low emission vehicle standards (LEV III) and greenhouse gas (GHG) emission standards.

Global Automakers supports a single, harmonized program for GHG and criteria emissions and has been actively engaged in promoting harmonization between the U.S. Environmental Protection Agency (EPA), National Highway Traffic Safety Administration (NHTSA), and California Air Resources Board (ARB). ARB's GHG regulations for model years (MYs) 2017-2025 GHG emission standards and the updates to the environmental performance label provisions are in line with such harmonization. Also, based on discussions with EPA, we expect EPA to propose and adopt Tier 3 emissions standards to nationalize the benefits of LEV III and to propose national gasoline quality improvements to reduce sulfur in gasoline, which will more closely align national fuel with California's cleaner fuels. California's gasoline pool average sulfur content is about one-third of the average sulfur content of gasoline in the other 49 States. As in the past, we continue to support the need to treat vehicles and fuels as a system to achieve the greatest environmental benefits. Gasoline quality improvements will assist automobiles in achieving more stringent criteria emissions standards, enable advanced engine technologies needed to meet stringent GHG emissions standards, and will also result in significant emission reductions from the existing vehicle fleet. We believe harmonization for emission standards and fuels will maximize environmental benefits, while streamlining reporting and other compliance efforts for industry and agencies.

As Ecology notes in the proposed regulations, ARB proposed amendments to its MYs 2017-2025 GHG emission standards on September 14, 2012 to allow for compliance based on the national program:

¹ The Association of Global Automakers, Inc. represents international motor vehicle manufacturers, original equipment suppliers, and other automotive-related trade associations. Our members' market share of both U.S. sales and production is 40 percent and growing. We work with industry leaders, legislators, regulators, and other stakeholders in the United States to create public policy that improves motor vehicle safety, encourages technological innovation and protects our planet. Our goal is to foster an open and competitive automotive marketplace that encourages investment, job growth, and development of vehicles that can enhance Americans' quality of life. For more information, please visit www.globalautomakers.org.

Note to reader: The California ARB is updating its rules to allow manufacturer compliance with the Environmental Protection Agency National Program greenhouse gas requirements for model years 2017-2025 to serve as compliance with the California requirements...Should California finalize its rules before ecology finalizes these rule revisions, then the effective dates for the California Title 13 sections in this draft version of Table 070(1) will be adopted into the state rule.²

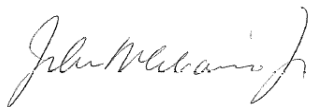
ARB's amendments are expected to be approved on November 15, 2012, and a final regulation would be expected at the latest by September 14, 2013, though it will likely be finalized much sooner. If Ecology can delay finalizing its regulations to add these amendments to this proposed regulation, we would support such action.

In addition, we support Ecology's proposal to remove the pre-model year NMOG report from the LEV requirements. Global Automakers maintains that the pre-model year NMOG report is unnecessary with highly variable data based on projected sales and provides no environmental benefit. Additionally, California does not require this report, and for consistency with the LEV requirements, it is appropriate to remove this provision.

Global Automakers, however, is concerned with Ecology's GHG reporting timeframe, which requires that "...each manufacturer shall submit by March 1 a report to the department of ecology."³ While we believe that Ecology's intent is to be consistent with ARB's reporting requirements, ARB requires data to be submitted by May 1, two months later than Washington's requirements.⁴ In order to fully harmonize with ARB's provisions, and to provide reporting consistency for automakers, Global Automakers strongly recommends that Ecology amend the GHG fleet average reporting deadline to May 1.

Thank you for your consideration of our comments. If you have any questions regarding the comments, I can be contacted at (202) 650-5562 or jcabaniss@globalautomakers.org.

Sincerely,



John Cabaniss, Jr.
Director, Environment & Energy

² Proposed Rule Text, pg 4. <http://www.ecy.wa.gov/laws-rules/wac173423/p1101a.pdf>.

³ *Ibid*, pg 14.

⁴ California 2001 Through 2014 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2009 Through 2016 Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, pg H-5, and California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures For Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, pg H-4.
http://www.arb.ca.gov/msprog/levprog/cleandoc/ldtps_2001-2014_cp_or_2016_ghg_my_clean_complete_lev_iii_8-12.pdf and http://www.arb.ca.gov/msprog/levprog/cleandoc/ldtps_2015+_cp_or_2017+_ghg_my_lev_iii_clean_complete_8-12.pdf, respectively.

From: [Antonio Santos](#)
To: [ECY RE AQComments](#)
Subject: MECA written testimony on Washington Department of Ecology's proposed amendments to its Clean Car Program
Date: Wednesday, November 14, 2012 10:28:37 AM
Attachments: [MECA comments on Washington proposed LEV amendments 111412.pdf](#)

November 14, 2012

To whom it may concern:

Please find attached the written comments of the Manufacturers of Emission Controls Association (MECA) on the Washington Department of Ecology's proposed amendments to Chapter 173-423 WAC, Low Emission Vehicles, to incorporate California's Clean Car regulations.

Thank you.

Sincerely,
Antonio

Antonio Santos
Director, Special Projects
Manufacturers of Emission Controls Association (MECA)
(202) 296-4797 x108
asantos@meca.org

**Written Comments of the Manufacturers of Emission Controls Association
on the Washington Department of Ecology's Proposed Amendments to Chapter 173-423
WAC, Low Emission Vehicles, to Incorporate California's Clean Car Regulations**

November 14, 2012

The Manufacturers of Emission Controls Association (MECA) is pleased to provide comments in support of the Washington Department of Ecology's proposed amendments to its Clean Car Program, which would adopt the California ARB's new Low Emission Vehicle (LEV) III, greenhouse gas (GHG), and zero-emission vehicle (ZEV) standards for new motor vehicles and motor vehicle engines. These amendments, if adopted, will reset the bar for state-of-the-art exhaust and evaporative emission controls for light-duty vehicles through 2025. MECA applauds the Washington Department of Ecology for bringing forward a comprehensive set of proposals covering light-duty criteria pollutant emission standards and vehicle greenhouse gas emission standards for future vehicles.

MECA is a non-profit association of the world's leading manufacturers of emission control technology for mobile sources. Our members have over 40 years of experience and a proven track record in developing and manufacturing emission control technology for a wide variety of on-road and off-road vehicles and equipment, including extensive experience in developing exhaust and evaporative emission controls for gasoline and diesel light-duty vehicles in all world markets. A number of our members have extensive experience in the development, manufacture, and application of three-way catalyst technologies to help enable motor vehicles to meet existing LEV II and Tier 2 emission standards for new vehicles. Our industry has played an important role in the emission control success story associated with light-duty vehicles around the world, and has continually supported efforts to develop innovative, technology-forcing, emission control programs to deal with unique air quality problems.

MECA provided detailed written comments to ARB in January of this year (see: www.meca.org/galleries/default-file/MECA%20comments%20on%20ARB%20LEV%20III,%20post-2016%20GHG%20012512.pdf) as part of their proposed rulemaking for the Advanced Clean Cars program, which was officially approved by the ARB Board on January 27, 2012. In those comments, MECA agreed with ARB staff's assessment that achieving the proposed LEV III exhaust and evaporative emission standards and associated emission reductions are both technically feasible and cost-effective. This fact is clearly demonstrated by the more than two million SULEV- and PZEV-compliant light-duty vehicles that have been sold in the California market since these near-zero emission, gasoline vehicles were first introduced more than ten years ago. The technology base of advanced three-way catalysts, exhaust hydrocarbon adsorber materials, high cell density substrates, emission system thermal management strategies, secondary air injection systems, advanced carbon canisters, advanced low fuel permeation materials, and air intake hydrocarbon adsorber materials that have already been commercialized for PZEV gasoline vehicle applications can be extended to and further optimized to allow all light-, medium-, and heavy-duty gasoline vehicles to achieve the exhaust and evaporative emission reductions needed by vehicle manufacturers to comply with the LEV III emission limits.

In addition, advanced diesel emission control technologies, including diesel particulate filters, lean NOx adsorber catalysts, and selective catalytic reduction catalysts, will be combined with future, advanced diesel engines to allow light-duty diesel vehicles to achieve the LEV III emission limits.

MECA also fully supported ARB's post-2016 greenhouse gas emission standards for light-duty vehicles. Implicit in federal and state greenhouse gas emission analyses is the ability of these advanced powertrain options to meet the applicable criteria pollutant emission standards, such as for carbon monoxide (CO), oxides of nitrogen (NOx), and non-methane organic gases (NMOG). All of these advanced, light-duty powertrain options combined with the appropriately designed and optimized emission control technologies can meet all current and future federal and state criteria emission requirements. In this manner, advanced emission controls for criteria pollutants enable advanced powertrains to also be viable options for reducing greenhouse gas emissions. A range of powertrain technologies, including engine turbochargers, exhaust gas recirculation systems, advanced fuel systems, variable valve actuation technology, advanced transmissions, hybrid powertrain components, and powertrain control modules, that can be applied to both light-duty gasoline and diesel powertrains to help improve overall vehicle efficiencies, also help reduce fuel consumption, both of which can result in lower CO₂ exhaust emissions. In many cases, the application and optimization of advanced emission control technologies on advanced powertrains can be achieved with minimal impacts on overall fuel consumption. Auto manufacturers will also take advantage of synergies between advanced emission control technologies and advanced powertrains to assist in their efforts to optimize their performance with respect to both criteria pollutant and greenhouse gas emissions.

In summary, there are significant opportunities to reduce both criteria pollutant and greenhouse gas emissions from the transportation sector through the design of fuel-efficient powertrains that include advanced exhaust emission controls for meeting even the most stringent criteria pollutant standards that are included in the Washington Department of Ecology's proposed amendments to its Clean Car Program. MECA believes that advanced emission control systems have a critically important role in current and future policies that aim to reduce mobile source criteria pollutant and greenhouse gas emissions. These advanced exhaust and evaporative emission control technologies will allow all current and future high-efficiency powertrain options to comply with the Washington Department of Ecology's LEV criteria pollutant standards, thus enabling these powertrains to be viable options for complying with existing and proposed state greenhouse gas pollutant standards.

MECA commends the Washington Department of Ecology for taking important steps through its proposed amendments to its Clean Car Program to reduce criteria pollutant and greenhouse gas emissions and to improve fuel economy from light-duty vehicles in the state. Together, these new standards will provide consumers with the next generation of light-duty vehicles, designed to reduce multiple pollutants, while preserving vehicle choice and saving money. Our industry is prepared to do its part to deliver cost-effective, advanced emission control technologies to the marketplace.

CONTACT:

Joseph Kubsh

Executive Director

Manufacturers of Emission Controls Association

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Arlington, VA 22201

Tel.: (202) 296-4797

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Nov 12, 2012

DEAR MR. CAUDILL

ENCLOSED IS SEVERAL REPORTS ON PROBLEMS WITH ETHANOL FUELS. FOR EXAMPLE, THE CALIFORNIA AIR RESOURCES BOARD SHOW THAT ETHANOL GASOLINE INCREASES NITROGEN OXIDE AND OTHER SMOG-FORMING EMISSIONS. ETHANOL GASOLINE DECREASES GAS MILEAGE BY 3 TO 5 PERCENT FOR EXAMPLE. WITH MY VEHICLES.

PICKUP WITH 8000# TRAILER	NON ETHANOL	ETHANOL
	16 MPG.	14 MPG.
TRUCK LOADED 34,000#	6 MPG.	4 MPG.

CONSTANT PROBLEMS WITH VAPOR LOCK. (ETHANOL)

IT IS ALSO NOTED IN THE OWNERS MANUELS FOR MY LAWN MOWERS, POWER SAWS, GOLF CART THAT THE USE OF ETHANOL GASOLINE IS NOT RECOMMENDED. ETHANOL ALSO CREATES PROBLEMS WITH THE FUEL SYSTEM IN MANY VEHICLES OLDER THAN 1994.

DUE TO THE PROBLEMS WITH ETHANOL, SOME STATES HAVE RECOMMENDED THAT GAS STATIONS HAVE ONE GAS PUMP OF NON-ETHANOL GAS. WE ALSO FOUND THIS AT GAS STATIONS IN CANADA WHILE ON A TRIP.

I WOULD SUGGEST THAT THE WASHINGTON DEPARTMENT OF ECOLOGY GIVE SERIOUS THOUGHT TO THIS IDEA. SOONER THAN LATER. I HAVE MORE INFORMATION ON ETHANOL GASOLINE IF IT WOULD BE OF USE TO YOU. PLEASE CONSIDER THIS INFO AT YOUR NOV. 7 MEETING. AT LACEY.

RESPECTFULLY

TONY SPLANE

714 SAPP ROAD

SEDOO-WOODLEY, WA 98284

PH# 360-856-4984

NOTE

Here in Wisconsin, we are suffering from the detrimental effects of Ethanol over the years. Over 1 million dollars of damage in Milwaukee due to plugged fuel injectors according to the Milwaukee Journal, air pollution from the Oshkosh, WI ethanol plant, so much so that they were fined twice by the state EPA. Mercury Marine has come out with a letter condemning ethanol in their marine engines, on and on. We need to wake up in the US and have a debate. There is so much advertising money out there from the ethanol makers, that a local radio station personality actually was told he would be fired if he brought up the negative effects of ethanol. Our grand kids are going to look at us someday and say what in the world was your generation thinking? As a result of ethanol, there is more pollution of our waterways because of dirty corn farming, more air pollution, and much less fuel mileage, especially with E-85. Thank for informing your readers about the perils of this stuff.

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- > Engine Damage
- > State Labeling Laws
- > Federal EPA Laws & Ethanol Timeline
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- Manufacturer E10 Fuel Recommendations -

Marine, Automobiles, Motorcycles, Recreational Vehicles, ATVs, Snowmobiles, Lawn and Gas Powered Equipment

E10 Fuel Use Tips:

- #1 Check your owner's manual to determine if your engine was designed to run on E10 blends of fuel.
- #2 Many engines manufactured prior to the late 1990's were not designed for E10 oxygenated renewable (reformulated) fuels.
- #3 Modifications can be made to most engines to enable use of E10 gas; (Check with your mechanic, may require replacement of parts).
- #4 All manufacturers currently prohibit use of gas containing over 10% ethanol, and most warranties clearly state that repairs will not be covered when gas in tank contains over 10% legal limit of ethanol. In the U.S. only flex-fuel vehicles are designed to use over 10% ethanol (E85). Check your gas cap. ACE is currently trying to convince engine manufacturers + EPA to allow up to 15% ethanol in conventional gas - [View](#).

Listed below are examples of some engines whose manufacturers issued warnings or prohibit use of E10.

Marine - Boats

Manufacturers that prohibit use of E10 fuel or issue warnings include:

- Bombardier** - Prohibits use of E10 fuel - Quote, "Never use fuel containing alcohol...". See note.
- Mercury Marine** - Prohibits use of E10 fuel - Quote, "We do not recommend the use of gasoline which contains alcohol because of the possible adverse effect the alcohol may have on the fuel system...may cause the following problems: corrosion of metal parts, deterioration of plastic parts, damage of internal parts, starting and operating difficulties, and water lock.". See note.
- Nissan** - E10 warnings/precautions only - Quote, "Gasoline containing alcohol may cause: wear and damage to bearings, cams, pistons and piston gears, corrosion of metal parts, deterioration of rubber and plastic parts, idling and performance problems.".
- Outboard Marine Corporation (OMC)** - E10 warnings/precautions only - Quote, "Alcohol attracts and holds moisture that can cause corrosion of metallic parts in the fuel system and can cause engine performance problems.". (OMC was acquired by BRP Bombardier Recreational Products at the end of 2003).
- Pleasurecraft Engine Group** - Prohibits use of E10 fuel - Quote, "Gasoline containing alcohol is not recommended for use in your engine and may cause the following: hard starting and operating difficulties, corrosion of metal parts, excessive wear and damage to internal engine parts, fuel permeation through flexible fuel lines, and deterioration of some nonmetallic parts.". See note.
- Suzuki** - E10 warnings/precautions only - Quote, "Suzuki highly recommends that you use alcohol-free unleaded gasoline whenever possible..."

Manufacturers that allow use of E10 fuel includes:

Honda - Indmar Marine - Yamaha - See Note.

*Note: Marine data listed above from report in 2003 by Ethanol RFA and Hermann & Associates; Since then (2004 to 2009) almost all marine manufacturers now allow use of E10 fuel, although several still issue strong warnings against it's use and /or specific precautions necessary.
[Request Full Report \(PDF File\)](#)

Automobiles

Manufacturers that prohibit use of E10 fuel or issue warnings include:

- Ferrari** - Prohibits use of E10 fuel - "...we suggest that our customers not use alcohol fuel in our vehicles.".
- Hyundai** - E10 warnings/precautions only - Quote, "If your engine develops driveability problems, the use of 100% unleaded gasoline is recommended.".
- Kia** - E10 warnings/precautions only - Quote, "Discontinue using gasahol of any kind if driveability problems occur...".
- Porsche** - E10 warnings/precautions only- Quote, "...change to a different fuel or station if any of the following problems occur: deterioration of driveability and performance, substantially reduced fuel economy, vapor lock, and engine malfunction or stalling".
- Volkswagen/ Audi** - E10 warnings/precautions only - Quote, "If you experience a loss of fuel economy or driveability and performance problems due to the use of [ethanol blends], we recommend that you switch to unblended fuel.".

Manufacturers that allow use of E10 fuel includes:

Bentley - BMW - DaimlerChrysler - Ford - General Motors - Honda/Acura - Hyundai - Isuzu -

Jaguar - Kia - Land Rover - Mazda - Mercedes-Benz - Mitsubishi - Nissan/Infiniti - Porsche - Rolls Royce - Saab - Subaru - Suzuki - Toyota - Volkswagen/Audi - Volvo

[Request Full Report \(PDF File\)](#)

Motorcycles

Manufacturers that prohibit use of E10 fuel or issue warnings include:

Ducati - Prohibits use of E10 fuel - Quote, "Additives to fuel or lubricants are not allowed."

Harley Davidson - E10 warnings/precautions only - Quote, "You may find that some [ethanol] gasoline blends affect the starting, driveability, or fuel efficiency of your motorcycle. If you experience one or more of these problems, it is recommended you operate your motorcycle on straight unleaded gasoline."

Suzuki - E10 warnings/precautions only - Quote, "If you are not satisfied with the driveability or fuel economy with your motorcycle when you are using an oxygenated fuel, you should switch back to regular unleaded gasoline."

Manufacturers that allow use of E10 fuel includes:

BMW - Honda - Kawasaki - Polaris - Yamaha

[Request Full Report \(PDF File\)](#)

Lawn Equipment

Manufacturers that prohibit use of E10 fuel or issue warnings include:

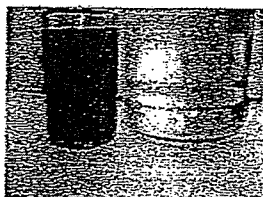
Ariens (EZR Easy Turn Mower) - Prohibits use of E10 fuel - Quote, "DO NOT use gasohol or gasoline containing alcohol. Alcohol will cause internal parts to deteriorate."

Murray (Lawn Tractor) - E10 warnings/precautions only - Quote, "A mixture of alcohol and gasoline will attract moisture and cause acid deposits during storage."

Poulan (Chain Saw) - E10 warnings/precautions only - Quote, "Experience indicates that alcohol blended fuels can attract moisture which leads to fuel mixture separation and formation of acids during storage."

Sears (Craftsman Tiller) - E10 warnings/precautions only - Quote, "Experience indicates that alcohol blended fuels can attract moisture which leads to fuel mixture separation and formation of acids during storage."

Briggs and Stratton - E10 warnings/precautions only - Quote, "Some fuels are gasoline blended with alcohols or ethers. Excessive amounts of these blends can damage the fuel system or cause performance problems. If any undesirable operating conditions occur, use gasoline with a lower percentage of alcohol or ether."



Quik-Check (Product Code QC):

Just one drop will instantly determine if gas contains alcohol or water.
A simple solution for those who own engines that were not designed to run on ethanol blends of fuel.



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Editors Note: The following is copied from the Historic Vehicle Association web site at: www.historicvehicle.org

Field of Dreams, Not Facts: The Truth Behind the Ethanol Myth

According to its advocates, ethanol is the silver bullet for our agricultural economy, environment and will lead the way to our independence from foreign oil. However, a hard look at the facts points to the opposite conclusion. The facts, many from academic and governmental studies, clearly demonstrate that ethanol is not cost-effective, requires massive subsidies, may actually be worse for the environment than fossil fuels, negatively impacts food and commodity prices and doesn't enhance energy security. As Cornell University's David Pimentel noted, "when it all comes down to it, ethanol amounts to nothing more than "subsidized food burning". The HVA strongly opposes ethanol mandates and subsidies on the following grounds:

- **Impact on Historic Vehicles.** There have been no studies on the impact of E15 or higher fuel blends on vehicles older than 1994. In fact, the current E15 ruling only allows sale to 2007 and newer models because the compatibility of higher blends with vehicles older than 2007 is problematic. At higher blend levels, ethanol's chemical properties cause corrosion, reduce fuel economy, burns hotter and can wreak havoc with fuel mixtures and injections.^[1]
- **Not Cost-Effective.** Ethanol requires large government subsidies and mandates. A gallon of ethanol costs \$2.24 to produce compared to 63 cents per gallon for gasoline.^[2] Each year \$4 billion in government subsidies and mandates are needed to fill this gap in production and the market.
- **Uses More Energy Than It Generates.** Research by Cornell University scientist David Pimentel shows that 29 percent more energy is required to produce a gallon of ethanol than the energy that actually is contained in ethanol. For each gallon of ethanol, there is a net energy loss of 22,000 BTU (British Thermal Units).^[3]
- **Negligible Environmental Impacts.** Ethanol has a host of negative environmental impacts that wipe out any positive impacts. Studies by the California Air Resources Board show that blending ethanol with gasoline increases nitrogen oxide (NOx) and other smog-forming emissions.^[4]
- **Could Void Car Warranties.** New car manufacturers won't cover engine problems that result from using fuel blended with more than 10% ethanol.^[5]
- **Lowers Gas Mileage.** Ethanol-blended gasoline decreases gas mileage by 3 to 5 percent at 10 percent ethanol blend and reduces economy by up to 20% percent with with intermediate blends of 15 and 20 percent ethanol – increasing costs to consumers.^[6]
- **Hurts Livestock & Poultry Farmers.** A study by the GAO^[7] concluded that higher corn prices generated by ethanol hurts livestock and poultry producers because the cost of feed stock increases (70% of corn grain is fed to livestock and poultry in the U.S.). The National Center for Policy Analysis estimates that ethanol production adds \$1 billion annually to the cost of beef production.^[8]
- **Increases Food Prices.** By increasing the cost of feed stock for livestock and poultry producers, ethanol production increases the price to consumers for meat, milk and eggs. According to the Congressional Budget Office, from April 2007 -2008 food prices increased 15% due to the ethanol mandate.^[9]
- **Doesn't Create *Net* New Jobs.** The employment effects of ethanol are a wash because, as shown by economist Ralph Brown^[10], ethanol production lowers gas tax receipts – reducing jobs in highway construction and maintenance and in sectors adversely affected by higher corn prices. Ethanol doesn't create *net* new employment, it simply shifts employment from one sector to another.

- **Won't Improve Energy Security.** The notion that more ethanol use will promote energy independence and security is a fantasy. Ethanol can never realistically become a large enough share of our energy to make a difference. Even if we increased ethanol production by 1000 percent it would only account for one percent of total energy consumption in the U.S. according to University of South Dakota agricultural economist Ralph Brown. If all cars in the U.S. were fueled with 100 percent ethanol, corn production would cover 97 percent of U.S. land area.^[11] In addition, reducing our oil imports will not reduce our vulnerability to oil price swings because oil prices are set in the world market, not domestically.

And the list goes on and on. The more you read about ethanol, the more you can agree with the statement by the president of the Agribusiness Council, Nicholas Hollis, that "Ethanol is the largest scam in our nation's history."^[12]

^[1] Department of Energy, "Effects Of Intermediate Ethanol Blends On Legacy Vehicles And Small Non-Road Engines, Report 1 - Updated" (2009), NREL/TP-540-43543 ORNL/TM-2008/117

^[2] David Pimentel, "Ethanol Fuels: Energy Balance, Economics, and Environmental Impacts are Negative," *Natural Resources Research* (June 2003)

^[3] *ibid*

^[4] State of California Air Resources Board, "Comparison of the Effects on a Fully-Complying Gasoline Blend on Exhaust and Evaporative Emissions" (November 1998)

^[5] <http://www.newspressnow.com/news/2010/oct/21/e15-fuel-blend-could-be-mere-novelty-here/>

^[6] Bechtold R, Thomas JF, Huff SP, Szybist JP, Theiss TJ, West BH, et al. 2007. Technical Issues Associated with the Use of Intermediate Ethanol Blends (>E10) in the U.S. Legacy Fleet: Assessment of Prior Studies. Oak Ridge National Laboratory ORNL/TM-2007/37. Available: http://www.osti.gov/bridge/product.biblio.jsp?query_id=0&page=0&osti_id... [accessed January 19, 2009]

^[7] General Accounting Office, "Effects of the Alcohol Fuels Tax Incentives," Report to the Chairman, Committee on Ways and Means, House of Representatives (March 1997): <http://www.gao.gov/archive/1997/gg97041.pdf>

^[8] National Center for Policy Analysis, *Ethanol Subsidies: Idea House* (September 2002): <http://www.ncpa.org/pd/ag/ag6.html>

^[9] <http://www.cbo.gov/doc.cfm?index=10057>

^[10] Ralph Brown, "OPEC vs Ethanol," PowerPoint presentation: <http://www.usd.edu/~rbrown/ethanol.ppt>

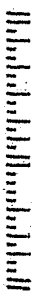
^[11] *ibid*

^[12] Nicholas Hollis, "Ethanol is the Largest Scam in Our Nation's History," *Agribusiness Examiner* (June 2003): <http://www.mindfully.org/Air/2003/Ethanol-Largest-Scam6jun03.htm>



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From: [Lisa](#)
To: [ECY RE AQComments](#)
Subject: Economic Disaster
Date: Friday, October 19, 2012 7:08:13 AM

You government run a mucks should disban and save our tax dollar for industries development and jobs. And quit robbing the working class, If there needs to be an adjustment in yhere air quality that should come from an independent study not a goverment backed idiot.

Appendix B: Transcripts from public hearings.

Lacey, WA – November 7, 2012

I'm Margo Thompson, Hearings Officer for this hearing. This evening we are to conduct a hearing on the proposed amendments for chapter 173-423 Washington Administrative Code, Low Emissions Vehicles.

Let the record show.... it is 6:21pm on November 7th, 2012 and this hearing is being held at the Department of Ecology, 300 Desmond Drive, Lacey Washington 98503.

Legal Notices of this hearing were published in the Washington State Register on October 17th 2012. Washington State Register number 12-20-068. In addition, notices of the hearing were e-mailed to 44 interested people. A news release was issued on October 10th, 2012. Notice also published in the following papers on... the dates... that I'll, I'll say. The Seattle Daily Journal of Commerce on October 12th 2012.

Is there anyone who wishes to provide testimony?.....[No Answer]

Let the record show that one person attended this public hearing and that no one wants to provide oral testimony.

Submitting written comments... If you'd like to send Ecology written comments, please remember they are due 5:00pm on November 14th 2012. Send them to Department of Ecology, Neil Caudill, PO Box 47600, Olympia Washington, 98504-7600 or send them to AQcomments@ecy.wa.gov.

All testimony received at this hearing; along with all written comments received no later than November 14th, 2012, will be part of the official Hearing Record for this proposal.

Ecology will send notice about the Concise Explanatory Statement or CES publication to, everyone that provided written comments or oral testimony on this rule proposal, and submittal contact information. Everyone that signed in for today's hearing that provided an e-mail address will also receive this. Other interested parties on the agency's mailing list for this rule will receive it.

The CES will, among other things, contain the agency's response to questions and issues of concerns that were submitted during the public comment period. If you would like to receive a copy, but did not give us your contact information, please let one of the staff at this hearing know, or contact Neil Caudill at the contact information provided for submitting comments.

The next step is to review the comments and make a determination whether to adopt the rule. Ecology Director, Ted Sturdevant will consider the Rule documentation and Staff recommendations and will make a decision about adopting the proposal.

Adoption expects to adopt this rule no later than November 28th, 2012. If the proposed rule should be adopted that day and filed with the Code Reviser, it will go into effect 31 days later.

If we can be of further help to you, please do not hesitate to ask, or you can contact Neil Caudill if you have other questions. On behalf of the Department of Ecology, thank you for coming. I appreciate your cooperation and courtesy. Let the record show that this hearing is adjourned at 6:25pm.